

# [MS-ODRAW]: Office Drawing Binary File Format

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Preliminary

## Revision Summary

| Date       | Revision History | Revision Class | Comments   |
|------------|------------------|----------------|--|
| 6/27/2008  | 1.0              | New            | First release  |
| 1/16/2009  | 1.01             | Minor          | Updated the Intellectual Property Rights Notice                              |
| 7/13/2009  | 1.02             | Major          | Revised and edited the technical content                                     |
| 8/28/2009  | 1.03             | Editorial      | Revised and edited the technical content                                     |
| 11/6/2009  | 1.04             | Editorial      | Revised and edited the technical content                                     |
| 2/19/2010  | 2.0              | Major          | Updated and revised the technical content                                    |
| 3/31/2010  | 2.01             | Editorial      | Revised and edited the technical content                                     |
| 4/30/2010  | 2.02             | Editorial      | Revised and edited the technical content                                     |
| 6/7/2010   | 2.03             | Editorial      | Revised and edited the technical content                                     |
| 6/29/2010  | 2.04             | Editorial      | Changed language and formatting in the technical content.                    |
| 7/23/2010  | 2.04             | None           | No changes to the meaning, language, or formatting of the technical content. |
| 9/27/2010  | 2.05             | Editorial      | Changed language and formatting in the technical content.                    |
| 11/15/2010 | 2.05             | None           | No changes to the meaning, language, or formatting of the technical content. |
| 12/17/2010 | 2.05             | None           | No changes to the meaning, language, or formatting of the technical content. |
| 3/18/2011  | 2.05             | None           | No changes to the meaning, language, or formatting of the technical content. |
| 6/10/2011  | 2.05             | None           | No changes to the meaning, language, or formatting of the technical content. |
| 1/20/2012  | 3.0              | Major          | Significantly changed the technical content.                                 |
| 4/11/2012  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 7/16/2012  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 10/8/2012  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 2/11/2013  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 7/30/2013  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 11/18/2013 | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |
| 2/10/2014  | 3.0              | None           | No changes to the meaning, language, or formatting of the technical content. |

| <b>Date</b> | <b>Revision History</b> | <b>Revision Class</b> | <b>Comments</b>  |
|-------------|-------------------------|-----------------------|--|
| 4/30/2014   | 3.1                     | Minor                 | Clarified the meaning of the technical content.                              |
| 7/31/2014   | 3.2                     | Minor                 | Clarified the meaning of the technical content.                              |
| 10/30/2014  | 3.3                     | Minor                 | Clarified the meaning of the technical content.                              |
| 3/16/2015   | 4.0                     | Major                 | Significantly changed the technical content.                                 |
| 9/4/2015    | 5.0                     | Major                 | Significantly changed the technical content.                                 |
| 7/15/2016   | 5.0                     | None                  | No changes to the meaning, language, or formatting of the technical content. |
| 9/14/2016   | 5.0                     | None                  | No changes to the meaning, language, or formatting of the technical content. |
| 10/17/2016  | 5.0                     | None                  | No changes to the meaning, language, or formatting of the technical content. |
| 4/18/2017   | 5.0                     | None                  | No changes to the meaning, language, or formatting of the technical content. |
| 9/19/2017   | 5.0                     | None                  | No changes to the meaning, language, or formatting of the technical content. |
| 4/27/2018   | 6.0                     | Major                 | Significantly changed the technical content.                                 |



# Table of Contents

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Introduction .....</b>                            | <b>18</b> |
| 1.1      | Glossary .....                                       | 18        |
| 1.2      | References .....                                     | 22        |
| 1.2.1    | Normative References .....                           | 22        |
| 1.2.2    | Informative References .....                         | 23        |
| 1.3      | Structure Overview (Synopsis) .....                  | 23        |
| 1.3.1    | Records .....  | 24        |
| 1.3.2    | Record Headers .....                                 | 25        |
| 1.3.3    | Containers .....                                     | 25        |
| 1.3.4    | Properties .....                                     | 25        |
| 1.3.5    | Bit Format .....                                     | 25        |
| 1.3.6    | Extended Colors .....                                | 25        |
| 1.4      | Relationship to Protocols and Other Structures ..... | 26        |
| 1.5      | Applicability Statement .....                        | 26        |
| 1.6      | Versioning and Localization .....                    | 26        |
| 1.7      | Vendor-Extensible Fields .....                       | 27        |
| <b>2</b> | <b>Structures .....</b>                              | <b>28</b> |
| 2.1      | Custom OfficeArt Types .....                         | 28        |
| 2.1.1    | MSODGID .....  | 28        |
| 2.1.2    | MSOSPID .....  | 28        |
| 2.1.3    | FRID .....   | 28        |
| 2.1.4    | MFOFO .....  | 28        |
| 2.2      | OfficeArt Record Types .....                         | 28        |
| 2.2.1    | OfficeArtRecordHeader .....                          | 28        |
| 2.2.2    | OfficeArtCOLORREF .....                              | 29        |
| 2.2.3    | MSOSHADE .....                                       | 32        |
| 2.2.4    | MSOTINT .....  | 32        |
| 2.2.5    | MSOCOLORMODUNDEFINED .....                           | 32        |
| 2.2.6    | MSOTINTSHADE .....                                   | 32        |
| 2.2.7    | OfficeArtFOFTE .....                                 | 33        |
| 2.2.8    | OfficeArtFOFTEOPID .....                             | 33        |
| 2.2.9    | OfficeArtFOFTE .....                                 | 35        |
| 2.2.10   | OfficeArtSecondaryFOFTE .....                        | 42        |
| 2.2.11   | OfficeArtTertiaryFOFTE .....                         | 43        |
| 2.2.12   | OfficeArtDggContainer .....                          | 51        |
| 2.2.13   | OfficeArtDgContainer .....                           | 52        |
| 2.2.14   | OfficeArtSpContainer .....                           | 53        |
| 2.2.15   | OfficeArtInlineSpContainer .....                     | 56        |
| 2.2.16   | OfficeArtSpgrContainer .....                         | 56        |
| 2.2.17   | OfficeArtSpgrContainerFileBlock .....                | 57        |
| 2.2.18   | OfficeArtSolverContainer .....                       | 57        |
| 2.2.19   | OfficeArtSolverContainerFileBlock .....              | 58        |
| 2.2.20   | OfficeArtBStoreContainer .....                       | 58        |
| 2.2.21   | OfficeArtBStoreDelay .....                           | 59        |
| 2.2.22   | OfficeArtBStoreContainerFileBlock .....              | 59        |
| 2.2.23   | OfficeArtBlip .....                                  | 59        |
| 2.2.24   | OfficeArtBlipEMF .....                               | 60        |
| 2.2.25   | OfficeArtBlipWMF .....                               | 61        |
| 2.2.26   | OfficeArtBlipPICT .....                              | 62        |
| 2.2.27   | OfficeArtBlipJPEG .....                              | 63        |
| 2.2.28   | OfficeArtBlipPNG .....                               | 65        |
| 2.2.29   | OfficeArtBlipDIB .....                               | 66        |
| 2.2.30   | OfficeArtBlipTIFF .....                              | 67        |
| 2.2.31   | OfficeArtMetafileHeader .....                        | 68        |

|          |  |     |
|----------|--|-----|
| 2.2.32   | OfficeArtFBSE.....                     | 69  |
| 2.2.33   | OfficeArtFDGSL .....                   | 70  |
| 2.2.34   | OfficeArtFCalloutRule .....            | 71  |
| 2.2.35   | OfficeArtFArcRule.....                 | 72  |
| 2.2.36   | OfficeArtFConnectorRule .....          | 73  |
| 2.2.37   | OfficeArtFPSPL .....                   | 74  |
| 2.2.38   | OfficeArtFSPGR.....                    | 74  |
| 2.2.39   | OfficeArtChildAnchor .....             | 75  |
| 2.2.40   | OfficeArtFSP.....                      | 76  |
| 2.2.41   | OfficeArtFRITContainer .....           | 77  |
| 2.2.42   | OfficeArtFRIT .....                    | 78  |
| 2.2.43   | OfficeArtColorMRUContainer.....        | 78  |
| 2.2.44   | MSOCR.....                             | 79  |
| 2.2.45   | OfficeArtSplitMenuColorContainer ..... | 79  |
| 2.2.46   | OfficeArtIDCL.....                     | 80  |
| 2.2.47   | OfficeArtFDGG.....                     | 80  |
| 2.2.48   | OfficeArtFDGGBlock .....               | 81  |
| 2.2.49   | OfficeArtFDG .....                     | 82  |
| 2.2.50   | MSOSHADETYPE .....                     | 82  |
| 2.2.51   | IMsoArray .....                        | 83  |
| 2.2.52   | IMsoInkData .....                      | 84  |
| 2.2.53   | MSOPATHINFO .....                      | 84  |
| 2.2.54   | MSOPATHESCAPEINFO .....                | 84  |
| 2.2.55   | POINT .....                            | 85  |
| 2.2.56   | RECT.....                              | 85  |
| 2.2.57   | ADJH.....                              | 86  |
| 2.2.58   | SG .....                               | 89  |
| 2.2.59   | TABLEFLAGS .....                       | 92  |
| 2.2.60   | IHlink.....                            | 92  |
| 2.2.61   | MSOSHADECOLOR .....                    | 93  |
| 2.3      | Properties .....                       | 93  |
| 2.3.1    | OfficeArtRGFOPE.....                   | 96  |
| 2.3.2    | Shape .....                            | 97  |
| 2.3.2.1  | hspMaster .....                        | 97  |
| 2.3.2.2  | cxstyle.....                           | 97  |
| 2.3.2.3  | bWMode .....                           | 98  |
| 2.3.2.4  | bWModePureBW .....                     | 98  |
| 2.3.2.5  | bWModeBW.....                          | 99  |
| 2.3.2.6  | idDiscussAnchor.....                   | 99  |
| 2.3.2.7  | dgmLayout.....                         | 100 |
| 2.3.2.8  | dgmNodeKind .....                      | 100 |
| 2.3.2.9  | dgmLayoutMRU .....                     | 102 |
| 2.3.2.10 | equationXML .....                      | 103 |
| 2.3.2.11 | equationXML_complex .....              | 103 |
| 2.3.2.12 | Shape Boolean Properties .....         | 104 |
| 2.3.3    | Callout .....                          | 106 |
| 2.3.3.1  | unused832 .....                        | 106 |
| 2.3.3.2  | dxyCalloutGap .....                    | 106 |
| 2.3.3.3  | spcoa .....                            | 107 |
| 2.3.3.4  | spcod .....                            | 108 |
| 2.3.3.5  | dxyCalloutDropSpecified .....          | 109 |
| 2.3.3.6  | dxyCalloutLengthSpecified .....        | 110 |
| 2.3.3.7  | Callout Boolean Properties .....       | 110 |
| 2.3.4    | Group Shape.....                       | 112 |
| 2.3.4.1  | wzName .....                           | 112 |
| 2.3.4.2  | wzName_complex .....                   | 113 |
| 2.3.4.3  | wzDescription .....                    | 113 |
| 2.3.4.4  | wzDescription_complex.....             | 113 |

|          |                                |     |
|----------|--------------------------------|-----|
| 2.3.4.5  | pihlShape                      | 114 |
| 2.3.4.6  | pihlShape_complex              | 114 |
| 2.3.4.7  | pWrapPolygonVertices           | 115 |
| 2.3.4.8  | pWrapPolygonVertices_complex   | 115 |
| 2.3.4.9  | dxWrapDistLeft                 | 115 |
| 2.3.4.10 | dyWrapDistTop                  | 116 |
| 2.3.4.11 | dxWrapDistRight                | 117 |
| 2.3.4.12 | dyWrapDistBottom               | 117 |
| 2.3.4.13 | lidRegroup                     | 118 |
| 2.3.4.14 | unused906                      | 118 |
| 2.3.4.15 | wzTooltip                      | 119 |
| 2.3.4.16 | wzTooltip_complex              | 119 |
| 2.3.4.17 | wzScript                       | 120 |
| 2.3.4.18 | wzScript_complex               | 120 |
| 2.3.4.19 | posh                           | 120 |
| 2.3.4.20 | posrelh                        | 121 |
| 2.3.4.21 | posv                           | 133 |
| 2.3.4.22 | posrelv                        | 134 |
| 2.3.4.23 | pctHR                          | 146 |
| 2.3.4.24 | alignHR                        | 147 |
| 2.3.4.25 | dxHeightHR                     | 149 |
| 2.3.4.26 | dxWidthHR                      | 149 |
| 2.3.4.27 | wzScriptExtAttr                | 150 |
| 2.3.4.28 | wzScriptExtAttr_complex        | 150 |
| 2.3.4.29 | scriptLang                     | 151 |
| 2.3.4.30 | wzScriptLangAttr               | 151 |
| 2.3.4.31 | wzScriptLangAttr_complex       | 152 |
| 2.3.4.32 | borderTopColor                 | 152 |
| 2.3.4.33 | borderLeftColor                | 153 |
| 2.3.4.34 | borderBottomColor              | 153 |
| 2.3.4.35 | borderRightColor               | 154 |
| 2.3.4.36 | tableProperties                | 154 |
| 2.3.4.37 | tableRowProperties             | 155 |
| 2.3.4.38 | tableRowProperties_complex     | 155 |
| 2.3.4.39 | wzWebBot                       | 156 |
| 2.3.4.40 | wzWebBot_complex               | 156 |
| 2.3.4.41 | metroBlob                      | 157 |
| 2.3.4.42 | metroBlob_complex              | 157 |
| 2.3.4.43 | dhgt                           | 157 |
| 2.3.4.44 | Group Shape Boolean Properties | 158 |
| 2.3.5    | Group Shape 2                  | 161 |
| 2.3.5.1  | pctHoriz                       | 161 |
| 2.3.5.2  | pctVert                        | 161 |
| 2.3.5.3  | pctHorizPos                    | 162 |
| 2.3.5.4  | pctVertPos                     | 163 |
| 2.3.5.5  | sizerelh                       | 163 |
| 2.3.5.6  | sizerelv                       | 164 |
| 2.3.6    | Geometry                       | 165 |
| 2.3.6.1  | geoLeft                        | 165 |
| 2.3.6.2  | geoTop                         | 165 |
| 2.3.6.3  | geoRight                       | 166 |
| 2.3.6.4  | geoBottom                      | 167 |
| 2.3.6.5  | shapePath                      | 167 |
| 2.3.6.6  | pVertices                      | 168 |
| 2.3.6.7  | pVertices_complex              | 169 |
| 2.3.6.8  | pSegmentInfo                   | 169 |
| 2.3.6.9  | pSegmentInfo_complex           | 170 |
| 2.3.6.10 | adjustValue                    | 170 |

|          |                                   |     |
|----------|-----------------------------------|-----|
| 2.3.6.11 | adjust2Value .....                | 171 |
| 2.3.6.12 | adjust3Value .....                | 171 |
| 2.3.6.13 | adjust4Value .....                | 172 |
| 2.3.6.14 | adjust5Value .....                | 173 |
| 2.3.6.15 | adjust6Value .....                | 173 |
| 2.3.6.16 | adjust7Value .....                | 174 |
| 2.3.6.17 | adjust8Value .....                | 175 |
| 2.3.6.18 | pConnectionSites .....            | 175 |
| 2.3.6.19 | pConnectionSites_complex .....    | 176 |
| 2.3.6.20 | pConnectionSitesDir .....         | 176 |
| 2.3.6.21 | pConnectionSitesDir_complex ..... | 177 |
| 2.3.6.22 | xLimo .....                       | 177 |
| 2.3.6.23 | yLimo .....                       | 178 |
| 2.3.6.24 | pAdjustHandles .....              | 180 |
| 2.3.6.25 | pAdjustHandles_complex .....      | 181 |
| 2.3.6.26 | pGuides .....                     | 181 |
| 2.3.6.27 | pGuides_complex .....             | 181 |
| 2.3.6.28 | pInscribe .....                   | 182 |
| 2.3.6.29 | pInscribe_complex .....           | 182 |
| 2.3.6.30 | cxk .....                         | 183 |
| 2.3.6.31 | Geometry Boolean Properties ..... | 184 |
| 2.3.7    | Fill Style .....                  | 185 |
| 2.3.7.1  | fillType .....                    | 185 |
| 2.3.7.2  | fillColor .....                   | 186 |
| 2.3.7.3  | fillOpacity .....                 | 187 |
| 2.3.7.4  | fillBackColor .....               | 188 |
| 2.3.7.5  | fillBackOpacity .....             | 188 |
| 2.3.7.6  | fillCrMod .....                   | 189 |
| 2.3.7.7  | fillBlip .....                    | 189 |
| 2.3.7.8  | fillBlip_complex .....            | 190 |
| 2.3.7.9  | fillBlipName .....                | 190 |
| 2.3.7.10 | fillBlipName_complex .....        | 191 |
| 2.3.7.11 | fillBlipFlags .....               | 191 |
| 2.3.7.12 | fillWidth .....                   | 192 |
| 2.3.7.13 | fillHeight .....                  | 192 |
| 2.3.7.14 | fillAngle .....                   | 193 |
| 2.3.7.15 | fillFocus .....                   | 194 |
| 2.3.7.16 | fillToLeft .....                  | 195 |
| 2.3.7.17 | fillToTop .....                   | 196 |
| 2.3.7.18 | fillToRight .....                 | 196 |
| 2.3.7.19 | fillToBottom .....                | 197 |
| 2.3.7.20 | fillRectLeft .....                | 197 |
| 2.3.7.21 | fillRectTop .....                 | 198 |
| 2.3.7.22 | fillRectRight .....               | 199 |
| 2.3.7.23 | fillRectBottom .....              | 199 |
| 2.3.7.24 | fillDztype .....                  | 200 |
| 2.3.7.25 | fillShadePreset .....             | 200 |
| 2.3.7.26 | fillShadeColors .....             | 201 |
| 2.3.7.27 | fillShadeColors_complex .....     | 201 |
| 2.3.7.28 | fillOriginX .....                 | 202 |
| 2.3.7.29 | fillOriginY .....                 | 202 |
| 2.3.7.30 | fillShapeOriginX .....            | 203 |
| 2.3.7.31 | fillShapeOriginY .....            | 204 |
| 2.3.7.32 | fillShadeType .....               | 204 |
| 2.3.7.33 | fillColorExt .....                | 205 |
| 2.3.7.34 | reserved415 .....                 | 205 |
| 2.3.7.35 | fillColorExtMod .....             | 206 |
| 2.3.7.36 | reserved417 .....                 | 206 |

|          |                                    |     |
|----------|------------------------------------|-----|
| 2.3.7.37 | fillBackColorExt.....              | 207 |
| 2.3.7.38 | reserved419.....                   | 207 |
| 2.3.7.39 | fillBackColorExtMod.....           | 208 |
| 2.3.7.40 | reserved421.....                   | 208 |
| 2.3.7.41 | reserved422.....                   | 209 |
| 2.3.7.42 | reserved423.....                   | 209 |
| 2.3.7.43 | Fill Style Boolean Properties..... | 210 |
| 2.3.8    | Line Style.....                    | 211 |
| 2.3.8.1  | lineColor.....                     | 211 |
| 2.3.8.2  | lineOpacity.....                   | 212 |
| 2.3.8.3  | lineBackColor.....                 | 213 |
| 2.3.8.4  | lineCrMod.....                     | 213 |
| 2.3.8.5  | lineType.....                      | 214 |
| 2.3.8.6  | lineFillBlip.....                  | 214 |
| 2.3.8.7  | lineFillBlip_complex.....          | 215 |
| 2.3.8.8  | lineFillBlipName.....              | 215 |
| 2.3.8.9  | lineFillBlipName_complex.....      | 216 |
| 2.3.8.10 | lineFillBlipFlags.....             | 216 |
| 2.3.8.11 | lineFillWidth.....                 | 217 |
| 2.3.8.12 | lineFillHeight.....                | 217 |
| 2.3.8.13 | lineFillDztype.....                | 218 |
| 2.3.8.14 | lineWidth.....                     | 218 |
| 2.3.8.15 | lineMiterLimit.....                | 219 |
| 2.3.8.16 | lineStyle.....                     | 220 |
| 2.3.8.17 | lineDashing.....                   | 221 |
| 2.3.8.18 | lineDashStyle.....                 | 221 |
| 2.3.8.19 | lineDashStyle_complex.....         | 222 |
| 2.3.8.20 | lineStartArrowhead.....            | 222 |
| 2.3.8.21 | lineEndArrowhead.....              | 223 |
| 2.3.8.22 | lineStartArrowWidth.....           | 223 |
| 2.3.8.23 | lineStartArrowLength.....          | 224 |
| 2.3.8.24 | lineEndArrowWidth.....             | 224 |
| 2.3.8.25 | lineEndArrowLength.....            | 225 |
| 2.3.8.26 | lineJoinStyle.....                 | 226 |
| 2.3.8.27 | lineEndCapStyle.....               | 226 |
| 2.3.8.28 | lineColorExt.....                  | 227 |
| 2.3.8.29 | reserved474.....                   | 227 |
| 2.3.8.30 | lineColorExtMod.....               | 228 |
| 2.3.8.31 | reserved476.....                   | 228 |
| 2.3.8.32 | lineBackColorExt.....              | 229 |
| 2.3.8.33 | reserved478.....                   | 229 |
| 2.3.8.34 | lineBackColorExtMod.....           | 230 |
| 2.3.8.35 | reserved480.....                   | 230 |
| 2.3.8.36 | reserved481.....                   | 231 |
| 2.3.8.37 | reserved482.....                   | 231 |
| 2.3.8.38 | Line Style Boolean Properties..... | 232 |
| 2.3.9    | Left Line Style.....               | 234 |
| 2.3.9.1  | lineLeftColor.....                 | 234 |
| 2.3.9.2  | lineLeftOpacity.....               | 234 |
| 2.3.9.3  | lineLeftBackColor.....             | 235 |
| 2.3.9.4  | lineLeftCrMod.....                 | 235 |
| 2.3.9.5  | lineLeftType.....                  | 236 |
| 2.3.9.6  | lineLeftFillBlip.....              | 237 |
| 2.3.9.7  | lineLeftFillBlip_complex.....      | 237 |
| 2.3.9.8  | lineLeftFillBlipName.....          | 238 |
| 2.3.9.9  | lineLeftFillBlipName_complex.....  | 238 |
| 2.3.9.10 | lineLeftFillBlipFlags.....         | 239 |
| 2.3.9.11 | lineLeftFillWidth.....             | 239 |

|           |  |     |
|-----------|--|-----|
| 2.3.9.12  | lineLeftFillHeight .....                 | 240 |
| 2.3.9.13  | lineLeftFillDztype .....                 | 240 |
| 2.3.9.14  | lineLeftWidth .....                      | 241 |
| 2.3.9.15  | lineLeftMiterLimit .....                 | 242 |
| 2.3.9.16  | lineLeftStyle .....                      | 242 |
| 2.3.9.17  | lineLeftDashing .....                    | 243 |
| 2.3.9.18  | lineLeftDashStyle .....                  | 243 |
| 2.3.9.19  | lineLeftDashStyle_complex .....          | 244 |
| 2.3.9.20  | lineLeftStartArrowhead .....             | 244 |
| 2.3.9.21  | lineLeftEndArrowhead .....               | 245 |
| 2.3.9.22  | lineLeftStartArrowWidth .....            | 245 |
| 2.3.9.23  | lineLeftStartArrowLength .....           | 246 |
| 2.3.9.24  | lineLeftEndArrowWidth .....              | 246 |
| 2.3.9.25  | lineLeftEndArrowLength .....             | 247 |
| 2.3.9.26  | lineLeftJoinStyle .....                  | 247 |
| 2.3.9.27  | lineLeftEndCapStyle .....                | 248 |
| 2.3.9.28  | lineLeftColorExt .....                   | 249 |
| 2.3.9.29  | reserved1370 .....                       | 249 |
| 2.3.9.30  | lineLeftColorExtMod .....                | 250 |
| 2.3.9.31  | reserved1372 .....                       | 250 |
| 2.3.9.32  | lineLeftBackColorExt .....               | 251 |
| 2.3.9.33  | reserved1374 .....                       | 251 |
| 2.3.9.34  | lineLeftBackColorExtMod .....            | 252 |
| 2.3.9.35  | reserved1376 .....                       | 252 |
| 2.3.9.36  | reserved1377 .....                       | 253 |
| 2.3.9.37  | reserved1378 .....                       | 253 |
| 2.3.9.38  | Left Line Style Boolean Properties ..... | 254 |
| 2.3.10    | Top Line Style .....                     | 256 |
| 2.3.10.1  | lineTopColor .....                       | 256 |
| 2.3.10.2  | lineTopOpacity .....                     | 257 |
| 2.3.10.3  | lineTopBackColor .....                   | 257 |
| 2.3.10.4  | lineTopCrMod .....                       | 258 |
| 2.3.10.5  | lineTopType .....                        | 258 |
| 2.3.10.6  | lineTopFillBlip .....                    | 259 |
| 2.3.10.7  | lineTopFillBlip_complex .....            | 260 |
| 2.3.10.8  | lineTopFillBlipName .....                | 260 |
| 2.3.10.9  | lineTopFillBlipName_complex .....        | 261 |
| 2.3.10.10 | lineTopFillBlipFlags .....               | 261 |
| 2.3.10.11 | lineTopFillWidth .....                   | 262 |
| 2.3.10.12 | lineTopFillHeight .....                  | 262 |
| 2.3.10.13 | lineTopFillDztype .....                  | 263 |
| 2.3.10.14 | lineTopWidth .....                       | 263 |
| 2.3.10.15 | lineTopMiterLimit .....                  | 264 |
| 2.3.10.16 | lineTopStyle .....                       | 264 |
| 2.3.10.17 | lineTopDashing .....                     | 265 |
| 2.3.10.18 | lineTopDashStyle .....                   | 266 |
| 2.3.10.19 | lineTopDashStyle_complex .....           | 266 |
| 2.3.10.20 | lineTopStartArrowhead .....              | 267 |
| 2.3.10.21 | lineTopEndArrowhead .....                | 267 |
| 2.3.10.22 | lineTopStartArrowWidth .....             | 268 |
| 2.3.10.23 | lineTopStartArrowLength .....            | 268 |
| 2.3.10.24 | lineTopEndArrowWidth .....               | 269 |
| 2.3.10.25 | lineTopEndArrowLength .....              | 269 |
| 2.3.10.26 | lineTopJoinStyle .....                   | 270 |
| 2.3.10.27 | lineTopEndCapStyle .....                 | 270 |
| 2.3.10.28 | lineTopColorExt .....                    | 271 |
| 2.3.10.29 | reserved1434 .....                       | 271 |
| 2.3.10.30 | lineTopColorExtMod .....                 | 272 |

|           |   |     |
|-----------|---|-----|
| 2.3.10.31 | reserved1436 .....                        | 273 |
| 2.3.10.32 | lineTopBackColorExt .....                 | 273 |
| 2.3.10.33 | reserved1438 .....                        | 274 |
| 2.3.10.34 | lineTopBackColorExtMod .....              | 274 |
| 2.3.10.35 | reserved1440 .....                        | 275 |
| 2.3.10.36 | reserved1441 .....                        | 275 |
| 2.3.10.37 | reserved1442 .....                        | 276 |
| 2.3.10.38 | Top Line Style Boolean Properties .....   | 276 |
| 2.3.11    | Right Line Style .....                    | 279 |
| 2.3.11.1  | lineRightColor .....                      | 279 |
| 2.3.11.2  | lineRightOpacity .....                    | 279 |
| 2.3.11.3  | lineRightBackColor .....                  | 280 |
| 2.3.11.4  | lineRightCrMod .....                      | 280 |
| 2.3.11.5  | lineRightType .....                       | 281 |
| 2.3.11.6  | lineRightFillBlip .....                   | 281 |
| 2.3.11.7  | lineRightFillBlip_complex .....           | 282 |
| 2.3.11.8  | lineRightFillBlipName .....               | 283 |
| 2.3.11.9  | lineRightFillBlipName_complex .....       | 283 |
| 2.3.11.10 | lineRightFillBlipFlags .....              | 283 |
| 2.3.11.11 | lineRightFillWidth .....                  | 284 |
| 2.3.11.12 | lineRightFillHeight .....                 | 285 |
| 2.3.11.13 | lineRightFillDztype .....                 | 285 |
| 2.3.11.14 | lineRightWidth .....                      | 286 |
| 2.3.11.15 | lineRightMiterLimit .....                 | 286 |
| 2.3.11.16 | lineRightStyle .....                      | 287 |
| 2.3.11.17 | lineRightDashing .....                    | 287 |
| 2.3.11.18 | lineRightDashStyle .....                  | 288 |
| 2.3.11.19 | lineRightDashStyle_complex .....          | 289 |
| 2.3.11.20 | lineRightStartArrowhead .....             | 289 |
| 2.3.11.21 | lineRightEndArrowhead .....               | 289 |
| 2.3.11.22 | lineRightStartArrowWidth .....            | 290 |
| 2.3.11.23 | lineRightStartArrowLength .....           | 291 |
| 2.3.11.24 | lineRightEndArrowWidth .....              | 291 |
| 2.3.11.25 | lineRightEndArrowLength .....             | 292 |
| 2.3.11.26 | lineRightJoinStyle .....                  | 292 |
| 2.3.11.27 | lineRightEndCapStyle .....                | 293 |
| 2.3.11.28 | lineRightColorExt .....                   | 293 |
| 2.3.11.29 | reserved1498 .....                        | 294 |
| 2.3.11.30 | lineRightColorExtMod .....                | 294 |
| 2.3.11.31 | reserved1500 .....                        | 295 |
| 2.3.11.32 | lineRightBackColorExt .....               | 295 |
| 2.3.11.33 | reserved1502 .....                        | 296 |
| 2.3.11.34 | lineRightBackColorExtMod .....            | 296 |
| 2.3.11.35 | reserved1504 .....                        | 297 |
| 2.3.11.36 | reserved1505 .....                        | 298 |
| 2.3.11.37 | reserved1506 .....                        | 298 |
| 2.3.11.38 | Right Line Style Boolean Properties ..... | 299 |
| 2.3.12    | Bottom Line Style .....                   | 301 |
| 2.3.12.1  | lineBottomColor .....                     | 301 |
| 2.3.12.2  | lineBottomOpacity .....                   | 302 |
| 2.3.12.3  | lineBottomBackColor .....                 | 302 |
| 2.3.12.4  | lineBottomCrMod .....                     | 303 |
| 2.3.12.5  | lineBottomType .....                      | 303 |
| 2.3.12.6  | lineBottomFillBlip .....                  | 304 |
| 2.3.12.7  | lineBottomFillBlip_complex .....          | 305 |
| 2.3.12.8  | lineBottomFillBlipName .....              | 305 |
| 2.3.12.9  | lineBottomFillBlipName_complex .....      | 306 |
| 2.3.12.10 | lineBottomFillBlipFlags .....             | 306 |

|           |  |     |
|-----------|--|-----|
| 2.3.12.11 | lineBottomFillWidth .....                  | 306 |
| 2.3.12.12 | lineBottomFillHeight .....                 | 307 |
| 2.3.12.13 | lineBottomFillDztype .....                 | 308 |
| 2.3.12.14 | lineBottomWidth .....                      | 308 |
| 2.3.12.15 | lineBottomMiterLimit .....                 | 309 |
| 2.3.12.16 | lineBottomStyle .....                      | 309 |
| 2.3.12.17 | lineBottomDashing .....                    | 310 |
| 2.3.12.18 | lineBottomDashStyle .....                  | 310 |
| 2.3.12.19 | lineBottomDashStyle_complex .....          | 311 |
| 2.3.12.20 | lineBottomStartArrowhead .....             | 311 |
| 2.3.12.21 | lineBottomEndArrowhead .....               | 312 |
| 2.3.12.22 | lineBottomStartArrowWidth .....            | 312 |
| 2.3.12.23 | lineBottomStartArrowLength .....           | 313 |
| 2.3.12.24 | lineBottomEndArrowWidth .....              | 314 |
| 2.3.12.25 | lineBottomEndArrowLength .....             | 314 |
| 2.3.12.26 | lineBottomJoinStyle .....                  | 315 |
| 2.3.12.27 | lineBottomEndCapStyle .....                | 315 |
| 2.3.12.28 | lineBottomColorExt .....                   | 316 |
| 2.3.12.29 | reserved1562 .....                         | 316 |
| 2.3.12.30 | lineBottomColorExtMod .....                | 317 |
| 2.3.12.31 | reserved1564 .....                         | 317 |
| 2.3.12.32 | lineBottomBackColorExt .....               | 318 |
| 2.3.12.33 | reserved1566 .....                         | 318 |
| 2.3.12.34 | lineBottomBackColorExtMod .....            | 319 |
| 2.3.12.35 | reserved1568 .....                         | 319 |
| 2.3.12.36 | reserved1569 .....                         | 320 |
| 2.3.12.37 | reserved1570 .....                         | 321 |
| 2.3.12.38 | Bottom Line Style Boolean Properties ..... | 321 |
| 2.3.13    | Shadow Style .....                         | 323 |
| 2.3.13.1  | shadowType .....                           | 324 |
| 2.3.13.2  | shadowColor .....                          | 324 |
| 2.3.13.3  | shadowHighlight .....                      | 325 |
| 2.3.13.4  | shadowCrMod .....                          | 325 |
| 2.3.13.5  | shadowOpacity .....                        | 326 |
| 2.3.13.6  | shadowOffsetX .....                        | 326 |
| 2.3.13.7  | shadowOffsetY .....                        | 327 |
| 2.3.13.8  | shadowSecondOffsetX .....                  | 327 |
| 2.3.13.9  | shadowSecondOffsetY .....                  | 328 |
| 2.3.13.10 | shadowOriginX .....                        | 329 |
| 2.3.13.11 | shadowOriginY .....                        | 329 |
| 2.3.13.12 | shadowColorExt .....                       | 330 |
| 2.3.13.13 | reserved531 .....                          | 330 |
| 2.3.13.14 | shadowColorExtMod .....                    | 331 |
| 2.3.13.15 | reserved533 .....                          | 331 |
| 2.3.13.16 | shadowHighlightExt .....                   | 332 |
| 2.3.13.17 | reserved535 .....                          | 333 |
| 2.3.13.18 | shadowHighlightExtMod .....                | 333 |
| 2.3.13.19 | reserved537 .....                          | 334 |
| 2.3.13.20 | reserved538 .....                          | 334 |
| 2.3.13.21 | reserved539 .....                          | 335 |
| 2.3.13.22 | shadowSoftness .....                       | 335 |
| 2.3.13.23 | Shadow Style Boolean Properties .....      | 336 |
| 2.3.14    | Perspective Style .....                    | 337 |
| 2.3.14.1  | perspectiveType .....                      | 337 |
| 2.3.14.2  | perspectiveOffsetX .....                   | 338 |
| 2.3.14.3  | perspectiveOffsetY .....                   | 338 |
| 2.3.14.4  | perspectiveScaleXToX .....                 | 339 |
| 2.3.14.5  | perspectiveScaleYToX .....                 | 339 |



|           |  |     |
|-----------|--|-----|
| 2.3.14.6  | perspectiveScaleXToY .....                 | 340 |
| 2.3.14.7  | perspectiveScaleYToY .....                 | 341 |
| 2.3.14.8  | perspectivePerspectiveX .....              | 341 |
| 2.3.14.9  | perspectivePerspectiveY .....              | 342 |
| 2.3.14.10 | perspectiveWeight.....                     | 342 |
| 2.3.14.11 | perspectiveOriginX .....                   | 343 |
| 2.3.14.12 | perspectiveOriginY .....                   | 343 |
| 2.3.14.13 | Perspective Style Boolean Properties ..... | 344 |
| 2.3.15    | 3D Object .....                            | 345 |
| 2.3.15.1  | c3DSpecularAmt .....                       | 345 |
| 2.3.15.2  | c3DDiffuseAmt.....                         | 345 |
| 2.3.15.3  | c3DShininess.....                          | 346 |
| 2.3.15.4  | c3DEdgeThickness .....                     | 346 |
| 2.3.15.5  | c3DExtrudeForward.....                     | 347 |
| 2.3.15.6  | c3DExtrudeBackward.....                    | 347 |
| 2.3.15.7  | reserved646 .....                          | 348 |
| 2.3.15.8  | c3DExtrusionColor.....                     | 348 |
| 2.3.15.9  | c3DCrMod .....                             | 349 |
| 2.3.15.10 | c3DExtrusionColorExt .....                 | 350 |
| 2.3.15.11 | reserved650 .....                          | 350 |
| 2.3.15.12 | c3DExtrusionColorExtMod .....              | 351 |
| 2.3.15.13 | reserved652 .....                          | 351 |
| 2.3.15.14 | reserved653 .....                          | 352 |
| 2.3.15.15 | 3D-Object Boolean Properties .....         | 352 |
| 2.3.16    | 3D Style .....                             | 353 |
| 2.3.16.1  | c3DYRotationAngle.....                     | 354 |
| 2.3.16.2  | c3DXRotationAngle.....                     | 354 |
| 2.3.16.3  | c3DRotationAxisX.....                      | 355 |
| 2.3.16.4  | c3DRotationAxisY .....                     | 356 |
| 2.3.16.5  | c3DRotationAxisZ .....                     | 356 |
| 2.3.16.6  | c3DRotationAngle .....                     | 357 |
| 2.3.16.7  | c3DRotationCenterX .....                   | 357 |
| 2.3.16.8  | c3DRotationCenterY .....                   | 358 |
| 2.3.16.9  | c3DRotationCenterZ .....                   | 358 |
| 2.3.16.10 | c3DRenderMode.....                         | 359 |
| 2.3.16.11 | c3DTolerance .....                         | 360 |
| 2.3.16.12 | c3DXViewpoint .....                        | 360 |
| 2.3.16.13 | c3DYViewpoint.....                         | 361 |
| 2.3.16.14 | c3DZViewpoint .....                        | 361 |
| 2.3.16.15 | c3DOriginX.....                            | 362 |
| 2.3.16.16 | c3DOriginY .....                           | 362 |
| 2.3.16.17 | c3DSkewAngle.....                          | 363 |
| 2.3.16.18 | c3DSkewAmount.....                         | 364 |
| 2.3.16.19 | c3DAmbientIntensity .....                  | 364 |
| 2.3.16.20 | c3DKeyX.....                               | 365 |
| 2.3.16.21 | c3DKeyY .....                              | 365 |
| 2.3.16.22 | c3DKeyZ.....                               | 366 |
| 2.3.16.23 | c3DKeyIntensity .....                      | 366 |
| 2.3.16.24 | c3DFillX .....                             | 367 |
| 2.3.16.25 | c3DFillY .....                             | 367 |
| 2.3.16.26 | c3DFillZ .....                             | 368 |
| 2.3.16.27 | c3DFillIntensity.....                      | 369 |
| 2.3.16.28 | 3D-Style Boolean Properties .....          | 369 |
| 2.3.17    | Diagram .....                              | 371 |
| 2.3.17.1  | dgmt .....                                 | 371 |
| 2.3.17.2  | dgmStyle .....                             | 371 |
| 2.3.17.3  | pRelationTbl .....                         | 386 |
| 2.3.17.4  | pRelationTbl_complex.....                  | 386 |

|           |  |     |
|-----------|--|-----|
| 2.3.17.5  | dgmScaleX.....                             | 386 |
| 2.3.17.6  | dgmScaleY.....                             | 387 |
| 2.3.17.7  | dgmDefaultFontSize.....                    | 388 |
| 2.3.17.8  | dgmConstrainBounds.....                    | 388 |
| 2.3.17.9  | dgmConstrainBounds_complex.....            | 389 |
| 2.3.17.10 | dgmBaseTextScale.....                      | 389 |
| 2.3.17.11 | Diagram Boolean Properties.....            | 390 |
| 2.3.18    | Transform.....                             | 391 |
| 2.3.18.1  | left.....                                  | 391 |
| 2.3.18.2  | top.....                                   | 391 |
| 2.3.18.3  | right.....                                 | 392 |
| 2.3.18.4  | bottom.....                                | 392 |
| 2.3.18.5  | rotation.....                              | 393 |
| 2.3.18.6  | gvPage.....                                | 393 |
| 2.3.18.7  | Transform Boolean Properties.....          | 394 |
| 2.3.19    | Relative Transform.....                    | 395 |
| 2.3.19.1  | relLeft.....                               | 395 |
| 2.3.19.2  | relTop.....                                | 395 |
| 2.3.19.3  | relRight.....                              | 396 |
| 2.3.19.4  | relBottom.....                             | 397 |
| 2.3.19.5  | relRotation.....                           | 397 |
| 2.3.19.6  | gvRelPage.....                             | 398 |
| 2.3.19.7  | Relative Transform Boolean Properties..... | 398 |
| 2.3.20    | Protection.....                            | 399 |
| 2.3.20.1  | Protection Boolean Properties.....         | 399 |
| 2.3.21    | Text.....                                  | 401 |
| 2.3.21.1  | lTxid.....                                 | 401 |
| 2.3.21.2  | dxTextLeft.....                            | 402 |
| 2.3.21.3  | dyTextTop.....                             | 402 |
| 2.3.21.4  | dxTextRight.....                           | 403 |
| 2.3.21.5  | dyTextBottom.....                          | 403 |
| 2.3.21.6  | WrapText.....                              | 404 |
| 2.3.21.7  | unused134.....                             | 404 |
| 2.3.21.8  | anchorText.....                            | 405 |
| 2.3.21.9  | txflTextFlow.....                          | 405 |
| 2.3.21.10 | cdirFont.....                              | 406 |
| 2.3.21.11 | hspNext.....                               | 406 |
| 2.3.21.12 | txdir.....                                 | 407 |
| 2.3.21.13 | unused140.....                             | 408 |
| 2.3.21.14 | unused141.....                             | 408 |
| 2.3.21.15 | Text Boolean Properties.....               | 409 |
| 2.3.22    | Geometry Text.....                         | 410 |
| 2.3.22.1  | gtextUNICODE.....                          | 410 |
| 2.3.22.2  | gtextUNICODE_complex.....                  | 410 |
| 2.3.22.3  | gtextAlign.....                            | 411 |
| 2.3.22.4  | gtextSize.....                             | 412 |
| 2.3.22.5  | gtextSpacing.....                          | 413 |
| 2.3.22.6  | gtextFont.....                             | 414 |
| 2.3.22.7  | gtextFont_complex.....                     | 414 |
| 2.3.22.8  | gtextCSSFont.....                          | 414 |
| 2.3.22.9  | gtextCSSFont_complex.....                  | 415 |
| 2.3.22.10 | Geometry Text Boolean Properties.....      | 415 |
| 2.3.23    | Blip.....                                  | 419 |
| 2.3.23.1  | cropFromTop.....                           | 420 |
| 2.3.23.2  | cropFromBottom.....                        | 420 |
| 2.3.23.3  | cropFromLeft.....                          | 421 |
| 2.3.23.4  | cropFromRight.....                         | 421 |
| 2.3.23.5  | pib.....                                   | 422 |

|           |                                      |     |
|-----------|--------------------------------------|-----|
| 2.3.23.6  | pib_complex.....                     | 423 |
| 2.3.23.7  | pibName.....                         | 423 |
| 2.3.23.8  | pibName_complex.....                 | 424 |
| 2.3.23.9  | pibFlags.....                        | 424 |
| 2.3.23.10 | pictureTransparent.....              | 424 |
| 2.3.23.11 | pictureContrast.....                 | 425 |
| 2.3.23.12 | pictureBrightness.....               | 425 |
| 2.3.23.13 | pictureId.....                       | 426 |
| 2.3.23.14 | pictureDblCrMod.....                 | 427 |
| 2.3.23.15 | pictureFillCrMod.....                | 427 |
| 2.3.23.16 | pictureLineCrMod.....                | 428 |
| 2.3.23.17 | pibPrint.....                        | 428 |
| 2.3.23.18 | pibPrint_complex.....                | 429 |
| 2.3.23.19 | pibPrintName.....                    | 429 |
| 2.3.23.20 | pibPrintName_complex.....            | 430 |
| 2.3.23.21 | pibPrintFlags.....                   | 430 |
| 2.3.23.22 | movie.....                           | 431 |
| 2.3.23.23 | movie_complex.....                   | 431 |
| 2.3.23.24 | pictureTransparentExt.....           | 432 |
| 2.3.23.25 | reserved278.....                     | 432 |
| 2.3.23.26 | pictureTransparentExtMod.....        | 433 |
| 2.3.23.27 | reserved280.....                     | 433 |
| 2.3.23.28 | reserved281.....                     | 434 |
| 2.3.23.29 | pictureRecolor.....                  | 434 |
| 2.3.23.30 | pictureRecolorExt.....               | 435 |
| 2.3.23.31 | reserved284.....                     | 435 |
| 2.3.23.32 | pictureRecolorExtMod.....            | 436 |
| 2.3.23.33 | reserved286.....                     | 436 |
| 2.3.23.34 | reserved287.....                     | 437 |
| 2.3.23.35 | Blip Boolean Properties.....         | 438 |
| 2.3.24    | Unknown HTML.....                    | 439 |
| 2.3.24.1  | wzLineId.....                        | 439 |
| 2.3.24.2  | wzLineId_complex.....                | 440 |
| 2.3.24.3  | wzFillId.....                        | 440 |
| 2.3.24.4  | wzFillId_complex.....                | 441 |
| 2.3.24.5  | wzPictureId.....                     | 441 |
| 2.3.24.6  | wzPictureId_complex.....             | 441 |
| 2.3.24.7  | wzPathId.....                        | 442 |
| 2.3.24.8  | wzPathId_complex.....                | 442 |
| 2.3.24.9  | wzShadowId.....                      | 443 |
| 2.3.24.10 | wzShadowId_complex.....              | 443 |
| 2.3.24.11 | wzPerspectiveId.....                 | 443 |
| 2.3.24.12 | wzPerspectiveId_complex.....         | 444 |
| 2.3.24.13 | wzGtextId.....                       | 444 |
| 2.3.24.14 | wzGtextId_complex.....               | 445 |
| 2.3.24.15 | wzFormulaeId.....                    | 445 |
| 2.3.24.16 | wzFormulaeId_complex.....            | 446 |
| 2.3.24.17 | wzHandlesId.....                     | 446 |
| 2.3.24.18 | wzHandlesId_complex.....             | 447 |
| 2.3.24.19 | wzCalloutId.....                     | 447 |
| 2.3.24.20 | wzCalloutId_complex.....             | 448 |
| 2.3.24.21 | wzLockId.....                        | 448 |
| 2.3.24.22 | wzLockId_complex.....                | 448 |
| 2.3.24.23 | wzTextId.....                        | 449 |
| 2.3.24.24 | wzTextId_complex.....                | 449 |
| 2.3.24.25 | wzThreeDId.....                      | 450 |
| 2.3.24.26 | wzThreeDId_complex.....              | 450 |
| 2.3.24.27 | Unknown HTML Boolean Properties..... | 451 |

|           |                                   |     |
|-----------|-----------------------------------|-----|
| 2.3.25    | Web Component                     | 451 |
| 2.3.25.1  | webComponentWzHtml                | 452 |
| 2.3.25.2  | webComponentWzHtml_complex        | 452 |
| 2.3.25.3  | webComponentWzName                | 452 |
| 2.3.25.4  | webComponentWzName_complex        | 453 |
| 2.3.25.5  | webComponentWzUrl                 | 453 |
| 2.3.25.6  | webComponentWzUrl_complex         | 454 |
| 2.3.25.7  | Web Component Boolean Properties  | 454 |
| 2.3.26    | Ink                               | 455 |
| 2.3.26.1  | pInkData                          | 455 |
| 2.3.26.2  | pInkData_complex                  | 456 |
| 2.3.26.3  | Ink Boolean Properties            | 456 |
| 2.3.27    | Signature Line                    | 457 |
| 2.3.27.1  | wzSigSetupId                      | 457 |
| 2.3.27.2  | wzSigSetupId_complex              | 458 |
| 2.3.27.3  | wzSigSetupProvId                  | 458 |
| 2.3.27.4  | wzSigSetupProvId_complex          | 459 |
| 2.3.27.5  | wzSigSetupSuggSigner              | 459 |
| 2.3.27.6  | wzSigSetupSuggSigner_complex      | 460 |
| 2.3.27.7  | wzSigSetupSuggSigner2             | 460 |
| 2.3.27.8  | wzSigSetupSuggSigner2_complex     | 461 |
| 2.3.27.9  | wzSigSetupSuggSignerEmail         | 461 |
| 2.3.27.10 | wzSigSetupSuggSignerEmail_complex | 462 |
| 2.3.27.11 | wzSigSetupSignInst                | 462 |
| 2.3.27.12 | wzSigSetupSignInst_complex        | 462 |
| 2.3.27.13 | wzSigSetupAddlXml                 | 463 |
| 2.3.27.14 | wzSigSetupAddlXml_complex         | 463 |
| 2.3.27.15 | wzSigSetupProvUrl                 | 464 |
| 2.3.27.16 | wzSigSetupProvUrl_complex         | 464 |
| 2.3.27.17 | Signature Line Boolean Properties | 465 |
| 2.4       | Enumerations                      | 466 |
| 2.4.1     | MSOBLIPTYPE                       | 466 |
| 2.4.2     | MSODGCID                          | 466 |
| 2.4.3     | MSOWRAPMODE                       | 488 |
| 2.4.4     | MSOANCHOR                         | 488 |
| 2.4.5     | MSOTXFL                           | 491 |
| 2.4.6     | MSOCDIR                           | 492 |
| 2.4.7     | MSOTXDIR                          | 492 |
| 2.4.8     | MSOBLIPFLAGS                      | 493 |
| 2.4.9     | MSOSHAPEPATH                      | 493 |
| 2.4.10    | MSOCXK                            | 493 |
| 2.4.11    | MSOFILLTYPE                       | 494 |
| 2.4.12    | MSODZTYPE                         | 496 |
| 2.4.13    | MSOLINETYPE                       | 497 |
| 2.4.14    | MSOLINESTYLE                      | 497 |
| 2.4.15    | MSOLINEDASHING                    | 498 |
| 2.4.16    | MSOLINEEND                        | 499 |
| 2.4.17    | MSOLINEENDWIDTH                   | 499 |
| 2.4.18    | MSOLINEENDLENGTH                  | 500 |
| 2.4.19    | MSOLINEJOIN                       | 500 |
| 2.4.20    | MSOLINECAP                        | 501 |
| 2.4.21    | MSOSHADOWTYPE                     | 501 |
| 2.4.22    | MSOXFORMTYPE                      | 503 |
| 2.4.23    | MSO3DRENDERMODE                   | 503 |
| 2.4.24    | MSOSPT                            | 503 |
| 2.4.25    | MSOCXSTYLE                        | 536 |
| 2.4.26    | MSOBWMODE                         | 537 |
| 2.4.27    | MSODGMT                           | 537 |

|          |   |            |
|----------|---|------------|
| 2.4.28   | MSODGSLK .....                            | 539        |
| 2.4.29   | MSODGMLO .....                            | 539        |
| 2.4.30   | MSOPATHTYPE .....                         | 541        |
| 2.4.31   | MSOPATHESCAPE .....                       | 542        |
| 2.5      | Algorithms .....                          | 544        |
| 2.5.1    | Data for VtHyperlink .....                | 544        |
| <b>3</b> | <b>Structure Examples .....</b>           | <b>545</b> |
| 3.1      | Diagram.....                              | 545        |
| 3.1.1    | DrawingContainer .....                    | 546        |
| 3.1.2    | OfficeArtFDG .....                        | 546        |
| 3.1.3    | OfficeArtSpgrContainer.....               | 547        |
| 3.1.4    | OfficeArtSpContainer.....                 | 579        |
| 3.1.5    | OfficeArtSolverContainer .....            | 581        |
| 3.2      | Shape Properties.....                     | 582        |
| 3.2.1    | Shape Type Properties .....               | 583        |
| 3.2.2    | Shape Primary Options.....                | 584        |
| 3.2.3    | Shape Text Properties .....               | 589        |
| <b>4</b> | <b>Security Considerations.....</b>       | <b>592</b> |
| <b>5</b> | <b>Appendix A: Product Behavior .....</b> | <b>593</b> |
| <b>6</b> | <b>Change Tracking.....</b>               | <b>600</b> |
| <b>7</b> | <b>Index.....</b>                         | <b>601</b> |

Preliminary

# 1 Introduction

This document specifies the Office Drawing Binary File Format Structure, which enables the use of graphical elements in certain applications.

Sections 1.7 and 2 of this specification are normative. All other sections and examples in this specification are informative.

## 1.1 Glossary

This document uses the following terms:

**absolute space:** An area of a drawing that occupies an entire document or page. The value for absolute space is typically expressed in **English Metric Units (EMUs)**, but it can be defined by the host application.

**Active Server Pages (ASP):** A server-side scripting engine that was developed by Microsoft and is designed to dynamically generate a webpage.

**adjust handle:** A user interface control that is located on an object frame and is used to increase or decrease the size of that object.

**anchor:** A set of qualifiers and quantifiers that specifies the location of an element or object within a document. These values are typically relative to another element or known location in the document, such as the edge of a page or margin.

**atom:** A unit of information that cannot be divided into smaller parts, and is accepted or rejected in its entirety. See also Atom Publishing Protocol (AtomPub).

**background shape:** A graphical drawing object that is covered or obstructed by other shapes in the foreground.

**binary large image or picture (BLIP):** A binary data structure that stores information about a metafile image or bitmap picture.

**bounding rectangle:** A frame that encompasses an object. A bounding rectangle is not rotated and, therefore, always aligns along the x and y axes.

**callout:** A set of characters that describes or emphasizes an element of a drawing or image and is connected to that drawing or image by a line.

**child:** An object that is immediately below the current object in a hierarchy.

**color scheme:** A table of color values that enables colors to be referenced by an index value in the table instead of a color value. See also color palette.

**comment:** An annotation that is associated with a cell, text, or other object to provide context-specific information or reviewer feedback.

**connection point:** A point on a shape where another drawing object can be connected.

**connection site:** A location on a shape where a connector is attached.

**connector:** A line that is used to connect two or more shapes and that remains connected to those shapes.

**content management system:** A system that manages the collaboration, creation, modification, archiving, restoration, and removal of objects from a formal repository on behalf of a web server.

**crop:** In graphics editing, the process of trimming the vertical or horizontal edges of a specified object.

**device-independent bitmap (DIB):** A file format that was designed to help ensure that bitmap graphics that were created by using one application can be loaded and displayed in another application exactly as they appeared in the originating application.

**diagram:** A drawing that is used to present relationships between abstract ideas and data, such as an organizational chart or a Venn diagram.

**dialog sheet:** A single logical container that is used to create a custom dialog box.

**digital signature:** A message authenticator that is typically derived from a cryptographic operation by using an asymmetric algorithm and private key. When a symmetric algorithm is used for this purpose, the authenticator is typically referred to as a Message Authentication Code (MAC).

**drawing:** A collection of drawing objects, such as shapes, curves, or WordArt, that are viewed together as a single image.

**drawing group:** A collection of images that are designated by the user as a single group of images and manipulated as a single **drawing object**.

**drawing object:** A shape, curve, line, WordArt, or other type of graphical object that can be inserted into a document.

**drawing plane:** A geometric plane in a three-dimensional space.

**drawing space:** An area of the **absolute space** that is being drawn, after all of the rotation and scaling is complete. For example, a shadow is typically drawn relative to a shape, and is therefore in the drawing space of that shape. The value for drawing space is expressed in **English Metric Units (EMUs)**. See also **absolute space**.

**edit points:** A set of movable points in a shape, line, or curve that define the path of that geometry.

**English Metric Unit (EMU):** A measurement in computer typography. There are 635 EMUs per twip, 6,350 EMUs per half-point, 12,700 EMUs per point, and 914,400 EMUs per inch. These units are used to translate on-screen layouts to printed layouts for specified printer hardware.

**enhanced metafile format (EMF):** A file format that supports the device-independent definitions of images.

**gamma correction:** In digital imaging, the process of changing the brightness, contrast, or color balance of an image by assigning new values (different colors) to gray or color tones.

**geometry space:** An arbitrarily defined coordinate system for shape geometry. Any coordinate references to a shape use this coordinate system. All connection sites, **adjust handles**, and vertices of a shape are defined in geometry space.

**geometry text:** A type of text that follows the geometry of the shape, rather than being contained within the **bounding rectangle** of the shape.

**gradient vector:** A vector that indicates the direction of a gradient fill. The gradient vector is perpendicular to the bands of color.

**group:** A process of combining similar elements into a set in accordance with logical criteria. It is frequently used to combine sets of data from Online Analytical Processing (OLAP) databases or PivotTable reports.

**group shape:** A shape that contains a group of shapes.

**horizontal rule:** A line that is printed above or below an element to set off that item from the remainder of the page or to improve the appearance of the page.

**hyperlink:** A relationship between two **anchors**, as described in [\[RFC1866\]](#).

**Hypertext Markup Language (HTML):** An application of the Standard Generalized Markup Language (SGML) that uses tags to mark elements in a document, as described in [\[HTML\]](#).

**ink:** A process of entering text in handwritten form. Instead of converting handwritten text to typed text, ink is converted to an object and displayed exactly as it was written.

**ink shape:** A shape that contains strokes of ink.

**inside margin:** A side or top margin of a document on which the document is bound.

**internal resource tag:** A number associated with an internal resource.

**join style:** A style that specifies how the ends of connected lines are joined.

**Joint Photographic Experts Group (JPEG):** A raster graphics file format for displaying high-resolution color graphics. JPEG graphics apply a user-specified compression scheme that can significantly reduce the file sizes of photo-realistic color graphics. A higher level of compression results in lower quality, whereas a lower level of compression results in higher quality. JPEG-format files have a .jpg or .jpeg file name extension.

**labeling policy:** A policy that supports the addition of labels to a list item.

**line end decoration:** An arrowhead, square, circle, or other small shape that is attached to the end of a line in a drawing.

**little-endian:** Multiple-byte values that are byte-ordered with the least significant byte stored in the memory location with the lowest address.

**Macintosh PICT:** An abbreviated term for Macintosh Picture format, a graphics file format that is associated with Macintosh applications.

**master:** A slide view, page, or shape that defines the formatting for all slides, pages, or shapes in a presentation. Each presentation has a master for each key component: slides, title slides, speaker notes, and audience handouts.

**master shape:** A shape definition that specifies the default properties for all instances of that shape within a document.

**master unit:** A unit of linear measurement that is equal to 1/576 inch.

**Object Linking and Embedding (OLE):** A technology for transferring and sharing information between applications by inserting a file or part of a file into a compound document. The inserted file can be either embedded or linked. See also embedded object and linked object.

**OLE object:** An object that supports the **Object Linking and Embedding (OLE)** protocol.

**outside margin:** A side or top margin of a document that is opposite the side where the document is bound.

**page element:** Any basic element that exists on a page, such as the page itself, the margin, the text block, or an individual character.

**perspective transform:** A transform that is applied to an image or diagram so that it shows the same objects from a different point of view.

**picture bullet:** A list bullet that displays a picture instead of a standard character bullet.



**placeholder:** A character or symbol that is used in place of an actual value, text, or object. The actual value that the placeholder represents is unknown or unavailable at the current time, or is not displayed for security reasons.

**point:** A unit of measurement for fonts and spacing. A point is equal to 1/72 of an inch.

**Portable Network Graphics (PNG):** A bitmap graphics file format that uses lossless data compression and supports variable transparency of images (alpha channels) and control of image brightness on different computers (gamma correction). PNG-format files have a .png file name extension.

**red-green-blue (RGB):** A color model that describes color information in terms of the red (R), green (G), and blue (B) intensities in a color.

**regroup identifier:** A unique index that is used to determine which shapes were previously grouped together.

**right-to-left:** A reading and display order that is optimized for right-to-left languages.

**rule:** A condition or action, or a set of conditions or actions, that performs tasks automatically based on events and values.

**scheme color:** One of the colors that is defined in a set of specified colors for a document. If an object is filled with a scheme color, its color changes when another color scheme is selected for that document.

**script anchor:** The visual representation of a script on a webpage that is open in a Microsoft Office application. Different script anchors are used to represent scripts that are written in different scripting languages. By default, script anchors are not displayed.

**shape:** A collection of qualifiers, such as names, and quantifiers, such as coordinates, that is used to represent a geometric object. A shape can be contained in a document, file structure, run-time structure, or other medium.

**sigma transfer function:** A mathematical process which improves the signal-to-noise ratio of a data series.

**signature line:** A location in a document where a visible digital signature can be inserted.

**slide:** A frame that contains text, shapes, pictures, or other content. A slide is a digital equivalent to a traditional film slide.

**Tagged Image File Format (TIFF):** A high-resolution, tag-based graphics format. TIFF is used for the universal interchange of digital graphics.

**text run:** A string of characters that represents a discrete span of text with the same formatting properties.

**toolbar control identifier (TCID):** An integer that identifies a specific control on a toolbar.

**ToolTip:** A small pop-up window that provides brief context-sensitive help when users point to an item. Also referred to as ScreenTip.

**Unicode:** A character encoding standard developed by the Unicode Consortium that represents almost all of the written languages of the world. The **Unicode** standard [\[UNICODE5.0.0/2007\]](#) provides three forms (UTF-8, UTF-16, and UTF-32) and seven schemes (UTF-8, UTF-16, UTF-16 BE, UTF-16 LE, UTF-32, UTF-32 LE, and UTF-32 BE).

**Uniform Resource Locator (URL):** A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [\[RFC1738\]](#).

**UTF-8:** A byte-oriented standard for encoding Unicode characters, defined in the Unicode standard. Unless specified otherwise, this term refers to the UTF-8 encoding form specified in [UNICODE5.0.0/2007] section 3.9.

**Vector Markup Language (VML):** A system of marking up or tagging two-dimensional vector graphics for publication on the World Wide Web. VML graphics are scalable and editable, and typically require less disk space and less time to download.

**web component:** Any component, such as a bitmap, image, Java applet, or ActiveX control, that can be inserted into a webpage.

**Windows metafile format (WMF):** A file format used by Windows that supports the definition of images, including a format for clip art in word-processing documents.

**wrap polygon:** A shape that is built from a pattern of points and segments, and delineates an area that is associated with a graphic. A wrap polygon enables a word processing or other type of application to break lines of text automatically to stay outside of the boundaries set by the polygon, or to display text behind or in front of the polygon.

**XML:** The Extensible Markup Language, as described in [\[XML1.0\]](#).

**z-order:** The rendering order of an object on a z axis.

**MAY, SHOULD, MUST, SHOULD NOT, MUST NOT:** These terms (in all caps) are used as defined in [\[RFC2119\]](#). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

## 1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](#).

### 1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

[CSS-LEVEL2] Bos, B., Celik, T., Hickson, I., and Lie, H., "Cascading Style Sheets Level 2 Revision 1 (CSS2.1) Specification: W3C Candidate Recommendation", July 2007, <http://www.w3.org/TR/2007/CR-CSS21-20070719/>

[ISO/IEC29500-2:2012] ISO/IEC, "Information technology -- Document description and processing languages -- Office Open XML File Formats -- Part 2: Open Packaging Conventions", ISO/IEC 29500-2:2012, [http://www.iso.org/iso/home/store/catalogue\\_ics/catalogue\\_detail\\_ics.htm?csnumber=61796](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=61796)

[ISO/IEC29500-4:2011] ISO/IEC, "Information technology -- Document description and processing languages -- Office Open XML File Formats -- Part 4: Transitional Migration Features", ISO/IEC 29500-4:2011, 2011, [http://www.iso.org/iso/home/store/catalogue\\_ics/catalogue\\_detail\\_ics.htm?csnumber=59578](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=59578)

[ISO/IEC29500-4:2012] ISO/IEC, "Information technology -- Document description and processing languages -- Office Open XML File Formats -- Part 4: Transitional Migration Features", ISO/IEC 29500-4:2012, [http://www.iso.org/iso/home/store/catalogue\\_ics/catalogue\\_detail\\_ics.htm?csnumber=61798](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=61798)

[MC-ISF] Microsoft Corporation, "Ink Serialized Format (ISF) Specification", 2007, [http://download.microsoft.com/download/0/B/E/0BE8BDD7-E5E8-422A-ABFD-4342ED7AD886/InkSerializedFormat\(ISF\)Specification.pdf](http://download.microsoft.com/download/0/B/E/0BE8BDD7-E5E8-422A-ABFD-4342ED7AD886/InkSerializedFormat(ISF)Specification.pdf)

[MS-OSHARED] Microsoft Corporation, "[Office Common Data Types and Objects Structures](#)".

[MS-PPT] Microsoft Corporation, "[PowerPoint \(.ppt\) Binary File Format](#)".

[MS-XLS] Microsoft Corporation, "[Excel Binary File Format \(.xls\) Structure](#)".

[RFC1320] Rivest, R., "The MD4 Message-Digest Algorithm", RFC 1320, April 1992, <http://www.ietf.org/rfc/rfc1320.txt>

[RFC1950] Deutsch, P., and Gailly, J-L., "ZLIB Compressed Data Format Specification version 3.3", RFC 1950, May 1996, <http://www.ietf.org/rfc/rfc1950.txt>

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/rfc/rfc2119.txt>

### 1.2.2 Informative References

[MS-DOC] Microsoft Corporation, "[Word \(.doc\) Binary File Format](#)".

[MS-OGRAPH] Microsoft Corporation, "[Office Graph Binary File Format](#)".

[MSDN-GetSysColor] Microsoft Corporation, "GetSysColor Function", [http://msdn.microsoft.com/en-us/library/ms724371\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms724371(VS.85).aspx)

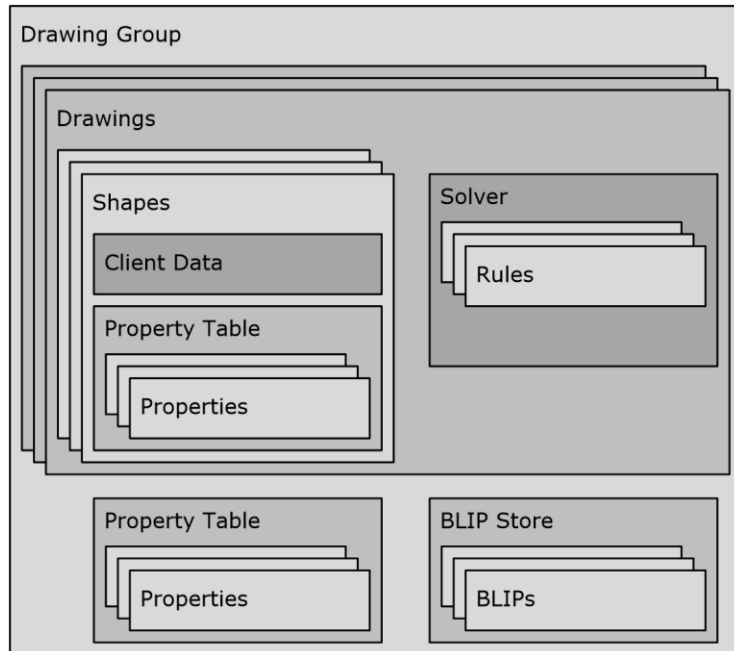
[MSDN-WebComp] Microsoft Corporation, "Web Components", [http://msdn.microsoft.com/en-us/library/aa235992\(office.10\).aspx](http://msdn.microsoft.com/en-us/library/aa235992(office.10).aspx)

### 1.3 Structure Overview (Synopsis)

Certain applications use the Office Drawing Binary File Format Structure to represent **drawing** elements and their associated formatting. Typically, these elements are represented as **shapes** that are contained within drawings or **diagrams**, but the elements can also include form controls and tables. This file format is also known as OfficeArt.

The host application stores the OfficeArt data as a series of records, many of which contain additional records. The host application, which determines where to store the OfficeArt data, can also define and store additional records—to provide the details that are needed to position the drawing elements in the host document or to render any associated text. To allow the OfficeArt records to be parsed without detailed knowledge of each record type, each record has a common header that contains the record type and additional data.

OfficeArt uses an object container hierarchy, which is illustrated by the following figure.



**Figure 1: Object container hierarchy**

At the root of the hierarchy is a **drawing group** object. Each client document has one drawing group. A drawing group contains drawings. A drawing contains shapes, which are the objects that populate a page. Adjacent to the drawings in a drawing group is a collection that contains the **binary large images or pictures (BLIPs)** that are used by the drawings. OfficeArt stores pictures in a separate collection so that they can be incrementally loaded and saved and so that the duplication of picture data will be reduced.

Associated with each shape is a piece of client data that stores the **anchor**, text, and **Object Linking and Embedding (OLE)** data of the shape as well as host-specific properties. The host application specifies the format of this structure. A separate structure, called a property table, stores the properties of the shape. A property table consists of a list of identifier-value pairs, where each identifier represents a property.

Each drawing group has a shape property table that stores the defaults for new shapes.

Each drawing has a collection of **rules** that govern the shapes in the drawing.

Note that drawings are not saved inside drawing groups but in separate, top-level containers. This scheme enables host applications to save drawing group information with per-document information and to save drawing information with per-sheet, per-**slide**, or per-page information.

The remainder of this section describes the Office Drawing Binary File Format Structure in more detail.

### 1.3.1 Records

The OfficeArt file stream consists of a series of records that share a common header structure. Records can be categorized into two groups: **atoms** and containers.

An atom is a record that contains information about an OfficeArt object and is kept inside a container.

A container is a record that contains atoms and other containers in a logical and organized way.

Each record, whether atom or container, has a common header. A container consists of just the common header, whereas an atom consists of the common header followed by record-specific data.

A group of records that each end in the word *FileBlock* indicates an abstract form of concrete records that might be in a collection. The containing record stores an array of *FileBlock* records that each represent an instance of a different record type, as determined by a field within the record header of the *FileBlock* record.

### 1.3.2 Record Headers

All records share a common header that describes the record data. This header contains the record type, the record length, and if the record is an atom, a version identifier. Although every record type has an instance property, not every record type uses this field. When used, the instance property specifies either the number of objects in the container record or a specific identifier that is used by the record.

Because the header specifies the record length, it is possible to parse an OfficeArt record stream without knowledge of the actual contents of each record. It is expected that parsers of the Office Drawing Binary File Format Structure will skip over record types that are unknown to the reader. In addition, parsers need to expect that records can come in any order in a container. On the other hand, parsers can expect that the container hierarchy will not change. For example, it is unnecessary to consider a **shape** record that contains a **drawing** record.

When the data is written to a client file, the host application stores client-specific records in the OfficeArt stream to preserve the client features and behaviors. For more information, see section [1.4](#).

### 1.3.3 Containers

A container consists of a record header, which is followed by the contained records. A container needs to precede all atoms because the container specifies how the contained atoms are to be applied to the **drawing** data. For example, a **shape** container and a **drawing group** container each contain a collection of properties. The container designates that the properties are either individual shape properties or document default properties.

### 1.3.4 Properties

Because the Office Drawing Binary File Format Structure contains **drawing** data, it is heavily populated with properties that are specific to **shapes**. These shape properties are contained in a set of sparsely populated arrays. Each array contains a specific block of properties and contains only those properties for which the value differs from the default. If a property is specified to be ignored or is omitted from the file, it is assumed to have the default value.

If any property appears in a property block more than once, the last occurrence is assumed to be the correct property, and the value in the last occurrence overrides any previously set value.

### 1.3.5 Bit Format

Records are tightly packed without alignment. OfficeArt data is stored in **little-endian** format.

### 1.3.6 Extended Colors

Each property that is related to color has two associated extended-color properties, which can be used to define the main color more precisely. If neither extended-color property is set, the main color property contains the full color definition. Otherwise, the first extended-color property specifies the base color, and the second extended-color property specifies a tint or shade modification that is applied to the first extended-color property. In this case, the main color property contains the

flattened **red-green-blue (RGB)** color that is computed by applying specified tint or shade modification to the specified base color. If the values of the main color property and the extended-color properties are inconsistent, the value of the main color property can be used and those of the extended-color properties discarded. For more information, see section [2.2.2](#).

## 1.4 Relationship to Protocols and Other Structures

The Office Drawing Binary File Format Structure is dependent on the structures that are defined in the following references:

- [\[MS-DOC\]](#)
- [\[MS-XLS\]](#)
- [\[MS-PPT\]](#)
- [\[MS-OGRAPH\]](#)

These structures determine how the OfficeArt data is saved to disk and where that data will reside. Additionally, images are stored within the file in standard raster formats. The **OfficeArtBStoreContainerFileBlock** record, which is defined in section [2.2.22](#), specifies which image types are supported within the **BLIP** store.

The host application defines a certain group of records within the OfficeArt stream as client records. These records hold information that the host application needs to position the **diagram** in the host document or to contain the host text.

The host application supplies OfficeArt text to provide the same functionality as the application's native text. Some host applications also apply rules to the **shapes** or diagrams to assist with positioning those shapes or diagrams or to store additional data for other host-specific needs.

For more information, see [\[MS-DOC\]](#), [\[MS-XLS\]](#), [\[MS-PPT\]](#), and [\[MS-OGRAPH\]](#).

## 1.5 Applicability Statement

This document specifies a persistence format for **drawings**. These drawings typically contain geometric primitives, also known as **shapes**, that might contain formatting elements such as fills, line styles, pictures, and three-dimensional (3-D) transformations. These shapes also support text as specified by the host application.

This persistence format provides interoperability with applications that create or read documents conforming to this structure.

## 1.6 Versioning and Localization

This document covers versioning issues in the following areas:

**Structure versions:** All of the custom OfficeArt types, as defined in section [2.1](#), and OfficeArt record types, as defined in section [2.2](#), are supported by all versions of the OfficeArt file format, but this is not true for all of the properties. For more information, see section [2.3](#).

**Localization:** The OfficeArt file format does not use localized user text strings. This file format does use properties to represent text orientation and flow, as needed. For more information, see sections [2.3.21.9](#), [2.3.21.10](#), and [2.3.21.12](#). All the units of measure that are described in this document are either application defined, explicitly specified, or consistent across all locales. The OfficeArt file format does not define any time formats, calendar formats, or monetary units.

## 1.7 Vendor-Extensible Fields

A vendor or third party can add data to the OfficeArt file format by defining a new record that has a record header for which the record type is outside the range 0xF000 through 0xFFFF. When a record type is encountered outside this range, the record MAY be skipped. For the record to be skipped, the record length field also needs to represent the size of the record so that the reader can determine how far ahead to jump to continue parsing the file. Any vendor-defined record MUST have a valid record header, as specified in the **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), for the record to be skipped as an unknown record type. Similarly, if a vendor or third party needs to add additional properties, a new record type needs to be defined to contain these properties. The existing OPT tables are as follows:

- **OfficeArtFOPT**, as defined in section [2.2.9](#).
- **OfficeArtSecondaryFOPT**, as defined in section [2.2.10](#).
- **OfficeArtTertiaryFOPT**, as defined in section [2.2.11](#).

Avoid adding new properties to one of these existing OPT tables with a previously unused value in the **opid** field. These values might be claimed by a later version of OfficeArt and would then cause collisions with the vendor data. If a property has an unrecognized **opid.opid** field, a vendor can ignore the property.

A vendor cannot acquire a record number that is guaranteed to be uniquely its own. Therefore, vendor-defined records risk causing conflicts with records that are defined by other vendors or third parties.

A vendor can choose to infer the text orientation and flow either from the character context (by inspecting the characters and determining the correct orientation and flow from the **Unicode** character set) or from the system locale settings.



## 2 Structures

### 2.1 Custom OfficeArt Types

#### 2.1.1 MSODGID

Referenced by: [OfficeArtIDCL](#)

The **MSODGID** data type designates an unsigned integer that specifies the identifier of a **drawing**.

#### 2.1.2 MSOSPID

Referenced by: [hspMaster](#), [hspNext](#), [OfficeArtArcRule](#), [OfficeArtCalloutRule](#), [OfficeArtConnectorRule](#), [OfficeArtFDG](#), [OfficeArtFDGG](#), [OfficeArtFDGSL](#), [OfficeArtFPSPL](#), [OfficeArtFSP](#)

The **MSOSPID** data type designates an unsigned integer that specifies the identifier of a **shape**.

#### 2.1.3 FRID

Referenced by: [OfficeArtFRIT](#)

The **FRID** data type designates an unsigned integer that specifies the identifier of a **group shape** that has been ungrouped.

#### 2.1.4 MSOFO

Referenced by: [OfficeArtFBSE](#)

The **MSOFO** data type designates an unsigned integer that specifies an offset into a file.

### 2.2 OfficeArt Record Types

#### 2.2.1 OfficeArtRecordHeader

Referenced by: [OfficeArtBlipDIB](#), [OfficeArtBlipEMF](#), [OfficeArtBlipJPEG](#), [OfficeArtBlipPICT](#), [OfficeArtBlipPNG](#), [OfficeArtBlipTIFF](#), [OfficeArtBlipWMF](#), [OfficeArtBStoreContainer](#), [OfficeArtChildAnchor](#), [OfficeArtColorMRUContainer](#), [OfficeArtDgContainer](#), [OfficeArtDggContainer](#), [OfficeArtArcRule](#), [OfficeArtFBSE](#), [OfficeArtCalloutRule](#), [OfficeArtConnectorRule](#), [OfficeArtFDG](#), [OfficeArtFDGGBlock](#), [OfficeArtFDGSL](#), [OfficeArtFOPT](#), [OfficeArtFPSPL](#), [OfficeArtFRITContainer](#), [OfficeArtFSP](#), [OfficeArtFSPGR](#), [OfficeArtSecondaryFOPT](#), [OfficeArtSolverContainer](#), [OfficeArtSpContainer](#), [OfficeArtSpgrContainer](#), [OfficeArtSplitMenuColorContainer](#), [OfficeArtTertiaryFOPT](#)

The **OfficeArtRecordHeader** record specifies the common record header for all the OfficeArt records.

|        |   |   |   |             |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------|---|---|---|-------------|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0      | 1 | 2 | 3 | 4           | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| recVer |   |   |   | recInstance |   |   |   |   |   |    |    |    |    |    |    | recType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| recLen |   |   |   |             |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**recVer (4 bits):** An unsigned integer that specifies the version if the record is an **atom**. If the record is a container, this field MUST contain 0xF.



**recInstance (12 bits):** An unsigned integer that differentiates an atom from the other atoms that are contained in the record.

**recType (2 bytes):** An unsigned integer that specifies the type of the record. This value MUST be from 0xF000 through 0xFFFF, inclusive.

**recLen (4 bytes):** An unsigned integer that specifies the length, in bytes, of the record. If the record is an atom, this value specifies the length of the atom, excluding the header. If the record is a container, this value specifies the sum of the lengths of the atoms that the record contains, plus the length of the record header for each atom.

## 2.2.2 OfficeArtCOLORREF

Referenced by: [borderBottomColor](#), [borderLeftColor](#), [borderRightColor](#), [borderTopColor](#), [c3DCrMod](#), [c3DExtrusionColor](#), [c3DExtrusionColorExt](#), [fillBackColor](#), [fillBackColorExt](#), [fillColor](#), [fillColorExt](#), [fillCrMod](#), [lineBackColor](#), [lineBackColorExt](#), [lineBottomBackColor](#), [lineBottomBackColorExt](#), [lineBottomColor](#), [lineBottomColorExt](#), [lineBottomCrMod](#), [lineColor](#), [lineColorExt](#), [lineCrMod](#), [lineLeftBackColor](#), [lineLeftBackColorExt](#), [lineLeftColor](#), [lineLeftColorExt](#), [lineLeftCrMod](#), [lineRightBackColor](#), [lineRightBackColorExt](#), [lineRightColor](#), [lineRightColorExt](#), [lineRightCrMod](#), [lineTopBackColor](#), [lineTopBackColorExt](#), [lineTopColor](#), [lineTopColorExt](#), [lineTopCrMod](#), [MSOSHADECOLOR](#), [pictureDbICrMod](#), [pictureFillCrMod](#), [pictureLineCrMod](#), [pictureRecolor](#), [pictureRecolorExt](#), [pictureTransparent](#), [pictureTransparentExt](#), [reserved1370](#), [reserved1374](#), [reserved1377](#), [reserved1378](#), [reserved1434](#), [reserved1438](#), [reserved1441](#), [reserved1442](#), [reserved1498](#), [reserved1502](#), [reserved1505](#), [reserved1506](#), [reserved1562](#), [reserved1566](#), [reserved1569](#), [reserved1570](#), [reserved278](#), [reserved281](#), [reserved284](#), [reserved287](#), [reserved415](#), [reserved419](#), [reserved422](#), [reserved423](#), [reserved474](#), [reserved478](#), [reserved481](#), [reserved482](#), [reserved531](#), [reserved535](#), [reserved538](#), [reserved539](#), [reserved650](#), [reserved653](#), [shadowColor](#), [shadowColorExt](#), [shadowCrMod](#), [shadowHighlight](#), [shadowHighlightExt](#)

The **OfficeArtCOLORREF** structure specifies a color. The high 8 bits MAY be set to 0xFF, in which case the color MUST be ignored.

The **color** properties that are specified in the following table have a set of extended-color properties. The **color** property specifies the main color. The **colorExt** and **colorExtMod** properties specify the extended colors that can be used to define the main color more precisely.

| <b>color</b>                                 | <b>colorExt</b>   | <b>colorExtMod</b>   |
|--|---|--|
| <b>fillColor</b> (section 2.3.7.2)           | <b>fillColorExt</b> (section 2.3.7.33)                          | <b>fillColorExtMod</b> (section <a href="#">2.3.7.35</a> )           |
| <b>fillBackColor</b> (section 2.3.7.4)       | <b>fillBackColorExt</b> (section 2.3.7.37)                      | <b>fillBackColorExtMod</b> (section <a href="#">2.3.7.39</a> )       |
| <b>lineColor</b> (section 2.3.8.1)           | <b>lineColorExt</b> (section 2.3.8.28)                          | <b>lineColorExtMod</b> (section <a href="#">2.3.8.30</a> )           |
| <b>lineBackColor</b> (section 2.3.8.3)       | <b>lineBackColorExt</b> (section 2.3.8.32)                      | <b>lineBackColorExtMod</b> (section <a href="#">2.3.8.34</a> )       |
| <b>lineLeftColor</b> (section 2.3.9.1)       | <b>lineLeftColorExt</b> (section 2.3.9.28)                      | <b>lineLeftColorExtMod</b> (section <a href="#">2.3.9.30</a> )       |
| <b>lineLeftBackColor</b> (section 2.3.9.3)   | <b>lineLeftBackColorExt</b> (section <a href="#">2.3.9.32</a> ) | <b>lineLeftBackColorExtMod</b> (section <a href="#">2.3.9.34</a> )   |
| <b>lineRightColor</b> (section 2.3.11.1)     | <b>lineRightColorExt</b> (section 2.3.11.28)                    | <b>lineRightColorExtMod</b> (section <a href="#">2.3.11.30</a> )     |
| <b>lineRightBackColor</b> (section 2.3.11.3) | <b>lineRightBackColorExt</b> (section 2.3.11.32)                | <b>lineRightBackColorExtMod</b> (section <a href="#">2.3.11.34</a> ) |
| <b>lineTopColor</b> (section 2.3.10.1)       | <b>lineTopColorExt</b> (section 2.3.10.28)                      | <b>lineTopColorExtMod</b> (section <a href="#">2.3.10.30</a> )       |
| <b>lineTopBackColor</b> (section 2.3.10.3)   | <b>lineTopBackColorExt</b> (section 2.3.10.32)                  | <b>lineTopBackColorExtMod</b> (section <a href="#">2.3.10.34</a> )   |

| color   | colorExt  | colorExtMod  |
|---|---|--|
| <b>lineBottomColor</b> (section 2.3.12.1)     | <b>lineBottomColorExt</b> (section 2.3.12.28)     | <b>lineBottomColorExtMod</b> (section 2.3.12.30)     |
| <b>lineBottomBackColor</b> (section 2.3.12.3) | <b>lineBottomBackColorExt</b> (section 2.3.12.32) | <b>lineBottomBackColorExtMod</b> (section 2.3.12.34) |
| <b>shadowColor</b> (section 2.3.13.2)         | <b>shadowColorExt</b> (section 2.3.13.12)         | <b>shadowColorExtMod</b> (section 2.3.13.14)         |
| <b>shadowHighlight</b> (section 2.3.13.3)     | <b>shadowHighlightExt</b> (section 2.3.13.16)     | <b>shadowHighlightExtMod</b> (section 2.3.13.18)     |
| <b>c3DExtrusionColor</b> (section 2.3.15.8)   | <b>c3DExtrusionColorExt</b> (section 2.3.15.10)   | <b>c3DExtrusionColorExtMod</b> (section 2.3.15.12)   |
| <b>pictureRecolor</b> (section 2.3.23.29)     | <b>pictureRecolorExt</b> (section 2.3.23.30)      | <b>pictureRecolorExtMod</b> (section 2.3.23.32)      |
| <b>pictureTransparent</b> (section 2.3.23.10) | <b>pictureTransparentExt</b> (section 2.3.23.24)  | <b>pictureTransparentExtMod</b> (section 2.3.23.26)  |

If neither extended-color property is set, the main **color** property contains the full color definition. Otherwise, the **colorExt** property specifies the base color, and the **colorExtMod** property specifies a tint or shade modification that is applied to the **colorExt** property. In this case, the main **color** property contains the flattened **RGB** color that is computed by applying the specified tint or shade modification to the specified base color.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8    | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24  | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---|---|---|---|---|---|---|---|------|---|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|
| A | B | C | D | E | F | G | H | blue |   |    |    |    |    |    |    | green |    |    |    |    |    |    |    | red |    |    |    |    |    |    |    |

**A - unused1 (1 bit):** A bit that is undefined and MUST be ignored.

**B - unused2 (1 bit):** A bit that is undefined and MUST be ignored.

**C - unused3 (1 bit):** A bit that is undefined and MUST be ignored.

**D - fSysIndex (1 bit):** A bit that specifies whether the system **color scheme** will be used to determine the color. A value of 0x1 specifies that **green** and **red** will be treated as an unsigned 16-bit index into the system color table. Values less than 0x00F0 map directly to system colors. For more information, see [\[MSDN-GetSysColor\]](#).

The following table specifies values that have special meaning.

| Value  | Meaning   |
|--------|---|
| 0x00F0 | Use the fill color of the <b>shape</b> .  |
| 0x00F1 | If the shape contains a line, use the line color of the shape. Otherwise, use the fill color. |
| 0x00F2 | Use the line color of the shape.  |
| 0x00F3 | Use the shadow color of the shape.  |
| 0x00F4 | Use the current, or last-used, color.   |
| 0x00F5 | Use the fill background color of the shape.   |
| 0x00F6 | Use the line background color of the shape.   |
| 0x00F7 | If the shape contains a fill, use the fill color of the shape. Otherwise, use the line color. |

The following table specifies values that indicate special procedural properties that are used to modify the color components of another color. These values are combined with those in the preceding table or with a user-specified color. The first six values are mutually exclusive.

| Value  | Meaning   |
|--------|---|
| 0x0100 | Darken the color by the value that is specified in the <b>blue</b> field. A <b>blue</b> |

| Value  | Meaning   |
|--------|---|
|        | value of 0xFF specifies that the color is to be left unchanged, whereas a <b>blue</b> value of 0x00 specifies that the color is to be completely darkened.  |
| 0x0200 | Lighten the color by the value that is specified in the <b>blue</b> field. A <b>blue</b> value of 0xFF specifies that the color is to be left unchanged, whereas a <b>blue</b> value of 0x00 specifies that the color is to be completely lightened.    |
| 0x0300 | Add a gray level RGB value. The <b>blue</b> field contains the gray level to add:<br><br>NewColor = SourceColor + gray  |
| 0x0400 | Subtract a gray level RGB value. The <b>blue</b> field contains the gray level to subtract:<br><br>NewColor = SourceColor - gray  |
| 0x0500 | Reverse-subtract a gray level RGB value. The <b>blue</b> field contains the gray level from which to subtract:<br><br>NewColor = gray - SourceColor   |
| 0x0600 | If the color component being modified is less than the parameter contained in the <b>blue</b> field, set it to the minimum intensity. If the color component being modified is greater than or equal to the parameter, set it to the maximum intensity. |
| 0x2000 | After making other modifications, invert the color.   |
| 0x4000 | After making other modifications, invert the color by toggling just the high bit of each color channel.   |
| 0x8000 | Before making other modifications, convert the color to grayscale.  |

**E - fSchemeIndex (1 bit):** A bit that specifies whether the current application-defined color scheme will be used to determine the color. A value of 0x1 specifies that **red** will be treated as an index into the current color scheme table. If this value is 0x1, **green** and **blue** MUST be 0x00.

**F - fSystemRGB (1 bit):** A bit that specifies whether the color is a standard RGB color. The following table specifies the meaning of each value for this field.

| Value | Meaning  |
|-------|--|
| 0x0   | The RGB color MAY use halftone dithering to display. |
| 0x1   | The color MUST be a solid color.                     |

**G - fPaletteRGB (1 bit):** A bit that specifies whether the current palette will be used to determine the color. A value of 0x1 specifies that **red**, **green**, and **blue** contain an RGB value that will be matched in the current color palette. This color MUST be solid.

**H - fPaletteIndex (1 bit):** A bit that specifies whether the current palette will be used to determine the color. A value of 0x1 specifies that **green** and **red** will be treated as an unsigned 16-bit index into the current color palette. This color MAY [<1>](#) be dithered. If this value is 0x1, **blue** MUST be 0x00.

**blue (1 byte):** An unsigned integer that specifies the intensity of the blue color channel. A value of 0x00 has the minimum blue intensity. A value of 0xFF has the maximum blue intensity.

**green (1 byte):** An unsigned integer that specifies the intensity of the green color channel. A value of 0x00 has the minimum green intensity. A value of 0xFF has the maximum green intensity.

**red (1 byte):** An unsigned integer that specifies the intensity of the red color channel. A value of 0x00 has the minimum red intensity. A value of 0xFF has the maximum red intensity.

### 2.2.3 MSOSHADE

Referenced by: [MSOTINTSHADE](#)

The **MSOSHADE** record specifies a shade color modification that can be used to darken a color.

|           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|
| 0         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24        | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| reserved1 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | amount |    |    |    |    |    |    |    | reserved2 |    |    |    |    |    |    |    |

**reserved1 (16 bits):** A value that MUST be 0x01F4 and MUST be ignored.

**amount (8 bits):** An unsigned integer that specifies the amount with which to darken the color. A value of 0xFF specifies that the color is not to be darkened. A value of 0x00 specifies that the color is to be fully darkened.

**reserved2 (8 bits):** A value that MUST be 0x10 and MUST be ignored.

### 2.2.4 MSOTINT

Referenced by: [MSOTINTSHADE](#)

The **MSOTINT** record specifies a tint color modification that can be used to lighten a color.

|           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|
| 0         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24        | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| reserved1 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | amount |    |    |    |    |    |    |    | reserved2 |    |    |    |    |    |    |    |

**reserved1 (16 bits):** A value that MUST be 0x02F4 and MUST be ignored.

**amount (8 bits):** An unsigned integer that specifies the amount with which to lighten the color. A value of 0xFF specifies that the color is not to be lightened. A value of 0x00 specifies that the color is to be fully lightened.

**reserved2 (8 bits):** A value that MUST be 0x10 and MUST be ignored.

### 2.2.5 MSOCOLORMODUNDEFINED

Referenced by: [MSOTINTSHADE](#)

The **MSOCOLORMODUNDEFINED** record MUST be ignored.

|           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| reserved1 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**reserved1 (4 bytes):** A value that MUST be 0x20000000 and MUST be ignored.

### 2.2.6 MSOTINTSHADE

Referenced by: [c3DExtrusionColorExtMod](#), [fillBackColorExtMod](#), [fillColorExtMod](#), [lineBackColorExtMod](#), [lineBottomBackColorExtMod](#), [lineBottomColorExtMod](#), [lineColorExtMod](#), [lineLeftBackColorExtMod](#), [lineLeftColorExtMod](#), [lineRightBackColorExtMod](#), [lineRightColorExtMod](#), [lineTopBackColorExtMod](#),

[lineTopColorExtMod](#), [pictureRecolorExtMod](#), [pictureTransparentExtMod](#), [shadowColorExtMod](#), [shadowHighlightExtMod](#)

The **MSOTINTSHADE** record specifies an **MSOCOLORMODUNDEFINED**, as defined in section 2.2.5, an **MSOSHADE**, as defined in section 2.2.3, or an **MSOTINT**, as defined in section 2.2.4, record. The type and meaning are dictated by the value of the following code snippet:

```
((DWORD)MSOTINTSHADE) & 0x00000300) >> 8
```

The following table specifies the valid values.

| Value      | Type                        |
|------------|-----------------------------|
| 0x00000000 | <b>MSOCOLORMODUNDEFINED</b> |
| 0x00000001 | <b>MSOSHADE</b>             |
| 0x00000002 | <b>MSOTINT</b>              |

## 2.2.7 OfficeArtFOPTE

The **OfficeArtFOPTE** record specifies an entry in a property table. An entry consists of an identifier and a value. Some property values, such as **Unicode** strings, do not fit in 32 bits. For these properties, the **fComplex** bit is set, and the size of the data is saved in the **op** field. The data of the complex properties follows the array of property table entries in the property table.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | op |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header information for this property.

**op (4 bytes):** A signed integer that specifies the value for this property.

## 2.2.8 OfficeArtFOPTEOPID

Referenced by: [3D-Object Boolean Properties](#), [3D-Style Boolean Properties](#), [adjust2Value](#), [adjust3Value](#), [adjust4Value](#), [adjust5Value](#), [adjust6Value](#), [adjust7Value](#), [adjust8Value](#), [adjustValue](#), [alignHR](#), [anchorText](#), [Blip Boolean Properties](#), [borderBottomColor](#), [borderLeftColor](#), [borderRightColor](#), [borderTopColor](#), [bottom](#), [Bottom Line Style Boolean Properties](#), [bWMode](#), [bWModeBW](#), [bWModePureBW](#), [c3DAmbientIntensity](#), [c3DCrMod](#), [c3DDiffuseAmt](#), [c3DEdgeThickness](#), [c3DExtrudeBackward](#), [c3DExtrudeForward](#), [c3DExtrusionColor](#), [c3DExtrusionColorExt](#), [c3DExtrusionColorExtMod](#), [c3DFillIntensity](#), [c3DFillX](#), [c3DFillY](#), [c3DFillZ](#), [c3DKeyIntensity](#), [c3DKeyX](#), [c3DKeyY](#), [c3DKeyZ](#), [c3DOriginX](#), [c3DOriginY](#), [c3DRenderMode](#), [c3DRotationAngle](#), [c3DRotationAxisX](#), [c3DRotationAxisY](#), [c3DRotationAxisZ](#), [c3DRotationCenterX](#), [c3DRotationCenterY](#), [c3DRotationCenterZ](#), [c3DShininess](#), [c3DSkewAmount](#), [c3DSkewAngle](#), [c3DSpecularAmt](#), [c3DTolerance](#), [c3DXRotationAngle](#), [c3DXViewpoint](#), [c3DYRotationAngle](#), [c3DYViewpoint](#), [c3DZViewpoint](#), [Callout Boolean Properties](#), [cdirFont](#), [cropFromBottom](#), [cropFromLeft](#), [cropFromRight](#), [cropFromTop](#), [cxk](#), [cxstyle](#), [dgmBaseTextScale](#), [dgmConstrainBounds](#), [dgmDefaultFontSize](#), [dgmLayout](#), [dgmLayoutMRU](#), [dgmNodeKind](#), [dgmScaleX](#), [dgmScaleY](#), [dgmStyle](#), [dqmt](#), [dhqt](#), [Diagram Boolean Properties](#), [dxHeightHR](#), [dxTextLeft](#), [dxTextRight](#), [dxWidthHR](#), [dxWrapDistLeft](#), [dxWrapDistRight](#), [dxyCalloutDropSpecified](#), [dxyCalloutGap](#), [dxyCalloutLengthSpecified](#), [dyTextBottom](#), [dyTextTop](#),

[dyWrapDistBottom](#), [dyWrapDistTop](#), [equationXML](#), [Fill Style Boolean Properties](#), [fillAngle](#), [fillBackColor](#), [fillBackColorExt](#), [fillBackColorExtMod](#), [fillBackOpacity](#), [fillBlip](#), [fillBlipFlags](#), [fillBlipName](#), [fillColor](#), [fillColorExt](#), [fillColorExtMod](#), [fillCrMod](#), [fillDztype](#), [fillFocus](#), [fillHeight](#), [fillOpacity](#), [fillOriginX](#), [fillOriginY](#), [fillRectBottom](#), [fillRectLeft](#), [fillRectRight](#), [fillRectTop](#), [fillShadeColors](#), [fillShadePreset](#), [fillShadeType](#), [fillShapeOriginX](#), [fillShapeOriginY](#), [fillToBottom](#), [fillToLeft](#), [fillToRight](#), [fillToTop](#), [fillType](#), [fillWidth](#), [geoBottom](#), [geoLeft](#), [Geometry Boolean Properties](#), [Geometry Text Boolean Properties](#), [geoRight](#), [geoTop](#), [Group Shape Boolean Properties](#), [gtextAlign](#), [gtextCSSFont](#), [gtextFont](#), [gtextSize](#), [gtextSpacing](#), [gtextUNICODE](#), [gvPage](#), [gvRelPage](#), [hspMaster](#), [hspNext](#), [idDiscussAnchor](#), [Ink Boolean Properties](#), [left](#), [Left Line Style Boolean Properties](#), [lidRegroup](#), [Line Style Boolean Properties](#), [lineBackColor](#), [lineBackColorExt](#), [lineBackColorExtMod](#), [lineBottomBackColor](#), [lineBottomBackColorExt](#), [lineBottomBackColorExtMod](#), [lineBottomColor](#), [lineBottomColorExt](#), [lineBottomColorExtMod](#), [lineBottomCrMod](#), [lineBottomDashing](#), [lineBottomDashStyle](#), [lineBottomEndArrowhead](#), [lineBottomEndArrowLength](#), [lineBottomEndArrowWidth](#), [lineBottomEndCapStyle](#), [lineBottomFillBlip](#), [lineBottomFillBlipFlags](#), [lineBottomFillBlipName](#), [lineBottomFillDztype](#), [lineBottomFillHeight](#), [lineBottomFillWidth](#), [lineBottomJoinStyle](#), [lineBottomMiterLimit](#), [lineBottomOpacity](#), [lineBottomStartArrowhead](#), [lineBottomStartArrowLength](#), [lineBottomStartArrowWidth](#), [lineBottomStyle](#), [lineBottomType](#), [lineBottomWidth](#), [lineColor](#), [lineColorExt](#), [lineColorExtMod](#), [lineCrMod](#), [lineDashing](#), [lineDashStyle](#), [lineEndArrowhead](#), [lineEndArrowLength](#), [lineEndArrowWidth](#), [lineEndCapStyle](#), [lineFillBlip](#), [lineFillBlipFlags](#), [lineFillBlipName](#), [lineFillDztype](#), [lineFillHeight](#), [lineFillWidth](#), [lineJoinStyle](#), [lineLeftBackColor](#), [lineLeftBackColorExt](#), [lineLeftBackColorExtMod](#), [lineLeftColor](#), [lineLeftColorExt](#), [lineLeftColorExtMod](#), [lineLeftCrMod](#), [lineLeftDashing](#), [lineLeftDashStyle](#), [lineLeftEndArrowhead](#), [lineLeftEndArrowLength](#), [lineLeftEndArrowWidth](#), [lineLeftEndCapStyle](#), [lineLeftFillBlip](#), [lineLeftFillBlipFlags](#), [lineLeftFillBlipName](#), [lineLeftFillDztype](#), [lineLeftFillHeight](#), [lineLeftFillWidth](#), [lineLeftJoinStyle](#), [lineLeftMiterLimit](#), [lineLeftOpacity](#), [lineLeftStartArrowhead](#), [lineLeftStartArrowLength](#), [lineLeftStartArrowWidth](#), [lineLeftStyle](#), [lineLeftType](#), [lineLeftWidth](#), [lineMiterLimit](#), [lineOpacity](#), [lineRightBackColor](#), [lineRightBackColorExt](#), [lineRightBackColorExtMod](#), [lineRightColor](#), [lineRightColorExt](#), [lineRightColorExtMod](#), [lineRightCrMod](#), [lineRightDashing](#), [lineRightDashStyle](#), [lineRightEndArrowhead](#), [lineRightEndArrowLength](#), [lineRightEndArrowWidth](#), [lineRightEndCapStyle](#), [lineRightFillBlip](#), [lineRightFillBlipFlags](#), [lineRightFillBlipName](#), [lineRightFillDztype](#), [lineRightFillHeight](#), [lineRightFillWidth](#), [lineRightJoinStyle](#), [lineRightMiterLimit](#), [lineRightOpacity](#), [lineRightStartArrowhead](#), [lineRightStartArrowLength](#), [lineRightStartArrowWidth](#), [lineRightStyle](#), [lineRightType](#), [lineRightWidth](#), [lineStartArrowhead](#), [lineStartArrowLength](#), [lineStartArrowWidth](#), [lineStyle](#), [lineTopBackColor](#), [lineTopBackColorExt](#), [lineTopBackColorExtMod](#), [lineTopColor](#), [lineTopColorExt](#), [lineTopColorExtMod](#), [lineTopCrMod](#), [lineTopDashing](#), [lineTopDashStyle](#), [lineTopEndArrowhead](#), [lineTopEndArrowLength](#), [lineTopEndArrowWidth](#), [lineTopEndCapStyle](#), [lineTopFillBlip](#), [lineTopFillBlipFlags](#), [lineTopFillBlipName](#), [lineTopFillDztype](#), [lineTopFillHeight](#), [lineTopFillWidth](#), [lineTopJoinStyle](#), [lineTopMiterLimit](#), [lineTopOpacity](#), [lineTopStartArrowhead](#), [lineTopStartArrowLength](#), [lineTopStartArrowWidth](#), [lineTopStyle](#), [lineTopType](#), [lineTopWidth](#), [lineType](#), [lineWidth](#), [ITxid](#), [metroBlob](#), [movie](#), [OfficeArtFOFTE](#), [pAdjustHandles](#), [pConnectionSites](#), [pConnectionSitesDir](#), [pctHoriz](#), [pctHorizPos](#), [pctHR](#), [pctVert](#), [pctVertPos](#), [Perspective Style Boolean Properties](#), [perspectiveOffsetX](#), [perspectiveOffsetY](#), [perspectiveOriginX](#), [perspectiveOriginY](#), [perspectivePerspectiveX](#), [perspectivePerspectiveY](#), [perspectiveScaleXToX](#), [perspectiveScaleXToY](#), [perspectiveScaleYToX](#), [perspectiveScaleYToY](#), [perspectiveType](#), [perspectiveWeight](#), [pGuides](#), [pib](#), [pibFlags](#), [pibName](#), [pibPrint](#), [pibPrintFlags](#), [pibPrintName](#), [pictureBrightness](#), [pictureContrast](#), [pictureDblCrMod](#), [pictureFillCrMod](#), [pictureId](#), [pictureLineCrMod](#), [pictureRecolor](#), [pictureRecolorExt](#), [pictureRecolorExtMod](#), [pictureTransparent](#), [pictureTransparentExt](#), [pictureTransparentExtMod](#), [pihShape](#), [pInkData](#), [pInscribe](#), [posh](#), [posrelh](#), [posrelv](#), [posv](#), [pRelationTbl](#), [Protection Boolean Properties](#), [pSegmentInfo](#), [pVertices](#), [pWrapPolygonVertices](#), [Relative Transform Boolean Properties](#), [relBottom](#), [relLeft](#), [relRight](#), [relRotation](#), [relTop](#), [reserved1370](#), [reserved1372](#), [reserved1374](#), [reserved1376](#), [reserved1377](#), [reserved1378](#), [reserved1434](#), [reserved1436](#), [reserved1438](#), [reserved1440](#), [reserved1441](#), [reserved1442](#), [reserved1498](#), [reserved1500](#), [reserved1502](#), [reserved1504](#), [reserved1505](#), [reserved1506](#), [reserved1562](#), [reserved1564](#), [reserved1566](#), [reserved1568](#), [reserved1569](#), [reserved1570](#), [reserved278](#), [reserved280](#), [reserved281](#), [reserved284](#), [reserved286](#), [reserved287](#), [reserved415](#), [reserved417](#), [reserved419](#), [reserved421](#), [reserved422](#), [reserved423](#), [reserved474](#), [reserved476](#), [reserved478](#), [reserved480](#), [reserved481](#), [reserved482](#), [reserved531](#), [reserved533](#), [reserved535](#), [reserved537](#), [reserved538](#), [reserved539](#), [reserved646](#), [reserved650](#), [reserved652](#), [reserved653](#), [right](#), [Right Line Style Boolean Properties](#), [rotation](#), [scriptLang](#), [Shadow Style Boolean Properties](#), [shadowColor](#), [shadowColorExt](#), [shadowColorExtMod](#), [shadowCrMod](#), [shadowHighlight](#)



[shadowHighlightExt](#), [shadowHighlightExtMod](#), [shadowOffsetX](#), [shadowOffsetY](#), [shadowOpacity](#), [shadowOriginX](#), [shadowOriginY](#), [shadowSecondOffsetX](#), [shadowSecondOffsetY](#), [shadowSoftness](#), [shadowType](#), [Shape Boolean Properties](#), [shapePath](#), [Signature Line Boolean Properties](#), [sizerelh](#), [sizerelv](#), [spcoa](#), [spcod](#), [tableProperties](#), [tableRowProperties](#), [Text Boolean Properties](#), [top](#), [Top Line Style Boolean Properties](#), [Transform Boolean Properties](#), [txdir](#), [txflTextFlow](#), [Unknown HTML Boolean Properties](#), [unused134](#), [unused140](#), [unused141](#), [unused832](#), [unused906](#), [Web Component Boolean Properties](#), [webComponentWzHtml](#), [webComponentWzName](#), [webComponentWzUrl](#), [WrapText](#), [wzCalloutId](#), [wzDescription](#), [wzFillId](#), [wzFormulaeId](#), [wzGtextId](#), [wzHandlesId](#), [wzLineId](#), [wzLockId](#), [wzName](#), [wzPathId](#), [wzPerspectiveId](#), [wzPictureId](#), [wzScript](#), [wzScriptExtAttr](#), [wzScriptLangAttr](#), [wzShadowId](#), [wzSigSetupAddXml](#), [wzSigSetupId](#), [wzSigSetupProvId](#), [wzSigSetupProvUrl](#), [wzSigSetupSignInst](#), [wzSigSetupSuggSigner](#), [wzSigSetupSuggSigner2](#), [wzSigSetupSuggSignerEmail](#), [wzTextId](#), [wzThreeDId](#), [wzTooltip](#), [wzWebBot](#), [xLimo](#), [yLimo](#)

The **OfficeArtFOPTEOPID** record specifies the header for an entry in a property table.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    | A  | B  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (14 bits):** An unsigned integer that specifies the identifier of the property in this entry.

**A - fBid (1 bit):** A bit that specifies whether the value in the **op** field is a **BLIP** identifier. If this value equals 0x1, the value in the **op** field specifies the BLIP identifier in the **OfficeArtBStoreContainer** record, as defined in section [2.2.20](#). If **fComplex** equals 0x1, this bit MUST be ignored.

**B - fComplex (1 bit):** A bit that specifies whether this property is a complex property. If this value equals 0x1, the **op** field specifies the size of the data for this property, rather than the property data itself.

## 2.2.9 OfficeArtFOPT

Referenced by: [OfficeArtDggContainer](#), [OfficeArtSpContainer](#)

The **OfficeArtFOPT** record specifies a table of **OfficeArtRGFOPT** records, as defined in section [2.3.1](#). The following properties SHOULD be specified in this table:

- [Blip:Blip Boolean Properties](#)
- [Blip:cropFromBottom](#)
- [Blip:cropFromLeft](#)
- [Blip:cropFromRight](#)
- [Blip:cropFromTop](#)
- [Blip:pib](#)
- [Blip:pibFlags](#)
- [Blip:pibName](#)
- [Blip:pibPrint](#)
- [Blip:pibPrintFlags](#)
- [Blip:pibPrintName](#)

- [Blip:pictureBrightness](#)
- [Blip:pictureContrast](#)
- [Blip:pictureDbfCrMod](#)
- [Blip:pictureFillCrMod](#)
- [Blip:pictureId](#)
- [Blip:pictureLineCrMod](#)
- [Blip:pictureTransparent](#)
- [Callout:Callout Boolean Properties](#)
- [Callout:dxyCalloutDropSpecified](#)
- [Callout:dxyCalloutGap](#)
- [Callout:dxyCalloutLengthSpecified](#)
- [Callout:spcoa](#)
- [Callout:spcod](#)
- [FillStyle:Fill Style Boolean Properties](#)
- [FillStyle:fillAngle](#)
- [FillStyle:fillBackColor](#)
- [FillStyle:fillBackOpacity](#)
- [FillStyle:fillBlip](#)
- [FillStyle:fillBlipFlags](#)
- [FillStyle:fillBlipName](#)
- [FillStyle:fillColor](#)
- [FillStyle:fillCrMod](#)
- [FillStyle:fillDztype](#)
- [FillStyle:fillFocus](#)
- [FillStyle:fillHeight](#)
- [FillStyle:fillOpacity](#)
- [FillStyle:fillOriginX](#)
- [FillStyle:fillOriginY](#)
- [FillStyle:fillRectBottom](#)
- [FillStyle:fillRectLeft](#)
- [FillStyle:fillRectRight](#)
- [FillStyle:fillRectTop](#)



- [FillStyle:fillShadeColors](#)
- [FillStyle:fillShadePreset](#)
- [FillStyle:fillShadeType](#)
- [FillStyle:fillShapeOriginX](#)
- [FillStyle:fillShapeOriginY](#)
- [FillStyle:fillToBottom](#)
- [FillStyle:fillToLeft](#)
- [FillStyle:fillToRight](#)
- [FillStyle:fillToTop](#)
- [FillStyle:fillType](#)
- [FillStyle:fillWidth](#)
- [Geometry:adjust2Value](#)
- [Geometry:adjust3Value](#)
- [Geometry:adjust4Value](#)
- [Geometry:adjust5Value](#)
- [Geometry:adjust6Value](#)
- [Geometry:adjust7Value](#)
- [Geometry:adjust8Value](#)
- [Geometry:adjustValue](#)
- [Geometry:cxk](#)
- [Geometry:geoBottom](#)
- [Geometry:geoLeft](#)
- [Geometry:Geometry Boolean Properties](#)
- [Geometry:geoRight](#)
- [Geometry:geoTop](#)
- [Geometry:pAdjustHandles](#)
- [Geometry:pConnectionSites](#)
- [Geometry:pConnectionSitesDir](#)
- [Geometry:pGuides](#)
- [Geometry:pInscribe](#)
- [Geometry:pSegmentInfo](#)
- [Geometry:pVertices](#)

- [Geometry:shapePath](#)
- [Geometry:xLimo](#)
- [Geometry:yLimo](#)
- [GeoText:Geometry Text Boolean Properties](#)
- [GeoText:gtextAlign](#)
- [GeoText:gtextFont](#)
- [GeoText:gtextSize](#)
- [GeoText:gtextSpacing](#)
- [GeoText:gtextUNICODE](#)
- [GroupShape:dyWrapDistBottom](#)
- [GroupShape:dxWrapDistLeft](#)
- [GroupShape:dxWrapDistRight](#)
- [GroupShape:dyWrapDistTop](#)
- [GroupShape:Group Shape Boolean Properties](#)
- [GroupShape:lidRegroup](#)
- [GroupShape:pihShape](#)
- [GroupShape:pWrapPolygonVertices](#)
- [GroupShape:wzDescription](#)
- [GroupShape:wzName](#)
- [LineStyle:Line Style Boolean Properties](#)
- [LineStyle:lineBackColor](#)
- [LineStyle:lineColor](#)
- [LineStyle:lineCrMod](#)
- [LineStyle:lineDashing](#)
- [LineStyle:lineDashStyle](#)
- [LineStyle:lineEndCapStyle](#)
- [LineStyle:lineEndArrowhead](#)
- [LineStyle:lineEndArrowLength](#)
- [LineStyle:lineEndArrowWidth](#)
- [LineStyle:lineFillBlip](#)
- [LineStyle:lineFillBlipFlags](#)
- [LineStyle:lineFillBlipName](#)

- [LineStyle:lineFillDztype](#)
- [LineStyle:lineFillHeight](#)
- [LineStyle:lineOpacity](#)
- [LineStyle:lineFillWidth](#)
- [LineStyle:lineJoinStyle](#)
- [LineStyle:lineMiterLimit](#)
- [LineStyle:lineStartArrowhead](#)
- [LineStyle:lineStartArrowLength](#)
- [LineStyle:lineStartArrowWidth](#)
- [LineStyle:lineStyle](#)
- [LineStyle:lineWidth](#)
- [LineStyle:lineType](#)
- [PerspectiveStyle:Perspective Style Boolean Properties](#)
- [PerspectiveStyle:perspectiveOffsetX](#)
- [PerspectiveStyle:perspectiveOffsetY](#)
- [PerspectiveStyle:perspectiveOriginX](#)
- [PerspectiveStyle:perspectiveOriginY](#)
- [PerspectiveStyle:perspectivePerspectiveX](#)
- [PerspectiveStyle:perspectivePerspectiveY](#)
- [PerspectiveStyle:perspectiveScaleXToX](#)
- [PerspectiveStyle:perspectiveScaleXToY](#)
- [PerspectiveStyle:perspectiveScaleYToX](#)
- [PerspectiveStyle:perspectiveScaleYToY](#)
- [PerspectiveStyle:perspectiveType](#)
- [PerspectiveStyle:perspectiveWeight](#)
- [Protection:Protection Boolean Properties](#)
- [RelXfrm:gvRelPage](#)
- [RelXfrm:Relative Transform Boolean Properties](#)
- [RelXfrm:relBottom](#)
- [RelXfrm:relLeft](#)
- [RelXfrm:relRight](#)
- [RelXfrm:relRotation](#)

- [RelXfrm:relTop](#)
- [ShadowStyle:Shadow Style Boolean Properties](#)
- [ShadowStyle:shadowColor](#)
- [ShadowStyle:shadowCrMod](#)
- [ShadowStyle:shadowHighlight](#)
- [ShadowStyle:shadowOffsetX](#)
- [ShadowStyle:shadowOffsetY](#)
- [ShadowStyle:shadowOpacity](#)
- [ShadowStyle:shadowOriginX](#)
- [ShadowStyle:shadowOriginY](#)
- [ShadowStyle:shadowSecondOffsetX](#)
- [ShadowStyle:shadowSecondOffsetY](#)
- [ShadowStyle:shadowType](#)
- [Shape:bWMode](#)
- [Shape:bWModeBW](#)
- [Shape:bWModePureBW](#)
- [Shape:hspMaster](#)
- [Shape:cxstyle](#)
- [Shape:Shape Boolean Properties](#)
- [Text:anchorText](#)
- [Text:dyTextBottom](#)
- [Text:dxTextLeft](#)
- [Text:dxTextRight](#)
- [Text:dyTextTop](#)
- [Text:ITxid](#)
- [Text:WrapText](#)
- [Text:txflTextFlow](#)
- [Text:cdirFont](#)
- [Text:hspNext](#)
- [Text:Text Boolean Properties](#)
- [Text:txdir](#)
- [3DObject:c3DCrMod](#)

- [3DObject:c3DDiffuseAmt](#)
- [3DObject:c3DEdgeThickness](#)
- [3DObject:c3DExtrudeBackward](#)
- [3DObject:c3DExtrudeForward](#)
- [3DObject:c3DExtrusionColor](#)
- [3DObject:c3DShininess](#)
- [3DObject:c3DSpecularAmt](#)
- [3DObject:3D-Object Boolean Properties](#)
- [3DStyle:c3DAmbientIntensity](#)
- [3DStyle:c3DFillIntensity](#)
- [3DStyle:c3DFillX](#)
- [3DStyle:c3DFillY](#)
- [3DStyle:c3DFillZ](#)
- [3DStyle:c3DKeyIntensity](#)
- [3DStyle:c3DKeyX](#)
- [3DStyle:c3DKeyY](#)
- [3DStyle:c3DKeyZ](#)
- [3DStyle:c3DOriginX](#)
- [3DStyle:c3DOriginY](#)
- [3DStyle:c3DRenderMode](#)
- [3DStyle:c3DRotationAngle](#)
- [3DStyle:c3DRotationAxisX](#)
- [3DStyle:c3DRotationAxisY](#)
- [3DStyle:c3DRotationAxisZ](#)
- [3DStyle:c3DYRotationAngle](#)
- [3DStyle:c3DXRotationAngle](#)
- [3DStyle:c3DRotationCenterX](#)
- [3DStyle:c3DRotationCenterY](#)
- [3DStyle:c3DRotationCenterZ](#)
- [3DStyle:c3DSkewAmount](#)
- [3DStyle:c3DSkewAngle](#)
- [3DStyle:c3DTolerance](#)

- [3DStyle:c3DXViewpoint](#)
- [3DStyle:c3DYViewpoint](#)
- [3DStyle:c3DZViewpoint](#)
- [3DStyle: 3D-Style Boolean Properties](#)
- [Xfrm:bottom](#)
- [Xfrm:gvPage](#)
- [Xfrm:left](#)
- [Xfrm:right](#)
- [Xfrm:rotation](#)
- [Xfrm:top](#)
- [Xfrm:Transform Boolean Properties](#)

|                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| fopt (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning   |
|-----------------------|---|
| <b>rh.recVer</b>      | A value that MUST be 0x3.   |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of properties in the table.   |
| <b>rh.recType</b>     | A value that MUST be 0xF00B.  |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain property records. This value equals the number of properties multiplied by the size of the <b>OfficeArtFOFTE</b> type, as defined in section <a href="#">2.2.7</a> , plus the size of the complex property data. |

**fopt (variable):** The **OfficeArtRGFOFTE** property, as defined in section 2.3.1, table that specifies the record data.

## 2.2.10 OfficeArtSecondaryFOPT

Referenced by: [OfficeArtSpContainer](#)

The **OfficeArtSecondaryFOPT** record specifies a table of **OfficeArtRGFOPT** records, as defined in section [2.3.1](#). The [Blip:movie](#) property can be specified in this table.

|                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| fopt (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.:

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x3.  |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of properties in the table.  |
| <b>rh.recType</b>     | A value that MUST be 0xF121.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain property records. This value equals the number of properties multiplied by the size of the <b>OfficeArtFOPT</b> type, as defined in section <a href="#">2.2.7</a> , plus the size of the complex property data. |

**fopt (variable):** The **OfficeArtRGFOPT** record, as defined in section 2.3.1, table that specifies the property data.

### 2.2.11 OfficeArtTertiaryFOPT

Referenced by: [OfficeArtDggContainer](#), [OfficeArtSpContainer](#)

The **OfficeArtTertiaryFOPT** record specifies a table of **OfficeArtRGFOPT** records, as defined in section [2.3.1](#). This table SHOULD specify the following properties:

- [Blip:Blip Boolean Properties](#)
- [Blip:pictureRecolor](#)
- [Blip:pictureRecolorExt](#)
- [Blip:pictureRecolorExtMod](#)
- [Blip:pictureTransparentExt](#)
- [Blip:pictureTransparentExtMod](#)
- [Diagram:dgmBaseTextScale](#)
- [Diagram:dgmConstrainBounds](#)

- [Diagram:dgmDefaultFontSize](#)
- [Diagram:dgmScaleX](#)
- [Diagram:dgmScaleY](#)
- [Diagram:dgmStyle](#)
- [Diagram:dgmt](#)
- [Diagram:Diagram Boolean Properties](#)
- [Diagram:pRelationTbl](#)
- [Geometry:Geometry Boolean Properties](#)
- [GeoText:gtextCSSFont](#)
- [GroupShape:alignHR](#)
- [GroupShape:borderBottomColor](#)
- [GroupShape:borderLeftColor](#)
- [GroupShape:borderRightColor](#)
- [GroupShape:borderTopColor](#)
- [GroupShape:dhgt](#)
- [GroupShape:dxHeightHR](#)
- [GroupShape:dxWidthHR](#)
- [GroupShape:Group Shape Boolean Properties](#)
- [GroupShape:metroBlob](#)
- [GroupShape:pctHR](#)
- [GroupShape:posh](#)
- [GroupShape:posrelh](#)
- [GroupShape:posrelv](#)
- [GroupShape:posv](#)
- [GroupShape:scriptLang](#)
- [GroupShape:tableProperties](#)
- [GroupShape:tableRowProperties](#)
- [GroupShape:wzScript](#)
- [GroupShape:wzScriptExtAttr](#)
- [GroupShape:wzScriptLangAttr](#)
- [GroupShape:wzTooltip](#)
- [GroupShape:wzWebBot](#)



- [GroupShape2:pctHoriz](#)
- [GroupShape2:pctHorizPos](#)
- [GroupShape2:pctVert](#)
- [GroupShape2:pctVertPos](#)
- [GroupShape2:sizerelh](#)
- [GroupShape2:sizerelv](#)
- [FillStyle:fillBackColorExt](#)
- [FillStyle:fillBackColorExtMod](#)
- [FillStyle:fillColorExt](#)
- [FillStyle:fillColorExtMod](#)
- [FillStyle:Fill Style Boolean Properties](#)
- [Ink:Ink Boolean Properties](#)
- [Ink:pInkData](#)
- [LineBottomStyle:Bottom Line Style Boolean Properties](#)
- [LineBottomStyle:lineBottomBackColor](#)
- [LineBottomStyle:lineBottomBackColorExt](#)
- [LineBottomStyle:lineBottomBackColorExtMod](#)
- [LineBottomStyle:lineBottomColor](#)
- [LineBottomStyle:lineBottomColorExt](#)
- [LineBottomStyle:lineBottomColorExtMod](#)
- [LineBottomStyle:lineBottomCrMod](#)
- [LineBottomStyle:lineBottomFillBlip](#)
- [LineBottomStyle:lineBottomFillBlipFlags](#)
- [LineBottomStyle:lineBottomFillBlipName](#)
- [LineBottomStyle:lineBottomFillDztype](#)
- [LineBottomStyle:lineBottomFillHeight](#)
- [LineBottomStyle:lineBottomDashing](#)
- [LineBottomStyle:lineBottomDashStyle](#)
- [LineBottomStyle:lineBottomEndArrowhead](#)
- [LineBottomStyle:lineBottomEndArrowLength](#)
- [LineBottomStyle:lineBottomEndArrowWidth](#)
- [LineBottomStyle:lineBottomEndCapStyle](#)

- [LineBottomStyle:lineBottomJoinStyle](#)
- [LineBottomStyle:lineBottomMiterLimit](#)
- [LineBottomStyle:lineBottomFillWidth](#)
- [LineBottomStyle:lineBottomOpacity](#)
- [LineBottomStyle:lineBottomStartArrowhead](#)
- [LineBottomStyle:lineBottomStartArrowLength](#)
- [LineBottomStyle:lineBottomStartArrowWidth](#)
- [LineBottomStyle:lineBottomStyle](#)
- [LineBottomStyle:lineBottomType](#)
- [LineBottomStyle:lineBottomWidth](#)
- [LineLeftStyle:Left Line Style Boolean Properties](#)
- [LineLeftStyle:lineLeftBackColor](#)
- [LineLeftStyle:lineLeftBackColorExt](#)
- [LineLeftStyle:lineLeftBackColorExtMod](#)
- [LineLeftStyle:lineLeftColor](#)
- [LineLeftStyle:lineLeftColorExt](#)
- [LineLeftStyle:lineLeftColorExtMod](#)
- [LineLeftStyle:lineLeftCrMod](#)
- [LineLeftStyle:lineLeftDashing](#)
- [LineLeftStyle:lineLeftDashStyle](#)
- [LineLeftStyle:lineLeftEndArrowhead](#)
- [LineLeftStyle:lineLeftEndArrowLength](#)
- [LineLeftStyle:lineLeftEndArrowWidth](#)
- [LineLeftStyle:lineLeftEndCapStyle](#)
- [LineLeftStyle:lineLeftFillBlip](#)
- [LineLeftStyle:lineLeftFillBlipFlags](#)
- [LineLeftStyle:lineLeftFillBlipName](#)
- [LineLeftStyle:lineLeftFillDztype](#)
- [LineLeftStyle:lineLeftFillHeight](#)
- [LineLeftStyle:lineLeftMiterLimit](#)
- [LineLeftStyle:lineLeftFillWidth](#)
- [LineLeftStyle:lineLeftJoinStyle](#)

- [LineLeftStyle:lineLeftOpacity](#)
- [LineLeftStyle:lineLeftStartArrowhead](#)
- [LineLeftStyle:lineLeftStartArrowLength](#)
- [LineLeftStyle:lineLeftStartArrowWidth](#)
- [LineLeftStyle:lineLeftStyle](#)
- [LineLeftStyle:lineLeftType](#)
- [LineLeftStyle:lineLeftWidth](#)
- [LineRightStyle:lineRightBackColor](#)
- [LineRightStyle:lineRightBackColorExt](#)
- [LineRightStyle:lineRightBackColorExtMod](#)
- [LineRightStyle:lineRightColor](#)
- [LineRightStyle:lineRightColorExt](#)
- [LineRightStyle:lineRightColorExtMod](#)
- [LineRightStyle:lineRightCrMod](#)
- [LineRightStyle:lineRightDashing](#)
- [LineRightStyle:lineRightDashStyle](#)
- [LineRightStyle:lineRightEndArrowhead](#)
- [LineRightStyle:lineRightEndArrowLength](#)
- [LineRightStyle:lineRightEndArrowWidth](#)
- [LineRightStyle:lineRightEndCapStyle](#)
- [LineRightStyle:lineRightFillBlip](#)
- [LineRightStyle:lineRightFillBlipFlags](#)
- [LineRightStyle:lineRightFillBlipName](#)
- [LineRightStyle:lineRightFillDztype](#)
- [LineRightStyle:lineRightFillHeight](#)
- [LineRightStyle:lineRightFillWidth](#)
- [LineRightStyle:lineRightJoinStyle](#)
- [LineRightStyle:lineRightMiterLimit](#)
- [LineRightStyle:lineRightOpacity](#)
- [LineRightStyle:lineRightStartArrowhead](#)
- [LineRightStyle:lineRightStartArrowLength](#)
- [LineRightStyle:lineRightStartArrowWidth](#)

- [LineStyle:lineRightStyle](#)
- [LineStyle:lineRightType](#)
- [LineStyle:lineRightWidth](#)
- [LineStyle:Right Line Style Boolean Properties](#)
- [LineStyle:lineBackColorExt](#)
- [LineStyle:lineBackColorExtMod](#)
- [LineStyle:lineColorExt](#)
- [LineStyle:lineColorExtMod](#)
- [LineStyle:Line Style Boolean Properties](#)
- [LineStyle:lineTopBackColor](#)
- [LineStyle:lineTopBackColorExt](#)
- [LineStyle:lineTopBackColorExtMod](#)
- [LineStyle:lineTopColor](#)
- [LineStyle:lineTopColorExt](#)
- [LineStyle:lineTopColorExtMod](#)
- [LineStyle:lineTopCrMod](#)
- [LineStyle:lineTopDashing](#)
- [LineStyle:lineTopDashStyle](#)
- [LineStyle:lineTopEndArrowhead](#)
- [LineStyle:lineTopEndArrowLength](#)
- [LineStyle:lineTopEndArrowWidth](#)
- [LineStyle:lineTopFillBlip](#)
- [LineStyle:lineTopFillBlipFlags](#)
- [LineStyle:lineTopFillBlipName](#)
- [LineStyle:lineTopFillDztype](#)
- [LineStyle:lineTopFillHeight](#)
- [LineStyle:lineTopFillWidth](#)
- [LineStyle:lineTopJoinStyle](#)
- [LineStyle:lineTopMiterLimit](#)
- [LineStyle:lineTopStartArrowhead](#)
- [LineStyle:lineTopStartArrowLength](#)
- [LineStyle:lineTopStartArrowWidth](#)

- [LineTopStyle:lineTopEndCapStyle](#)
- [LineTopStyle:lineTopOpacity](#)
- [LineTopStyle:lineTopStyle](#)
- [LineTopStyle:lineTopType](#)
- [LineTopStyle:lineTopWidth](#)
- [LineTopStyle:Top Line Style Boolean Properties](#)
- [Protection:Protection Boolean Properties](#)
- [ShadowStyle:shadowColorExt](#)
- [ShadowStyle:shadowColorExtMod](#)
- [ShadowStyle:shadowHighlightExt](#)
- [ShadowStyle:shadowHighlightExtMod](#)
- [Shape:dgmLayout](#)
- [Shape:dgmLayoutMRU](#)
- [Shape:dgmNodeKind](#)
- [Shape:equationXML](#)
- [Shape:idDiscussAnchor](#)
- [Shape:Shape Boolean Properties](#)
- [3DObject:c3DExtrusionColorExt](#)
- [3DObject:c3DExtrusionColorExtMod](#)
- [UnknownHTML:Unknown HTML Boolean Properties](#)
- [UnknownHTML:wzCalloutId](#)
- [UnknownHTML:wzFillId](#)
- [UnknownHTML:wzFormulaeId](#)
- [UnknownHTML:wzGtextId](#)
- [UnknownHTML:wzHandlesId](#)
- [UnknownHTML:wzLineId](#)
- [UnknownHTML:wzLockId](#)
- [UnknownHTML:wzPathId](#)
- [UnknownHTML:wzPerspectiveId](#)
- [UnknownHTML:wzPictureId](#)
- [UnknownHTML:wzShadowId](#)
- [UnknownHTML:wzTextId](#)

- [UnknownHTML:wzThreeDId](#)
- [WebComponent:webComponentWzHtml](#)
- [WebComponent:webComponentWzName](#)
- [WebComponent:webComponentWzUrl](#)
- [WebComponent:Web Component Boolean Properties](#)
- [SignatureLine:Signature Line Boolean Properties](#)
- [SignatureLine:wzSigSetupAddlXml](#)
- [SignatureLine:wzSigSetupProvUrl](#)
- [SignatureLine:wzSigSetupId](#)
- [SignatureLine:wzSigSetupProvId](#)
- [SignatureLine:wzSigSetupSignInst](#)
- [SignatureLine:wzSigSetupSuggSigner](#)
- [SignatureLine:wzSigSetupSuggSigner2](#)
- [SignatureLine:wzSigSetupSuggSignerEmail](#)

|                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| fopt (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning   |
|-----------------------|---|
| <b>rh.recVer</b>      | A value that MUST be 0x3.   |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of properties in the table.   |
| <b>rh.recType</b>     | A value that MUST be 0xF122.  |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain property records. This value equals the number of properties multiplied by the size of the <b>OfficeArtFOFTE</b> type, as defined in section <a href="#">2.2.7</a> , plus the size of the complex property data. |

**fopt (variable):** The **OfficeArtRGFOFTE** record, as defined in section 2.3.1, table that specifies the property data.

## 2.2.12 OfficeArtDggContainer

The **OfficeArtDggContainer** record type specifies the container for all the OfficeArt file records that contain document-wide data. <2>

|                                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| drawingGroup (variable)           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| blipStore (variable)              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| drawingPrimaryOptions (variable)  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| drawingTertiaryOptions (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| colorMRU (variable)               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| splitColors (variable)            |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0xF.  |
| <b>rh.recInstance</b> | A value that MUST be 0x000.  |
| <b>rh.recType</b>     | A value that MUST be 0xF000.   |
| <b>rh.recLen</b>      | An unsigned integer specifying the number of bytes following the header that contain document-wide file records. |

**drawingGroup (variable):** An **OfficeArtFDGGBlock** record, as defined in section [2.2.48](#), that specifies document-wide information about all the **drawings** that are saved in the file.

**blipStore (variable):** An **OfficeArtBStoreContainer** record, as defined in section [2.2.20](#), that specifies the container for all the **BLIPs** that are used in all the drawings in the parent document.

**drawingPrimaryOptions (variable):** An **OfficeArtFOPT** record, as defined in section [2.2.9](#), that specifies the default properties for all **drawing objects** that are contained in all the drawings in the parent document.

**drawingTertiaryOptions (variable):** An **OfficeArtTertiaryFOPT** record, as defined in section [2.2.11](#), that specifies the default properties for all the drawing objects that are contained in all the drawings in the parent document.

**colorMRU (variable):** An **OfficeArtColorMRUContainer** record, as defined in section [2.2.43](#), that specifies the most recently used custom colors.

**splitColors (variable):** An **OfficeArtSplitMenuColorContainer** record, as defined in section [2.2.45](#), that specifies a container for the colors that were most recently used to format **shapes**.

### 2.2.13 OfficeArtDgContainer

The **OfficeArtDgContainer** record specifies the container for all the file records for the objects in a **drawing**.

| 0                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|--------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| rh                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| drawingData (16 bytes)   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| regroupItems (variable)  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| groupShape (variable)    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| shape (variable)         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| solvers1 (variable)      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| deletedShapes (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



|                     |
|---------------------|
| ...                 |
| solvers2 (variable) |
| ...                 |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning   |
|-----------------------|---|
| <b>rh.recVer</b>      | A value that MUST be 0xF.   |
| <b>rh.recInstance</b> | A value that MUST be 0x000.   |
| <b>rh.recType</b>     | A value that MUST be 0xF002.  |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain drawing-wide file records. |

**drawingData (16 bytes):** An **OfficeArtFDG** record, as defined in section [2.2.49](#), that specifies the **shape** count, drawing identifier, and shape identifier of the last shape in this drawing.

**regroupItems (variable):** An **OfficeArtFRITContainer** record, as defined in section [2.2.41](#), that specifies a container for the table of **group** identifiers for regrouping ungrouped shapes.

**groupShape (variable):** An **OfficeArtSpgrContainer** record, as defined in section [2.2.16](#), that specifies a container for groups of shapes.

**shape (variable):** An **OfficeArtSpContainer** record, as defined in section [2.2.14](#), that specifies a container for the shapes that are not contained in a group.

**solvers1 (variable):** An **OfficeArtSolverContainer** record, as defined in section [2.2.18](#), that specifies a container for the **rules** that are applicable to the shapes contained in this drawing.

**deletedShapes (variable):** An array of **OfficeArtSpgrContainerFileBlock** records, as defined in section [2.2.17](#), that specifies the deleted shapes. For more information, see section [2.2.37](#). The array continues if the **rh.recType** field of the **OfficeArtSpgrContainerFileBlock** record, as defined in section [2.2.17](#), equals 0xF003 or 0xF004. This array MAY [<3>](#) exist.

**solvers2 (variable):** An **OfficeArtSolverContainer** record, as defined in section [2.2.18](#), that specifies a container for additional rules that are applicable to the shapes contained in this drawing.

### 2.2.14 OfficeArtSpContainer

Referenced by: [OfficeArtDgContainer](#), [OfficeArtInlineSpContainer](#), [OfficeArtSpgrContainerFileBlock](#)

The **OfficeArtSpContainer** record specifies a **shape** container.

|     |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
|-----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |
| rh  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
| ... |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |

|                                   |
|-----------------------------------|
| shapeGroup (24 bytes, optional)   |
| ...                               |
| ...                               |
| shapeProp (16 bytes)              |
| ...                               |
| ...                               |
| deletedShape (optional)           |
| ...                               |
| ...                               |
| shapePrimaryOptions (variable)    |
| ...                               |
| shapeSecondaryOptions1 (variable) |
| ...                               |
| shapeTertiaryOptions1 (variable)  |
| ...                               |
| childAnchor (24 bytes, optional)  |
| ...                               |
| ...                               |
| clientAnchor (variable)           |
| ...                               |
| clientData (variable)             |
| ...                               |
| clientTextbox (variable)          |
| ...                               |
| shapeSecondaryOptions2 (variable) |

|                                  |
|----------------------------------|
| ...                              |
| shapeTertiaryOptions2 (variable) |
| ...                              |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#) that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning   |
|-----------------------|---|
| <b>rh.recVer</b>      | A value that MUST be 0xF.   |
| <b>rh.recInstance</b> | A value that MUST be 0x000.   |
| <b>rh.recType</b>     | A value that MUST be 0xF004.  |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain shape records. |

**shapeGroup (24 bytes):** An **OfficeArtFSPGR** record, as defined in section [2.2.38](#), that specifies the coordinate system of the **group shape**. The **anchors** of the **child** shape are expressed in this coordinate system. This record's container MUST be a group shape.

**shapeProp (16 bytes):** An **OfficeArtFSP** record, as defined in section [2.2.40](#), that specifies an instance of a shape.

**deletedShape (12 bytes):** An **OfficeArtFPSPL** record, as defined in section [2.2.37](#), that specifies the former hierarchical position of the containing object. This record's container MUST be a deleted shape. For more information, see **OfficeArtFPSPL**.

**shapePrimaryOptions (variable):** An **OfficeArtFOPT** record, as defined in section [2.2.9](#), that specifies the properties of this shape that do not contain default values.

**shapeSecondaryOptions1 (variable):** An **OfficeArtSecondaryFOPT** record, as defined in section [2.2.10](#), that specifies the properties of this shape that do not contain default values.

**shapeTertiaryOptions1 (variable):** An **OfficeArtTertiaryFOPT** record, as defined in section [2.2.11](#), that specifies the properties of this shape that do not contain default values.

**childAnchor (24 bytes):** An **OfficeArtChildAnchor** record, as defined in section [2.2.39](#), that specifies the anchor for this shape. This record's container MUST be a member of a **group** of shapes.

**clientAnchor (variable):** An **OfficeArtClientAnchor** ([\[MS-PPT\]](#) section 2.7.1) record as specified by the host application.

**clientData (variable):** An **OfficeArtClientData** ([\[MS-PPT\]](#) section 2.7.3) record as specified by the host application.

**clientTextbox (variable):** An **OfficeArtClientTextbox** ([\[MS-PPT\]](#) section 2.9.76) record as specified by the host application.

**shapeSecondaryOptions2 (variable):** An **OfficeArtSecondaryFOPT** record that specifies the properties of this shape that do not contain default values. This field MUST NOT exist if **shapeSecondaryOptions1** exists.

**shapeTertiaryOptions2 (variable):** An **OfficeArtTertiaryFOPT** record, as defined in section 2.2.11, that specifies the properties of this shape that do not contain default values. This field MUST NOT exist if **shapeTertiaryOptions1** exists.

### 2.2.15 OfficeArtInlineSpContainer

The **OfficeArtInlineSpContainer** record specifies a container for inline **shapes**. This record SHOULD<4> be ignored.

|                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| shape (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgfb (variable)  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**shape (variable):** An **OfficeArtSpContainer** record, as defined in section 2.2.14, that specifies an instance of a shape.

**rgfb (variable):** An array of **OfficeArtBStoreContainerFileBlock** records, as defined in section 2.2.22, that specifies **BLIP** data. The array continues if the **rh.recType** field of the **OfficeArtBStoreContainerFileBlock** record equals either 0xF007 or a value from 0xF018 through 0xF117, inclusive.

BLIP properties contained in **shape.shapePrimaryOptions** or **shape.shapeTertiaryOptions1** are stored in this array in the order they are encountered, and the property values **OfficeArtFOPTE.opid.fBid**, **OfficeArtFOPTE.opid.fComplex**, and **OfficeArtFOPTE.op** MUST be ignored.

### 2.2.16 OfficeArtSpgrContainer

Referenced by: [OfficeArtDgContainer](#), [OfficeArtSpgrContainerFileBlock](#)

The **OfficeArtSpgrContainer** record specifies a container for **groups** of **shapes**. The group container contains a variable number of shape containers and other group containers. Each group is a shape. The first container MUST be an **OfficeArtSpContainer** record, as defined in section 2.2.14, which MUST contain shape information for the group.

|                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgfb (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section 2.2.1, that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0xF.  |
| <b>rh.recInstance</b> | A value that MUST be 0x000.  |
| <b>rh.recType</b>     | A value that MUST be 0xF003.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain group or shape container records. This value MUST be the size, in bytes, of <b>rgfb</b> . |

**rgfb (variable):** An array of **OfficeArtSpgrContainerFileBlock** records, as defined in section 2.2.17, that specifies the groups or shapes that are contained within this group.

### 2.2.17 OfficeArtSpgrContainerFileBlock

Referenced by: [OfficeArtDgContainer](#), [OfficeArtSpgrContainer](#)

The **OfficeArtSpgrContainerFileBlock** record specifies a file block that contains a record specifying **group** or **shape** data. The **OfficeArtRecordHeader** structure, as defined in section 2.2.1, of the contained record specifies the type of record. The following table lists the possible record types.

| Value  | Meaning   |
|--------|---|
| 0xF004 | <b>OfficeArtSpContainer</b> record, as defined in section 2.2.14.   |
| 0xF003 | <b>OfficeArtSpgrContainer</b> record, as defined in section 2.2.16. |

### 2.2.18 OfficeArtSolverContainer

Referenced by: [OfficeArtDgContainer](#)

The **OfficeArtSolverContainer** record specifies a container for the **rules** that are applicable to the **shapes** contained in an **OfficeArtDgContainer** record, as defined in section 2.2.13.

| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| rh              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgfb (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section 2.2.1, that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0xF.  |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of contained <b>OfficeArtSolverContainerFileBlock</b> records, as defined in section 2.2.19. |

| Field             | Meaning  |
|-------------------|--|
| <b>rh.recType</b> | A value that MUST be 0xF005.   |
| <b>rh.recLen</b>  | An unsigned integer that specifies the number of bytes following the header that contain <b>OfficeArtSolverContainerFileBlock</b> records, as defined in section 2.2.19. This value MUST be the size, in bytes, of <b>rgfb</b> . |

**rgfb (variable):** An array of **OfficeArtSolverContainerFileBlock** records, as defined in section 2.2.19, specifying a collection of rules that are applicable to the shapes contained in an **OfficeArtDggContainer** record, as defined in section 2.2.13.

## 2.2.19 OfficeArtSolverContainerFileBlock

Referenced by: [OfficeArtSolverContainer](#)

The **OfficeArtSolverContainerFileBlock** record specifies a file block that contains a record specifying **rule** data. The **OfficeArtRecordHeader** structure, as defined in section 2.2.1, of the contained record specifies the type of record. The following table lists the possible record types.

| Value  | Meaning  |
|--------|--|
| 0xF012 | <b>OfficeArtFConnectorRule</b> , as defined in section 2.2.36. |
| 0xF014 | <b>OfficeArtFArcRule</b> , as defined in section 2.2.35.       |
| 0xF017 | <b>OfficeArtFCalloutRule</b> , as defined in section 2.2.34.   |

## 2.2.20 OfficeArtBStoreContainer

Referenced by: [OfficeArtDggContainer](#)

The **OfficeArtBStoreContainer** record specifies the container for all the **BLIPs** that are used in all the **drawings** associated with the parent **OfficeArtDggContainer** record, as defined in section 2.2.12.

| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| rh              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgfb (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section 2.2.1, that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0xF.                                  |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of contained |

| Field             | Meaning  |
|-------------------|--|
|                   | <b>OfficeArtBStoreContainerFileBlock</b> records, as defined in section <a href="#">2.2.22</a> .   |
| <b>rh.recType</b> | A value that MUST be 0xF001.   |
| <b>rh.recLen</b>  | An unsigned integer that specifies the number of bytes following the header that contain <b>OfficeArtBStoreContainerFileBlock</b> records. This value MUST be the size, in bytes, of <b>rgfb</b> . |

**rgfb (variable):** An array of **OfficeArtBStoreContainerFileBlock** records that specifies the BLIP data.

### 2.2.21 OfficeArtBStoreDelay

The **OfficeArtBStoreDelay** record specifies the delay-loaded container of **BLIPs** in the host application. No **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), exists for this container.

|                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rgfb (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rgfb (variable):** An array of **OfficeArtBStoreContainerFileBlock** records, as defined in section [2.2.22](#), that specifies BLIP data. The array continues if the **rh.recType** field of the **OfficeArtBStoreContainerFileBlock** record equals either 0xF007 or a value from 0xF018 through 0xF117, inclusive.

### 2.2.22 OfficeArtBStoreContainerFileBlock

Referenced by: [OfficeArtBStoreContainer](#), [OfficeArtBStoreDelay](#), [OfficeArtInlineSpContainer](#)

The **OfficeArtBStoreContainerFileBlock** record specifies a file block that contains a record specifying **BLIP** data. The **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), of the contained record specifies the type of record. The following table lists the possible record types.

| Value         | Meaning   |
|---------------|---|
| 0xF007        | <b>OfficeArtFBSE</b> record, as defined in section <a href="#">2.2.32</a> . |
| 0xF018–0xF117 | <b>OfficeArtBlip</b> record, as defined in section <a href="#">2.2.23</a> . |

### 2.2.23 OfficeArtBlip

Referenced by: [fillBlip\\_complex](#), [lineBottomFillBlip\\_complex](#), [lineFillBlip\\_complex](#), [lineLeftFillBlip\\_complex](#), [lineRightFillBlip\\_complex](#), [lineTopFillBlip\\_complex](#), [OfficeArtBStoreContainerFileBlock](#), [OfficeArtFBSE](#), [pib\\_complex](#), [pibPrint\\_complex](#)

The **OfficeArtBlip** record specifies **BLIP** file data. The **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), specifies the type of BLIP record that is contained. The following table lists the possible record types.

| Value  | Meaning  |
|--------|--|
| 0xF01A | <b>OfficeArtBlipEMF</b> , as defined in section <a href="#">2.2.24</a> .     |
| 0xF01B | <b>OfficeArtBlipWMF</b> , as defined in section <a href="#">2.2.25</a> .     |
| 0xF01C | <b>OfficeArtBlipPICT</b> , as defined in section <a href="#">2.2.26</a> .    |
| 0xF01D | <b>OfficeArtBlipJPEG</b> , as defined in section <a href="#">2.2.27</a> .    |
| 0xF01E | <b>OfficeArtBlipPNG</b> , as defined in section <a href="#">2.2.28</a> .     |
| 0xF01F | <b>OfficeArtBlipDIB</b> , as defined in section <a href="#">2.2.29</a> .     |
| 0xF029 | <b>OfficeArtBlipTIFF</b> , as defined in section <a href="#">2.2.30</a> .    |
| 0xF02A | <b>OfficeArtBlipJPEG</b> , as defined in section <a href="#">2.2.27</a> .<5> |

### 2.2.24 OfficeArtBlipEMF

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipEMF** record specifies **BLIP** file data for the **enhanced metafile format (EMF)**.

| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| rh                           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes)           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid2 (16 bytes, optional) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| metafileHeader (34 bytes)    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | BLIPFileData (variable) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.



| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | A value of 0x3D4 to specify one Unique ID (UID), or a value of 0x3D5 to specify two UIDs.  |
| <b>rh.recType</b>     | A value that MUST be 0xF01A.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of the <b>BLIPFileData</b> field plus 50 if <b>recInstance</b> equals 0x3D4, or the size of <b>BLIPFileData</b> plus 66 if <b>recInstance</b> equals 0x3D5. |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals 0x3D5. If this value is not 0, **rgbUid1** MUST be ignored.

**metafileHeader (34 bytes):** An **OfficeArtMetafileHeader** record, as defined in section [2.2.31](#), that specifies how to process the metafile in **BLIPFileData**.

**BLIPFileData (variable):** A variable-length field that specifies the EMF data.

## 2.2.25 OfficeArtBlipWMF

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipWMF** record specifies **BLIP** file data for the Windows Metafile Format (WMF).

| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| rh                           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes)           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid2 (16 bytes, optional) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| metafileHeader (34 bytes)    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|     |                         |
|-----|-------------------------|
| ... |                         |
| ... | BLIPFileData (variable) |
| ... |                         |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | A value of 0x216 to specify one UID, or a value of 0x217 to specify two UIDs.  |
| <b>rh.recType</b>     | A value that MUST be 0xF01B.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of <b>BLIPFileData</b> plus 50 if <b>recInstance</b> equals 0x216, or the size of <b>BLIPFileData</b> plus 66 if <b>recInstance</b> equals 0x217. |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals 0x217. If this value exists, **rgbUid1** MUST be ignored.

**metafileHeader (34 bytes):** An **OfficeArtMetafileHeader** record, as defined in section [2.2.31](#), that specifies how to process the metafile in **BLIPFileData**.

**BLIPFileData (variable):** A variable-length field that specifies the **WMF** data.

## 2.2.26 OfficeArtBlipPICT

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipPICT** record specifies the **BLIP** file data for the **Macintosh PICT** format.

|                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|                              |                         |
|------------------------------|-------------------------|
| rgbUid2 (16 bytes, optional) |                         |
| ...                          |                         |
| ...                          |                         |
| metafileHeader (34 bytes)    |                         |
| ...                          |                         |
| ...                          |                         |
| ...                          | BLIPFileData (variable) |
| ...                          |                         |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | A value of 0x542 to specify one UID, or a value of 0x543 to specify two UIDs.  |
| <b>rh.recType</b>     | A value that MUST be 0xF01C.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of <b>BLIPFileData</b> plus 50 if <b>recInstance</b> equals 0x542, or the size of <b>BLIPFileData</b> plus 66 if <b>recInstance</b> equals 0x543. |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals 0x543. If this value exists, **rgbUid1** MUST be ignored.

**metafileHeader (34 bytes):** An **OfficeArtMetafileHeader** record, as defined in section [2.2.31](#), that specifies how to process the metafile in **BLIPFileData**.

**BLIPFileData (variable):** A variable-length field that specifies the Macintosh PICT data.

### 2.2.27 OfficeArtBlipJPEG

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipJPEG** record specifies **BLIP** file data for the **Joint Photographic Experts Group (JPEG)** format.

|                              |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|---|---|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                      | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                           |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes)           |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid2 (16 bytes, optional) |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| tag                          |   |   |   |   |   |   |   |   |   | BLIPFileData (variable) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | A value that is specified in the following table.  |
| <b>rh.recType</b>     | A value that MUST be 0xF01D.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of <b>BLIPFileData</b> plus 17 if <b>recInstance</b> equals either 0x46A or 0x6E2, or the size of <b>BLIPFileData</b> plus 33 if <b>recInstance</b> equals either 0x46B or 0x6E3. |

| Value of recInstance | Meaning                  | Number of unique identifiers |
|----------------------|--------------------------|------------------------------|
| 0x46A                | JPEG in RGB color space  | 1                            |
| 0x46B                | JPEG in RGB color space  | 2                            |
| 0x6E2                | JPEG in CMYK color space | 1                            |
| 0x6E3                | JPEG in CMYK color space | 2                            |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals either 0x46B or 0x6E3. If this value is specified, **rgbUid1** MUST be ignored.

**tag (1 byte):** An unsigned integer that specifies an application-defined **internal resource tag**. This value **MUST** be 0xFF for external files.

**BLIPFileData (variable):** A variable-length field that specifies the JPEG data.

### 2.2.28 OfficeArtBlipPNG

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipPNG** record specifies **BLIP** file data for the **Portable Network Graphics (PNG)** format.

|                              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes)           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid2 (16 bytes, optional) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| tag                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | BLIPFileData (variable) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning   |
|-----------------------|---|
| <b>rh.recVer</b>      | A value that <b>MUST</b> be 0x0.  |
| <b>rh.recInstance</b> | A value of 0x6E0 to specify one UID, or a value of 0x6E1 to specify two UIDs.   |
| <b>rh.recType</b>     | A value that <b>MUST</b> be 0xF01E.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value <b>MUST</b> be the size of <b>BLIPFileData</b> plus 17 if <b>recInstance</b> equals 0x6E0, or the size of <b>BLIPFileData</b> plus 33 if <b>recInstance</b> equals 0x6E1. |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [RFC1320], that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals 0x6E1. If this value exists, **rgbUid1** MUST be ignored.

**tag (1 byte):** An unsigned integer that specifies an application-defined **internal resource tag**. This value MUST be 0xFF for external files.

**BLIPFileData (variable):** A variable-length field that specifies the PNG data.

## 2.2.29 OfficeArtBlipDIB

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipDIB** record specifies **BLIP** file data for the **device-independent bitmap (DIB)** format.

|                              |   |   |   |   |   |   |   |                         |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|-------------------------|---|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8                       | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                           |   |   |   |   |   |   |   | ...                     |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes)           |   |   |   |   |   |   |   |                         |   |    |    |    |    |    |    | ... |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |                         |   |    |    |    |    |    |    | ... |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid2 (16 bytes, optional) |   |   |   |   |   |   |   |                         |   |    |    |    |    |    |    | ... |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |                         |   |    |    |    |    |    |    | ... |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| tag                          |   |   |   |   |   |   |   | BLIPFileData (variable) |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |                         |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | A value of 0x7A8 to specify one UID, or a value of 0x7A9 to specify two UIDs.  |
| <b>rh.recType</b>     | A value that MUST be 0xF01F.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of <b>BLIPFileData</b> plus 17 if <b>recInstance</b> equals 0x7A8, or the size of <b>BLIPFileData</b> plus 33 if <b>recInstance</b> equals 0x7A9. |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals 0x7A9. If this value exists, **rgbUid1** MUST be ignored.

**tag (1 byte):** An unsigned integer that specifies an application-defined **internal resource tag**. This value MUST be 0xFF for external files.

**BLIPFileData (variable):** A variable-length field that specifies the DIB data.

### 2.2.30 OfficeArtBlipTIFF

Referenced by: [OfficeArtBlip](#)

The **OfficeArtBlipTIFF** record specifies **BLIP** file data for the **TIFF** format.

|                              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17                      | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ...                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid1 (16 bytes)           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ...                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ...                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgbUid2 (16 bytes, optional) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ...                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ...                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| tag                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | BLIPFileData (variable) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ...                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | A value of 0x6E4 to specify one UID, or a value of 0x6E5 to specify two UIDs.  |
| <b>rh.recType</b>     | A value that MUST be 0xF029.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of <b>BLIPFileData</b> plus 17 if <b>recInstance</b> equals 0x6E4, or the size of <b>BLIPFileData</b> plus 33 if <b>recInstance</b> equals 0x6E5. |

**rgbUid1 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**.

**rgbUid2 (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the uncompressed **BLIPFileData**. This field only exists if **recInstance** equals 0x6E5. If this value exists, **rgbUid1** MUST be ignored.

**tag (1 byte):** An unsigned integer that specifies an application-defined **internal resource tag**. This value MUST be 0xFF for external files.

**BLIPFileData (variable):** A variable-length field that specifies the TIFF data.

### 2.2.31 OfficeArtMetafileHeader

Referenced by: [OfficeArtBlipEMF](#), [OfficeArtBlipPICT](#), [OfficeArtBlipWMF](#)

The **OfficeArtMetafileHeader** record specifies how to process a metafile.

|                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| cbSize              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rcBounds (16 bytes) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ptSize              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cbSave              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| compression         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | filter |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**cbSize (4 bytes):** An unsigned integer that specifies the uncompressed size, in bytes, of the metafile.

**rcBounds (16 bytes):** A **RECT** structure, as defined in section [2.2.56](#), that specifies the clipping region of the metafile.

**ptSize (8 bytes):** A **POINT** structure, as defined in section [2.2.55](#), that specifies the size, in **English Metric Units (EMUs)**, in which to render the metafile.

**cbSave (4 bytes):** An unsigned integer that specifies the compressed size, in bytes, of the metafile.

**compression (1 byte):** An unsigned integer that specifies the compression method that was used. A value of 0x00 specifies the DEFLATE compression method, as specified in [\[RFC1950\]](#). A value of 0xFE specifies no compression.

**filter (1 byte):** An unsigned integer that MUST be 0xFE.



## 2.2.32 OfficeArtFBSE

Referenced by: [OfficeArtBStoreContainerFileBlock](#)

The **OfficeArtFBSE** record specifies a File **BLIP** Store Entry (FBSE) that contains information about the BLIP.

|                         |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
|-------------------------|---|---|---|---|---|---|---|---------|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|
| 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8       | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24      | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                      |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| ...                     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| btWin32                 |   |   |   |   |   |   |   | btMacOS |   |    |    |    |    |    |    | rgbUid (16 bytes) |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| ...                     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| ...                     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| ...                     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    | tag               |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| size                    |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| cRef                    |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| foDelay                 |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| unused1                 |   |   |   |   |   |   |   | cbName  |   |    |    |    |    |    |    | unused2           |    |    |    |    |    |    |    | unused3 |    |    |    |    |    |    |    |
| nameData (variable)     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| ...                     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| embeddedBlip (variable) |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |
| ...                     |   |   |   |   |   |   |   |         |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x2.  |
| <b>rh.recInstance</b> | An <b>MSOBLIPTYPE</b> enumeration value, as defined in section <a href="#">2.4.1</a> , that specifies the BLIP type and MUST match either <b>btWin32</b> or <b>btMacOS</b> .   |
| <b>rh.recType</b>     | A value that MUST be 0xF007.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header. This value MUST be the size of <b>nameData</b> plus 36 if the BLIP is not embedded in this record, or the size of <b>nameData</b> plus <b>size</b> plus 36 if the BLIP is |

| Field | Meaning                  |
|-------|--------------------------|
|       | embedded in this record. |

**btWin32 (1 byte):** An **MSOBLIPTYPE** enumeration value, as defined in section 2.4.1, that specifies the Windows BLIP type. If the **btMacOS** value is supported by the Windows operating system, this value MUST match **btMacOS**. If the values of **btWin32** and **btMacOS** are different, the BLIP that matches **rh.recInstance** MUST be present and the other MAY be present.

**btMacOS (1 byte):** An **MSOBLIPTYPE** enumeration value, as defined in section 2.4.1, that specifies the Macintosh BLIP type. If the **btWin32** value is supported by the Macintosh operating system, this value MUST match **btWin32**. If the values of **btWin32** and **btMacOS** are different, the BLIP that matches **rh.recInstance** MUST be present and the other MAY be present.

**rgbUid (16 bytes):** An MD4 message digest, as specified in [\[RFC1320\]](#), that specifies the unique identifier of the pixel data in the BLIP.

**tag (2 bytes):** An unsigned integer that specifies an application-defined **internal resource tag**. This value MUST be 0xFF for external files.

**size (4 bytes):** An unsigned integer that specifies the size, in bytes, of the BLIP in the stream.

**cRef (4 bytes):** An unsigned integer that specifies the number of references to the BLIP. A value of 0x00000000 specifies an empty slot in the **OfficeArtBStoreContainer** record, as defined in section [2.2.20](#).

**foDelay (4 bytes):** An **MSOFO** structure, as defined in section [2.1.4](#), that specifies the file offset into the associated **OfficeArtBStoreDelay** record, as defined in section [2.2.21](#), (delay stream). A value of 0xFFFFFFFF specifies that the file is not in the delay stream, and in this case, **cRef** MUST be 0x00000000.

**unused1 (1 byte):** A value that is undefined and MUST be ignored.

**cbName (1 byte):** An unsigned integer that specifies the length, in bytes, of the **nameData** field, including the terminating NULL character. This value MUST be an even number and less than or equal to 0xFE. If the value is 0x00, **nameData** will not be written.

**unused2 (1 byte):** A value that is undefined and MUST be ignored.

**unused3 (1 byte):** A value that is undefined and MUST be ignored.

**nameData (variable):** A **Unicode** null-terminated string that specifies the name of the BLIP.

**embeddedBlip (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), specifying the BLIP file data that is embedded in this record. If this value is not 0, **foDelay** MUST be ignored.

### 2.2.33 OfficeArtFDGSL

The **OfficeArtFDGSL** record specifies both the selected **shapes** and the shape that is in focus in the **drawing**. This record SHOULD [<6>](#) be ignored.

|     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ... |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|                      |
|----------------------|
| csp                  |
| dgs                  |
| spidFocus            |
| shapeList (variable) |
| ...                  |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field          | Meaning  |
|----------------|--|
| rh.recVer      | A value that MUST be 0x0.                      |
| rh.recInstance | A value that MUST be 0x000.                    |
| rh.recType     | A value that MUST be 0xF119.                   |
| rh.recLen      | A value that is undefined and MUST be ignored. |

**csp (4 bytes):** A value that is undefined and MUST be ignored.

**dgs (4 bytes):** An **MSODGSLK** enumeration value, as defined in section [2.4.28](#), that specifies the selection mode.

**spidFocus (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), specifying the identifier of the shape that is in focus.

**shapeList (variable):** An array of **MSOSPID** elements, as defined in section [2.1.2](#), that specify the identifiers of the selected shapes. The number of elements is specified by the following formula:

$$(\text{size of record data, as specified in [MS-XLS] section 2.1.4,} - 20) / 4$$

### 2.2.34 OfficeArtFCalloutRule

Referenced by: [OfficeArtSolverContainerFileBlock](#)

The **OfficeArtFCalloutRule** record specifies a **callout rule**. One callout rule MUST exist per callout **shape**.

|     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | rh   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ... |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | ruid |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | spid |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning                          |
|-----------------------|----------------------------------|
| <b>rh.recVer</b>      | A value that MUST be 0x0.        |
| <b>rh.recInstance</b> | A value that MUST be 0x000.      |
| <b>rh.recType</b>     | A value that MUST be 0xF017.     |
| <b>rh.recLen</b>      | A value that MUST be 0x00000008. |

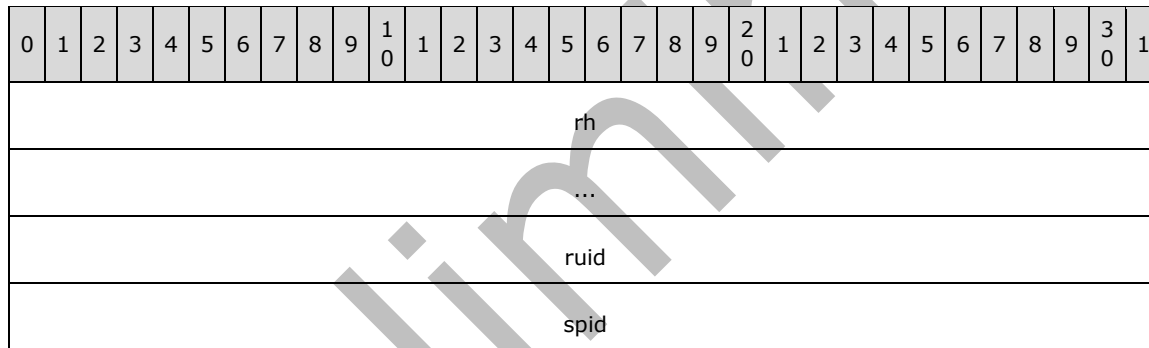
**ruid (4 bytes):** An unsigned integer that specifies the identifier of this callout rule.

**spid (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of the callout shape.

### 2.2.35 OfficeArtFArcRule

Referenced by: [OfficeArtSolverContainerFileBlock](#)

The **OfficeArtFArcRule** record specifies an arc **rule**. Each arc **shape** MUST correspond to a unique arc rule. This record SHOULD [<7>](#) be persisted.



**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning                          |
|-----------------------|----------------------------------|
| <b>rh.recVer</b>      | A value that MUST be 0x0.        |
| <b>rh.recInstance</b> | A value that MUST be 0x000.      |
| <b>rh.recType</b>     | A value that MUST be 0xF014.     |
| <b>rh.recLen</b>      | A value that MUST be 0x00000008. |

**ruid (4 bytes):** An unsigned integer that specifies the identifier of this arc rule.

**spid (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of the arc shape.

### 2.2.36 OfficeArtFConnectorRule

Referenced by: [OfficeArtSolverContainerFileBlock](#)

The **OfficeArtConnectorRule** record specifies the connection between two **shapes** that exists via a **connector** shape. This record MAY [<8>](#) be ignored.

|       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ruid  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| spidA |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| spidB |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| spidC |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cptiA |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cptiB |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning                          |
|-----------------------|----------------------------------|
| <b>rh.recVer</b>      | A value that MUST be 0x1.        |
| <b>rh.recInstance</b> | A value that MUST be 0x000.      |
| <b>rh.recType</b>     | A value that MUST be 0xF012.     |
| <b>rh.recLen</b>      | A value that MUST be 0x00000018. |

**ruid (4 bytes):** An unsigned integer that specifies the identifier of this **rule**.

**spidA (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of the shape where the connector shape starts.

**spidB (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of the shape where the connector shape ends.

**spidC (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of the connector shape.

**cptiA (4 bytes):** An unsigned integer that specifies the **connection site** index of the shape where the connector shape starts. If the shape is available, this value MUST be within its range of valid connection site indexes. Otherwise, this value is ignored.

**cptiB (4 bytes):** An unsigned integer that specifies the connection site index of the shape where the connector shape ends. If the shape is available, this value MUST be within its range of valid connection site indexes. Otherwise, this value is ignored.

### 2.2.37 OfficeArtFPSPL

Referenced by: [OfficeArtSpContainer](#)

The **OfficeArtFPSPL** record specifies the former hierarchical position of the containing object that is either a **shape** or a **group** of shapes. This record MUST be present only if the **OfficeArtFSP** record, as defined in section [2.2.40](#), of the containing **OfficeArtSpContainer**, as defined in section 2.2.14, has a value of 0x1 for **fDeleted** and a value of 0x0 for **fChild**. This record's containing object was formerly subsequent or antecedent to the object that is referenced by **spid**, as a member of the container directly containing that object. This record MAY [<9>](#) be used in some documents. If **spid** equals zero or specifies the containing shape, this record MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| spid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | A  | B  |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning                          |
|-----------------------|----------------------------------|
| <b>rh.recVer</b>      | A value that MUST be 0x0.        |
| <b>rh.recInstance</b> | A value that MUST be 0x000.      |
| <b>rh.recType</b>     | A value that MUST be 0xF11D.     |
| <b>rh.recLen</b>      | A value that MUST be 0x00000004. |

**spid (30 bits):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies another shape or group of shapes that is contained in the same **OfficeArtDgContainer** record, as defined in section [2.2.13](#). This other object contains an **OfficeArtFSP** record, as defined in section 2.2.40, with an equivalently valued **spid** field.

**A - reserved1 (1 bit):** A value that MUST be zero and MUST be ignored.

**B - fLast (1 bit):** A bit that specifies the ordering of this record's containing object and the object that is specified by **spid**. The following table specifies the meaning of each value for this bit.

| Value | Meaning   |
|-------|---|
| 0     | This record's containing object was formerly antecedent to the object that is referenced by <b>spid</b> , in the container directly containing that object. |
| 1     | This record's containing object was formerly subsequent to the object that is referenced by <b>spid</b> , in the container directly containing that object. |

### 2.2.38 OfficeArtFSPGR

Referenced by: [OfficeArtSpContainer](#)

The **OfficeArtFSPGR** record specifies the coordinate system of the **group shape** that the **anchors** of the **child shape** are expressed in. This record is present only for group shapes.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| xLeft   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| yTop    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| xRight  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| yBottom |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning                          |
|-----------------------|----------------------------------|
| <b>rh.recVer</b>      | A value that MUST be 0x1.        |
| <b>rh.recInstance</b> | A value that MUST be 0x000.      |
| <b>rh.recType</b>     | A value that MUST be 0xF009.     |
| <b>rh.recLen</b>      | A value that MUST be 0x00000010. |

**xLeft (4 bytes):** A signed integer that specifies the left boundary of the coordinate system of the **group**.

**yTop (4 bytes):** A signed integer that specifies the top boundary of the coordinate system of the group.

**xRight (4 bytes):** A signed integer that specifies the right boundary of the coordinate system of the group.

**yBottom (4 bytes):** A signed integer that specifies the bottom boundary of the coordinate system of the group.

### 2.2.39 OfficeArtChildAnchor

Referenced by: [OfficeArtSpContainer](#)

The **OfficeArtChildAnchor** record specifies four signed integers that specify the **anchor** for the **shape** that contains this record. For this record to exist, the containing shape MUST be a member of a **group** of shapes. The four integers specify the offset from the origin of the coordinate system that is specified by the **OfficeArtFSPGR** record, as defined in section [2.2.38](#), contained in the same **OfficeArtSpgrContainer** record, as defined in section [2.2.16](#), that contains this record. The integers are in units of the coordinate system that is specified by the **OfficeArtFSPGR**.

|    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|         |
|---------|
| ...     |
| xLeft   |
| yTop    |
| xRight  |
| yBottom |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field          | Meaning                          |
|----------------|----------------------------------|
| rh.recVer      | A value that MUST be 0x0.        |
| rh.recInstance | A value that MUST be 0x000.      |
| rh.recType     | A value that MUST be 0xF00F.     |
| rh.recLen      | A value that MUST be 0x00000010. |

**xLeft (4 bytes):** A signed integer that specifies the left offset for the shape that contains this record.

**yTop (4 bytes):** A signed integer that specifies the top offset for the shape that contains this record.

**xRight (4 bytes):** A signed integer that specifies the right offset for the shape that contains this record.

**yBottom (4 bytes):** A signed integer that specifies the bottom offset for the shape that contains this record.

#### 2.2.40 OfficeArtFSP

Referenced by: [OfficeArtSpContainer](#)

The **OfficeArtFSP** record specifies an instance of a **shape**. The record header contains the shape type, and the record itself contains the shape identifier and a set of bits that further define the shape.

|      |   |   |   |   |   |   |   |   |   |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12      | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh   |   |   |   |   |   |   |   |   |   |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| spid |   |   |   |   |   |   |   |   |   |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A    | B | C | D | E | F | G | H | I | J | K  | L  | unused1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.



| Field          | Meaning  |
|----------------|--|
| rh.recVer      | A value that MUST be 0x2.  |
| rh.recInstance | A signed value that specifies the shape type and that MUST be an <b>MSOSPT</b> enumeration value, as defined in section <a href="#">2.4.24</a> . |
| rh.recType     | A value that MUST be 0xF00A.   |
| rh.recLen      | A value that MUST be 0x00000008.   |

**spid (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of this shape.

**A - fGroup (1 bit):** A bit that specifies whether this shape is a **group shape**.

**B - fChild (1 bit):** A bit that specifies whether this shape is a child shape.

**C - fPatriarch (1 bit):** A bit that specifies whether this shape is the topmost group shape. Each **drawing** contains one topmost group shape.

**D - fDeleted (1 bit):** A bit that specifies whether this shape has been deleted.

**E - fOLEShape (1 bit):** A bit that specifies whether this shape is an **OLE object**.

**F - fHaveMaster (1 bit):** A bit that specifies whether this shape has a valid **master** in the **hspMaster** property, as defined in section [2.3.2.1](#).

**G - fFlipH (1 bit):** A bit that specifies whether this shape is horizontally flipped.

**H - fFlipV (1 bit):** A bit that specifies whether this shape is vertically flipped.

**I - fConnector (1 bit):** A bit that specifies whether this shape is a **connector** shape.

**J - fHaveAnchor (1 bit):** A bit that specifies whether this shape has an **anchor**.

**K - fBackground (1 bit):** A bit that specifies whether this shape is a **background shape**.

**L - fHaveSpt (1 bit):** A bit that specifies whether this shape has a shape type property.

**unused1 (20 bits):** A value that is undefined and MUST be ignored.

### 2.2.41 OfficeArtFRITContainer

Referenced by: [OfficeArtDgContainer](#)

The **OfficeArtFRITContainer** record specifies a container for the table of **group** identifiers that are used for regrouping ungrouped **shapes**.

|                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| rgfrit (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning  |
|-----------------------|--|
| <b>rh.recVer</b>      | A value that MUST be 0x0.  |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of contained <b>OfficeArtFRIT</b> records, as defined in section <a href="#">2.2.42</a> .  |
| <b>rh.recType</b>     | A value that MUST be 0xF118.   |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain <b>OfficeArtFRIT</b> records. This value MUST be the size, in bytes, of <b>rgfrit</b> . |

**rgfrit (variable):** An array of **OfficeArtFRIT** records, as defined in section [2.2.42](#), that specifies the table of group identifiers. The size of the array MUST equal the value of **rh.recInstance**.

### 2.2.42 OfficeArtFRIT

Referenced by: [OfficeArtFRITContainer](#)

The **OfficeArtFRIT** record specifies the last two **group** identifiers that are used to facilitate regrouping ungrouped **shapes**.

|         |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |         |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|---------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6       | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| fridNew |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | fridOld |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**fridNew (2 bytes):** A **FRID** structure, as defined in section [2.1.3](#), specifying the last group identifier of the shape before ungrouping. The value of **fridNew** MUST be greater than the value of **fridOld**.

**fridOld (2 bytes):** A **FRID** structure, as defined in section [2.1.3](#), specifying the second-to-last group identifier of the shape before ungrouping. This value MUST be 0x0000 if a second-to-last group does not exist.

### 2.2.43 OfficeArtColorMRUContainer

Referenced by: [OfficeArtDggContainer](#)

The **OfficeArtColorMRUContainer** record specifies the most recently used custom colors.

|                    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|--------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| rh                 |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| rgmsocr (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning   |
|-----------------------|---|
| <b>rh.recVer</b>      | A value that MUST be 0x0.   |
| <b>rh.recInstance</b> | An unsigned integer that specifies the number of contained <b>MSOCR</b> records, as defined in section <a href="#">2.2.44</a> .   |
| <b>rh.recType</b>     | A value that MUST be 0xF11A.  |
| <b>rh.recLen</b>      | An unsigned integer that specifies the number of bytes following the header that contain <b>MSOCR</b> records. This value MUST be the size, in bytes, of <b>rgmsocr</b> . |

**rgmsocr (variable):** An array of **MSOCR** elements, as defined in section [2.2.44](#), that specifies the most recently used custom colors.

## 2.2.44 MSOCR

Referenced by: [OfficeArtColorMRUContainer](#), [OfficeArtSplitMenuColorContainer](#)

The **MSOCR** record specifies either the **RGB** color or the **scheme color** index.

|     |   |   |   |   |   |   |   |   |   |       |    |    |    |    |    |    |    |    |    |      |    |    |    |    |    |    |    |         |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|-------|----|----|----|----|----|----|----|----|----|------|----|----|----|----|----|----|----|---------|----|----|----|
| 0   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10    | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20   | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28      | 29 | 30 | 31 |
| red |   |   |   |   |   |   |   |   |   | green |    |    |    |    |    |    |    |    |    | blue |    |    |    |    |    | A  | B  | unused2 |    |    |    |

**red (1 byte):** An unsigned byte that specifies the intensity of the red color channel. A value of 0x00 specifies no red color. A value of 0xFF specifies full red intensity.

**green (1 byte):** An unsigned byte that specifies the intensity of the green color channel. A value of 0x00 specifies no green color. A value of 0xFF specifies full green intensity.

**blue (1 byte):** An unsigned byte that specifies the intensity of the blue color channel. A value of 0x00 specifies no blue color. A value of 0xFF specifies full blue intensity.

**A - unused1 (3 bits):** A value that is undefined and MUST be ignored.

**B - fSchemeIndex (1 bit):** A bit that specifies whether the current **color scheme** will be used to determine the color. A value of 0x1 specifies that **red** is an index into the current scheme color table. If this value is 0x1, **green** and **blue** MUST be 0x00.

**unused2 (4 bits):** A value that is undefined and MUST be ignored.

## 2.2.45 OfficeArtSplitMenuColorContainer

Referenced by: [OfficeArtDggContainer](#)

The **OfficeArtSplitMenuColorContainer** record specifies a container for the colors that were most recently used to format **shapes**.

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| rh              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| smca (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field                 | Meaning                          |
|-----------------------|----------------------------------|
| <b>rh.recVer</b>      | A value that MUST be 0x0.        |
| <b>rh.recInstance</b> | A value that MUST be 0x004.      |
| <b>rh.recType</b>     | A value that MUST be 0xF11E.     |
| <b>rh.recLen</b>      | A value that MUST be 0x00000010. |

**smca (variable):** An array of **MSOCR** records, as defined in section [2.2.44](#), that specifies the colors that were most recently used to format shapes. The number of elements in the array MUST be four. The elements specify, in order, the fill color, the line color, the shadow color, and the 3-D color.

## 2.2.46 OfficeArtIDCL

Referenced by: [OfficeArtFDGGBlock](#)

The **OfficeArtIDCL** record specifies a file identifier cluster, which is used to group **shape** identifiers within a **drawing**.

|          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| dgid     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| cspidCur |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**dgid (4 bytes):** An **MSODGID** structure, as defined in section [2.1.1](#), specifying the drawing identifier that owns this identifier cluster.

**cspidCur (4 bytes):** An unsigned integer that, if less than 0x00000400, specifies the largest shape identifier that is currently assigned in this cluster, or that otherwise specifies that no shapes can be added to the drawing.

## 2.2.47 OfficeArtFDGG

Referenced by: [OfficeArtFDGGBlock](#)

The **OfficeArtFDGG** record specifies document-wide information about all of the **drawings** that have been saved in the file.

|          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| spidMax  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cidcl    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cspSaved |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cdgSaved |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**spidMax (4 bytes):** An **MSOSPID** structure, as defined in section 2.1.2, specifying the current maximum **shape** identifier that is used in any drawing. This value **MUST** be less than 0x03FFD7FF.

**cidcl (4 bytes):** An unsigned integer that specifies the number of **OfficeArtIDCL** records, as defined in section 2.2.46, + 1. This value **MUST** be less than 0x0FFFFFFF.

**cspSaved (4 bytes):** An unsigned integer specifying the total number of shapes that have been saved in all of the drawings.

**cdgSaved (4 bytes):** An unsigned integer specifying the total number of drawings that have been saved in the file.

### 2.2.48 OfficeArtFDGGBlock

Referenced by: [OfficeArtDggContainer](#)

The **OfficeArtFDGGBlock** record specifies document-wide information about all of the **drawings** that have been saved in the file.

|                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| head (16 bytes)   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Rgidcl (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section 2.2.1, that specifies the header for this record. The following table specifies the subfields.

| Field          | Meaning                            |
|----------------|------------------------------------|
| rh.recVer      | A value that <b>MUST</b> be 0x0.   |
| rh.recInstance | A value that <b>MUST</b> be 0x000. |

| Field      | Meaning  |
|------------|--|
| rh.recType | A value that MUST be 0xF006.   |
| rh.recLen  | A value that MUST be $0x00000010 + ((\text{head.cidcl} - 1) * 0x00000008)$ |

**head (16 bytes):** An **OfficeArtFDGG** record, as defined in section [2.2.47](#), that specifies document-wide information.

**Rgidcl (variable):** An array of **OfficeArtIDCL** elements, as defined in section [2.2.46](#), specifying file identifier clusters that are used in the drawing. The number of elements in the array is specified by **(head.cidcl - 1)**.

## 2.2.49 OfficeArtFDG

Referenced by: [OfficeArtDgContainer](#)

The **OfficeArtFDG** record specifies the number of **shapes**, the **drawing** identifier, and the shape identifier of the last shape in a drawing.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| rh      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| csp     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| spidCur |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rh (8 bytes):** An **OfficeArtRecordHeader** structure, as defined in section [2.2.1](#), that specifies the header for this record. The following table specifies the subfields.

| Field          | Meaning   |
|----------------|---|
| rh.recVer      | A value that MUST be 0x0.   |
| rh.recInstance | A value that specifies the drawing identifier and that MUST be less than or equal to 0xFFE. |
| rh.recType     | A value that MUST be 0xF008.  |
| rh.recLen      | A value that MUST be 0x00000008.  |

**csp (4 bytes):** An unsigned integer that specifies the number of shapes in this drawing.

**spidCur (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the shape identifier of the last shape in this drawing.

## 2.2.50 MSOSHADETYPE

Referenced by: [fillShadeType](#)

The **MSOSHADETYPE** record specifies the interpolation of colors between the color/position values that are stated for the fill. The values can be combined to produce compound effects.

|   |   |   |   |   |         |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5       | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| A | B | C | D | E | unused1 |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**A - msoshadeNone (1 bit):** A bit that specifies whether color correction will be performed after interpolation. A value of 0x1 specifies that no color correction will be performed after interpolation.

**B - msoshadeGamma (1 bit):** A bit that specifies whether **gamma correction** will be applied after interpolation.

**C - msoshadeSigma (1 bit):** A bit that specifies whether a **sigma transfer function** will be applied after interpolation.

**D - msoshadeBand (1 bit):** A bit that specifies whether a flat band will be added at the start of the interpolation.

**E - msoshadeOneColor (1 bit):** A bit that specifies whether only one color will be used for the fill color.

**unused1 (27 bits):** A value that is undefined and MUST be ignored.

### 2.2.51 IMsoArray

Referenced by: [dgmConstrainBounds\\_complex](#), [fillShadeColors\\_complex](#), [lineBottomDashStyle\\_complex](#), [lineDashStyle\\_complex](#), [lineLeftDashStyle\\_complex](#), [lineRightDashStyle\\_complex](#), [lineTopDashStyle\\_complex](#), [pAdjustHandles\\_complex](#), [pConnectionSites\\_complex](#), [pConnectionSitesDir\\_complex](#), [pInscribe\\_complex](#), [pRelationTbl\\_complex](#), [pSegmentInfo\\_complex](#), [pVertices\\_complex](#), [pWrapPolygonVertices\\_complex](#), [tableRowProperties\\_complex](#)

The **IMsoArray** record specifies an array that contains elements of a specific size.

|        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| nElems |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | nElemsAlloc     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cbElem |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | data (variable) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**nElems (2 bytes):** An unsigned integer that specifies the number of array elements that are contained in this record.

**nElemsAlloc (2 bytes):** An unsigned integer that specifies the maximum number of array elements that this record can contain. This value MUST be greater than or equal to **nElems**.

**cbElem (2 bytes):** An unsigned integer that specifies the size, in bytes, of each element in the **data** array. If this value equals 0xFFFF0, this record contains an array of truncated 8-byte elements. In this case, only the four low-order bytes of each element are recorded. The four high-order bytes equal 0x00000000, and the four low-order bytes of each element are contained in **data**.

**data (variable):** An array that contains **nElems** elements, each of which is **cbElem** bytes in size. The total size of **data** thus equals (**cbElem** \* **nElems**) bytes. If **cbElem** equals 0xFFFF0, each element is 4 bytes in size, and the total size of **data** equals (4 \* **nElems**) bytes.

## 2.2.52 IMsoInkData

Referenced by: [pInkData complex](#)

The **IMsoInkData** record specifies the **ink** data for a **shape**.

|                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| CLSID_InkDisp (16 bytes) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| cbBlob                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| data (variable)          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**CLSID\_InkDisp (16 bytes):** A GUID that MUST be {937C1A34-151D-4610-9CA6-A8CC9BDB5D83}.

**cbBlob (4 bytes):** An unsigned integer specifying the number of bytes that are contained in **data**.

**data (variable):** A variable-length field that specifies serialized ink data, as specified in [\[MC-ISF\]](#).

## 2.2.53 MSOPATHINFO

The **MSOPATHINFO** record specifies how a series of **POINT** values, as defined in section [2.2.55](#), are to be interpreted to construct a path.

|      |   |   |          |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|----------|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3        | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| type |   |   | segments |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**type (3 bits):** An **MSOPATHTYPE** enumeration value, as defined in section [2.4.30](#), that specifies how the path is to be drawn. If this field contains an escape value, this record is treated as an **MSOPATHESCAPEINFO** record, as defined in section [2.2.54](#).

**segments (13 bits):** An unsigned integer that specifies the number of segments to process.

## 2.2.54 MSOPATHESCAPEINFO

The **MSOPATHESCAPEINFO** record specifies how a path is constructed. This record is used in conjunction with **MSOPATHINFO** record, as defined in section [2.2.53](#), and an array of **POINT** data, as defined in section [2.2.55](#), to build a path.

|      |   |   |        |   |   |   |          |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|--------|---|---|---|----------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3      | 4 | 5 | 6 | 7        | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| type |   |   | escape |   |   |   | segments |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



**type (3 bits):** An **MSOPATHTYPE** enumeration value, as defined in section [2.4.30](#), that specifies how the path is to be drawn. If this field does not contain an escape value, this record is treated as an **MSOPATHINFO** record, as defined in section 2.2.53.

**escape (5 bits):** An **MSOPATHESCAPE** enumeration value, as defined in section [2.4.31](#), that specifies how path information is interpreted and segments joined.

**segments (8 bits):** An unsigned integer that specifies the number of segments to process.

### 2.2.55 POINT

Referenced by: [OfficeArtMetafileHeader](#)

The **POINT** record specifies a two-dimensional (2-D) point.

|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | x  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | y  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**x (4 bytes):** A signed integer that specifies the x-coordinate of this point. The coordinate system that is used for this value is dependent on the scenario in which it is used.

**y (4 bytes):** A signed integer that specifies the y-coordinate of this point. The coordinate system that is used for this value is dependent on the scenario in which it is used.

### 2.2.56 RECT

Referenced by: [OfficeArtMetafileHeader](#)

The **RECT** record specifies a 2-D rectangle.

|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | left   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | top    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | right  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | bottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**left (4 bytes):** A signed integer that specifies the x-coordinate of the top-left point of this rectangle. The coordinate system that is used for this value is dependent on the scenario in which it is used.

**top (4 bytes):** A signed integer that specifies the y-coordinate of the top-left point of this rectangle. The coordinate system that is used for this value is dependent on the scenario in which it is used.

**right (4 bytes):** A signed integer that specifies the x-coordinate of the bottom-right point of this rectangle. The coordinate system that is used for this value is dependent on the scenario in which it is used.

**bottom (4 bytes):** A signed integer that specifies the y-coordinate of the bottom-right point of this rectangle. The coordinate system that is used for this value is dependent on the scenario in which it is used.

### 2.2.57 ADJH

The **ADJH** record specifies a single **adjust handle** that a user can employ to manipulate the geometry of a **shape**.

|        |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14      | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| A      | B | C | D | E | F | G | H | I | J | K  | L  | M  | N  | unused1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| apX    |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| apY    |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| xRange |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| yRange |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| xMin   |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| xMax   |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| yMin   |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| yMax   |   |   |   |   |   |   |   |   |   |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**A - fahInverseX (1 bit):** A bit that specifies whether the x-coordinate of this adjust handle is inverted according to the following formula:

$$x_{\text{new}} = \text{right} - x_{\text{old}}$$

where **right** means the right coordinate of the **bounding rectangle** of the **geometry space** as specified by the [geoRight](#) property of this shape. Note that all the values are specified in the geometry space.

**B - fahInverseY (1 bit):** A bit that specifies whether the y-coordinate of this adjust handle is inverted according to the following formula:

$$y_{\text{new}} = \text{bottom} - y_{\text{old}}$$

where **bottom** means the bottom coordinate of the bounding rectangle of the geometry space as specified by the [geoBottom](#) property of this shape. Note that all the values are specified in the geometry space.

**C - fahSwitchPosition (1 bit):** A bit that specifies whether the x- and y-coordinates of this adjust handle are swapped if the shape is taller than it is wide.

**D - fahPolar (1 bit):** A bit that specifies whether the coordinates of this adjust handle are polar coordinate values rather than Cartesian coordinate values. The following table specifies the meaning of each value for this bit.

| Value | Meaning  |
|-------|--|
| 0x0   | The coordinates of this adjust handle are Cartesian coordinate values.   |
| 0x1   | The x-coordinate of this adjust handle specifies the radius in geometry space units; the y-coordinate specifies the angle, in degrees, as a value of type <b>FixedPoint</b> (as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6); and ( <b>xRange,yRange</b> ) specifies the origin of the polar coordinate system in geometry space. The value of <b>fahMap</b> MUST NOT equal 0x1. |

**E - fahMap (1 bit):** A bit that specifies whether the position of the adjust handle is mapped from the entire range of the geometry space of this shape to the range that is specified by the values of **xRange** and **yRange**. If this value equals 0x1, **fahPolar** MUST NOT equal 0x1.

**F - fahPin (1 bit):** A bit that specifies whether the position of this adjust handle is constrained to exist within the rectangle that is specified by **xMin**, **xMax**, **yMin**, and **yMax**.

**G - fahUnused (1 bit):** A value that is undefined and MUST be ignored.

**H - fahxMin (1 bit):** A bit that specifies whether **xMin** is interpreted as an index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), for this shape rather than as a constant value.

**I - fahxMax (1 bit):** A bit that specifies whether **xMax** is interpreted as an index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), for this shape rather than as a constant value.

**J - fahyMin (1 bit):** A bit that specifies whether **yMin** is interpreted as an index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), for this shape rather than as a constant value.

**K - fahyMax (1 bit):** A bit that specifies whether **yMax** is interpreted as an index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), for this shape rather than as a constant value.

**L - fahxRange (1 bit):** A bit that specifies whether **xRange** is interpreted as an index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), for this shape rather than as a constant value.

**M - fahyRange (1 bit):** A bit that specifies whether **yRange** is interpreted as an index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), for this shape rather than as a constant value.

**N - fahPolarPin (1 bit):** A bit that specifies whether the x-coordinate of this adjust handle is constrained to exist within the range that is specified by **xMin** and **xMax**, inclusive.

**unused1 (18 bits):** A value that is undefined and MUST be ignored.

**apX (4 bytes):** An unsigned integer that specifies the positioning of the x-coordinate of this adjust handle. The following table specifies the allowed values.

| Value                 | Positioning  |
|-----------------------|--|
| 0x00000000            | Position the x-coordinate of this adjust handle on the left perimeter of this shape.   |
| 0x00000001            | Position the x-coordinate of this adjust handle on the right perimeter of this shape.  |
| 0x00000002            | Position the x-coordinate of this adjust handle along the horizontal center of this shape.   |
| 0x00000003–0x00000082 | Position the x-coordinate of this adjust handle according to an entry in the <b>pGuides_complex</b> array, as defined in section <a href="#">2.3.6.27</a> , for this shape. The zero-based index into the <b>pGuides_complex</b> array is derived by |

| Value      | Positioning  |
|------------|--|
|            | subtracting 0x00000003 from the value.   |
| 0x00000100 | Position the x-coordinate of this adjust handle according to the value of the <b>adjustValue</b> property, as defined in section 2.3.6.10, of this shape.  |
| 0x00000101 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust2Value</b> property, as defined in section 2.3.6.11, of this shape. |
| 0x00000102 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust3Value</b> property, as defined in section 2.3.6.12, of this shape. |
| 0x00000103 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust4Value</b> property, as defined in section 2.3.6.13, of this shape. |
| 0x00000104 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust5Value</b> property, as defined in section 2.3.6.14, of this shape. |
| 0x00000105 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust6Value</b> property, as defined in section 2.3.6.15, of this shape. |
| 0x00000106 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust7Value</b> property, as defined in section 2.3.6.16, of this shape. |
| 0x00000107 | Position the x-coordinate of this adjust handle according to the value of the <b>adjust8Value</b> property, as defined in section 2.3.6.17, of this shape. |

**apY (4 bytes):** An unsigned integer that specifies the positioning of the y-coordinate of this adjust handle. The following table specifies the allowed values.

| Value                 | Positioning  |
|-----------------------|--|
| 0x00000000            | Position the y-coordinate of this adjust handle on the top perimeter of this shape.  |
| 0x00000001            | Position the y-coordinate of this adjust handle on the bottom perimeter of this shape.   |
| 0x00000002            | Position the y-coordinate of this adjust handle along the vertical center of this shape.   |
| 0x00000003–0x00000082 | Position the y-coordinate of this adjust handle according to an entry in the <b>pGuides_complex</b> array, as defined in section 2.3.6.27, for this shape. The zero-based index into the <b>pGuides_complex</b> array is derived by subtracting 0x00000003 from the value. |
| 0x00000100            | Position the y-coordinate of this adjust handle according to the value of the <b>adjustValue</b> property, as defined in section 2.3.6.10, of this shape.  |
| 0x00000101            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust2Value</b> property, as defined in section 2.3.6.11, of this shape.   |
| 0x00000102            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust3Value</b> property, as defined in section 2.3.6.12, of this shape.   |
| 0x00000103            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust4Value</b> property, as defined in section 2.3.6.13, of this shape.   |
| 0x00000104            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust5Value</b> property, as defined in section 2.3.6.14, of this shape.   |
| 0x00000105            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust6Value</b> property, as defined in section 2.3.6.15, of this shape.   |
| 0x00000106            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust7Value</b> property, as defined in section 2.3.6.16, of this shape.   |
| 0x00000107            | Position the y-coordinate of this adjust handle according to the value of the <b>adjust8Value</b> property, as defined in section 2.3.6.17, of this shape.   |

**xRange (4 bytes):** A signed integer that specifies the x-coordinate of a value that is used to control the position of this adjust handle. If **fahxRange** equals 0x0, the value is used directly. If

**fahxRange** equals 0x1, 0x00000003 is subtracted from the value, and the result is used as a zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, for this shape to calculate the actual value.

**yRange (4 bytes):** A signed integer that specifies the y-coordinate of a value that is used to control the position of this adjust handle. If **fahyRange** equals 0x0, the value is used directly. If **fahyRange** equals 0x1, 0x00000003 is subtracted from the value, and the result is used as a zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, for this shape to calculate the actual value.

**xMin (4 bytes):** A signed integer that specifies the x-coordinate of a value that is used to control the position of this adjust handle. If **fahxMin** equals 0x0, the value is used directly. If **fahxMin** equals 0x1, 0x00000003 is subtracted from the value, and the result is used as a zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, for this shape to calculate the actual value.

**xMax (4 bytes):** A signed integer that specifies the x-coordinate of a value that is used to control the position of this adjust handle. If **fahxMax** equals 0x0, the value is used directly. If **fahxMax** equals 0x1, 0x00000003 is subtracted from the value, and the result is used as a zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, for this shape to calculate the actual value.

**yMin (4 bytes):** A signed integer that specifies the y-coordinate of a value that is used to control the position of this adjust handle. If **fahyMin** equals 0x0, the value is used directly. If **fahyMin** equals 0x1, 0x00000003 is subtracted from the value, and the result is used as a zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, for this shape to calculate the actual value.

**yMax (4 bytes):** A signed integer that specifies the y-coordinate of a value that is used to control the position of this adjust handle. If **fahyMax** equals 0x0, the value is used directly. If **fahyMax** equals 0x1, 0x00000003 is subtracted from the value, and the result is used as a zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, for this shape to calculate the actual value.

## 2.2.58 SG

Referenced by: [pGuides\\_complex](#)

The **SG** record specifies a formula that is used to calculate a value for use in the **pGuides\_complex** property, as defined in section 2.3.6.27, of this **shape**. Formulas are used to calculate values involved in the geometry of a shape so that a user can adjust some of those values and so that the entire geometry of the shape can adjust appropriately as a result.

|        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15     | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| sgf    |   |   |   |   |   |   |   |   |   |    |    | A  | B  | C  | param1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| param2 |   |   |   |   |   |   |   |   |   |    |    |    |    |    | param3 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**sgf (13 bits):** A set of bits that specifies the formula to use to calculate the value for the guide represented by this record. The formulas specify a combination of **param1**, **param2**, and **param3** values, although not every formula uses all three of the parameters. The following table lists the values for this field along with the formulas that they represent.

| Formula name  | Value  | Calculation               |
|---------------|--------|---------------------------|
| <b>sgfSum</b> | 0x0000 | Addition and subtraction: |

| Formula name       | Value  | Calculation   |
|--------------------|--------|---|
|                    |        | <b>param1 + param2 - param3</b>   |
| <b>sgfProduct</b>  | 0x0001 | Multiplication and division:<br><b>(param1 * param2) / param3</b>   |
| <b>sgfMid</b>      | 0x0002 | Simple average:<br><b>(param1 + param2) / 2</b>   |
| <b>sgfAbsolute</b> | 0x0003 | Absolute value:<br><b>abs(param1)</b>   |
| <b>sgfMin</b>      | 0x0004 | Lesser of two values:<br><b>min(param1, param2)</b>   |
| <b>sgfMax</b>      | 0x0005 | Greater of two values:<br><b>max(param1, param2)</b>  |
| <b>sgfIf</b>       | 0x0006 | Conditional selection:<br><b>param1 &gt; 0 ? param2 : param3</b>  |
| <b>sgfMod</b>      | 0x0007 | Modulus:<br><b>sqrt(param1^2 + param2^2 + param3^2)</b>   |
| <b>sgfATan2</b>    | 0x0008 | Arctangent, where the result equals the angles, in degrees, and is of type <b>FixedPoint</b> as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6:<br><b>atan2(param2, param1)</b>  |
| <b>sgfSin</b>      | 0x0009 | Sine, where <b>param2</b> equals the angles, in degrees, and is of type <b>FixedPoint</b> as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6:<br><b>param1 * sin(param2)</b>  |
| <b>sgfCos</b>      | 0x000A | Cosine, where <b>param2</b> equals the angles, in degrees, and is of type <b>FixedPoint</b> as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6:<br><b>param1 * cos(param2)</b>  |
| <b>sgfCosATan2</b> | 0x000B | Cosine and arctangent in one formula:<br><b>param1 * cos(atan2(param3, param2))</b>   |
| <b>sgfSinATan2</b> | 0x000C | Sine and arctangent in one formula:<br><b>param1 * sin(atan2(param3, param2))</b>   |
| <b>sgfSqrt</b>     | 0x000D | Square root:<br><b>sqrt(param1)</b>   |
| <b>sgfSumAngle</b> | 0x000E | Addition of an angle, in degrees, of type <b>FixedPoint</b> as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6, to two other angles, in degrees, where <b>param2</b> and <b>param3</b> are scaled by 2 <sup>16</sup> :<br><b>param1 + param2*2^16 + param3*2^16</b> |
| <b>sgfEllipse</b>  | 0x000F | Eccentricity formula for an ellipse, where <b>param1</b> is the length of the semi-minor axis and <b>param2</b> is the length of the semi-major axis:<br><b>param3 * sqrt(1 - (param1 / param2)^2)</b>  |
| <b>sgfTan</b>      | 0x0010 | Tangent, where <b>param2</b> equals the angles, in degrees, and is of type <b>FixedPoint</b> as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6:<br><b>param1 * tan(param2)</b>   |

**A - fCalculatedParam1 (1 bit):** A bit that specifies whether this record's **param1** value is a constant or is calculated from another property or formula. The following table specifies the meaning of each value for this bit.

| Value | Meaning   |
|-------|---|
| 0x0   | <b>param1</b> is a constant.                                  |
| 0x1   | <b>param1</b> is calculated from another property or formula. |

**B - fCalculatedParam2 (1 bit):** A bit that specifies whether this record's **param2** value is a constant or is calculated from another property or formula. The following table specifies the meaning of each value for this bit.

| Value | Meaning   |
|-------|---|
| 0x0   | <b>param2</b> is a constant.                                  |
| 0x1   | <b>param2</b> is calculated from another property or formula. |

**C - fCalculatedParam3 (1 bit):** A bit that specifies whether this record's **param3** value is a constant or is calculated from another property or formula. The following table specifies the meaning of each value for this bit.

| Value | Meaning   |
|-------|---|
| 0x0   | <b>param3</b> is a constant.                                  |
| 0x1   | <b>param3</b> is calculated from another property or formula. |

**param1 (16 bits):** A value that is used to calculate the result of this formula. If **fCalculatedParam1** equals 0x0, this value is an unsigned integer constant. If **fCalculatedParam1** equals 0x1, this value specifies a property or formula to use when calculating the result. The following table specifies the allowed values.

| Value  | Calculation  |
|--------|--|
| 0x0140 | The x-coordinate of the center of the <b>geometry space</b> of this shape.                                     |
| 0x0141 | The y-coordinate of the center of the geometry space of this shape.  |
| 0x0142 | The width of the geometry space of this shape.   |
| 0x0143 | The height of the geometry space of this shape.  |
| 0x0147 | The value of the <b>adjustValue</b> property, as defined in section <a href="#">2.3.6.10</a> , of this shape.  |
| 0x0148 | The value of the <b>adjust2Value</b> property, as defined in section <a href="#">2.3.6.11</a> , of this shape. |
| 0x0149 | The value of the <b>adjust3Value</b> property, as defined in section <a href="#">2.3.6.12</a> , of this shape. |
| 0x014A | The value of the <b>adjust4Value</b> property, as defined in section <a href="#">2.3.6.13</a> , of this shape. |
| 0x014B | The value of the <b>adjust5Value</b> property, as defined in section <a href="#">2.3.6.14</a> , of this shape. |
| 0x014C | The value of the <b>adjust6Value</b> property, as defined in section <a href="#">2.3.6.15</a> , of this shape. |
| 0x014D | The value of the <b>adjust7Value</b> property, as defined in section <a href="#">2.3.6.16</a> , of this shape. |
| 0x014E | The value of the <b>adjust8Value</b> property, as defined in section <a href="#">2.3.6.17</a> , of this shape. |

| Value         | Calculation  |
|---------------|--|
| 0x0153        | The value of the <b>xLimo</b> property, as defined in section <a href="#">2.3.6.22</a> .   |
| 0x0154        | The value of the <b>yLimo</b> property, as defined in section <a href="#">2.3.6.23</a> .   |
| 0x01FC        | The value of the <b>fLine</b> bit from the <a href="#">Line Style Boolean Properties</a> of this shape.  |
| 0x0400–0x047F | A value that is calculated from another <b>SG</b> entry in the <b>pGuides_complex</b> array, as defined in section 2.3.6.27, for this shape. The index into the array equals the value minus 0x0400. The index MUST be less than the size of the <b>pGuides_complex</b> array, and it MUST be less than the index of this record in that same array. |
| 0x04F7        | The width, in pixels, of a line in this shape.   |
| 0x04F8        | The width, in pixels, of this shape.   |
| 0x04F9        | The height, in pixels, of this shape.  |
| 0x04FC        | The width, in <b>EMUs</b> , of this shape.   |
| 0x04FD        | The height, in EMUs, of this shape.  |
| 0x04FE        | The width, in EMUs, of this shape divided by 2.  |
| 0x04FF        | The height, in EMUs, of this shape divided by 2.   |

**param2 (16 bits):** A value that is used to calculate the result of this formula. If **fCalculatedParam2** equals 0, this value is an unsigned integer constant. If **fCalculatedParam2** equals 1, this value specifies a property or formula according to the table that is documented for **param1**.

**param3 (16 bits):** A value that is used to calculate the result of this formula. If **fCalculatedParam3** equals 0, this value is an unsigned integer constant. If **fCalculatedParam3** equals 1, this value specifies a property or formula according to the table that is documented for **param1**.

## 2.2.59 TABLEFLAGS

The **TABLEFLAGS** record specifies a collection of bits for a **group** of **shapes** that specifies a table.

|   |   |   |         |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---------|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3       | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| A | B | C | unused1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**A - fIsTable (1 bit):** A bit that specifies whether this group of shapes specifies a table.

**B - fIsTablePlaceholder (1 bit):** A bit that specifies whether this table is a **placeholder**. This bit SHOULD be ignored if the **fIsTable** bit equals 0x0.

**C - fIsTableRTL (1 bit):** A bit that specifies whether the text in this table is **right-to-left** text. This bit SHOULD be ignored if the **fIsTable** bit equals 0x0.

**unused1 (29 bits):** A value that is undefined and MUST be ignored.

## 2.2.60 IHlink

Referenced by: [pihlShape\\_complex](#)

The **IHlink** record specifies a **hyperlink**.



|                           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| CLSID_StdHlink (16 bytes) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| hyperlink (variable)      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**CLSID\_StdHlink (16 bytes):** A GUID that MUST be {79eac9d0-baf9-11ce-8c82-00aa004ba90b}.

**hyperlink (variable):** A variable-length field that specifies a serialized hyperlink object, as specified in [\[MS-OSHARED\]](#) section 2.3.7.1.

### 2.2.61 MSOSHADECOLOR

The **MSOSHADECOLOR** record specifies an intermediate color in the gradient fill and its relative position along the **gradient vector**.

|          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| color    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| position |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**color (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies what color to use in this point. The color in the specified position is pure. Before and after this position the color can be in transition (or pure, depending on whether this is the last position or not).

**position (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the relative position along the gradient. The value MUST be from 0.0 through 1.0, inclusive. A value of 0.0 specifies the start of the gradient. A value of 1.0 specifies the end of the gradient.

## 2.3 Properties

Three property blocks— **OfficeArtFOPT** record, as defined in section [2.2.9](#), **OfficeArtSecondaryFOPT** record, as defined in section [2.2.10](#), and **OfficeArtTertiaryFOPT** record, as defined in section [2.2.11](#), are associated with each **shape** instance. The **OfficeArtSpContainer** record, as defined in section [2.2.14](#), contains each of these property blocks. The **OfficeArtFOPT** and **OfficeArtTertiaryFOPT** property blocks, which are saved with the **drawing group** **OfficeArtDggContainer**, as defined in section [2.2.12](#), establish new defaults for every shape in the file. For example, if the fill color for the drawing group is set to red, any shape in any **diagram** that persists in the file without its own fill color will use red. If no fill color exists in either the document properties or the shape, the default fill color will be used.

If the **fComplex** flag of a property equals 0x1, that property has more data than will fit in the four bytes associated with the simple property types. In this case, the **op** field contains the number of bytes that follow the **OfficeArtRGFOPT** records, as defined in section [2.3.1](#), and that contain the property data.

The structures that are specified in this section are supported at the file level by the applications, but not every application writes every property to the binary file. An application that does not fully support a property can load and save that property unchanged, which is the case for any property introduced in a later version of an application that is opened by an earlier version of the same application. Scenarios also exist in which a later version of an application supports a deprecated property or value by converting it to another property or value and then removing the deprecated one.

The following properties SHOULD [<10>](#) be supported:

- [GeometryText:qtextCSSFont](#)
- [Blip:movie](#)
- The following [Blip Boolean Properties](#):
  - **Blip:fRewind**
  - **Blip:fLooping**
- [Shape:idDiscussAnchor](#)
- [GroupShape:wzTooltip](#)
- [GroupShape:wzScript](#)
- [GroupShape:posh](#)
- [GroupShape:posrelh](#)
- [GroupShape:posv](#)
- [GroupShape:posrelv](#)
- [GroupShape:pctHR](#)
- [GroupShape:alignHR](#)
- [GroupShape:dxHeightHR](#)
- [GroupShape:dxWidthHR](#)
- [GroupShape:wzScriptExtAttr](#)
- [GroupShape:scriptLang](#)
- [GroupShape:wzScriptLangAttr](#)
- [GroupShape:borderTopColor](#)
- [GroupShape:borderLeftColor](#)
- [GroupShape:borderBottomColor](#)
- [GroupShape:borderRightColor](#)
- [GroupShape:tableProperties](#)
- [GroupShape:tableRowProperties](#)
- The following [Group Shape Boolean Properties](#):
  - **GroupShape:fLayoutInCell**

- **GroupShape:fIsBullet**
- **GroupShape:fStandardHR**
- **GroupShape:fNoShadeHR**
- **GroupShape:fHorizRule**
- **GroupShape:fUserDrawn**
- **GroupShape:fAllowOverlap**
- **GroupShape:fReallyHidden**
- **GroupShape:fScriptAnchor**
- [UnknownHTML](#)

The following property SHOULD [<11>](#) be supported:

- [Line Style:fLineOpaqueBackColor](#)

The following properties SHOULD [<12>](#) be supported:

- The following [Shape Boolean Properties](#):
  - Shape:fFlipHOverride
  - Shape:fFlipVOverride
- Diagram:dgmBaseTextScale
- Ink:pInkData
- The following [Ink Boolean Properties](#):
  - Ink:fInkAnnotation
  - Ink:fHitTestInk
  - Ink:fRenderShape
  - Ink:fRenderInk

The following properties SHOULD [<13>](#) be supported:

- [Shape:equationXML](#)
- The following **Shape Boolean Properties**:
  - Shape:fPolicyLabel
  - Shape:fPolicyBarcode
- [GroupShape:metroBlob](#)
- [GroupShape:dhgt](#)
- [SignatureLine:wzSigSetupId](#)
- [SignatureLine:wzSigSetupProvId](#)
- [SignatureLine:wzSigSetupSuggSigner](#)

- [SignatureLine:wzSigSetupSuggSigner2](#)
- [SignatureLine:wzSigSetupSuggSignerEmail](#)
- [SignatureLine:wzSigSetupSignInst](#)
- [SignatureLine:wzSigSetupAddlXml](#)
- [SignatureLine:wzSigSetupProvUrl](#)
- The following [Signature Line Boolean Properties](#):
  - SignatureLine:fSigSetupShowSignDate
  - SignatureLine:fSigSetupAllowComments
  - SignatureLine:fSigSetupSignInstSet
  - SignatureLine:fIsSignatureLine
- [GroupShape2:pctHoriz](#)
- [GroupShape2:pctVert](#)
- [GroupShape2:pctHorizPos](#)
- [GroupShape2:pctVertPos](#)
- [GroupShape2:sizerelh](#)
- [GroupShape2:sizerelv](#)

The following property SHOULD [<14>](#) be supported:

- [ShadowStyle:shadowSoftness](#)

### 2.3.1 OfficeArtRGFOPTE

Referenced by: [OfficeArtFOPT](#), [OfficeArtSecondaryFOPT](#), [OfficeArtTertiaryFOPT](#)

The **OfficeArtRGFOPTE** record specifies a property table, which consists of an array of fixed-size property table entries, followed by a variable-length field of complex data.

| 0                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| rgfopte (variable)     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| complexData (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**rgfopte (variable):** An array of **OfficeArtFOPTE** records, as defined in section [2.2.7](#), that specifies property table entries.

**complexData (variable):** A field of complex data for properties that have the [fComplex](#) bit set to 0x1. The complex data is stored immediately following **rgfopte**.

## 2.3.2 Shape

The **Shape** property set specifies attributes that apply to a **shape** but not to a **group** of shapes.

### 2.3.2.1 hspMaster

The **hspMaster** property specifies the **master shape** for a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | hspMaster |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0301. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**hspMaster (4 bytes):** An **MSOSPID** structure, as defined in section [2.1.2](#), that specifies the identifier of the master shape for the shape. The default value for this property is 0x00000000.

### 2.3.2.2 cxstyle

The **cxstyle** property specifies the **connector** style for this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | cxstyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0303. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cxstyle (4 bytes):** An **MSOCXSTYLE** enumeration value, as defined in section [2.4.25](#), that specifies the connector style for this shape. This property SHOULD be ignored if the **fConnector** bit of the **OfficeArtFSP** record, as defined in section [2.2.40](#), for this shape equals 0x0. The default value for this property is **msocxstyleNone**.

### 2.3.2.3 bWMode

The **bWMode** property specifies how a **shape** will render in black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | bWMode |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0304. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**bWMode (4 bytes):** An **MSOBWMODE** enumeration value, as defined in section [2.4.26](#), that specifies how the shape will render in black-and-white display mode. If the value is **msobwAutomatic**, the **bWModePureBW** property, as defined in section [2.3.2.4](#), SHOULD be used when rendering in pure black-and-white display mode, and the **bWModeBW** property, as defined in section [2.3.2.5](#), SHOULD be used when rendering in grey scale black-and-white display mode. The default value for this property is **msobwAutomatic**.

### 2.3.2.4 bWModePureBW

The **bWModePureBW** property specifies how a **shape** will render in pure black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | bWModePureBW |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0305. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**bWModePureBW (4 bytes):** An **MSOBWMODE** enumeration value, as defined in section [2.4.26](#), that specifies how the shape will render in pure black-and-white display mode. If the value of the **bWMode** property, as defined in section [2.3.2.3](#), is not **msobwAutomatic**, this property SHOULD be ignored. The default value for this property is **msobwAutomatic**.

### 2.3.2.5 bWModeBW

The **bWModeBW** property specifies how a **shape** will render in normal black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | bWModeBW |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0306. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**bWModeBW (4 bytes):** An **MSOBWMODE** enumeration value, as defined in section [2.4.26](#), that specifies how the shape will render in normal black-and-white display mode. If the value of the **bWMode** property, as defined in section [2.3.2.3](#), is not **msobwAutomatic**, this property SHOULD be ignored. The default value for this property is **msobwAutomatic**.

### 2.3.2.6 idDiscussAnchor

The **idDiscussAnchor** property specifies whether a **shape** is an **anchor** for discussion **comments**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | idDiscussAnchor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0307. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**idDiscussAnchor (4 bytes):** An integer that MAY [<15>](#) be used to specify that this shape is an anchor for discussion comments. If the value is 0x00000001, the shape is an anchor for discussion comments. If it is any other value, it SHOULD be ignored. The default value for this property is 0x00000000.

### 2.3.2.7 dgmLayout

The **dgmLayout** property specifies the **diagram** node layout for a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dgmLayout |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0309. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmLayout (4 bytes):** An **MSODGMLO** enumeration value, as defined in section [2.4.29](#), that specifies the diagram layout for the shape. This property SHOULD be ignored if this shape is not a node in a diagram. The default value for this property is 0x000000FF.

### 2.3.2.8 dgmNodeKind

The **dgmNodeKind** property specifies a **diagram** node type for the **shape**.



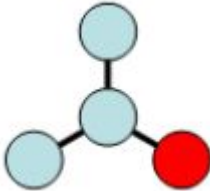
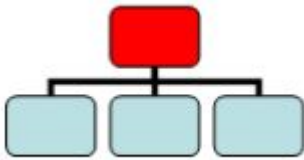
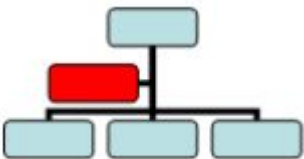
|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dgmNodeKind |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

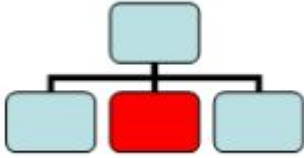
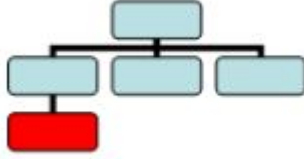
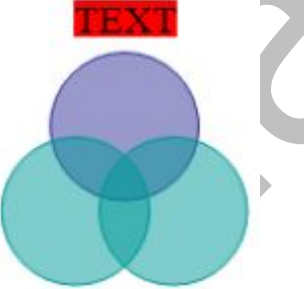
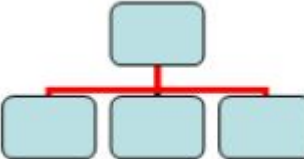
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x030A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmNodeKind (4 bytes):** An integer specifying the type of node that the shape represents in a diagram. This property SHOULD be ignored if the shape is not a node in a diagram. The default value for this property is 0xFFFFFFFF.

The following table lists the possible values and shows the nodes that they represent.

| Name of node type     | Value      | Description   |
|-----------------------|------------|---|
| <b>dgmnkNode</b>      | 0x00000000 | A regular diagram node of no particular type:<br> |
| <b>dgmnkRoot</b>      | 0x00000001 | The root node in an organizational chart:<br>     |
| <b>dgmnkAssistant</b> | 0x00000002 | An assistant in an organizational chart:<br>      |
| <b>dgmnkCoWorker</b>  | 0x00000003 | A coworker in an organizational chart:  |

| Name of node type       | Value      | Description  |
|-------------------------|------------|--|
|                         |            |    |
| <b>dgmnkSubordinate</b> | 0x00000004 | A subordinate in an organizational chart:<br>                                  |
| <b>dgmnkAuxNode</b>     | 0x00000005 | An auxiliary node that displays text associated with another diagram node:<br> |
| <b>dgmnkNil</b>         | 0x0000FFFF | A <b>connector</b> node that connects other diagram nodes:<br>               |

### 2.3.2.9 dgmLayoutMRU

The **dgmLayoutMRU** property specifies the most recently used **diagram** layout for the child shapes of a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dgmLayoutMRU |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x030B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmLayoutMRU (4 bytes):** An **MSODGMLO** enumeration value, as defined in section [2.4.29](#), that specifies the most recently used diagram layout for the child shapes of this shape. This property SHOULD be ignored if the shape is not a node in a diagram. The default value for this property is 0x000000FF.

### 2.3.2.10 equationXML

The **equationXML** property specifies alternative mathematical content for an image.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | equationXML |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x030C.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>equationXML_complex</b> property, as defined in section <a href="#">2.3.2.11</a> , exists. If the value equals 0x1, <b>equationXML_complex</b> MUST exist. |

**equationXML (4 bytes):** The number of bytes of data in the **equationXML\_complex** property, as defined in section [2.3.2.11](#). If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.2.11 equationXML\_complex

The **equationXML\_complex** property specifies additional data for the **equationXML** property, as defined in section [2.3.2.10](#). If the **opid.fComplex** bit of **equationXML** equals 0x1, this property MUST exist.

|                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| equationXML_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                            |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**equationXML\_complex (variable):** An **XML** string encoded with **UTF-8** in the Office Open XML Math format, as specified in [\[ISO/IEC29500-4:2012\]](#), that MAY <16> be used as alternative content for an image.

### 2.3.2.12 Shape Boolean Properties

The **Shape Boolean Properties** specify a 32-bit field of Boolean properties for a **shape**.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  | K  | L  |    |    |    |
| unused5 | M | N | O | P | Q | R | S | T | U | V  | W  | X  |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for these properties. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x033F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (4 bits):** A value that is undefined and MUST be ignored.

**A - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**B - unused3 (1 bit):** A value that is undefined and MUST be ignored.

**C - fUsefPolicyLabel (1 bit):** A bit that specifies whether the **fPolicyLabel** bit is set. A value of 0x0 specifies that the **fPolicyLabel** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**D - fUsefPolicyBarcode (1 bit):** A bit that specifies whether the **fPolicyBarcode** bit is set. A value of 0x0 specifies that the **fPolicyBarcode** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**E - fUsefFlipHOverride (1 bit):** A bit that specifies whether the **fFlipHOverride** bit is set. A value of 0x0 specifies that the **fFlipHOverride** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

- F - fUsefFlipVOverride (1 bit):** A bit that specifies whether the **fFlipVOverride** bit is set. A value of 0x0 specifies that the **fFlipVOverride** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- G - fUsefOleIcon (1 bit):** A bit that specifies whether the **fOleIcon** bit is set. A value of 0x0 specifies that the **fOleIcon** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- H - fUsefPreferRelativeResize (1 bit):** A bit that specifies whether the **fPreferRelativeResize** bit is set. A value of 0x0 specifies that the **fPreferRelativeResize** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- I - fUsefLockShapeType (1 bit):** A bit that specifies whether the **fLockShapeType** bit is set. A value of 0x0 specifies that the **fLockShapeType** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- J - fUsefInitiator (1 bit):** A bit that specifies whether the **fInitiator** bit is set. A value of 0x0 specifies that the **fInitiator** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- K - unused4 (1 bit):** A value that is undefined and MUST be ignored.
- L - fUsefBackground (1 bit):** A bit that specifies whether the **fBackground** bit is set. A value of 0x0 specifies that the **fBackground** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- unused5 (4 bits):** A value that is undefined and MUST be ignored.
- M - unused6 (1 bit):** A value that is undefined and MUST be ignored.
- N - unused7 (1 bit):** A value that is undefined and MUST be ignored.
- O - fPolicyLabel (1 bit):** A bit that MAY [<17>](#) be used to specify whether this object is an image of a label that identifies the containing document as part of a **labeling policy** in a **content management system**. If **fUsefPolicyLabel** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- P - fPolicyBarcode (1 bit):** A bit that MAY [<18>](#) be used to specify whether this object is a barcode image that identifies the containing document as part of a content management system. If **fUsefPolicyBarcode** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- Q - fFlipHOverride (1 bit):** A bit that acts as an override for the **fFlipH** bit of the **Transform Boolean Properties** in the **OfficeArtFSP** of the containing **OfficeArtSpContainer**. If this value equals 0x1, it SHOULD [<19>](#) be used instead of **fFlipH**. If **fUsefFlipHOverride** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- R - fFlipVOverride (1 bit):** A bit that acts as an override for the **fFlipV** bit of the [Transform Boolean Properties](#) in the **OfficeArtFSP** of the containing **OfficeArtSpContainer**. If this value equals 0x1, it SHOULD [<20>](#) be used instead of **fFlipV**. If **fUsefFlipVOverride** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- S - fOleIcon (1 bit):** A bit that specifies whether this **OLE object** will be displayed as an icon. If the **fOleShape** bit in the **OfficeArtFSP** record, as defined in section [2.2.40](#), of the containing **OfficeArtSpContainer** record, as defined in section [2.2.14](#), equals 0x0, this bit MUST be ignored. If **fUsefOleIcon** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- T - fPreferRelativeResize (1 bit):** A bit that specifies whether the application's user interface for resizing this shape SHOULD express the size relative to the original size rather than to the current

size. If **fUsefPreferRelativeResize** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

**U - fLockShapeType (1 bit):** A bit that specifies whether the shape type is locked. If **fUsefLockShapeType** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

**V - fInitiator (1 bit):** A bit that specifies whether this shape SHOULD be processed by a **rules** engine. If **fUsefInitiator** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

**W - reserved1 (1 bit):** A value that is undefined and MUST be ignored.

**X - fBackground (1 bit):** A bit that specifies whether this shape is the **background shape** of a **drawing**. If **fUsefBackground** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

### 2.3.3 Callout

The **Callout** property set specifies the visual attributes of a **callout shape**.

#### 2.3.3.1 unused832

The **unused832** property is undefined and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused832 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0340. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused832 (4 bytes):** A value that is undefined and MUST be ignored.

#### 2.3.3.2 dxyCalloutGap

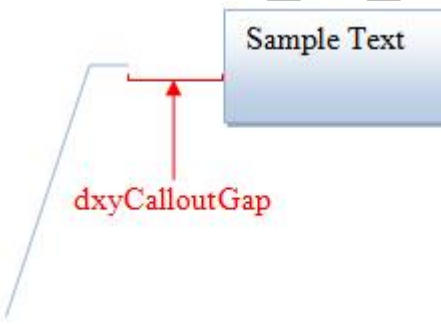
The **dxyCalloutGap** property specifies the distance from the box of this **callout** to the first point of this callout.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dxyCalloutGap |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table further specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0341. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxyCalloutGap (4 bytes):** A signed integer that specifies the distance, in **EMUs**, from the callout box to the first vertex of the callout, as shown in the following figure. This value SHOULD be in the range from 0x00000000 through 0x0132F53F. The default value for this property is 0x00001DB0.



**Figure 2: The gap between the callout box and the first vertex of the callout**

### 2.3.3.3 spcoa

The **spcoa** property specifies the connection angle of this **callout**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | spcoa |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0342. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**spcoa (4 bytes):** An enumeration value that specifies the connection angle of this callout, according to the following table. If the **rh.recInstance** field in the **OfficeArtFSP** record, as defined in section 2.2.40, for this callout **shape** is set to [msosptCallout90](#), [msosptAccentCallout90](#), [msosptBorderCallout90](#), or [msosptAccentBorderCallout90](#), this value MUST equal **msospcoaAny**. The default value for this property is **msospcoaAny**.

| Name               | Value      | Description   |
|--------------------|------------|---|
| <b>msospcoaAny</b> | 0x00000000 | The callout is drawn according to its list of vertices. |
| <b>msospcoa30</b>  | 0x00000001 | The callout is drawn at a 30-degree angle.              |
| <b>msospcoa45</b>  | 0x00000002 | The callout is drawn at a 45-degree angle.              |
| <b>msospcoa60</b>  | 0x00000003 | The callout is drawn at a 60-degree angle.              |
| <b>msospcoa90</b>  | 0x00000004 | The callout is drawn vertically.                        |
| <b>msospcoa0</b>   | 0x00000005 | The callout is drawn horizontally.                      |

### 2.3.3.4 spcod

The **spcod** property specifies where this **callout** connects to the callout box.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | spcod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0343. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**spcod (4 bytes):** An enumeration value that specifies the connection position according to the following table.



| Name                     | Value      | Description   |
|--------------------------|------------|---|
| <b>msospcodTop</b>       | 0x00000000 | This callout connects to the top of the callout box.  |
| <b>msospcodCenter</b>    | 0x00000001 | This callout connects to the callout box at the midpoint of its top and bottom coordinates.   |
| <b>msospcodBottom</b>    | 0x00000002 | This callout connects to the bottom of the callout box.   |
| <b>msospcodSpecified</b> | 0x00000003 | This callout connects to the callout box as defined by the <b>dxycalloutDropSpecified</b> property, as defined in section <a href="#">2.3.3.5</a> . |

If the **rh.recInstance** field of the **OfficeArtFSP** record, as defined in section [2.2.40](#), for this callout **shape** is set to [msosptCallout90](#), [msosptAccentCallout90](#), [msosptBorderCallout90](#), or [msosptAccentBorderCallout90](#), the top and bottom of the callout box are defined along the same dimensions as the line segment of the callout. The bottom of the callout is the end with a variable position, as shown in the following figure. The default value for this property is **msospcodSpecified**.



**Figure 3: The bottom and the top of the callout**

### 2.3.3.5 dxycalloutDropSpecified

The **dxycalloutDropSpecified** property specifies the distance between this **callout** and the callout box.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dxycalloutDropSpecified |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0344. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxycalloutDropSpecified (4 bytes):** A signed integer that specifies the distance, in **EMUs**, between the callout and the top of the callout box. This value SHOULD be in the range from 0x00000000 through 0x0132F53F and MUST be ignored unless the **spcod** property, as defined in section [2.3.3.4](#), equals **msospcodSpecified**. The default value for this property is 0x0001BE7C.

### 2.3.3.6 dxyCalloutLengthSpecified

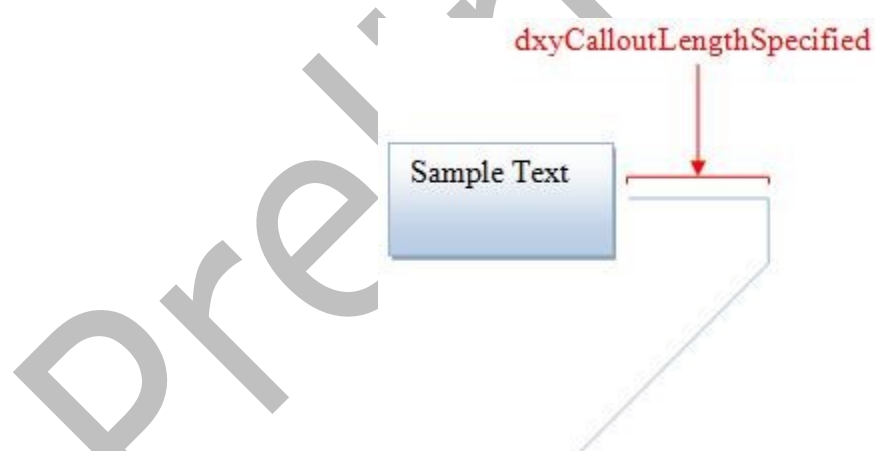
The **dxyCalloutLengthSpecified** property specifies the length of this **callout**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dxyCalloutLengthSpecified |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0345. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxyCalloutLengthSpecified (4 bytes):** A signed integer that specifies the length, in **EMUs**, of the first callout segment, as shown in the following figure. This value SHOULD be in the range from 0x00000000 through 0x0132F53F and MUST be ignored unless the **fCalloutLengthSpecified** bit of [Callout Boolean Properties](#) equals 0x1. The default value for this property is 0x00000000.



**Figure 4: The first segment of the callout**

### 2.3.3.7 Callout Boolean Properties

The **Callout Boolean Properties** specify a 32-bit field of Boolean properties for a **callout shape**.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15      | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  |    |
| unused2 |   |   |   |   |   |   |   |   |   | H  | I  | J  | K  | L  | M       | N  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x037F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (9 bits):** A value that is undefined and MUST be ignored.

**A - fUsefCallout (1 bit):** A bit that specifies whether the **fCallout** bit is set. A value of 0x0 specifies that the **fCallout** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**B - fUsefCalloutAccentBar (1 bit):** A bit that specifies whether the **fCalloutAccentBar** bit is set. A value of 0x0 specifies that the **fCalloutAccentBar** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**C - fUsefCalloutTextBorder (1 bit):** A bit that specifies whether the **fCalloutTextBorder** bit is set. A value of 0x0 specifies that the **fCalloutTextBorder** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**D - fUsefCalloutMinusX (1 bit):** A bit that specifies whether the **fCalloutMinusX** bit is set. A value of 0x0 specifies that the **fCalloutMinusX** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**E - fUsefCalloutMinusY (1 bit):** A bit that specifies whether the **fCalloutMinusY** bit is set. A value of 0x0 specifies that the **fCalloutMinusY** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**F - fUsefCalloutDropAuto (1 bit):** A bit that specifies whether the **fCalloutDropAuto** bit is set. A value of 0x0 specifies that the **fCalloutDropAuto** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**G - fUsefCalloutLengthSpecified (1 bit):** A bit that specifies whether the **fCalloutLengthSpecified** bit is set. A value of 0x0 specifies that the **fCalloutLengthSpecified** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused2 (9 bits):** A value that is undefined and MUST be ignored.

**H - fCallout (1 bit):** A bit that specifies whether the shape is a callout shape. This value MUST be ignored if **fUsefCallout** equals 0x0. The default value for this property is 0x0.

- I - fCalloutAccentBar (1 bit):** A bit that specifies whether the callout shape has an accent bar. This value MUST be ignored if **fUsefCalloutAccentBar** equals 0x0. The default value for this property is 0x0.
- J - fCalloutTextBorder (1 bit):** A bit that specifies whether the callout shape has a text border. This value MUST be ignored if **fUsefCalloutTextBorder** equals 0x0. The default value for this property is 0x1.
- K - fCalloutMinusX (1 bit):** A bit that specifies whether the callout shape is flipped on the x-axis. This value MUST be ignored if **fUsefCalloutMinusX** equals 0x0. The default value for this property is 0x0.
- L - fCalloutMinusY (1 bit):** A bit that specifies whether the callout shape is flipped on the y-axis. This value MUST be ignored if **fUsefCalloutMinusY** equals 0x0. The default value for this property is 0x0.
- M - fCalloutDropAuto (1 bit):** A bit that specifies whether the location of the callout shape is calculated based on the endpoint of the object being called out. If this value equals 0x1, the callout SHOULD be located at the **dxycalloutGap** property, as defined in section [2.3.3.2](#), value distance above or below the shape. This value MUST be ignored if **fUsefCalloutDropAuto** equals 0x0. The default value for this property is 0x0.
- N - fCalloutLengthSpecified (1 bit):** A bit that specifies whether the **dxycalloutLengthSpecified** property, as defined in section [2.3.3.6](#), SHOULD be used. This value MUST be ignored if **fUsefCalloutLengthSpecified** equals 0x0. The default value for this property is 0x0.

### 2.3.4 Group Shape

The **Group Shape** property set specifies properties that are applicable to a **group** or a **shape**.

#### 2.3.4.1 wzName

The **wzName** property specifies the name of a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzName |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

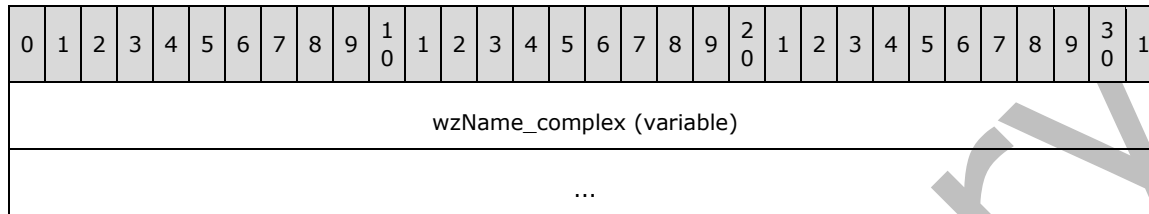
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0380.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzName_complex</b> property, as defined in section <a href="#">2.3.4.2</a> , exists. If the value equals 0x1, <b>wzName_complex</b> MUST exist. |

**wzName (4 bytes):** The number of bytes of data in the **wzName\_complex** property, as defined in section 2.3.4.2. If **opid.fComplex** equals 0x0, this value MUST equal 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.2 wzName\_complex

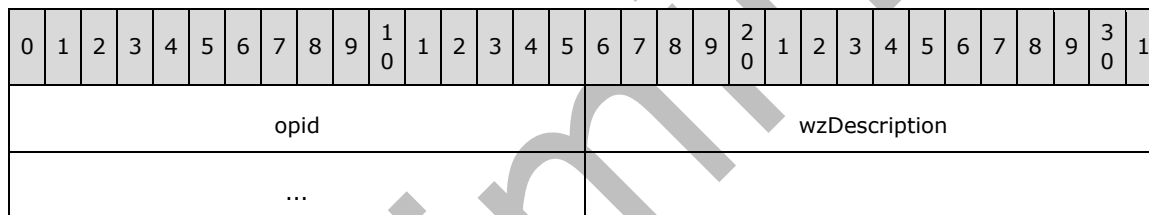
The **wzName\_complex** property specifies additional data for the **wzName** property, as defined in section 2.3.4.1. If the **opid.fComplex** bit of **wzName** equals 0x1, this property MUST exist.



**wzName\_complex (variable):** A null-terminated **Unicode** string that specifies the name for this **shape**.

### 2.3.4.3 wzDescription

The **wzDescription** property specifies a textual description for a **shape**.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0381.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzDescription_complex</b> property, as defined in section 2.3.4.4, exists. If the value equals 0x1, <b>wzDescription_complex</b> MUST exist. |

**wzDescription (4 bytes):** The number of bytes of data in the **wzDescription\_complex** property, as defined in section 2.3.4.4. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.4 wzDescription\_complex

The **wzDescription\_complex** property specifies additional data for the **wzDescription** property, as defined in section 2.3.4.3. If the **opid.fComplex** bit of **wzDescription** equals 0x1, this property MUST exist.

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| wzDescription_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**wzDescription\_complex (variable):** A null-terminated **Unicode** string that specifies the description for this **shape**.

### 2.3.4.5 pihlShape

The **pihlShape** property specifies a **hyperlink** for a **shape**.

|      |   |   |   |   |   |   |   |   |   |   |   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   | pihlShape |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...  |   |   |   |   |   |   |   |   |   |   |   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0382.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pihlShape_complex</b> property, as defined in section <a href="#">2.3.4.6</a> , exists. If the value equals 0x1, <b>pihlShape_complex</b> MUST exist. |

**pihlShape (4 bytes):** The number of bytes of data in the **pihlShape\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.6 pihlShape\_complex

The **pihlShape\_complex** property specifies additional data for the **pihlShape** property, as defined in section [2.3.4.5](#). If the **opid.fComplex** bit of **pihlShape** equals 0x1, this property MUST exist.

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| pihlShape_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**pihlShape\_complex (variable):** An **IHlink** record, as defined in section [2.2.60](#), that specifies the **hyperlink** for this **shape**.

### 2.3.4.7 pWrapPolygonVertices

The **pWrapPolygonVertices** property specifies a list of points that is used to define a **wrap polygon** for a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pWrapPolygonVertices |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0383.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pWrapPolygonVertices_complex</b> property, as defined in section <a href="#">2.3.4.8</a> , exists. If the value equals 0x1, <b>pWrapPolygonVertices_complex</b> MUST exist. |

**pWrapPolygonVertices (4 bytes):** The number of bytes of data in the **pWrapPolygonVertices\_complex** property, as defined in section [2.3.4.8](#). If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.8 pWrapPolygonVertices\_complex

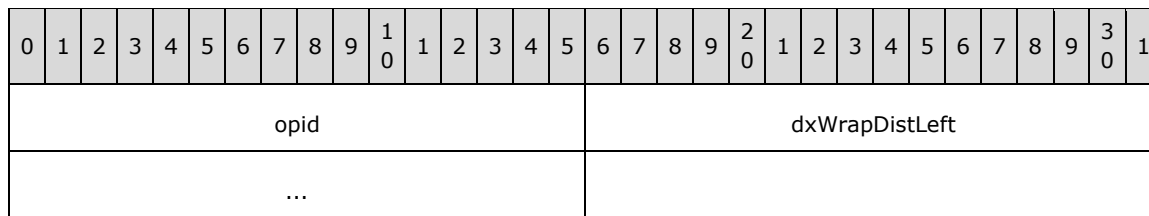
The **pWrapPolygonVertices\_complex** property specifies additional data for the **pWrapPolygonVertices** property, as defined in section [2.3.4.7](#). If the **opid.fcomplex** bit of **pWrapPolygonVertices** equals 0x1, this property MUST exist.

|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pWrapPolygonVertices_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pWrapPolygonVertices\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of **POINT** structures, as defined in section [2.2.55](#), that defines the **wrap polygon**. The **POINT** structures exist in the same coordinate space as the **shape**. The coordinate space is specified by the **geoLeft**, as defined in section [2.3.6.1](#), **geoRight**, as defined in section [2.3.6.3](#), **geoTop**, as defined in section [2.3.6.2](#), and **geoBottom**, as defined in section [2.3.6.4](#), properties.

### 2.3.4.9 dxWrapDistLeft

The **dxWrapDistLeft** property specifies how close other document content can come to the left edge of this **shape**.



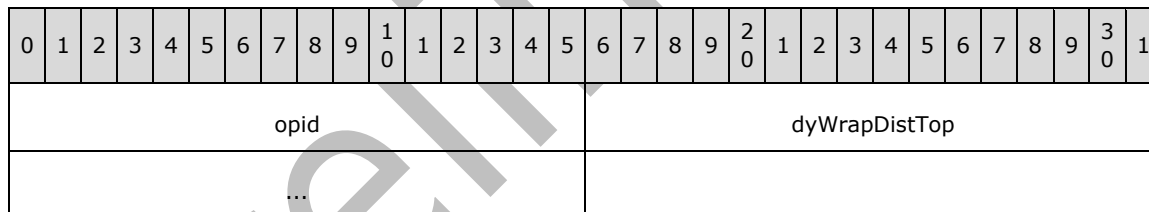
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0384. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxWrapDistLeft (4 bytes):** A signed integer specifying the minimum distance, in application-defined units, that an object can be placed next to the left edge of the shape. The default value for this property is 0x0001BE7C.

#### 2.3.4.10 dyWrapDistTop

The **dyWrapDistTop** property specifies how close other document content can come to the top edge of this **shape**.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0385. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dyWrapDistTop (4 bytes):** A signed integer that specifies the minimum distance, in application-defined units, that an object can be placed next to the top edge of the shape. The default value for this property is 0x00000000.



### 2.3.4.11 dxWrapDistRight

The **dxWrapDistRight** property specifies how close other document content can come to the right edge of this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11              | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | dxWrapDistRight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0386. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxWrapDistRight (4 bytes):** A signed integer that specifies the minimum distance, in application-defined units, that an object can be placed next to the right edge of the shape. The default value for this property is 0x0001BE7C.

### 2.3.4.12 dyWrapDistBottom

The **dyWrapDistBottom** property specifies how close other document content can come to the bottom edge of this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11               | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | dyWrapDistBottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0387. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dyWrapDistBottom (4 bytes):** A signed integer that specifies the minimum distance, in application-defined units, that an object can be placed next to the bottom edge of the shape. The default value for this property is 0x00000000.

### 2.3.4.13 lidRegroup

The **lidRegroup** property specifies the **regroup identifier** for this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lidRegroup |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0388. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lidRegroup (4 bytes):** An unsigned integer that specifies the **FRID** data type, as defined in section [2.1.3](#), of this shape. The default value for this property is 0x00000000.

### 2.3.4.14 unused906

The **unused906** property is undefined and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused906 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x038A. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**unused906 (4 bytes):** A value that is undefined and MUST be ignored.

### 2.3.4.15 wzTooltip

The **wzTooltip** property specifies a **ToolTip** for a **hyperlink** on a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzTooltip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x038D.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzTooltip_complex</b> property, as defined in section <a href="#">2.3.4.16</a> , exists. If the value equals 0x1, <b>wzTooltip_complex</b> MUST exist. |

**wzTooltip (4 bytes):** The number of bytes of data in the **wzTooltip\_complex** property, as defined in section 2.3.4.16. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.16 wzTooltip\_complex

The **wzTooltip\_complex** property specifies additional data for the **wzTooltip** property, as defined in section [2.3.4.15](#). If the **opid.fComplex** bit of **wzTooltip** equals 0x1, this property MUST exist.

|                              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzTooltip_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzTooltip\_complex (variable):** A **Unicode** null-terminated string that specifies the text of the **ToolTip**.

### 2.3.4.17 wzScript

The **wzScript** property specifies a script that is attached to a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzScript |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x038E.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzScript_complex</b> , as defined in section 2.3.4.18, property exists. If the value equals 0x1, <b>wzScript_complex</b> MUST exist. |

**wzScript (4 bytes):** The number of bytes of data in the **wzScript\_complex**, as defined in section 2.3.4.18, property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.18 wzScript\_complex

The **wzScript\_complex** property specifies additional data for the **wzScript** property, as defined in section 2.3.4.17. If the **opid.fComplex** bit of the **wzScript** property equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzScript_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzScript\_complex (variable):** A null-terminated **Unicode** string that specifies a script for a **shape**.

### 2.3.4.19 posh

The **posh** property specifies the type of horizontal positioning to use for a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | posh |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x038F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**posh (4 bytes):** An enumeration value that MAY [<21>](#) be used to determine how a shape is horizontally positioned, relative to the **page element** that is specified in the **posrelh** property, as defined in section [2.3.4.20](#). This value MUST be one of the values in the following table. The default value for this property is **msophAbs**.

| Name                | Value      | Description   |
|---------------------|------------|---|
| <b>msophAbs</b>     | 0x00000000 | The shape is horizontally offset by an absolute distance from the page element.   |
| <b>msophLeft</b>    | 0x00000001 | The shape is horizontally positioned at the left side of the page element.  |
| <b>msophCenter</b>  | 0x00000002 | The shape is horizontally positioned at the center of the page element.   |
| <b>msophRight</b>   | 0x00000003 | The shape is horizontally positioned at the right side of the page element.   |
| <b>msophInside</b>  | 0x00000004 | The shape is horizontally positioned like <b>msophLeft</b> on odd-numbered pages and like <b>msophRight</b> on even-numbered pages. |
| <b>msophOutside</b> | 0x00000005 | The shape is horizontally positioned like <b>msophRight</b> on odd-numbered pages and like <b>msophLeft</b> on even-numbered pages. |

### 2.3.4.20 posrelh

The **posrelh** property specifies a **page element** relative to which a **shape** is horizontally positioned.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |         |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---------|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7       | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   | posrelh |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |         |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

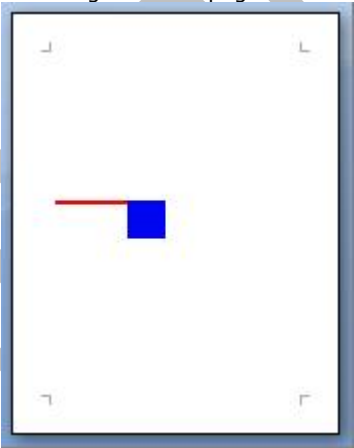
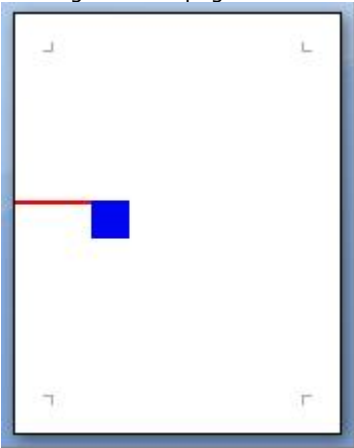
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0390. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**posrelh (4 bytes):** An enumeration value that MAY [<22>](#) be used to determine the page element that the horizontal position of a shape is relative to. This value MUST be one of the values that are listed in the following tables. The default value for this property is **msoprhText**.

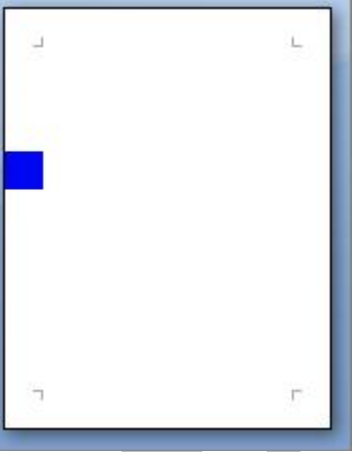

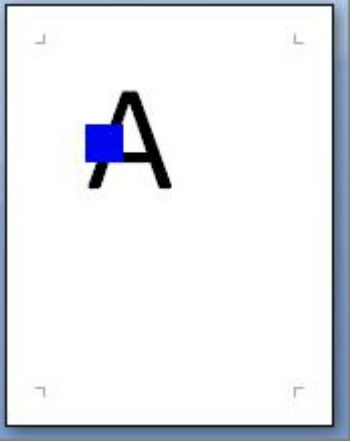
If the value of the **posh** property, as defined in section [2.3.4.19](#), equals **msophAbs**, the possible values for this property position the shape as shown in the following table.

| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msoprhMargin</b> | 0x00000001 | The shape is horizontally positioned relative to the margins of the page:<br> |
| <b>msoprhPage</b>   | 0x00000002 | The shape is horizontally positioned relative to the edges of the page:<br>  |
| <b>msoprhText</b>   | 0x00000003 | The shape is horizontally positioned relative to the column of text underneath it:   |

| Name              | Value      | Meaning  |
|-------------------|------------|--|
|                   |            |  |
| <b>msoprhChar</b> | 0x00000004 | <p>The shape is horizontally positioned relative to the character of text underneath it:</p> |

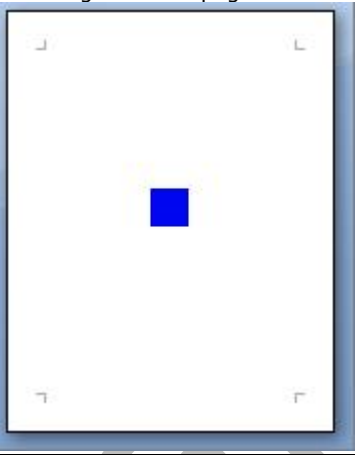
If the value of the **posh** property, as defined in section 2.3.4.19, equals **msophrLeft**, the possible values for this property position the shape as shown in the following table.

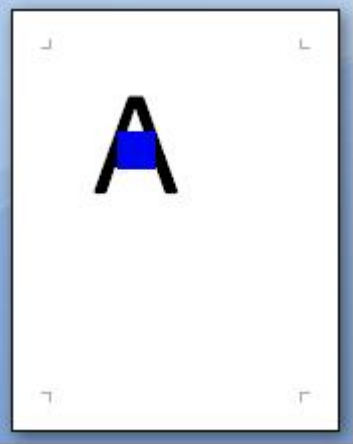
| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msoprhMargin</b> | 0x00000001 | <p>The shape is horizontally positioned relative to the margins of the page:</p> |
| <b>msoprhPage</b>   | 0x00000002 | <p>The shape is horizontally positioned relative to</p>                          |

| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            | <p>the edges of the page:</p>   |
| <b>msoprhText</b> | 0x00000003 | <p>The shape is horizontally positioned relative to the column of text underneath it:</p>      |
| <b>msoprhChar</b> | 0x00000004 | <p>The shape is horizontally positioned relative to the character of text underneath it:</p>  |

If the value of the **posh** property, as defined in section 2.3.4.19, equals **msoprhCenter**, the possible values for this property position the shape as shown in the following table.


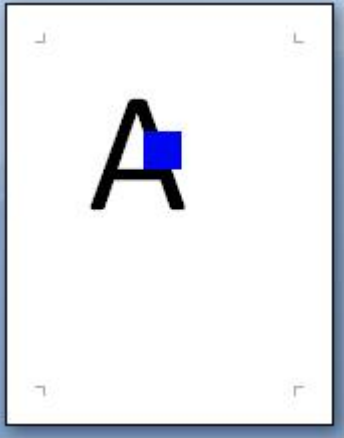


| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msoprhMargin</b> | 0x00000001 | <p>The shape is horizontally positioned relative to the margins of the page:</p>             |
| <b>msoprhPage</b>   | 0x00000002 | <p>The shape is horizontally positioned relative to the edges of the page:</p>              |
| <b>msoprhText</b>   | 0x00000003 | <p>The shape is horizontally positioned relative to the column of text underneath it:</p>  |
| <b>msoprhChar</b>   | 0x00000004 | <p>The shape is horizontally positioned relative to the character of text underneath it:</p>   |

| Name | Value | Meaning  |
|------|-------|--|
|      |       |  |

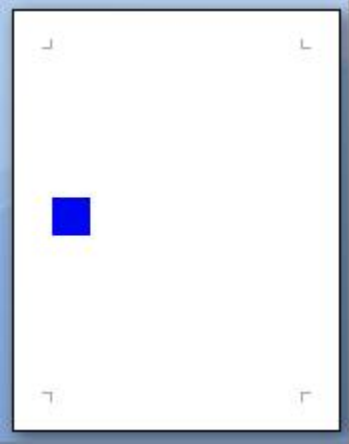
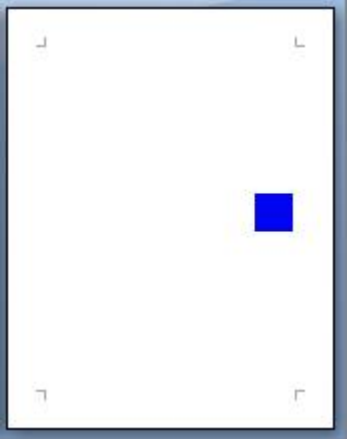
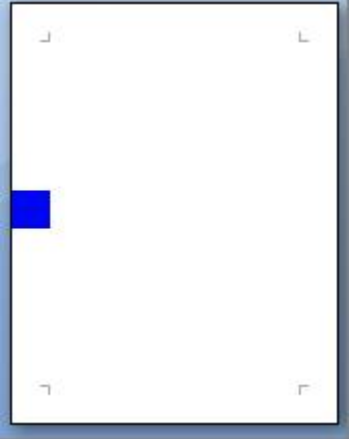
If the value of the **posh** property, as defined in section 2.3.4.19, equals **msophRight**, the possible values for this property position the shape as shown in the following table.

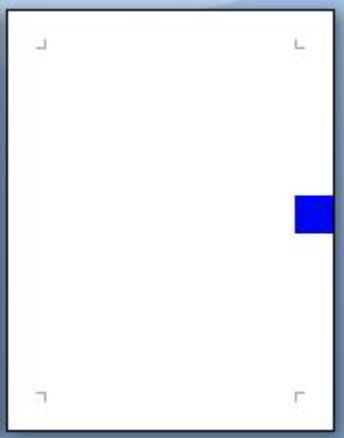
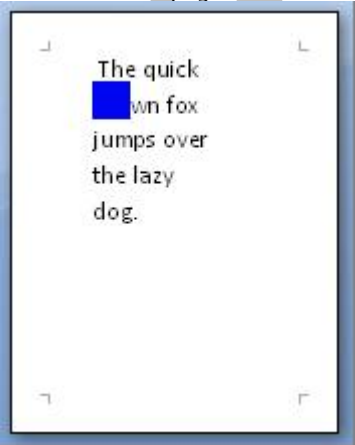

| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msophrMargin</b> | 0x00000001 | The shape is horizontally positioned relative to the margins of the page:<br> |
| <b>msophrPage</b>   | 0x00000002 | The shape is horizontally positioned relative to the edges of the page:<br>  |
| <b>msophrText</b>   | 0x00000003 | The shape is horizontally positioned relative to   |

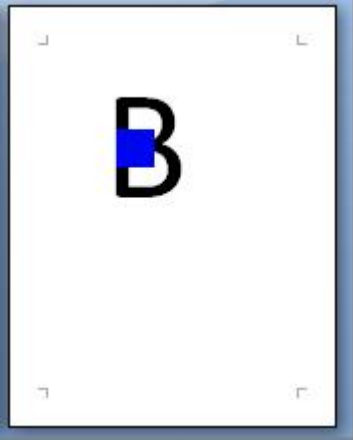
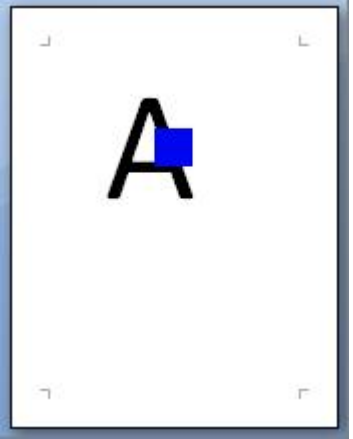
| Name              | Value      | Meaning  |
|-------------------|------------|--|
|                   |            | <p>the column of text underneath it:</p>   |
| <b>msoprhChar</b> | 0x00000004 | <p>The shape is horizontally positioned relative to the character of text underneath it:</p>  |

If the value of the **posh** property, as defined in section 2.3.4.19, equals **msophInside**, the possible values for this property position the shape as shown in the following table.

| Name                | Value      | Meaning   |
|---------------------|------------|---|
| <b>msoprhMargin</b> | 0x00000001 | <p>The shape is horizontally positioned relative to the margins of the page.</p> <p>Odd-numbered pages:</p> |

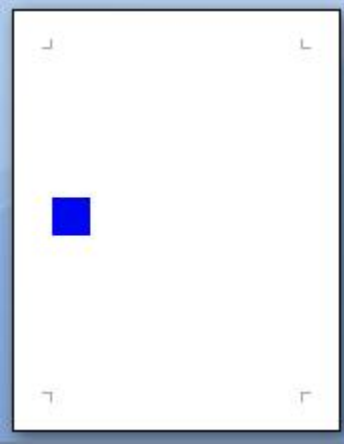
| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            |  <p data-bbox="906 653 1154 680">Even-numbered pages:</p>    |
| <b>msoprhPage</b> | 0x00000002 | <p data-bbox="906 1129 1406 1182">The shape is horizontally positioned relative to the edges of the page.</p> <p data-bbox="906 1209 1146 1236">Odd-numbered pages:</p>  <p data-bbox="906 1703 1154 1730">Even-numbered pages:</p> |

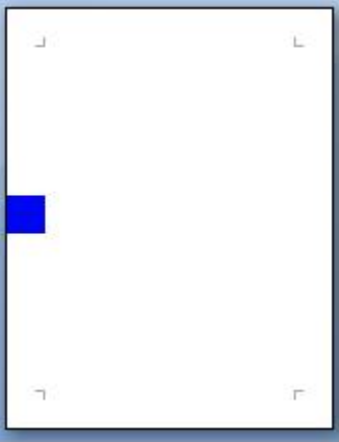


| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            |   |
| <b>msoprhText</b> | 0x00000003 | <p>The shape is horizontally positioned relative to the column of text underneath it.</p> <p>Odd-numbered pages:</p>  <p>Even-numbered pages:</p>  |
| <b>msoprhChar</b> | 0x00000004 | <p>The shape is horizontally positioned relative to the character of text underneath it.</p> <p>Odd-numbered pages:</p>   |

| Name | Value | Meaning   |
|------|-------|---|
|      |       |  <p data-bbox="906 646 1156 674">Even-numbered pages:</p>  |

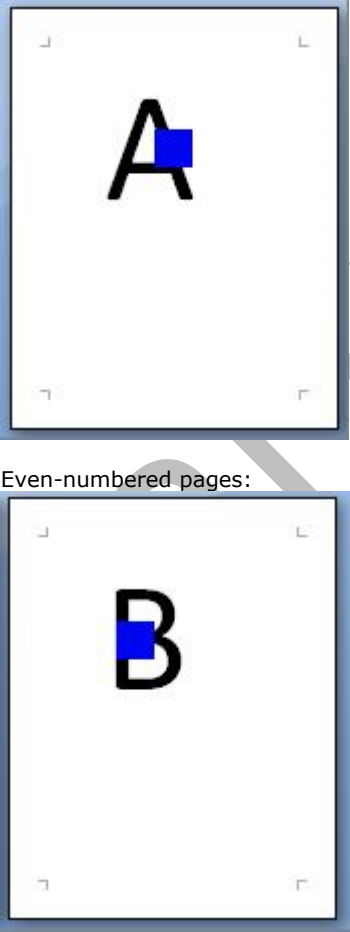
If the value of the **posh** property, as defined in section 2.3.4.19, equals **msophOutside**, the possible values for this property position the shape as shown in the following table.

| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msoprhMargin</b> | 0x00000001 | The shape is horizontally positioned relative to the margins of the page.<br><br>Odd-numbered pages: |

| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            |  <p data-bbox="906 653 1154 678">Even-numbered pages:</p>    |
| <b>msoprhPage</b> | 0x00000002 | <p data-bbox="906 1129 1406 1182">The shape is horizontally positioned relative to the edges of the page.</p> <p data-bbox="906 1209 1146 1234">Odd-numbered pages:</p>  <p data-bbox="906 1703 1154 1728">Even-numbered pages:</p> |

| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            |   |
| <b>msoprhText</b> | 0x00000003 | <p>The shape is horizontally positioned relative to the column of text underneath it.</p> <p>Odd-numbered pages:</p>  <p>Even-numbered pages:</p>  |
| <b>msoprhChar</b> | 0x00000004 | <p>The shape is horizontally positioned relative to the character of text underneath it.</p> <p>Odd-numbered pages:</p>   |



| Name | Value | Meaning   |
|------|-------|---|
|      |       |  |

### 2.3.4.21 posv

The **posv** property specifies the type of vertical positioning to use for a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15   | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    | posv |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0391. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**posv (4 bytes):** An enumeration value that MAY [<23>](#) be used to determine how a shape is vertically positioned, relative to the **page element** that is specified in the **posrelv** property, as defined in section [2.3.4.22](#). This value MUST be one of the values in the following table. The default value for this property is **msopvAbs**.

| Name                | Value      | Description   |
|---------------------|------------|---|
| <b>msopvAbs</b>     | 0x00000000 | The shape is vertically offset by an absolute distance from the page element.   |
| <b>msopvTop</b>     | 0x00000001 | The shape is vertically positioned at the top of the page element.  |
| <b>msopvCenter</b>  | 0x00000002 | The shape is vertically positioned in the center of the page element.   |
| <b>msopvBottom</b>  | 0x00000003 | The shape is vertically positioned at the bottom of the page element.   |
| <b>msopvInside</b>  | 0x00000004 | The shape is vertically positioned like <b>msopvTop</b> on odd-numbered pages and like <b>msopvBottom</b> on even-numbered pages. |
| <b>msopvOutside</b> | 0x00000005 | The shape is vertically positioned like <b>msopvBottom</b> on odd-numbered pages and like <b>msopvTop</b> on even-numbered pages. |

### 2.3.4.22 posrelv

The **posrelv** property specifies a **page element** relative to which a **shape** is vertically positioned.

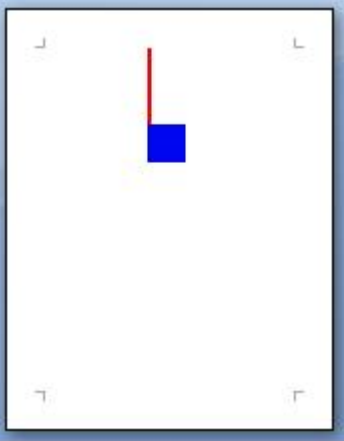
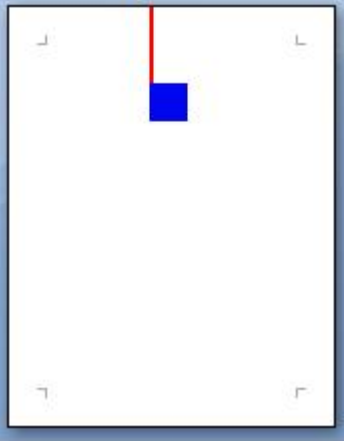
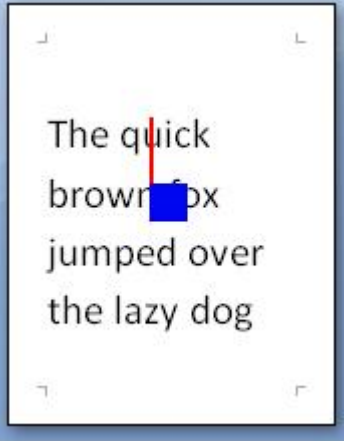
|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17      | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | posrelv |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

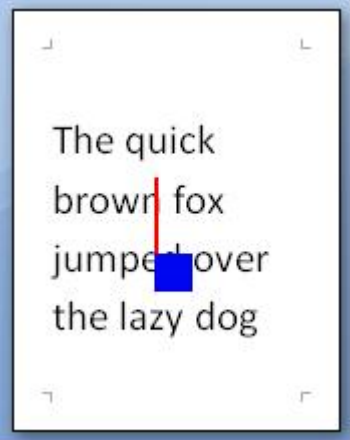
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0392. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

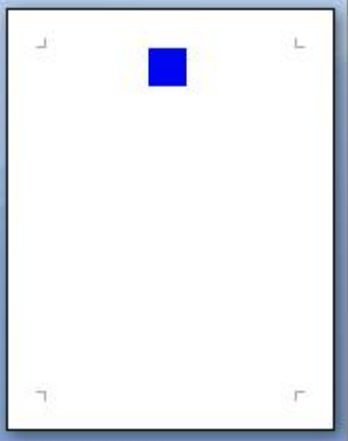
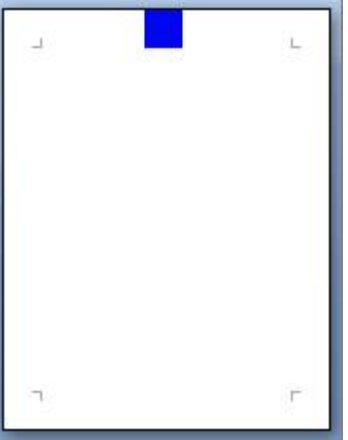
**posrelv (4 bytes):** An enumeration value that MAY [<24>](#) be used to determine the page element that the horizontal position of a shape is relative to. This value MUST be one of the values that are listed in the following tables. The default value for this property is **msoprText**.


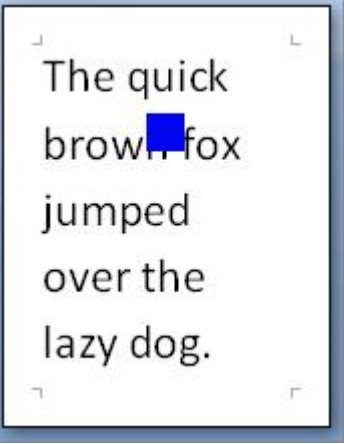
If the value of the **posv** property, as defined in section [2.3.4.21](#), equals **msopvAbs**, the possible values for this property position the shape as shown in the following table.

| Name                | Value      | Meaning   |
|---------------------|------------|---|
| <b>msoprVMargin</b> | 0x00000001 | <p>The shape is vertically positioned relative to the margins of the page:</p>    |
| <b>msoprVPage</b>   | 0x00000002 | <p>The shape is vertically positioned relative to the edges of the page:</p>   |
| <b>msoprVText</b>   | 0x00000003 | <p>The shape is vertically positioned relative to the paragraph of text underneath it:</p>  <p>The quick<br/>brown fox<br/>jumped over<br/>the lazy dog</p> |
| <b>msoprVLine</b>   | 0x00000004 | <p>The shape is vertically positioned relative to the line of text underneath it:</p>   |

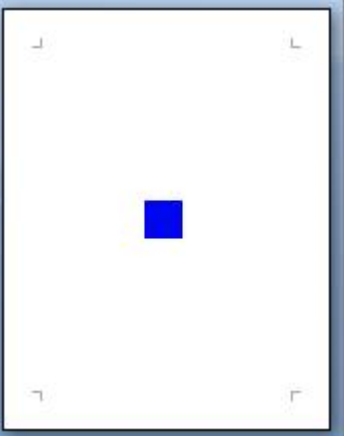
| Name | Value | Meaning  |
|------|-------|--|
|      |       |  |

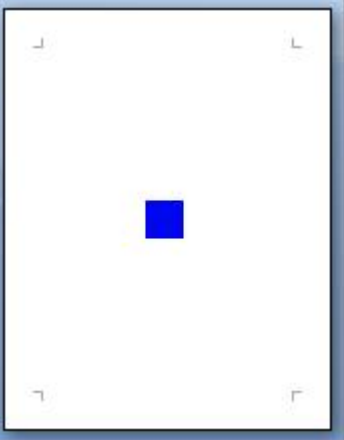

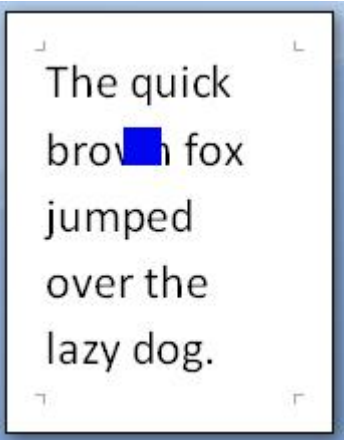
If the value of the **posv** property, as defined in section 2.3.4.21, equals **msopvTop**, the possible values for this property position the shape as shown in the following table.

| Name               | Value      | Meaning  |
|--------------------|------------|--|
| <b>msoprMargin</b> | 0x00000001 | <p>The shape is vertically positioned relative to the margins of the page:</p>  |
| <b>msoprPage</b>   | 0x00000002 | <p>The shape is vertically positioned relative to the edges of the page:</p>   |
| <b>msoprText</b>   | 0x00000003 | The shape is vertically positioned relative  |

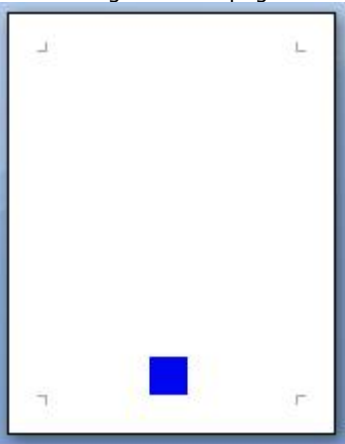
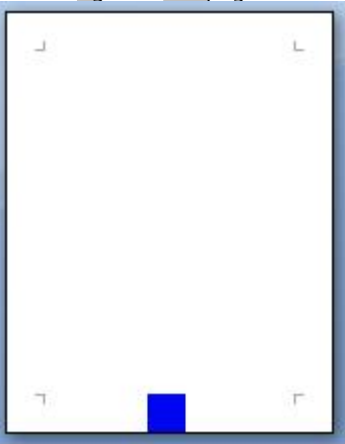

| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            | <p>to the paragraph of text underneath it:</p>    |
| <b>msoprVLine</b> | 0x00000004 | <p>The shape is vertically positioned relative to the line of text underneath it:</p>  |

If the value of the **posv** property, as defined in section 2.3.4.21, equals **msopvCenter**, the possible values for this property position the shape as shown in the following table.

| Name                | Value      | Meaning   |
|---------------------|------------|---|
| <b>msoprVMargin</b> | 0x00000001 | <p>The shape is vertically positioned relative to the margins of the page:</p>  |

| Name             | Value      | Meaning  |
|------------------|------------|--|
| <b>msoprPage</b> | 0x00000002 | <p>The shape is vertically positioned relative to the edges of the page:</p>                 |
| <b>msoprText</b> | 0x00000003 | <p>The shape is vertically positioned relative to the paragraph of text underneath it:</p>  |
| <b>msoprLine</b> | 0x00000004 | <p>The shape is vertically positioned relative to the line of text underneath it:</p>      |

If the value of the **posv** property, as defined in section 2.3.4.21, equals **msopvBottom**, the possible values for this property position the shape as shown in the following table.



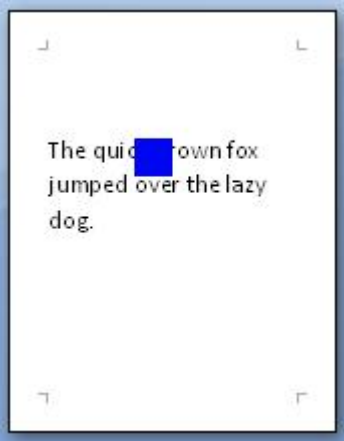
| Name                | Value      | Meaning   |
|---------------------|------------|---|
| <b>msoprVMargin</b> | 0x00000001 | <p>The shape is vertically positioned relative to the margins of the page:</p>                |
| <b>msoprVPage</b>   | 0x00000002 | <p>The shape is vertically positioned relative to the edges of the page:</p>                 |
| <b>msoprVText</b>   | 0x00000003 | <p>The shape is vertically positioned relative to the paragraph of text underneath it:</p>  |
| <b>msoprVLine</b>   | 0x00000004 | <p>The shape is vertically positioned relative to the line of text underneath it:</p>   |


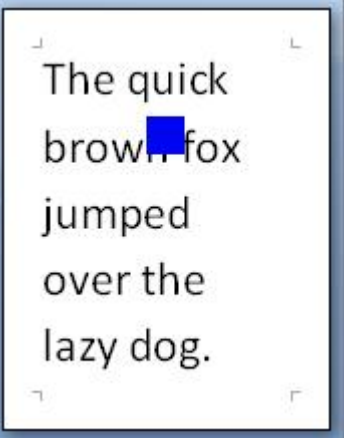
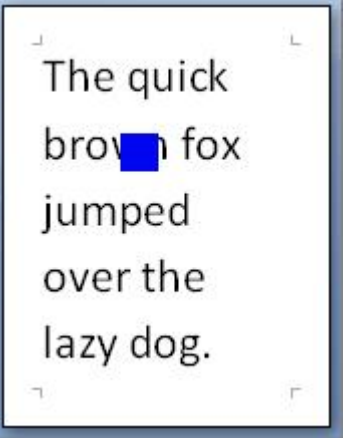
| Name | Value | Meaning |
|------|-------|---------|
|      |       |         |

If the value of the **posv** property, as defined in section 2.3.4.21, equals **msopvInside**, the possible values for this property position the shape as shown in the following table.

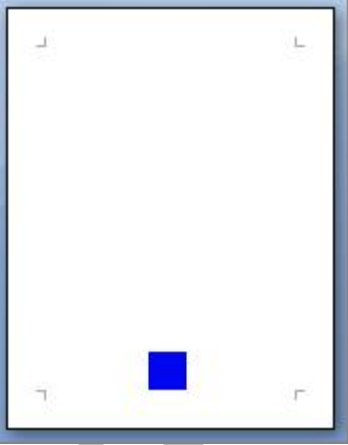
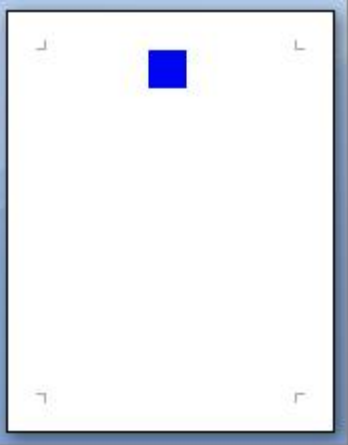
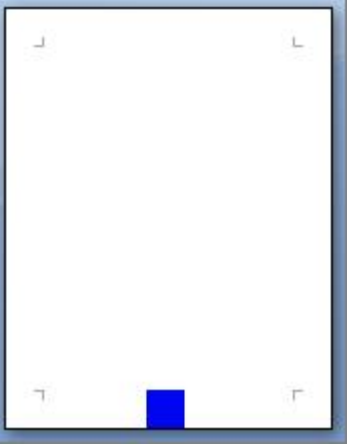
| Name               | Value      | Meaning   |
|--------------------|------------|---|
| <b>msoprMargin</b> | 0x00000001 | <p>The shape is vertically positioned relative to the margins of the page.</p> <p>Odd-numbered pages:</p> <p>Even-numbered pages:</p> |



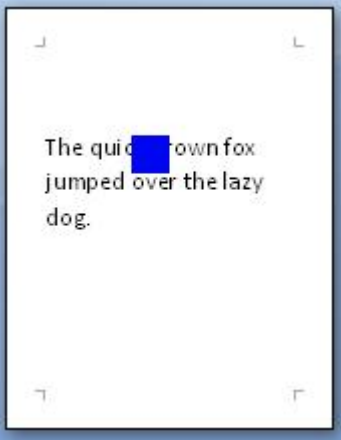


| Name             | Value      | Meaning  |
|------------------|------------|--|
| <b>msoprPage</b> | 0x00000002 | <p>The shape is vertically positioned relative to the edges of the page.</p> <p>Odd-numbered pages:</p>  <p>Even-numbered pages:</p>  |
| <b>msoprText</b> | 0x00000003 | <p>The shape is vertically positioned relative to the paragraph of text underneath it.</p> <p>Odd-numbered pages:</p>    |

| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            | <p>Even-numbered pages:</p>   |
| <b>msoprVLine</b> | 0x00000004 | <p>The shape is vertically positioned relative to the line of text underneath it.</p> <p>Odd-numbered pages:</p>  <p>Even-numbered pages:</p>  |

If the value of the **posv** property, as defined in section 2.3.4.21, equals **msoprVOutside**, the possible values for this property position the shape as shown in the following table.

| Name               | Value      | Meaning  |
|--------------------|------------|--|
| <b>msoprMargin</b> | 0x00000001 | <p>The shape is vertically positioned relative to the margins of the page.</p> <p>Odd-numbered pages:</p>  <p>Even-numbered pages:</p>  |
| <b>msoprPage</b>   | 0x00000002 | <p>The shape is vertically positioned relative to the edges of the page.</p> <p>Odd-numbered pages:</p>    |

| Name               | Value      | Meaning   |
|--------------------|------------|---|
|                    |            | Even-numbered pages:<br>  |
| <b>msoprvtText</b> | 0x00000003 | The shape is vertically positioned relative to the paragraph of text underneath it.<br>Odd-numbered pages:<br><br>Even-numbered pages:<br> |
| <b>msoprvtLine</b> | 0x00000004 | The shape is vertically positioned relative to the line of text underneath it.<br>Odd-numbered pages:   |

| Name | Value | Meaning |
|------|-------|---------|
|      |       |         |

### 2.3.4.23 **pctHR**

The **pctHR** property specifies the width of a **horizontal rule**, as a percentage of the page width. This property SHOULD [<25>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |       |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|-------|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7     | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   | pctHR |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |       |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0393. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**pctHR (4 bytes):** An unsigned integer that specifies the width of a horizontal rule as a percentage of the page's width, in units of 0.1%. The value MUST be greater than or equal to 0x00000000 and less than or equal to 0x000003E8. This property is used only if the **fHorizRule** bit of the [Group Shape Boolean Properties](#) is set. The default value for this property is 0x000003E8.

#### 2.3.4.24 alignHR

The **alignHR** property specifies the alignment of a **horizontal rule**. This property SHOULD [<26>](#) be ignored.

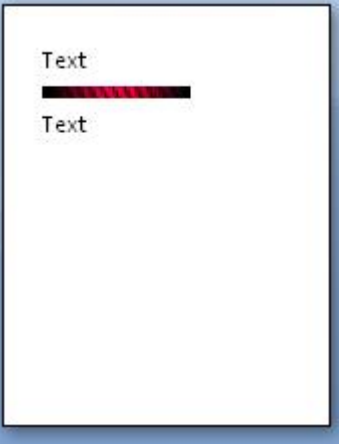
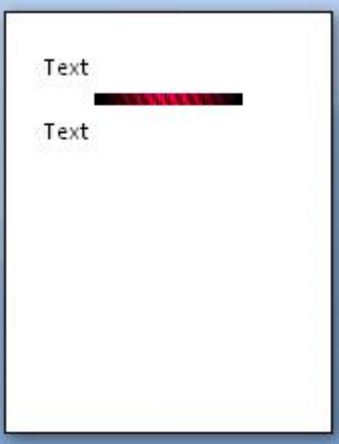
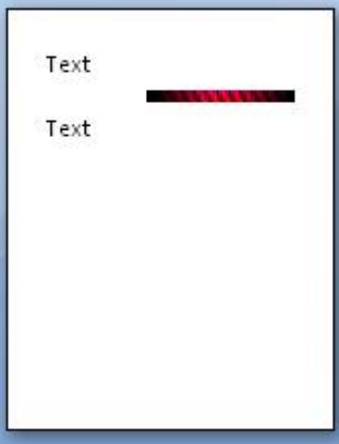
|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | alignHR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0394. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**alignHR (4 bytes):** An enumeration value that specifies the alignment of a horizontal rule. This property is used only if the **fHorizRule** bit of the [Group Shape Boolean Properties](#) is set. The value MUST be one of the values in the following table. The default value for this property is 0x00000000.

| Value      | Description                          |
|------------|--------------------------------------|
| 0x00000000 | The horizontal rule is left-aligned: |

| Value      | Description   |
|------------|---|
|            |  <p>The diagram shows a white rectangular area with a blue border. Inside, the word "Text" is written at the top. Below it is a thick black horizontal line with a red, textured interior. Below the line is another instance of the word "Text". The line is centered horizontally between the two text labels.</p>   |
| 0x00000001 | <p>The horizontal rule is centered:</p>  <p>The diagram shows a white rectangular area with a blue border. Inside, the word "Text" is written at the top. Below it is a thick black horizontal line with a red, textured interior. Below the line is another instance of the word "Text". The line is centered horizontally between the two text labels.</p>  |
| 0x00000002 | <p>The horizontal rule is right-aligned:</p>  <p>The diagram shows a white rectangular area with a blue border. Inside, the word "Text" is written at the top. Below it is a thick black horizontal line with a red, textured interior. Below the line is another instance of the word "Text". The line is aligned to the right side of the text labels.</p> |

### 2.3.4.25 dxHeightHR

The **dxHeightHR** property specifies the height of a **horizontal rule**. This property SHOULD [<27>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11         | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | dxHeightHR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0395. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxHeightHR (4 bytes):** A signed integer that specifies the height, in 1440ths of an inch, of a horizontal rule. The value MUST be greater than or equal to 0x00000000. This property is used only if the **fHorizRule** bit of the [Group Shape Boolean Properties](#) is set. The default value for this property is 0x00000000.

### 2.3.4.26 dxWidthHR

The **dxWidthHR** property specifies the width of a **horizontal rule**. This property SHOULD [<28>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11        | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | dxWidthHR |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0396. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**dxWidthHR (4 bytes):** A signed integer that specifies the width, in 1440ths of an inch, of a horizontal rule. The value MUST be greater than or equal to 0x00000000. If the **pctHR** property, as defined in section [2.3.4.23](#), is also set, it SHOULD be used instead and this property ignored. This property is used only if the **fHorizRule** bit of the [Group Shape Boolean Properties](#) is set. The default value for this property is 0x00000000.

### 2.3.4.27 wzScriptExtAttr

The **wzScriptExtAttr** property specifies an extra **HTML** attribute that is associated with a script block for a **shape** if this document is saved as HTML.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzScriptExtAttr |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0397.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzScriptExtAttr_complex</b> property, as defined in section <a href="#">2.3.4.28</a> , exists. If the value equals 0x1, <b>wzScriptExtAttr_complex</b> MUST exist. |

**wzScriptExtAttr (4 bytes):** The number of bytes of data in the **wzScriptExtAttr\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.28 wzScriptExtAttr\_complex

The **wzScriptExtAttr\_complex** property specifies additional data for the **wzScriptExtAttr** property, as defined in section [2.3.4.27](#). If the **opid.fComplex** bit of **wzScriptExtAttr** equals 0x1, this property MUST exist.

|                                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzScriptExtAttr_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzScriptExtAttr\_complex (variable):** A null-terminated **Unicode** string that specifies the extra attribute.

### 2.3.4.29 scriptLang

The **scriptLang** property specifies the language of the script on a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | scriptLang |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0398. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**scriptLang (4 bytes):** A signed integer that specifies the scripting language. The value MUST be one of the values in the following table. The default value for this property is 0x00000001.

| Value      | Meaning  |
|------------|--|
| 0x00000001 | JavaScript   |
| 0x00000002 | VBScript   |
| 0x00000003 | <b>Active Server Pages (ASP)</b>   |
| 0x00000004 | Other language, which MUST be specified in the <a href="#">wzScriptLangAttr_complex</a> property |

### 2.3.4.30 wzScriptLangAttr

The **wzScriptLangAttr** property specifies the scripting language on a **shape**. If the **scriptLang** property, as defined in section [2.3.4.29](#), equals any value other than 0x00000004, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzScriptLangAttr |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

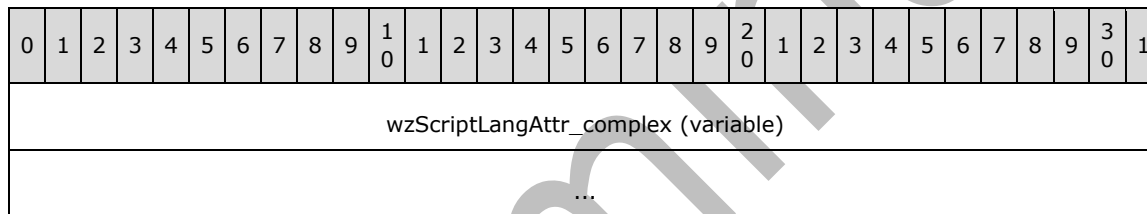
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x039A.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzScriptLangAttr_complex</b> property, as defined in section <a href="#">2.3.4.31</a> , exists. If the value equals 0x1, <b>wzScriptLangAttr_complex</b> MUST exist. |

**wzScriptLangAttr (4 bytes):** The number of bytes of data in the **wzScriptLangAttr\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.31 wzScriptLangAttr\_complex

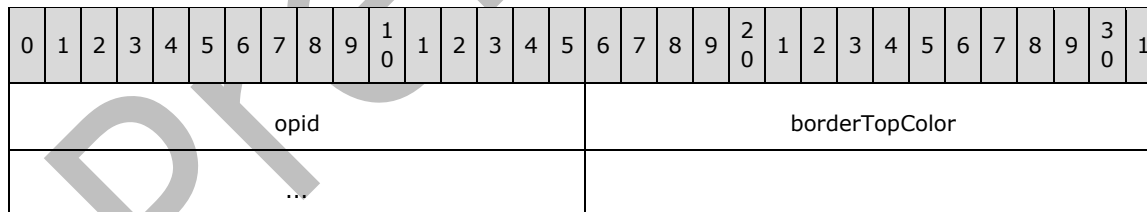
The **wzScriptLangAttr\_complex** property specifies additional data for the **wzScriptLangAttr** property, as defined in section [2.3.4.30](#). If the **opid.fComplex** bit of **wzScriptLangAttr** equals 0x1, this property MUST exist.



**wzScriptLangAttr\_complex (variable):** A null-terminated **Unicode** string containing the name of the scripting language that is used for the script on a **shape**.

### 2.3.4.32 borderTopColor

The **borderTopColor** property specifies the color for the top border of a picture **shape**.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x039B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**borderTopColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section 2.2.2, that specifies the color. The default value for this property is 0xFFFFFFFF.

### 2.3.4.33 borderLeftColor

The **borderLeftColor** property specifies the color for the left border of a picture **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | borderLeftColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x039C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**borderLeftColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section 2.2.2, that specifies the color. The default value for this property is 0xFFFFFFFF.

### 2.3.4.34 borderBottomColor

The **borderBottomColor** property specifies the color for the bottom border of a picture **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | borderBottomColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x039D. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**borderBottomColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the color. The default value for this property is 0xFFFFFFFF.

### 2.3.4.35 borderRightColor

The **borderRightColor** property specifies the color for the right border of a picture **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | borderRightColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x039E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**borderRightColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the color. The default value for this property is 0xFFFFFFFF.

### 2.3.4.36 tableProperties

The **tableProperties** property specifies flags for a **group** that represents a table. This property SHOULD [<29>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | tableProperties |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x039F. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**tableProperties (4 bytes):** A **TABLEFLAGS** record, as defined in section [2.2.59](#), that specifies the table-related flags for the group. The default value for this property is 0x00000000.

### 2.3.4.37 tableRowProperties

The **tableRowProperties** property specifies the minimum sizes of the rows in a table. This property SHOULD [<30>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | tableRowProperties |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x03A0.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>tableRowProperties_complex</b> property, as defined in section <a href="#">2.3.4.38</a> , exists. If the value equals 0x1, <b>tableRowProperties_complex</b> MUST exist. |

**tableRowProperties (4 bytes):** The number of bytes of data in the **tableRowProperties\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.38 tableRowProperties\_complex

The **tableRowProperties\_complex** property specifies additional data for the **tableRowProperties** property, as defined in section [2.3.4.37](#). If the **opid.fComplex** bit of **tableRowProperties** equals 0x1, this property MUST exist.

|                                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| tableRowProperties_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**tableRowProperties\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of 32-bit signed integers that specify the minimum heights, in **master units**, of the rows in a table. The minimum heights are used if the rows do not contain wrapped text that would otherwise cause the rows to be taller. The array **MUST** contain the same number of elements as there are rows in the table. If the **fIsTable** bit in the **tableProperties** property, as defined in section [2.3.4.36](#), equals 0x00000000, this property **SHOULD** be ignored.

### 2.3.4.39 wzWebBot

The **wzWebBot** property specifies content for a **Web component**, as described in [\[MSDN-WebComp\]](#), that is associated with a **shape** if this document is saved as **HTML**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzWebBot |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that <b>MUST</b> be 0x03A5.  |
| <b>opid.fBid</b>     | A value that is undefined and <b>MUST</b> be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzWebBot_complex</b> property, as defined in section <a href="#">2.3.4.40</a> , exists. If the value equals 0x1, <b>wzWebBot_complex</b> <b>MUST</b> exist |

**wzWebBot (4 bytes):** The number of bytes of data in the **wzWebBot\_complex** property. If **opid.fComplex** equals 0x0, this value **MUST** be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.40 wzWebBot\_complex

The **wzWebBot\_complex** property specifies additional data for the **wzWebBot** property, as defined in section [2.3.4.39](#). If the **opid.fComplex** bit of **wzWebBot** equals 0x1, this property **MUST** exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzWebBot_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzWebBot\_complex (variable):** A null-terminated **Unicode** string that specifies the content for the **Web component**.

### 2.3.4.41 metroBlob

The **metroBlob** property specifies alternative **XML** content for a **shape** that SHOULD<31> be ignored. This property specifies a binary serialization of an Open Packaging Conventions container, as specified in [ISO/IEC29500-2:2012]. The package contains an Office Open XML DrawingML document, as specified in [ISO/IEC29500-4:2011], Section 5.

If the shape is modified after it is loaded, Office will delete this information.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | metroBlob |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x03A9.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>metroBlob_complex</b> property, as defined in section 2.3.4.42, exists. If the value equals 0x1, the <b>metroBlob_complex</b> property MUST exist. |

**metroBlob (4 bytes):** The number of bytes of data in the **metroBlob\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.4.42 metroBlob\_complex

The **metroBlob\_complex** property specifies additional data for the **metroBlob** property, as defined in section 2.3.4.41. If the **opid.fComplex** bit of **metroBlob** equals 0x1, this property MUST exist.

|                              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| metroBlob_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**metroBlob\_complex (variable):** A binary serialization of an Open Packaging Conventions container, as specified in [ISO/IEC29500-2:2012], that specifies the alternative **XML** content.

### 2.3.4.43 dhgt

The **dhgt** property specifies the relative **z-order** of a **shape**. This property SHOULD<32> be ignored.



|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dhgt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03AA. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dhgt (4 bytes):** An unsigned integer that specifies the z-order of a shape, relative to the corresponding values for other shapes. Higher z-order values specify that the shape is in front of shapes with lower values. A value of zero means that the z-order is not specified. Only shapes that have the same value in the **fBehindDocument** bit of the [Group Shape Boolean Properties](#) are compared to one another. All of the shapes behind the document are beneath the other shapes. The default value for this property is 0x00000000.

#### 2.3.4.44 Group Shape Boolean Properties

The **Group Shape Boolean Properties** specify a 32-bit field of Boolean properties for either a **shape** or a **group**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  | K  | L  | M  | N  | O  | P  |
| Q    | R | S | T | U | V | W | X | Y | Z | a  | b  | c  | d  | e  | f  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03BF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

- A - fUsefLayoutInCell (1 bit):** A bit that specifies whether the **fLayoutInCell** bit is set. A value of 0x0 specifies that the **fLayoutInCell** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- B - fUsefIsBullet (1 bit):** A bit that specifies whether the **fIsBullet** bit is set. A value of 0x0 specifies that the **fIsBullet** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- C - fUsefStandardHR (1 bit):** A bit that specifies whether the **fStandardHR** bit is set. A value of 0x0 specifies that the **fStandardHR** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- D - fUsefNoshadeHR (1 bit):** A bit that specifies whether the **fNoshadeHR** bit is set. A value of 0x0 specifies that the **fNoshadeHR** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- E - fUsefHorizRule (1 bit):** A bit that specifies whether the **fHorizRule** bit is set. A value of 0x0 specifies that the **fHorizRule** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- F - fUsefUserDrawn (1 bit):** A bit that specifies whether the **fUserDrawn** bit is set. A value of 0x0 specifies that the **fUserDrawn** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- G - fUsefAllowOverlap (1 bit):** A bit that specifies whether the **fAllowOverlap** bit is set. A value of 0x0 specifies that the **fAllowOverlap** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- H - fUsefReallyHidden (1 bit):** A bit that specifies whether the **fReallyHidden** bit is set. A value of 0x0 specifies that the **fReallyHidden** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- I - fUsefScriptAnchor (1 bit):** A bit that specifies whether the **fScriptAnchor** bit is set. A value of 0x0 specifies that the **fScriptAnchor** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- J - fUsefEditedWrap (1 bit):** A bit that specifies whether the **fEditedWrap** bit is set. A value of 0x0 specifies that the **fEditedWrap** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- K - fUsefBehindDocument (1 bit):** A bit that specifies whether the **fBehindDocument** bit is set. A value of 0x0 specifies that the **fBehindDocument** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- L - fUsefOnDbfClickNotify (1 bit):** A bit that specifies whether the **fOnDbfClickNotify** bit is set. A value of 0x0 specifies that the **fOnDbfClickNotify** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- M - fUsefIsButton (1 bit):** A bit that specifies whether the **fIsButton** bit is set. A value of 0x0 specifies that the **fIsButton** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- N - fUsefOneD (1 bit):** A bit that specifies whether the **fOneD** bit is set. A value of 0x0 specifies that the **fOneD** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- O - fUsefHidden (1 bit):** A bit that specifies whether the **fHidden** bit is set. A value of 0x0 specifies that the **fHidden** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

- P - fUsefPrint (1 bit):** A bit that specifies whether the **fPrint** bit is set. A value of 0x0 specifies that the **fPrint** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- Q - fLayoutInCell (1 bit):** A bit that specifies whether this shape is displayed inside a table cell. If **fUsefLayoutInCell** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- R - fIsBullet (1 bit):** A bit that specifies whether this shape is being used as a **picture bullet**. If **fUsefIsBullet** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- S - fStandardHR (1 bit):** A bit that specifies whether this **horizontal rule** is one that does not contain a picture. If **fUsefStandardHR** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- T - fNoshadeHR (1 bit):** A bit that specifies whether this horizontal rule uses a solid color fill without shading. If **fUsefNoshadeHR** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- U - fHorizRule (1 bit):** A bit that specifies whether this shape is a horizontal rule. If **fUsefHorizRule** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- V - fUserDrawn (1 bit):** A bit that specifies whether this shape has been added to a document **master** by the user. If **fUsefUserDrawn** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- W - fAllowOverlap (1 bit):** A bit that specifies whether this shape is allowed to overlap another shape. If **fUsefAllowOverlap** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- X - fReallyHidden (1 bit):** A bit that specifies whether this shape will be prevented from displaying. This property applies only to **script anchors**. The **fScriptAnchor** property MUST be set to 0x1 for the value of this property to be used. If **fUsefReallyHidden** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- Y - fScriptAnchor (1 bit):** A bit that specifies whether this shape is a script anchor. If **fUsefScriptAnchor** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- Z - fEditedWrap (1 bit):** A bit that specifies whether the **wrap polygon** for this shape has been edited by the user. If **fUsefEditedWrap** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- a - fBehindDocument (1 bit):** A bit that specifies whether this shape is set to display behind other document content. If **fUsefBehindDocument** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- b - fOnDbfClickNotify (1 bit):** A bit that specifies whether the host application is to be notified when a double-click mouse event occurs for the shape. If **fUsefOnDbfClickNotify** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- c - fIsButton (1 bit):** A bit that specifies whether this shape is treated as a button that contains navigation information. If **fUsefIsButton** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- d - fOneD (1 bit):** A bit that is unused and MUST be set to 0x0. If **fUsefOneD** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- e - fHidden (1 bit):** A bit that specifies whether this shape will be prevented from displaying. If **fUsefHidden** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

**f - fPrint (1 bit):** A bit that specifies whether this shape will be rendered if the document is printed. If **fUsefPrint** equals 0x0, this value **MUST** be ignored. The default value for this property is 0x1.

## 2.3.5 Group Shape 2

The **Group Shape 2** property set specifies the relative position and size attributes of a **shape**.

### 2.3.5.1 pctHoriz

The **pctHoriz** property specifies the width of a **shape** as a percentage relative to the width of a **page element**. This property **SHOULD** be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pctHoriz |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                             |
|----------------------|-------------------------------------|
| <b>opid.opid</b>     | A value that <b>MUST</b> be 0x07C0. |
| <b>opid.fBid</b>     | A value that <b>MUST</b> be 0x0.    |
| <b>opid.fComplex</b> | A value that <b>MUST</b> be 0x0.    |

**pctHoriz (4 bytes):** An unsigned integer that specifies the width of a shape as a percentage relative to the width of a page element. The **sizerelh** property, as defined in section [2.3.5.5](#), specifies the page element. Units are specified in increments of 0.1%. This value **MUST** be greater than or equal to 0x00000000 and less than or equal to 0x00002710. The default value for this property is 0x00000000.

### 2.3.5.2 pctVert

The **pctVert** property specifies the height of a **shape** as a percentage relative to the height of a **page element**. This property **SHOULD** be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pctVert |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x07C1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pctVert (4 bytes):** An unsigned integer that specifies the height of a shape as a percentage relative to the height of a page element. The **sizereh** property, as defined in section [2.3.5.5](#), specifies the page element. Units are specified in increments of 0.1%. This value MUST be greater than or equal to 0x00000000 and less than or equal to 0x00002710. The default value for this property is 0x00000000.

### 2.3.5.3 pctHorizPos

The **pctHorizPos** property specifies the horizontal position of a shape as a percentage offset relative to the layout of a **page element**. The **posrelh** property, as defined in section [2.3.4.20](#), specifies the page element. This property SHOULD [<35>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pctHorizPos |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x07C2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pctHorizPos (4 bytes):** A signed integer that specifies the horizontal position of a **shape** as a percentage offset relative to the horizontal position of a page element. Units are specified in increments of 0.1%. This value MUST be greater than or equal to 0xFFFFD8EF and less than or equal to 0x00002710. A value of 0x00000000 specifies that the horizontal position equals the left edge of the page element; a value of 0x00002710 specifies that the horizontal position equals the right edge of the page element. A value of 0xFFFFD8EF specifies that the horizontal position of the shape is not a relative percentage offset and not specified by this field. The default value for this property is 0xFFFFD8EF.

### 2.3.5.4 pctVertPos

The **pctVertPos** property specifies the vertical position of a **shape** as a percentage offset relative to the layout of a **page element**. The **posrelv** property, as defined in section [2.3.4.22](#), specifies the page element. This property SHOULD [<36>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pctVertPos |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x07C3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pctVertPos (4 bytes):** A signed integer that specifies the vertical position of a shape as a percentage offset relative to the vertical position of a page element. Units are specified in increments of 0.1%. This value MUST be greater than or equal to 0xFFFFD8EF and less than or equal to 0x00002710. A value of 0x00000000 specifies that the vertical position equals the top edge of the page element; a value of 0x00002710 specifies that the vertical position equals the bottom edge of the page element. A value of 0xFFFFD8EF specifies that the vertical position of the shape is not a relative percentage offset and not specified by this field. The default value for this property is 0xFFFFD8EF.

### 2.3.5.5 sizereh

The **sizereh** property specifies the **page element** that has a width equal to 100% for the **pctHoriz** property, as defined in section [2.3.5.1](#). The page element specifies either the page or a part of the page on which the **shape** is located. This property SHOULD [<37>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | sizereh |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x07C4. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**sizerelh (4 bytes):** An enumeration specifying the page element that has a width equal to 100% for the **pctHoriz** property, as defined in section 2.3.5.1. The page element specifies either the page or a part of the page on which the shape is located. This value MUST be one of the values in the following table. The default value for this property is **msosrhPage**.

| Name                       | Value      | Description                      |
|----------------------------|------------|----------------------------------|
| <b>msosrhMargin</b>        | 0x00000000 | The page, excluding the margins. |
| <b>msosrhPage</b>          | 0x00000001 | The page.                        |
| <b>msosrhLeftMargin</b>    | 0x00000002 | The left margin.                 |
| <b>msosrhRightMargin</b>   | 0x00000003 | The right margin.                |
| <b>msosrhInsideMargin</b>  | 0x00000004 | The <b>inside margin</b> .       |
| <b>msosrhOutsideMargin</b> | 0x00000005 | The <b>outside margin</b> .      |

### 2.3.5.6 sizerelv

The **sizerelv** property specifies the **page element** that has a height equal to 100% for the **pctVert** property, as defined in section 2.3.5.2. This property SHOULD [<38>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | sizerelv |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x07C5. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**sizerelv (4 bytes):** An unsigned integer specifying the page element that has a height equal to 100% for the **pctVert** property, as defined in section 2.3.5.2. The page element specifies either the page or a part of the page on which the **shape** is located. This value MUST be one of the values in the following table. The default value for this property is **msosrvPage**.

| Name                       | Value      | Description                      |
|----------------------------|------------|----------------------------------|
| <b>msosrvMargin</b>        | 0x00000000 | The page, excluding the margins. |
| <b>msosrvPage</b>          | 0x00000001 | The page.                        |
| <b>msosrvTopMargin</b>     | 0x00000002 | The top margin.                  |
| <b>msosrvBottomMargin</b>  | 0x00000003 | The bottom margin.               |
| <b>msosrvInsideMargin</b>  | 0x00000004 | The <b>inside margin</b> .       |
| <b>msosrvOutsideMargin</b> | 0x00000005 | The <b>outside margin</b> .      |

## 2.3.6 Geometry

The **Geometry** property set specifies the structure of a **shape**, including its points and how those points are connected. These properties also specify how the shape scales in size and how the user can manipulate the scaling.

### 2.3.6.1 geoLeft

The **geoLeft** property specifies the left coordinate of the **geometry space** for this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | geoLeft |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0140. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**geoLeft (4 bytes):** A signed integer that specifies the left coordinate of the geometry space for this shape. The **geoLeft**, **geoTop**, as defined in section [2.3.6.2](#), **geoRight**, as defined in section [2.3.6.3](#), and **geoBottom**, as defined in section [2.3.6.4](#), properties combine to define a rectangle that specifies an arbitrary coordinate system, called a geometry space, that geometry coordinates are specified in. When a shape is rendered, any points that are specified in the geometry space are translated into the coordinate system of the shape by matching the geometry space rectangle with the bounding rectangle of the shape, and scaling appropriately. The default value for this property is 0x00000000.

### 2.3.6.2 geoTop

The **geoTop** property specifies the top coordinate of the **geometry space** for this **shape**.



|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | geoTop |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0141. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**geoTop (4 bytes):** A signed integer that specifies the top coordinate of the geometry space for this shape. The **geoLeft**, as defined in section [2.3.6.1](#), **geoTop**, **geoRight**, as defined in section [2.3.6.3](#), and **geoBottom**, as defined in section [2.3.6.4](#), properties combine to define a rectangle that specifies an arbitrary coordinate system, called a geometry space, that geometry coordinates are specified in. When a shape is rendered, any points that are specified in the geometry space are translated into the coordinate system of the shape by matching the geometry space rectangle with the bounding rectangle of the shape, and scaling appropriately. The default value for this property is 0x00000000.

### 2.3.6.3 geoRight

The **geoRight** property specifies the right coordinate of the **geometry space** for this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | geoRight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0142. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**geoRight (4 bytes):** A signed integer that specifies the right coordinate of the geometry space for this shape. The **geoLeft**, as defined in section [2.3.6.1](#), **getTop**, as defined in section [2.3.6.2](#), **geoRight**, and **geoBottom**, as defined in section [2.3.6.4](#), properties combine to define a rectangle that specifies an arbitrary coordinate system, called a geometry space, that geometry coordinates are specified in. When a shape is rendered, any points that are specified in the geometry space are translated into the coordinate system of the shape by matching the geometry space rectangle with the bounding rectangle of the shape, and scaling appropriately. The default value for this property is 0x00005460.

### 2.3.6.4 geoBottom

The **geoBottom** property specifies the bottom coordinate of the **geometry space** for this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | geoBottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0143. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**geoBottom (4 bytes):** A signed integer that specifies the bottom coordinate of the geometry space for this shape. The **geoLeft**, as defined in section [2.3.6.1](#), **geoTop**, as defined in section [2.3.6.2](#), **geoRight**, as defined in section [2.3.6.3](#), and **geoBottom** properties combine to define a rectangle that specifies an arbitrary coordinate system, called a geometry space, that geometry coordinates are specified in. When a shape is rendered, any points that are specified in the geometry space are translated into the coordinate system of the shape by matching the geometry space rectangle with the bounding rectangle of the shape, and scaling appropriately. The default value for this property is 0x00005460.

### 2.3.6.5 shapePath

The **shapePath** property specifies the way that lines in this **shape** are to be drawn.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shapePath |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0144. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shapePath (4 bytes):** An **MSOSHAPEPATH** enumeration value, as defined in section [2.4.9](#), that specifies how vertices in this shape, as specified in the **pVertices\_complex** property, as defined in section [2.3.6.7](#), are connected. If the value is **msoshapeComplex**, the **pSegmentInfo\_complex** property, as defined in section [2.3.6.9](#), MUST exist and contain more-detailed instructions about how to connect the vertices in this shape. If **pSegmentInfo\_complex** is neither NULL nor empty, this property MUST be ignored and the connections between vertices specified by **pSegmentInfo\_complex**. The default value for this property is **msoshapeLinesClosed**.

### 2.3.6.6 pVertices

The **pVertices** property specifies the set of points that make up this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pVertices |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0145.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pVertices_complex</b> property, as defined in section <a href="#">2.3.6.7</a> , exists. If the value equals 0x1, the <b>pVertices_complex</b> property MUST exist. |

**pVertices (4 bytes):** The number of bytes of data in the **pVertices\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.7 pVertices\_complex

The **pVertices\_complex** property specifies additional data for the **pVertices** property, as defined in section 2.3.6.6. If the **opid.fComplex** bit of **pVertices** equals 0x1, this property MUST exist.

|                              |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| pVertices_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                          |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**pVertices\_complex (variable):** An **IMsoArray** record, as defined in section 2.2.51, of **POINT** structures, as defined in section 2.2.55, that represent the points comprising the geometry of this **shape**. The point coordinates are specified in **geometry space** units, unless a coordinate exists in the range from 0x80000000 through 0x8000007F. In that case, the value is not used directly. Instead, the final value is calculated by subtracting 0x80000000 from the original value, and then using that value as the zero-based index into the **pGuides\_complex** array, as defined in section 2.3.6.27, to specify the value that controls the position of that coordinate. The way that the points are connected is specified by a combination of the **shapePath**, as defined in section 2.3.6.5, and **pSegmentInfo\_complex** properties, as defined in section 2.3.6.9.

### 2.3.6.8 pSegmentInfo

The **pSegmentInfo** property specifies how the vertices that are specified by the **pVertices\_complex** property, as defined in section 2.3.6.7, of this **shape** are connected.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |              |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|--------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6            | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | pSegmentInfo |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |              |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0146.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pSegmentInfo_complex</b> property, as defined in section 2.3.6.9, exists. If the value equals 0x1, <b>pSegmentInfo_complex</b> MUST exist. |

**pSegmentInfo (4 bytes):** The number of bytes of data in the **pSegmentInfo\_complex** property, as defined in section 2.3.6.9. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.9 pSegmentInfo\_complex

The **pSegmentInfo\_complex** property specifies additional data for the **pSegmentInfo** property, as defined in section 2.3.6.8. If the **opid.fComplex** bit of **pSegmentInfo** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pSegmentInfo_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pSegmentInfo\_complex (variable):** An **IMsoArray** record, as defined in section 2.2.51, of **MSOPATHINFO** records, as defined in section 2.2.53, that specify how the vertices of this **shape**, as specified in the **pVertices\_complex** property, as defined in section 2.3.6.7, are connected.

### 2.3.6.10 adjustValue

The **adjustValue** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section 2.3.6.25, controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section 2.3.6.27. The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array, as defined in section 2.3.6.7, refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjustValue** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjustValue |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0147. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**adjustValue (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.11 adjust2Value

The **adjust2Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array, as defined in section [2.3.6.7](#), refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjust2Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust2Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0148. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**adjust2Value (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.12 adjust3Value

The **adjust3Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array, as defined in section [2.3.6.7](#), refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjust3Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust3Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0149. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**adjust3Value (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.13 adjust4Value

The **adjust4Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjust4Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust4Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x014A. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**adjust4Value (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.14 adjust5Value

The **adjust5Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjust5Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust5Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x014B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**adjust5Value (4 bytes):** A signed integer used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.15 adjust6Value

The **adjust6Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array refers to these values to specify where the vertices exist in the geometry



space. Because of these interactions, the meaning of the value of the **adjust6Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust6Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x014C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**adjust6Value (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.16 adjust7Value

The **adjust7Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjust7Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust7Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x014D. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**adjust7Value (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.17 adjust8Value

The **adjust8Value** property specifies a value that a user can change to adjust the geometry of the **shape**. Such an adjustment is accomplished through the interaction of several properties of this shape. An **adjust handle**, as specified in the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), controls how the user's input is translated into a value in the **geometry space** to store in this property. That value is used as a parameter in the formulas of the **pGuides\_complex** array, as defined in section [2.3.6.27](#). The results of the formulas comprise a set of values that can be used to control the geometry of the shape, but those values cannot be edited by the user. The **pVertices\_complex** array refers to these values to specify where the vertices exist in the geometry space. Because of these interactions, the meaning of the value of the **adjust8Value** property depends on the individual shape type and on the formulas that are specified for that shape type.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | adjust8Value |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x014E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**adjust8Value (4 bytes):** A signed integer that is used to adjust the geometry of this shape. The default value for this property is 0x00000000.

### 2.3.6.18 pConnectionSites

The **pConnectionSites** property specifies an array of connection sites that a user can employ to create a link between **shapes**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pConnectionSites |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0151.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pConnectionSites_complex</b> property, as defined in section <a href="#">2.3.6.19</a> , exists. If the value equals 0x1, <b>pConnectionSites_complex</b> MUST exist. |

**pConnectionSites (4 bytes):** The number of bytes of data in the **pConnectionSites\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.19 pConnectionSites\_complex

The **pConnectionSites\_complex** property specifies additional data for the **pConnectionSites** property, as defined in section [2.3.6.18](#). If the **opid.fComplex** bit of **pConnectionSites** equals 0x1, this property MUST exist.

|                                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pConnectionSites_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pConnectionSites\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of **POINT** structures, as defined in section [2.2.55](#), that specify where connection sites are located on this **shape**. If the **cxk** property, as defined in section [2.3.6.30](#), does not equal **msocxkCustom**, this property MUST be ignored. The point coordinates are specified in **geometry space** units, unless a coordinate exists in the range from 0x80000000 through 0x8000007F. In that case, the value is not used directly. Instead, the final value is calculated by subtracting 0x80000000 from the original value, and then using that value as the zero-based index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), to specify the value that controls the position of that coordinate.

### 2.3.6.20 pConnectionSitesDir

The **pConnectionSitesDir** property specifies an array of angles, which correspond to the connection sites in the **pConnectionSites\_complex** property, as defined in section [2.3.6.19](#), that are used to determine the direction in which each connector links to its corresponding connection site.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pConnectionSitesDir |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0152.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <a href="#">pConnectionSitesDir_complex</a> property exists. If the value equals 0x1, <b>pConnectionSitesDir_complex</b> MUST exist. |

**pConnectionSitesDir (4 bytes):** The number of bytes of data in the **pConnectionSitesDir\_complex** property, as defined in section 2.3.6.21. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.21 pConnectionSitesDir\_complex

The **pConnectionSitesDir\_complex** property specifies additional data for the **pConnectionSitesDir** property, as defined in section [2.3.6.20](#). If the **opid.fComplex** bit of **pConnectionSitesDir** equals 0x1, this property MUST exist.

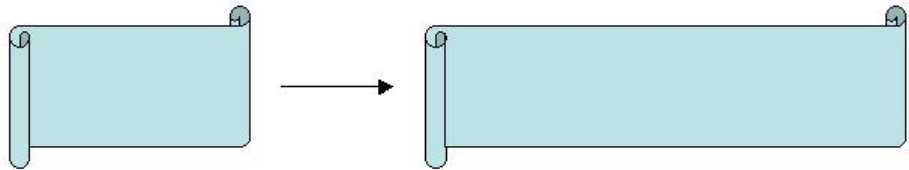
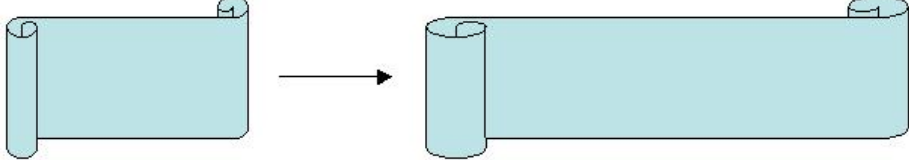
|  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pConnectionSitesDir_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pConnectionSitesDir\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of **FixedPoint** structures, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that represent the angles, in degrees, at which each connector SHOULD connect to its corresponding connection site in the **pConnectionSites\_complex** array, as defined in section [2.3.6.19](#). If this property is specified, it MUST contain the same number of elements as the **pConnectionSites\_complex** array.

### 2.3.6.22 xLimo

The **xLimo** property specifies the x-coordinate above which limousine scaling will be used in the horizontal direction. Such limousine scaling means that the points with an x-coordinate greater than **xLimo** will have their x-coordinates incremented rather than linearly scaled. The net effect is that area will be added to the interior of the **shape** without any modifications to the geometry on the sides.

The following table shows what resizing a shape looks like when **xLimo** is specified and when it is not.

| <b>xLimo specified?</b> | <b>Meaning</b>  |
|-------------------------|---|
| Yes                     | Resizing the shape in the horizontal direction causes the points with an x-coordinate greater than <b>xLimo</b> to be incremented rather than scaled:<br> |
| No                      | Resizing the shape in the horizontal direction causes the x-coordinate of all the points to be linearly scaled:<br>                                       |

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15    | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    | xLimo |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

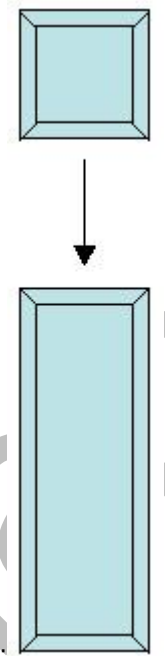
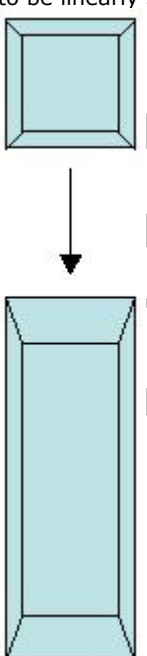
| <b>Field</b>         | <b>Meaning</b>               |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0153. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**xLimo (4 bytes):** A signed integer that represents the x-coordinate in the **geometry space** above which limousine scaling will be used. The default value for this property is 0x80000000.

### 2.3.6.23 yLimo

The **yLimo** property specifies the y-coordinate above which limousine scaling will be used in the vertical direction. Such limousine scaling means that the points with a y-coordinate greater than **yLimo** will have their y-coordinates incremented rather than linearly scaled. The net effect is that area will be added to the interior of the **shape** without any modifications to the geometry on the sides.

The following table shows what resizing a shape looks like when **yLimo** is specified and when it is not.

| yLimo specified? | Meaning   |
|------------------|---|
| Yes              | <p>Resizing the shape in the vertical direction causes the points with a y-coordinate greater than <b>yLimo</b> to be incremented rather than scaled:</p>  |
| No               | <p>Resizing the shape in the vertical direction causes the y-coordinate of all the points to be linearly scaled:</p>                                        |

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5     | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | yLimo |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0154. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**yLimo (4 bytes):** A signed integer that represents the y-coordinate in the **geometry space** above which limousine scaling will be used. The default value for this property is 0x80000000.

### 2.3.6.24 pAdjustHandles

The **pAdjustHandles** property specifies an array of **adjust handles** that allow a user to manipulate the geometry of this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11             | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | pAdjustHandles |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0155.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pAdjustHandles_complex</b> property, as defined in section <a href="#">2.3.6.25</a> , exists. If the value equals 0x1, <b>pAdjustHandles_complex</b> MUST exist. |

**pAdjustHandles (4 bytes):** The number of bytes of data in the **pAdjustHandles\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.25 pAdjustHandles\_complex

The **pAdjustHandles\_complex** property specifies additional data for the **pAdjustHandles** property, as defined in section [2.3.6.24](#). If the **opid.fComplex** bit of **pAdjustHandles** equals 0x1, this property MUST exist.

|                                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pAdjustHandles_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pAdjustHandles\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of **ADJH** records, as defined in section [2.2.57](#), specifying a set of **adjust handles** that SHOULD<39> be used to allow a user to manipulate the geometry of this **shape**.

### 2.3.6.26 pGuides

The **pGuides** property specifies a set of formulas that are used to calculate values for defining the geometry of this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | pGuides |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0156.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pGuides_complex</b> property, as defined in section <a href="#">2.3.6.27</a> , exists. If the value equals 0x1, <b>pGuides_complex</b> MUST exist. |

**pGuides (4 bytes):** The number of bytes of data in the **pGuides\_complex** property, as defined in section [2.3.6.27](#). If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.27 pGuides\_complex

The **pGuides\_complex** property specifies additional data for the **pGuides** property, as defined in section [2.3.6.26](#). If the **opid.fComplex** bit of **pGuides** equals 0x1, this property MUST exist.



|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| pGuides_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**pGuides\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#) of **SG** records, as defined in section [2.2.58](#), specifying a set of values that are used to define the geometry of this **shape**. This array **MUST NOT** have more than 128 elements.

### 2.3.6.28 pInscribe

The **pInscribe** property specifies an array of rectangles that specify how text is inscribed within this **shape**.

|      |   |   |   |   |   |   |   |   |   |   |   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   | pInscribe |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...  |   |   |   |   |   |   |   |   |   |   |   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that <b>MUST</b> be 0x0157.   |
| <b>opid.fBid</b>     | A value that is undefined and <b>MUST</b> be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pInscribe_complex</b> property, as defined in section <a href="#">2.3.6.29</a> , exists. If the value equals 0x1, <b>pInscribe_complex</b> <b>MUST</b> exist. |

**pInscribe (4 bytes):** The number of bytes of data in the **pInscribe\_complex** property, as defined in section [2.3.6.29](#). If **opid.fComplex** equals 0x0, this value **MUST** be 0x00000000. The default value for this property is 0x00000000.

### 2.3.6.29 pInscribe\_complex

The **pInscribe\_complex** property specifies additional data for the **pInscribe** property, as defined in section [2.3.6.28](#). If the **opid.fComplex** bit of **pInscribe** equals 0x1, this property **MUST** exist.

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| pInscribe_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**pInscribe\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of **RECT** records, as defined in section [2.2.56](#), that specify the rectangle within this **shape** in which text is inscribed. The coordinates in the **RECT** records are specified in the **geometry space**, unless a coordinate exists in the range from 0x80000000 through 0x8000007F. In that case, the value is not used directly. Instead, the final value is calculated by subtracting 0x80000000 from the original value, and then using that value as the zero-based index into the **pGuides\_complex** array, as defined in section [2.3.6.27](#), to specify the value that is used.

The algorithm for calculating the inscribed rectangle varies based on the number of rectangles that are provided and on whether the text exists in a horizontal or a vertical layout. The text is laid out vertically if the **txfiTextFlow** property of this shape equals **msotxfITtoBA**, **msotxfIBtoT**, **msotxfITtoBN**, or **msotxfIVertN**. Otherwise, the text is laid out horizontally. The number of rectangles that are provided MUST be zero, one, two, three, or six. The following table describes the meaning of each of these numbers of rectangles.

| Number of rectangles | Meaning  |
|----------------------|--|
| Zero                 | The text is inscribed in the rectangle within the shape.   |
| One                  | The text is inscribed in the single rectangle that is provided.  |
| Two                  | If the text exists in a horizontal layout, it is inscribed in the first rectangle that is provided. If the text exists in a vertical layout, it is inscribed in the second rectangle that is provided.   |
| Three                | The three rectangles specify the minimum, middle, and maximum rectangles to use for both vertical and horizontal layouts. If the <b>pAdjustHandles_complex</b> property, as defined in section <a href="#">2.3.6.25</a> , is either not specified or empty, the minimum rectangle is used. Otherwise, the <b>adjustValue</b> property, as defined in section <a href="#">2.3.6.10</a> , and the first <b>ADJH</b> record, as defined in section <a href="#">2.2.57</a> , in the <b>pAdjustHandles_complex</b> property are used to determine how to interpolate among the three rectangles. If the <b>apX</b> value of the first <b>ADJH</b> record is controlling the <b>adjustValue</b> property because it equals 0x00000100, the <b>adjustValue</b> property is compared with <b>xMin</b> and <b>xMax</b> . Otherwise, the <b>adjustValue</b> property is compared with <b>yMin</b> and <b>yMax</b> . If the value of the <b>adjustValue</b> property is less than the midway point between these values, the inscribed rectangle is calculated by a linear interpolation between the minimum and middle rectangles. If the value of the <b>adjustValue</b> property is greater than the midway point between these values, the inscribed rectangle is calculated by a linear interpolation between the middle and maximum rectangles. |
| Six                  | The first three rectangles specify the minimum, middle, and maximum rectangles to use if the text exists in a horizontal layout. The last three rectangles specify the minimum, middle, and maximum rectangles to use if the text exists in a vertical layout. The same algorithm as the one for the case of three rectangles is used.   |

### 2.3.6.30 cjk

The **cjk** property specifies where **connection points** exist on the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |     |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|-----|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6   | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | cjk |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |     |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0158. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cxk (4 bytes):** An **MSOCXK** enumeration value, as defined in section [2.4.10](#), that specifies where connection points exist on the shape. If this value is **msocxkCustom**, the **pConnectionSites\_complex** property, as defined in section [2.3.6.19](#), specifies where the custom connection points are located. The default value for this property is **msocxkSegments**.

### 2.3.6.31 Geometry Boolean Properties

The **Geometry Boolean Properties** specify a 32-bit field of Boolean properties for the geometry properties of the **shape**.

|         |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    | unused1 |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |    |    |    |    |    |
| unused3 |   |   |   |   | K | L | M | N | O | P  | Q       | R  | S  | T  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x017F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (6 bits):** A value that is undefined and MUST be ignored.

**A - fUsefReflectionOK (1 bit):** This bit is not used and MUST be ignored.

**B - fUsefGlowOK (1 bit):** This bit is not used and MUST be ignored.

**C - fUsefSoftEdgeOK (1 bit):** This bit is not used and MUST be ignored.

**D - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**E - fUsefShadowOK (1 bit):** A bit that specifies whether the **fShadowOK** bit is set. A value of 0x0 specifies that the **fShadowOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

- F - fUsef3DOK (1 bit):** A bit that specifies whether the **f3DOK** bit is set. A value of 0x0 specifies that the **f3DOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- G - fUsefLineOK (1 bit):** A bit that specifies whether the **fLineOK** bit is set. A value of 0x0 specifies that the **fLineOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- H - fUsefGtextOK (1 bit):** A bit that specifies whether the **fGtextOK** bit is set. A value of 0x0 specifies that the **fGtextOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- I - fUsefFillShadeShapeOK (1 bit):** A bit that specifies whether the **fFillShadeShapeOK** bit is set. A value of 0x0 specifies that the **fFillShadeShapeOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- J - fUsefFillOK (1 bit):** A bit that specifies whether the **fFillOK** bit is set. A value of 0x0 specifies that the **fFillOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- unused3 (6 bits):** A value that is undefined and MUST be ignored.
- K - fReflectionOK (1 bit):** This bit is not used and MUST be ignored.
- L - fGlowOK (1 bit):** This bit is not used and MUST be ignored.
- M - fSoftEdgeOK (1 bit):** This bit is not used and MUST be ignored.
- N - unused4 (1 bit):** A value that is undefined and MUST be ignored.
- O - fShadowOK (1 bit):** A bit that specifies whether to display the shadow of this shape. This value SHOULD [<40>](#) be ignored. If **fUsefShadowOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- P - f3DOK (1 bit):** A bit that specifies whether to display the extrusion effect of this shape. If **fUsef3DOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- Q - fLineOK (1 bit):** A bit that specifies whether to display the line of this shape. If **fUsefLineOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- R - fGtextOK (1 bit):** A bit that specifies whether to display the text aligned to this shape. If **fUsefGtextOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- S - fFillShadeShapeOK (1 bit):** A bit that specifies whether the fill is aligned to the shape. A value of 0x0 specifies that the fill is aligned to the **bounding rectangle** of the shape. A value of 0x1 specifies that the fill is aligned to the shape itself. If **fUsefFillShadeShapeOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- T - fFillOK (1 bit):** A bit that specifies whether to display the fill of this shape. If **fUsefFillOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

### 2.3.7 Fill Style

The **Fill Style** property set specifies the fill attributes of either the **shape** or the background of the **slide**.

#### 2.3.7.1 fillType

The **fillType** property specifies the type of fill to display with the **shape** or the background of the **slide**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0180. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillType (4 bytes):** An **MSOFILLTYPE** enumeration value, as defined in section [2.4.11](#), that specifies the type of fill. The default value for this property is **msofillSolid**.

### 2.3.7.2 fillColor

The **fillColor** property specifies the foreground color of the fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0181. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the fill. The **fillColor** property and the **fillBackColor** property, as defined in section [2.3.7.4](#), are interpreted according to the value of the **fillType** property, as defined in section [2.3.7.1](#), as specified by the following table. The default value for this property is 0x00FFFFFF.

| fillType                  | fillColor  | fillBackColor   |
|---------------------------|--|---|
| <b>msofillSolid</b>       | The foreground color.  | Unused.   |
| <b>msofillPattern</b>     | The foreground color of the pattern.   | The background color of the pattern.  |
| <b>msofillTexture</b>     | Unused.  | Unused.   |
| <b>msofillPicture</b>     | Unused.  | Unused.   |
| <b>msofillShade</b>       | The first color of the shade if the <b>fillShadeColors_complex</b> property, as defined in section <a href="#">2.3.7.27</a> , is used. | The last color of the shade if the <b>fillShadeColors_complex</b> property is used. |
| <b>msofillShadeCenter</b> | The first color of the shade if the <b>fillShadeColors_complex</b> property is used.   | The last color of the shade if the <b>fillShadeColors_complex</b> property is used. |
| <b>msofillShadeShape</b>  | The first color of the shade if the <b>fillShadeColors_complex</b> property is used.   | The last color of the shade if the <b>fillShadeColors_complex</b> property is used. |
| <b>msofillShadeScale</b>  | The first color of the shade if the <b>fillShadeColors_complex</b> property is used.   | The last color of the shade if the <b>fillShadeColors_complex</b> property is used. |
| <b>msofillShadeTitle</b>  | The first color of the shade if the <b>fillShadeColors_complex</b> property is used.   | The last color of the shade if the <b>fillShadeColors_complex</b> property is used. |
| <b>msofillBackground</b>  | Unused.  | Unused.   |

### 2.3.7.3 fillOpacity

The **fillOpacity** property specifies the foreground opacity level of the fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0182. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillOpacity (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the foreground opacity level of the fill. The value MUST be from 0.0 through 1.0, inclusive. A value of 0.0 specifies a completely transparent fill. A value of 1.0 specifies a completely opaque fill. The default value for this property is 0x00010000.

### 2.3.7.4 fillBackColor

The **fillBackColor** property specifies the background color of the fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBackColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0183. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillBackColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the background color of the fill. This value is interpreted in the same manner as that of the **fillColor** property, as defined in section [2.3.7.2](#). The default value for this property is 0x00FFFFFF.

### 2.3.7.5 fillBackOpacity

The **fillBackOpacity** property specifies the background opacity level of the fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBackOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0184. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**fillBackOpacity (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the background opacity level of the fill. The value MUST be from 0.0 through 1.0, inclusive. A value of 0.0 specifies a completely transparent fill. A value of 1.0 specifies a completely opaque fill. The default value for this property is 0x00010000.

### 2.3.7.6 fillCrMod

The **fillCrMod** property specifies the foreground color of the fill for black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0185. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the fill for black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.7.7 fillBlip

The **fillBlip** property specifies the **BLIP** that is used for pattern, texture, or picture fills.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBlip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.



| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0186.  |
| <b>opid.fBid</b>     | A value that MUST be 0x0 if <b>fComplex</b> equals 0x1 or 0x1 if <b>fComplex</b> equals 0x0. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , then the value MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>fillBlip_complex</b> property, as defined in section <a href="#">2.3.7.8</a> , exists. If the value equals 0x1, <b>fillBlip_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section 2.2.15, then the value MUST be ignored. |

**fillBlip (4 bytes):** An unsigned integer specifying the BLIP that is used for pattern, texture, or picture fills. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record, as defined in section 2.2.15, then the value MUST be ignored.

| Value of <b>opid.fComplex</b> | Meaning of <b>fillBlip</b> field  |
|-------------------------------|---|
| <b>0x0</b>                    | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section <a href="#">2.2.20</a> . A value of 0x00000000 MUST be ignored. |
| <b>0x1</b>                    | Specifies the number of bytes of data in the <b>fillBlip_complex</b> property, as defined in section 2.3.7.8.   |

### 2.3.7.8 fillBlip\_complex

The **fillBlip\_complex** property specifies additional data for the **fillBlip** record, as defined in section [2.3.7.7](#). If the **opid.fComplex** bit of **fillBlip** equals 0x1, this property MUST exist. This property SHOULD [<41>](#) be ignored.

|                             |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |
| fillBlip_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
| ...                         |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |

**fillBlip\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), specifying the **BLIP** that is used for pattern, texture, or picture fills.

### 2.3.7.9 fillBlipName

The **fillBlipName** property specifies the comment, the file name, or the full **Uniform Resource Locator (URL)** of the **BLIP** that is used as fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBlipName |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0187.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>fillBlipName_complex</b> property, as defined in section <a href="#">2.3.7.10</a> , exists. If the value equals 0x1, <b>fillBlipName_complex</b> MUST exist. |

**fillBlipName (4 bytes):** The number of bytes of data in the **fillBlipName\_complex** property, as defined in section [2.3.7.10](#). If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.7.10 fillBlipName\_complex

The **fillBlipName\_complex** property specifies additional data for the **fillBlipName** property, as defined in section [2.3.7.9](#). If the **opid.fComplex** bit of **fillBlipName** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| fillBlipName_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**fillBlipName\_complex (variable):** A null-terminated **Unicode** string that specifies the comment, file name, or full **URL**, as specified by the **fillBlipFlags** property, as defined in section [2.3.7.11](#), for the **BLIP**.

### 2.3.7.11 fillBlipFlags

The **fillBlipFlags** property specifies how to interpret the **fillBlipName\_complex** property, as defined in section [2.3.7.10](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBlipFlags |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0188. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillBlipFlags (4 bytes):** A **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **fillBlipName\_complex** property, as defined in section 2.3.7.10. The default value for this property is **msoblipflagComment**.

### 2.3.7.12 fillWidth

The **fillWidth** property specifies the width of the fill. This property applies only to texture, picture, and pattern fills.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0189. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillWidth (4 bytes):** A signed integer that specifies the width of the fill in units that are specified by the **fillDztype** property, as defined in section [2.3.7.24](#). If **fillDztype** equals **msodztypeDefault**, this value MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.13 fillHeight

The **fillHeight** property specifies the height of the fill. This property applies only to texture, picture, and pattern fills.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillHeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x018A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillHeight (4 bytes):** A signed integer that specifies the height of the fill in units that are specified by the **fillDztype** property, as defined in section [2.3.7.24](#). If **fillDztype** equals **msodztypeDefault**, this value MUST be ignored. The default value for this property is 0x00000000.

#### 2.3.7.14 fillAngle

The **fillAngle** property specifies the angle of the shaded fill that rotates the **gradient vector** in a counterclockwise direction.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillAngle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x018B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillAngle (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the angle of the gradient fill. Zero degrees represents a vertical vector from bottom to top. The default value for this property is 0x00000000.

### 2.3.7.15 fillFocus

The **fillFocus** property specifies the relative position of the last color in the shaded fill.

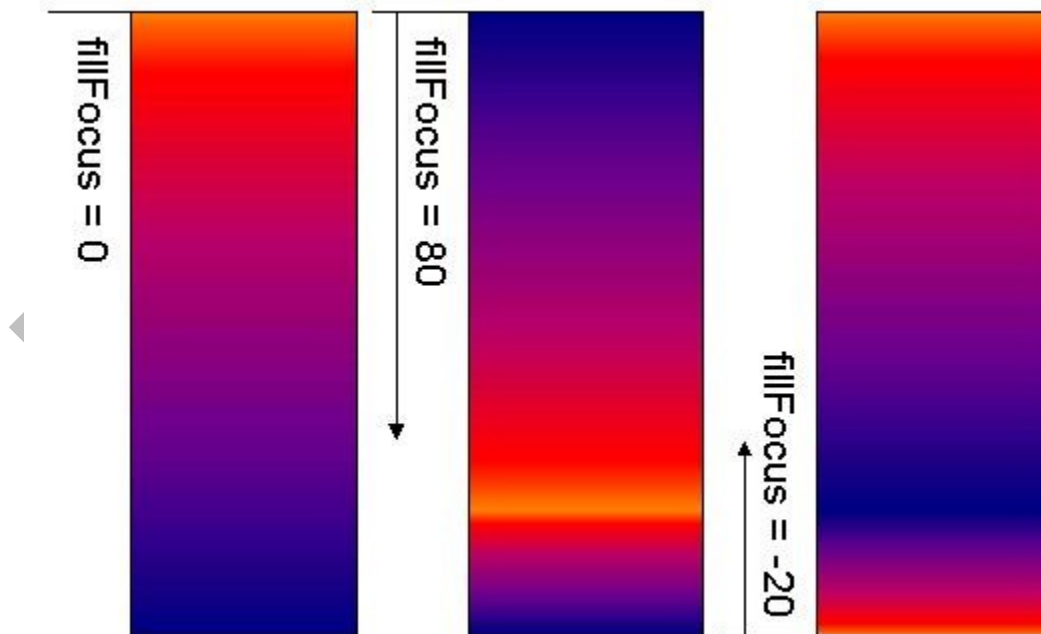
|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillFocus |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x018C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillFocus (4 bytes):** A signed integer value that specifies the relative position of the last color in the shaded fill. This value MUST be from 0xFFFFFFFF9C through 0x00000064, inclusive. The default value for this property is 0x00000000.

The following figure demonstrates how the **fillFocus** affects the shaded fill.

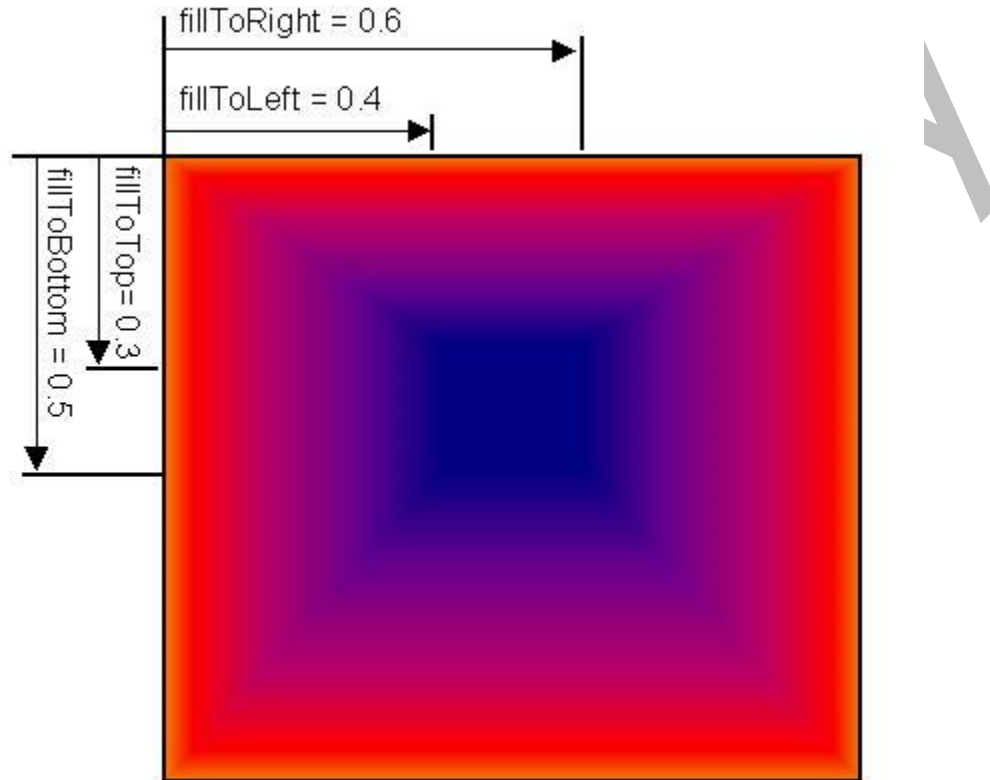


**Figure 5: Comparison of fillFocus effects**

The first color of the shaded fill is blue, and the last color is red. If **fillFocus** is less than 0, the relative position of the last color is outside the **shape**, and the relative position of the first color is within the shape.

### 2.3.7.16 fillToLeft

The **fillToLeft** property specifies the relative position of the left boundary of the center rectangle in a concentric shaded fill, as shown in the following figure.



**Figure 6: The fillToLeft, fillToTop, fillToRight, and fillToBottom properties in the shaded fill**

|      |   |   |   |   |   |   |   |   |   |            |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   | fillToLeft |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |            |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x018D. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**fillToLeft (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the left boundary of the center rectangle relative to the origin of the **bounding rectangle** of the **shape** in horizontal. The default value for this property is 0x00000000.

### 2.3.7.17 fillToTop

The **fillToTop** property specifies the relative position of the top boundary of the center rectangle in a concentric shaded fill, as shown in the figure of the **fillToLeft** property, as defined in section [2.3.7.16](#).

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |           |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|-----------|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7         | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   | fillToTop |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |           |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x018E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillToTop (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the top boundary of the center rectangle relative to the origin of the **bounding rectangle** of the **shape** in vertical. The default value for this property is 0x00000000.

### 2.3.7.18 fillToRight

The **fillToRight** property specifies the relative position of the right boundary of the center rectangle in a concentric shaded fill, as shown in the figure of the **fillToLeft** property, as defined in section [2.3.7.16](#).

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |             |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|-------------|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7           | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   | fillToRight |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |             |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

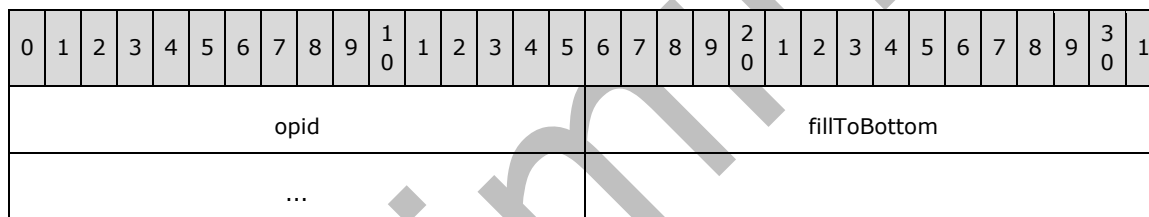
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x018F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillToRight (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the right boundary of the center rectangle relative to the origin of the **bounding rectangle** of the **shape** in horizontal. The default value for this property is 0x00000000.

### 2.3.7.19 fillToBottom

The **fillToBottom** property specifies the relative position of the bottom boundary of the center rectangle in a concentric shaded fill, as shown in the figure of the **fillToLeft** property, as defined in section [2.3.7.16](#).



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

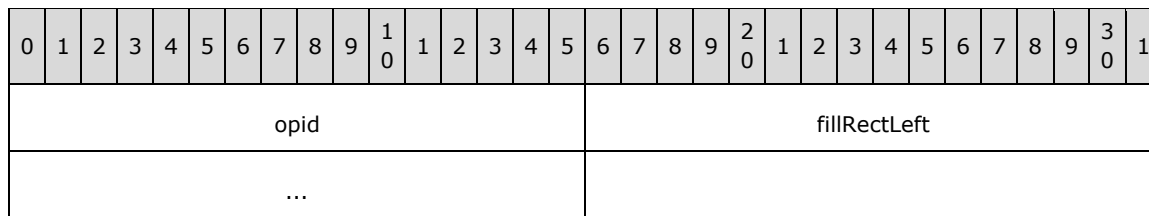
| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0190. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillToBottom (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the bottom boundary of center rectangle relative to the origin of the **bounding rectangle** of the **shape** in vertical. The default value for this property is 0x00000000.

### 2.3.7.20 fillRectLeft

The **fillRectLeft** property specifies the left boundary, in **EMUs**, of the **bounding rectangle** of the shaded fill.





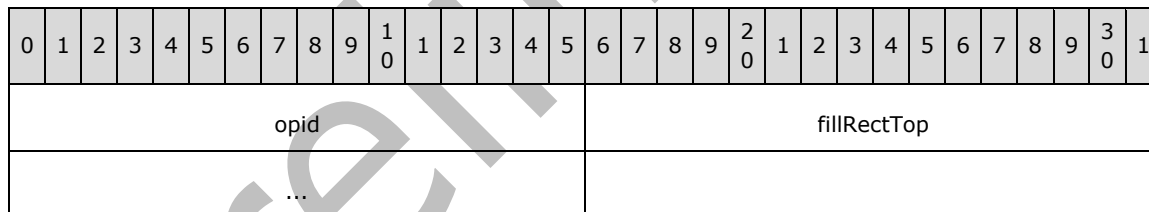
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0191. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillRectLeft (4 bytes):** A signed integer that specifies the left boundary, in EMUs, of the bounding rectangle of the shaded fill. If the **fillUseRect** bit of **Fill Style Boolean fillUseRect** property, as defined in section [2.3.7.43](#), equals 0x0, this value MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.21 fillRectTop

The **fillRectTop** property specifies the top boundary, in **EMUs**, of the **bounding rectangle** of the shaded fill.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0192. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillRectTop (4 bytes):** A signed integer that specifies the top boundary, in EMUs, of the bounding rectangle of the shaded fill. If the **fillUseRect** bit of **Fill Style Boolean fillUseRect** property, as

defined in section [2.3.7.43](#), equals 0x0, this value MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.22 fillRectRight

The **fillRectRight** property specifies the right boundary, in **EMUs**, of the **bounding rectangle** of the shaded fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillRectRight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0193. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillRectRight (4 bytes):** A signed integer that specifies the right boundary, in EMUs, of the bounding rectangle of the shaded fill. If the **fillUseRect** bit of **Fill Style Boolean fillUseRect** property, as defined in section [2.3.7.43](#), equals 0x0, this value MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.23 fillRectBottom

The **fillRectBottom** property specifies the bottom boundary, in **EMUs**, of the **bounding rectangle** of the shaded fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillRectBottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0194. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**fillRectBottom (4 bytes):** A signed integer that specifies the bottom boundary, in EMUs, of the bounding rectangle of the shaded fill. If the **fillUseRect** bit of **Fill Style Boolean fillUseRect** property, as defined in section [2.3.7.43](#), equals 0x0, this value MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.24 fillDztype

The **fillDztype** property specifies how the **fillWidth**, as defined in section [2.3.7.12](#), and **fillHeight**, as defined in section [2.3.7.13](#), properties are interpreted.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillDztype |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0195. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillDztype (4 bytes):** An **MSODZTYPE** enumeration value, as defined in section [2.4.12](#), that specifies how the **fillWidth**, as defined in section [2.3.7.12](#), and **fillHeight**, as defined in section [2.3.7.13](#), properties are interpreted. The default value for this property is **msodztypeDefault**.

### 2.3.7.25 fillShadePreset

The **fillShadePreset** property specifies the preset colors of the gradient fill.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillShadePreset |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0196. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillShadePreset (4 bytes):** A signed integer that specifies the preset colors of the gradient fill. This value MUST be from 0x00000088 through 0x0000009F, inclusive. If the **fillShadeColors\_complex** property, as defined in section [2.3.7.27](#), exists, this value MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.26 fillShadeColors

The **fillShadeColors** property specifies the colors and their relative positions along the shade of the fill.

|      |   |   |   |   |   |   |   |   |   |    |                 |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-----------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1               | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | fillShadeColors |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                 |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0197.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>fillShadeColors_complex</b> property, as defined in section <a href="#">2.3.7.27</a> , exists. If the value equals 0x1, <b>fillShadeColors_complex</b> MUST exist. |

**fillShadeColors (4 bytes):** The number of bytes of data in the **fillShadeColors\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.7.27 fillShadeColors\_complex

The **fillShadeColors\_complex** property specifies additional data for the **fillShadeColors** property, as defined in section [2.3.7.26](#). If the **opid.fComplex** bit of **fillShadeColors** equals 0x1, this property MUST exist.

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| fillShadeColors_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**fillShadeColors\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), that specifies the colors and their relative positions. Each element of the array is an **MSOSHADECOLOR** record, as defined in section [2.2.61](#). The values of position MUST be in ascending order.

### 2.3.7.28 fillOriginX

The **fillOriginX** property specifies the position of the origin of the picture fill relative to the center of the picture itself in horizontal.

|      |   |   |   |   |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   | fillOriginX |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...  |   |   |   |   |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0198. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillOriginX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies position of the origin of the picture fill relative to the center of the picture itself in horizontal. This value MUST be from -1.5 through 0.5, inclusive, for the picture fill to be visible, but values outside the range do not lead to any errors. The default value for this property is 0x00000000.

### 2.3.7.29 fillOriginY

The **fillOriginY** property specifies the position of the origin of the picture fill relative to the center of the picture itself in vertical.

|      |   |   |   |   |   |   |   |   |   |   |   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   | fillOriginY |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0199. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillOriginY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the position of the origin of the picture fill relative to the center of the picture itself in vertical. This value MUST be from -1.5 through 0.5, inclusive, for the picture fill to be visible, but values outside the range do not lead to any errors. The default value for this property is 0x00000000.

### 2.3.7.30 fillShapeOriginX

The **fillShapeOriginX** property specifies the position of the origin of the picture fill relative to the center of the **bounding rectangle** of the **shape** in horizontal.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillShapeOriginX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x019A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillShapeOriginX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the position of the origin of the picture fill relative to the center of the bounding rectangle of the shape in horizontal. This value MUST be from -0.5 through 0.5, inclusive, for the picture fill to be visible, but values outside the range do not lead to any errors. The default value for this property is 0x00000000.

### 2.3.7.31 fillShapeOriginY

The **fillShapeOriginY** property specifies the position of the origin of the picture fill relative to the center of the **bounding rectangle** of the **shape** in vertical.

|      |   |   |   |   |   |   |   |   |   |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11               | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | fillShapeOriginY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x019B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillShapeOriginY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the position of the origin of the picture fill relative to the center of the bounding rectangle of the shape in vertical. This value MUST be from -0.5 through 0.5, inclusive, for the picture fill to be visible, but values outside the range do not lead to any errors. The default value for this property is 0x00000000.

### 2.3.7.32 fillShadeType

The **fillShadeType** property specifies how the shaded fill is computed.

|      |   |   |   |   |   |   |   |   |   |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11            | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | fillShadeType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x019C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillShadeType (4 bytes):** An **MSOSHADETYPE** record, as defined in section [2.2.50](#), that specifies how the shaded fill is computed. The default value for this property is 0x40000003.

### 2.3.7.33 fillColorExt

The **fillColorExt** property specifies the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x019E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended foreground color. The default value for this property is 0xFFFFFFFF.

### 2.3.7.34 reserved415

The **reserved415** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved415 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x019F. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |



|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**reserved415 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.7.35 fillColorExtMod

The **fillColorExtMod** property specifies the color modification of the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01A0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillColorExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the extended foreground color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.7.36 reserved417

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved417 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x01A1. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**reserved417 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.37 fillBackColorExt

The **fillBackColorExt** property specifies the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBackColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01A2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillBackColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended background color. The default value for this property is 0xFFFFFFFF.

### 2.3.7.38 reserved419

The **reserved419** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved419 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01A3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved419 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.7.39 fillBackColorExtMod

The **fillBackColorExtMod** property specifies the color modification of the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | fillBackColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01A4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**fillBackColorExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the extended background color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.7.40 reserved421

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved421 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning         |
|----------------------|-----------------|
| <b>opid.opid</b>     | MUST be 0x01A5. |
| <b>opid.fBid</b>     | MUST be 0x0.    |
| <b>opid.fComplex</b> | MUST be 0x0.    |

**reserved421 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.7.41 reserved422

The **reserved422** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved422 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01A6. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved422 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.7.42 reserved423

The **reserved423** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved423 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01A7. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved423 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.7.43 Fill Style Boolean Properties

The **Fill Style Boolean Properties** specify a 32-bit field of Boolean properties for the fill style.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15      | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    | unused1 |    |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  |    |    |    |
| unused2 |   |   |   |   |   |   |   |   |   | H  | I  | J  | K  | L  | M       | N  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01BF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (9 bits):** A value that is undefined and MUST be ignored.

**A - fUseRecolorFillAsPicture (1 bit):** A bit that specifies whether the **fRecolorFillAsPicture** bit is set. A value of 0x0 specifies that the **fRecolorFillAsPicture** MUST be ignored. The default value for this property is 0x0.

**B - fUseUseShapeAnchor (1 bit):** A bit that specifies whether the **fUseShapeAnchor** bit is set. A value of 0x0 specifies that the **fUseShapeAnchor** MUST be ignored. The default value for this property is 0x0.

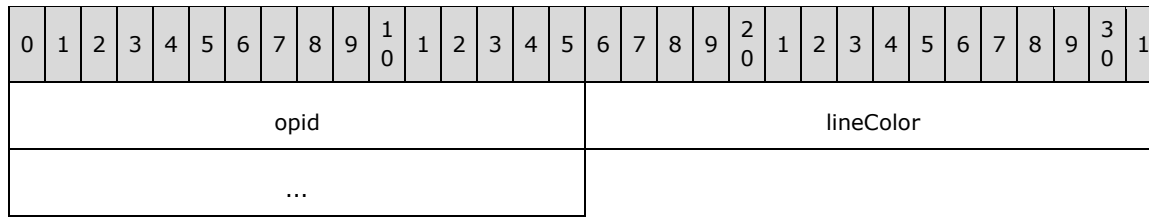
- C - fUsefFilled (1 bit):** A bit that specifies whether the **fFilled** bit is set. A value of 0x0 specifies that the **fFilled** MUST be ignored. The default value for this property is 0x0.
  - D - fUsefHitTestFill (1 bit):** A bit that specifies whether the **fHitTestFill** bit is set. A value of 0x0 specifies that the **fHitTestFill** MUST be ignored. The default value for this property is 0x0.
  - E - fUsefillShape (1 bit):** A bit that specifies whether the **fillShape** bit is set. A value of 0x0 specifies that the **fillShape** MUST be ignored. The default value for this property is 0x0.
  - F - fUsefillUseRect (1 bit):** A bit that specifies whether the **fillUseRect** bit is set. A value of 0x0 specifies that the **fillUseRect** MUST be ignored. The default value for this property is 0x0.
  - G - fUsefNoFillHitTest (1 bit):** A bit that specifies whether the **fNoFillHitTest** bit is set. A value of 0x0 specifies that the **fNoFillHitTest** MUST be ignored. The default value for this property is 0x0.
- unused2 (9 bits):** A value that is undefined and MUST be ignored.
- H - fRecolorFillAsPicture (1 bit):** A bit that specifies how to recolor a picture fill. If this bit is set to 0x1, the [pictureFillCrMod](#) property of the picture fill is used for recoloring. If this bit is set to 0x0, the **fillCrMod** property, as defined in section [2.3.7.6](#), is used for recoloring. If **fUsefRecolorFillAsPicture** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
  - I - fUseShapeAnchor (1 bit):** A bit that specifies whether the fill is rotated with the **shape**. If **fUsefUseShapeAnchor** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
  - J - fFilled (1 bit):** A bit that specifies whether the fill is rendered if the shape is a 2-D shape. If this bit is set to 0x1, the fill of this shape is rendered based on the properties of the [Fill Style](#) property set. If this bit is set to 0x0, the fill of this shape is not rendered. If **fUsefFilled** is 0x0, this value MUST be ignored. The default value for this property is 0x1.
  - K - fHitTestFill (1 bit):** A bit that specifies whether this fill will be hit tested. If **fUsefHitTestFill** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
  - L - fillShape (1 bit):** A bit that specifies how the fill is aligned. If this bit is set to 0x1, the fill is aligned relative to the shape so that it moves with the shape. If this bit is set to 0x0, the fill is aligned with the origin of the view. If **fUsefillShape** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
  - M - fillUseRect (1 bit):** A bit that specifies whether to use the rectangle specified by the [fillRectLeft](#), [fillRectRight](#), [fillRectTop](#), and [fillRectBottom](#) properties, rather than the **bounding rectangle** of the shape, as the filled area. If **fUsefillUseRect** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
  - N - fNoFillHitTest (1 bit):** A bit that specifies whether this shape will be hit tested as though it were filled. If **fUsefNoFillHitTest** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

## 2.3.8 Line Style

The **Line Style** property set specifies the line attributes of the **shape**.

### 2.3.8.1 lineColor

The **lineColor** property specifies the foreground color of the line.



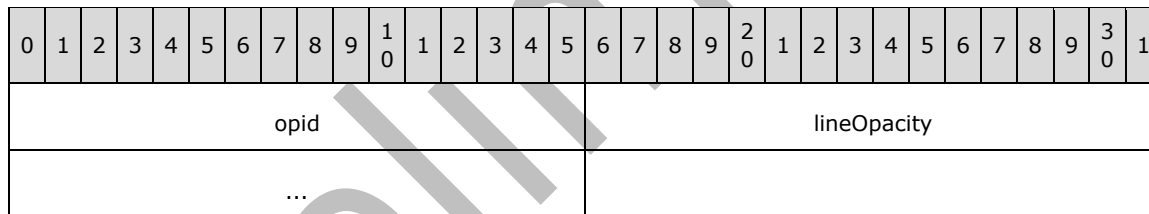
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line. The default value for this property is 0x00000000.

### 2.3.8.2 lineOpacity

The **lineOpacity** property specifies the opacity level of the foreground color.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineOpacity (4 bytes):** A signed integer that specifies the opacity level of the foreground color. This property MUST be from 0x00000000 through 0x00010000, inclusive. A value of 0x00000000 is completely transparent. A value of 0x00010000 is completely opaque. The default value for this property is 0x00010000.

### 2.3.8.3 lineBackColor

The **lineBackColor** property specifies the background color of the line.

|      |   |   |   |   |   |   |   |   |   |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11            | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineBackColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBackColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the background color of the line. The default value for this property is 0x00FFFFFF.

### 2.3.8.4 lineCrMod

The **lineCrMod** property specifies the foreground color of the line for black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11        | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**lineCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line for black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.8.5 lineType

The **lineType** property specifies the type of line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineType (4 bytes):** An **MSOLINETYPE** enumeration value, as defined in section [2.4.13](#), that specifies the type of line. The default value for this property is **mslineSolidType**.

### 2.3.8.6 lineFillBlip

The **lineFillBlip** property specifies the **BLIP** that is used to fill this line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineFillBlip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning   |
|------------------|---|
| <b>opid.opid</b> | A value that MUST be 0x01C5.  |
| <b>opid.fBid</b> | A value that MUST be 0x0 if <b>fComplex</b> equals 0x1 or 0x1 if <b>fComplex</b> equals 0x0. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , then the value MUST be ignored. |

|                      |   |
|----------------------|---|
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineFillBlip_complex</b> property, as defined in section <a href="#">2.3.8.7</a> , exists. If the value equals 0x1, <b>lineFillBlip_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section 2.2.15, then the value MUST be ignored. |
|----------------------|---|

**lineFillBlip (4 bytes):** An unsigned integer specifying the BLIP that is used to fill this line when the **lineType** property, as defined in section [2.3.8.5](#), is set to **msolinePattern** or **msolineTexture**. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record, as defined in section 2.2.15, then the value MUST be ignored.

| Value of <b>opid.fComplex</b> | Meaning of <b>lineFillBlip</b> field  |
|-------------------------------|---|
| <b>0x0</b>                    | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section <a href="#">2.2.20</a> . A value of 0x00000000 MUST be ignored. |
| <b>0x1</b>                    | Specifies the number of bytes of data in the <b>lineFillBlip_complex</b> property.  |

### 2.3.8.7 lineFillBlip\_complex

The **lineFillBlip\_complex** property specifies additional data for the **lineFillBlip** property, as defined in section [2.3.8.6](#). If the **opid.fComplex** bit of **lineFillBlip** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| lineFillBlip_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                             |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**lineFillBlip\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), that specifies the **BLIP** used to fill this line when the **lineType** property, as defined in section [2.3.8.5](#), is set to **msolinePattern** or **msolineTexture**.

### 2.3.8.8 lineFillBlipName

The **lineFillBlipName** property specifies a comment about the **lineFillBlip** property, as defined in section [2.3.8.6](#).

|      |   |   |   |   |   |   |   |   |   |    |                  |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    | lineFillBlipName |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |                  |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x01C6.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineFillBlipName_complex</b> property, as defined in section <a href="#">2.3.8.9</a> , exists. If the value equals 0x1, <b>lineFillBlipName_complex</b> MUST exist. |

**lineFillBlipName (4 bytes):** The number of bytes of data in the **lineFillBlipName\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.8.9 lineFillBlipName\_complex

The **lineFillBlipName\_complex** property specifies additional data for the [lineFillBlipName](#) property. If the **opid.fComplex** bit of **lineFillBlipName** equals 0x1, this property MUST exist.

|                                     |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|-------------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| lineFillBlipName_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                                 |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**lineFillBlipName\_complex (variable):** A null-terminated **Unicode** string that specifies a comment about the **lineFillBlip** property, as defined in section [2.3.8.6](#), as specified by the **lineFillBlipFlags** property, as defined in section [2.3.8.10](#).

### 2.3.8.10 lineFillBlipFlags

The **lineFillBlipFlags** property specifies how to interpret the **lineFillBlipName\_complex** property, as defined in section [2.3.8.9](#).

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|-------------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6                 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | lineFillBlipFlags |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x01C7. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineFillBlipFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **lineFillBlipName\_complex** property. This value MUST be **msoblipflagComment**. The default value for this property is **msoblipflagComment**.

### 2.3.8.11 lineFillWidth

The **lineFillWidth** property specifies the width of a pattern or texture that is used to fill this line. The **lineFillDztype** property, as defined in section [2.3.8.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineFillWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C8. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineFillWidth (4 bytes):** A signed integer specifying the width of a pattern or texture that is used to fill this line. If this value is 0x00000000, the width of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.8.12 lineFillHeight

The **lineFillHeight** property specifies the height of a pattern or texture that is used to fill this line. The **lineFillDztype** property, as defined in section [2.3.8.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineFillHeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01C9. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineFillHeight (4 bytes):** A signed integer specifying the height of a pattern or texture that is used to fill this line. If this value is 0x00000000, the height of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.8.13 lineFillDztype

The **lineFillDztype** property specifies how the **lineFillWidth**, as defined in section [2.3.8.11](#), and **lineFillHeight**, as defined in section [2.3.8.12](#), properties MUST be interpreted.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineFillDztype |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01CA. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineFillDztype (4 bytes):** An **MSODZTYPE** enumeration value, as defined in section [2.4.12](#), that specifies how the **lineFillWidth**, as defined in section [2.3.8.11](#), and **lineFillHeight**, as defined in section [2.3.8.12](#), properties MUST be interpreted. The default value for this property is **msodztypeDefault**.

### 2.3.8.14 lineWidth

The **lineWidth** property specifies the width of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

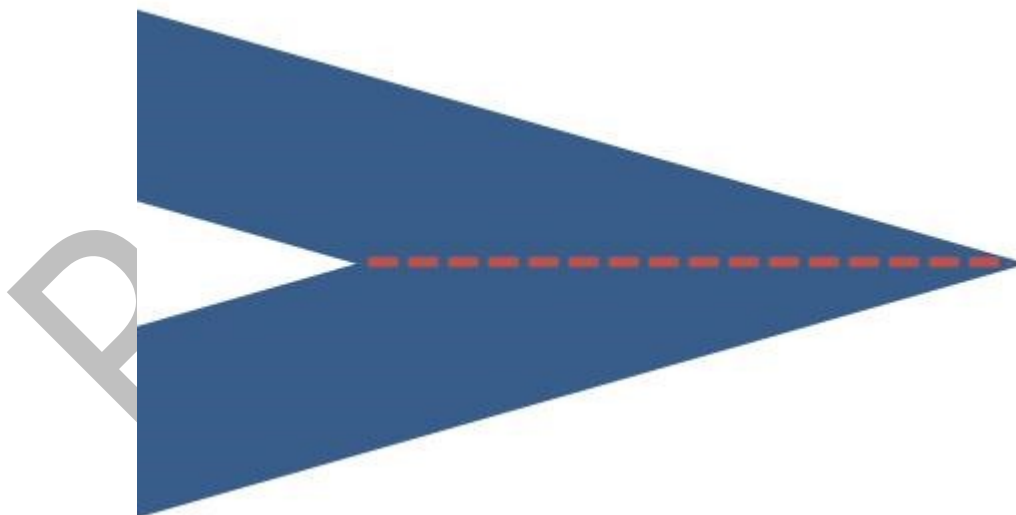
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01CB. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineWidth (4 bytes):** A signed integer that specifies the width, in **EMUs**, of the line. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00002535.

### 2.3.8.15 lineMiterLimit

The **lineMiterLimit** property specifies the maximum allowed ratio of miter length to line width. The miter length is the distance from the intersection of the line walls on the inside of the join to the intersection of the line walls on the outside of the join. The following figure illustrates the miter length.



**Figure 7: The miter length represented by a dashed line**

If the miter length extends beyond the line miter limit, the line SHOULD be clipped, as shown in the following figure.



**Figure 8: A line that was clipped because the miter length extended beyond the line miter limit**

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineMiterLimit |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01CC. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineMiterLimit (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the maximum allowed ratio of miter length to line width. The default value for this property is 0x00080000.

### 2.3.8.16 lineStyle

The **lineStyle** property specifies the style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x01CD. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineStyle (4 bytes):** An **MSOLINESTYLE** enumeration value, as defined in section [2.4.14](#), that specifies the style of the line. The default value for this property is **msolineSimple**.

### 2.3.8.17 lineDashing

The **lineDashing** property specifies the dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineDashing |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01CE. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineDashing (4 bytes):** An **MSOLINEDASHING** enumeration value, as defined in section [2.4.15](#), that specifies the dash style of the line. The default value for this property is **msolineSolid**.

### 2.3.8.18 lineDashStyle

The **lineDashStyle** property specifies the custom dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineDashStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.



| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x01CF.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineDashStyle_complex</b> property, as defined in section <a href="#">2.3.8.19</a> , exists. If the value equals 0x1, <b>lineDashStyle_complex</b> MUST exist. |

**lineDashStyle (4 bytes):** The number of bytes of data in the **lineDashStyle\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.8.19 lineDashStyle\_complex

The **lineDashStyle\_complex** property specifies additional data for the **lineDashStyle** property, as defined in section [2.3.8.18](#). If the **opid.fComplex** bit of **lineDashStyle** equals 0x1, this property MUST exist.

|                                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineDashStyle_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineDashStyle\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of 32-bit unsigned integers that specifies a custom dash style for the line. The length of each dash and space in the dash style of the line is the product of a multiplier and the line width. The first element specifies the multiplier of the first dash, the second element specifies the multiplier of the first space, the third element specifies the multiplier of the second dash, and so on—alternating between spaces and dashes. This value SHOULD be used only if the **lineDashing** property, as defined in section [2.3.8.17](#), is either not present or equal to **mslineSolid**.

### 2.3.8.20 lineStartArrowhead

The **lineStartArrowhead** property specifies the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineStartArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineStartArrowhead (4 bytes):** An **MSLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the start of the line. The default value for this property is **msolineNoEnd**.

### 2.3.8.21 lineEndArrowhead

The **lineEndArrowhead** property specifies the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineEndArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineEndArrowhead (4 bytes):** An **MSLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the end of the line. The default value for this property is **msolineNoEnd**.

### 2.3.8.22 lineStartArrowWidth

The **lineStartArrowWidth** property specifies the width of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineStartArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineStartArrowWidth (4 bytes):** An **MSOLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumWidthArrow**.

### 2.3.8.23 lineStartArrowLength

The **lineStartArrowLength** property specifies the length of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineStartArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineStartArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.8.24 lineEndArrowWidth

The **lineEndArrowWidth** property specifies the width of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineEndArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineEndArrowWidth (4 bytes):** An **MSLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the end of the line. The default value for this property is **mslineMediumWidthArrow**.

### 2.3.8.25 lineEndArrowLength

The **lineEndArrowLength** property specifies the length of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineEndArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D5. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineEndArrowLength (4 bytes):** An **MSLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the end of the line. The default value for this property is **mslineMediumLenArrow**.

### 2.3.8.26 lineJoinStyle

The **lineJoinStyle** property specifies the style of the line joins.

|      |   |   |   |   |   |   |   |   |   |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11            | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineJoinStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D6. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineJoinStyle (4 bytes):** An **MSOLINEJOIN** enumeration value, as defined in section [2.4.19](#), that specifies the style of the line joins. The default value for this property is **msolineJoinRound**.

### 2.3.8.27 lineEndCapStyle

The **lineEndCapStyle** property specifies the style of the line end caps.

|      |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11              | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineEndCapStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D7. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineEndCapStyle (4 bytes):** An **MSOLINECAP** enumeration value, as defined in section [2.4.20](#), that specifies the style of the line end caps. The default value for this property is **msolineEndCapFlat**.

### 2.3.8.28 lineColorExt

The **lineColorExt** property specifies the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01D9. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended foreground color. The default value for this property is 0xFFFFFFFF.

### 2.3.8.29 reserved474

The **reserved474** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved474 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01DA. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved474 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.8.30 lineColorExtMod

The **lineColorExtMod** property specifies the color modification of the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11              | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01DB. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineColorExtMod (4 bytes):** An MSOTINTSHADE record that specifies the extended foreground color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.8.31 reserved476

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11          | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | reserved476 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01DC. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved476 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.8.32 lineBackColorExt

The **lineBackColorExt** property specifies the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBackColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01DD. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBackColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended background color. The default value for this property is 0xFFFFFFFF.

### 2.3.8.33 reserved478

The **reserved478** property MUST be 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved478 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01DE. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**reserved478 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.8.34 lineBackColorExtMod

The **lineBackColorExtMod** property specifies the color modification of the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBackColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01DF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBackColorExtMod (4 bytes):** An MSOTINTSHADE record that specifies the extended background color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section 2.2.2. The default value for this property is 0x20000000.

### 2.3.8.35 reserved480

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved480 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x01E0. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**reserved480 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.8.36 reserved481

The **reserved481** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved481 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01E1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved481 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.8.37 reserved482

The **reserved482** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved482 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x01E2. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**reserved482 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.8.38 Line Style Boolean Properties

The **Line Style Boolean Properties** specify a 32-bit field of Boolean properties for the line style.

|         |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    | unused1 |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |    |    |    |    |    |    |
| unused4 |   |   |   |   | K | L | M | N | O | P  | Q       | R  | S  | T  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x01FF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (6 bits):** A value that is undefined and MUST be ignored.

**A - fUsefLineOpaqueBackColor (1 bit):** A bit that specifies whether the **fLineOpaqueBackColor** bit is set. A value of 0x0 specifies that the **fLineOpaqueBackColor** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**B - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**C - unused3 (1 bit):** A value that is undefined and MUST be ignored.

**D - fUsefInsetPen (1 bit):** A bit that specifies whether the **fInsetPen** bit is set. A value of 0x0 specifies that the **fInsetPen** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**E - fUsefInsetPenOK (1 bit):** A bit that specifies whether the **fInsetPenOK** bit is set. A value of 0x0 specifies that the **fInsetPenOK** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**F - fUsefArrowheadsOK (1 bit):** A bit that specifies whether the **fArrowheadsOK** bit is set. A value of 0x0 specifies that the **fArrowheadsOK** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

- G - fUsefLine (1 bit):** A bit that specifies whether the **fLine** bit is set. A value of 0x0 specifies that the **fLine** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- H - fUsefHitTestLine (1 bit):** A bit that specifies whether the **fHitTestLine** bit is set. A value of 0x0 specifies that the **fHitTestLine** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- I - fUsefLineFillShape (1 bit):** A bit that specifies whether the **fLineFillShape** bit is set. A value of 0x0 specifies that the **fLineFillShape** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- J - fUsefNoLineDrawDash (1 bit):** A bit that specifies whether the **fNoLineDrawDash** bit is set. A value of 0x0 specifies that the **fNoLineDrawDash** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- unused4 (6 bits):** A value that is undefined and MUST be ignored.
- K - fLineOpaqueBackColor (1 bit):** A bit that specifies whether an extra line will be rendered underneath the line that is specified by this property set. The extra line MUST be equivalent to the line that is specified by the current property set, except that the **lineColor** property, as defined in section [2.3.8.1](#), MUST be set to the value of the current property set's **lineBackColor** property, as defined in section [2.3.8.3](#), and the **lineDashing** property, as defined in section [2.3.8.17](#), MUST be **msolineSolid**. If **fUsefLineOpaqueBackColor** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- L - reserved1 (1 bit):** A value that MUST be zero and MUST be ignored.
- M - reserved2 (1 bit):** A value that MUST be zero and MUST be ignored.
- N - fInsetPen (1 bit):** A bit that specifies whether to draw the line inside the **shape**. If **fInsetPenOK** equals 0x0, this value MUST be ignored. If **fUsefInsetPen** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- O - fInsetPenOK (1 bit):** A bit that specifies whether insetting the pen is allowed. If **fUsefInsetPenOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- P - fArrowheadsOK (1 bit):** A bit that specifies whether the **line end decoration** properties are editable. This value SHOULD NOT [42](#) affect the rendering of the line end decorations. If **fUsefArrowheadsOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- Q - fLine (1 bit):** A bit that specifies whether to display the other line properties in this line style if the shape is a 2-D shape. If **fLeftLine** bit of Left Line Style Boolean Properties (as defined in section [2.3.9.38](#)), **fTopLine** bit of Top Line Style Boolean Properties (as defined in section [2.3.10.38](#)), **fBottomLine** bit of Bottom Line Style Boolean Properties (as defined in section [2.3.12.38](#)), or **fRightLine** bit of Right Line Style Boolean Properties (as defined in section [2.3.11.38](#)) is set to 0x1, the other properties in this property set MUST NOT be displayed. If **fUsefLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- R - fHitTestLine (1 bit):** A bit that specifies whether this line will be hit tested. If **fUsefHitTestLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- S - fLineFillShape (1 bit):** A bit that specifies how the fill is aligned. The following table specifies the meaning of each value for this field. If **fUsefLineFillShape** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that the fill is aligned with the origin of the view.                                     |
| 0x1   | Specifies that the fill is aligned relative to the shape so that the fill will move with the shape. |

**T - fNoLineDrawDash (1 bit):** A bit that specifies whether a dashed line will be drawn if the other properties specify that no line exists. If **fUseNoLineDrawDash** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

### 2.3.9 Left Line Style

The **Left Line Style** property set specifies the line attributes that are applied to the left side of a rectangular **shape**.

#### 2.3.9.1 lineLeftColor

The **lineLeftColor** property specifies the foreground color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0540. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line. The default value for this property is 0x00000000.

#### 2.3.9.2 lineLeftOpacity

The **lineLeftOpacity** property specifies the opacity level of the foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0541. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftOpacity (4 bytes):** A signed integer that specifies the opacity level of the foreground color. This property MUST be from 0x00000000 through 0x00010000, inclusive. A value of 0x00000000 is completely transparent. A value of 0x00010000 is completely opaque. The default value for this property is 0x00010000.

### 2.3.9.3 lineLeftBackColor

The **lineLeftBackColor** property specifies the background color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftBackColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0542. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftBackColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the background color of the line. The default value for this property is 0x00FFFFFF.

### 2.3.9.4 lineLeftCrMod

The **lineLeftCrMod** property specifies the foreground color of the line for black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0543. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line for black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.9.5 lineLeftType

The **lineLeftType** property specifies the type of line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0544. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftType (4 bytes):** An **MSOLINETYPE** enumeration value, as defined in section [2.4.13](#), that specifies the type of line. The default value for this property is **mslineSolidType**.

### 2.3.9.6 lineLeftFillBlip

The **lineLeftFillBlip** property specifies the **BLIP** that is used to fill this line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftFillBlip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0545.  |
| <b>opid.fBid</b>     | A value that MUST be 0x0 if <b>fComplex</b> equals 0x1 or 0x1 if <b>fComplex</b> equals 0x0. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , then the value MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineLeftFillBlip_complex</b> property, as defined in section <a href="#">2.3.9.7</a> , exists. If the value equals 0x1, <b>lineLeftFillBlip_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> then the value MUST be ignored. |

**lineLeftFillBlip (4 bytes):** An unsigned integer specifying the BLIP that is used to fill this line when the **lineLeftType** property, as defined in section [2.3.9.5](#), is set to **msolinePattern** or **msolineTexture**. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record then the value MUST be ignored.

| Value of opid.fComplex | Meaning of lineLeftFillBlip field   |
|------------------------|---|
| <b>0x0</b>             | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section <a href="#">2.2.20</a> . A value of 0x00000000 MUST be ignored. |
| <b>0x1</b>             | Specifies the number of bytes of data in the <b>lineLeftFillBlip_complex</b> property, as defined in section <a href="#">2.3.9.7</a> .  |

### 2.3.9.7 lineLeftFillBlip\_complex

The **lineLeftFillBlip\_complex** property specifies additional data for the **lineLeftFillBlip** property, as defined in section [2.3.9.6](#). If the **opid.fComplex** bit of **lineLeftFillBlip** equals 0x1, this property MUST exist.



|                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| lineLeftFillBlip_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**lineLeftFillBlip\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), specifying the **BLIP** that is used to fill this line if the **lineLeftType** property, as defined in section [2.3.9.5](#), is set to **msolinePattern** or **msolineTexture**.

### 2.3.9.8 lineLeftFillBlipName

The **lineLeftFillBlipName** property specifies a comment about the **lineLeftFillBlip** property, as defined in section [2.3.9.6](#).

|      |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1                    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   | lineLeftFillBlipName |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...  |   |   |   |   |   |   |   |   |   |   |   |                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0546.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineLeftFillBlipName_complex</b> property, as defined in section <a href="#">2.3.9.9</a> , exists. If the value equals 0x1, <b>lineLeftFillBlipName_complex</b> MUST exist. |

**lineLeftFillBlipName (4 bytes):** The number of bytes of data in the **lineLeftFillBlipName\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.9.9 lineLeftFillBlipName\_complex

The **lineLeftFillBlipName\_complex** property specifies additional data for the **lineLeftFillBlipName** property, as defined in section [2.3.9.8](#). If the **opid.fComplex** bit of **lineLeftFillBlipName** equals 0x1, this property MUST exist.

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| lineLeftFillBlipName_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

...

**lineLeftFillBlipName\_complex (variable):** A null-terminated **Unicode** string that specifies a comment about the **lineLeftFillBlip** property, as defined in section [2.3.9.6](#), as specified by the **lineLeftFillBlipFlags** property, as defined in section [2.3.9.10](#).

**2.3.9.10 lineLeftFillBlipFlags**

The **lineLeftFillBlipFlags** property specifies how to interpret the **lineLeftFillBlipName\_complex** property, as defined in section [2.3.9.9](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftFillBlipFlags |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0547. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftFillBlipFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **lineLeftFillBlipName\_complex** property, as defined in section [2.3.9.9](#). This value MUST be **msoblipflagComment**. The default value for this property is **msoblipflagComment**.

**2.3.9.11 lineLeftFillWidth**

The **lineLeftFillWidth** property specifies the width of a pattern or texture that is used to fill this line. The **lineLeftFillDztype** property, as defined in section [2.3.9.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftFillWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0548. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftFillWidth (4 bytes):** A signed integer specifying the width of a pattern or texture that is used to fill this line. If this value is 0x00000000, the width of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.9.12 lineLeftFillHeight

The **lineLeftFillHeight** property specifies the height of a pattern or texture that is used to fill this line. The **lineLeftFillDztype** property, as defined in section [2.3.9.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftFillHeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0549. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftFillHeight (4 bytes):** A signed integer specifying the height of a pattern or texture that is used to fill this line. If this value is 0x00000000, the height of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.9.13 lineLeftFillDztype

The **lineLeftFillDztype** property specifies how the **lineLeftFillWidth**, as defined in section [2.3.9.11](#), and **lineLeftFillHeight**, as defined in section [2.3.9.12](#), properties MUST be interpreted.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftFillDztype |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x054A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftFillDztype (4 bytes):** An **MSODZTYPE** enumeration value, as defined in section [2.4.12](#), that specifies how the **lineLeftFillWidth**, as defined in section [2.3.9.11](#), and **lineLeftFillHeight**, as defined in section [2.3.9.12](#), properties MUST be interpreted. The default value for this property is **msodztypeDefault**.

#### 2.3.9.14 lineLeftWidth

The **lineLeftWidth** property specifies the width of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x054B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftWidth (4 bytes):** A signed integer that specifies the width, in **EMUs**, of the line. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00002535.

### 2.3.9.15 lineLeftMiterLimit

The **lineLeftMiterLimit** property specifies the maximum allowed ratio of miter length to line width. The miter length is the distance from the intersection of the line walls on the inside of the join to the intersection of the line walls on the outside of the join. For an explanation of miter length, see section [2.3.8.15](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftMiterLimit |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x054C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftMiterLimit (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the maximum allowed ratio of miter length to line width. The default value for this property is 0x00080000.

### 2.3.9.16 lineLeftStyle

The **lineLeftStyle** property specifies the style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x054D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftStyle (4 bytes):** An **MSOLINESTYLE** enumeration value, as defined in section [2.4.14](#), that specifies the style of the line. The default value for this property is **msolineSimple**.

### 2.3.9.17 lineLeftDashing

The **lineLeftDashing** property specifies the dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11              | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineLeftDashing |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x054E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftDashing (4 bytes):** An **MSOLINEDASHING** enumeration value, as defined in section [2.4.15](#), that specifies the dash style of the line. The default value for this property is **msolineSolid**.

### 2.3.9.18 lineLeftDashStyle

The **lineLeftDashStyle** property specifies the custom dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineLeftDashStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning  |
|------------------|--|
| <b>opid.opid</b> | A value that MUST be 0x054F.                   |
| <b>opid.fBid</b> | A value that is undefined and MUST be ignored. |

|                      |   |
|----------------------|---|
| <b>opid.fComplex</b> | A bit that indicates whether the <a href="#">lineLeftDashStyle_complex</a> property exists. If the value equals 0x1, <b>lineLeftDashStyle_complex</b> MUST exist. |
|----------------------|---|

**lineLeftDashStyle (4 bytes):** The number of bytes of data in the **lineLeftDashStyle\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.9.19 lineLeftDashStyle\_complex

The **lineLeftDashStyle\_complex** property specifies additional data for the [lineLeftDashStyle](#) property. If the **opid.fComplex** bit of **lineLeftDashStyle** equals 0x1, this property MUST exist.

|                                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineLeftDashStyle_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineLeftDashStyle\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of 32-bit unsigned integers that specifies a custom dash style for the line. The length of each dash and space in the dash style of the line is the product of a multiplier and the line width. The first element specifies the multiplier of the first dash, the second element specifies the multiplier of the first space, the third element specifies the multiplier of the second dash, and so on—alternating between spaces and dashes. This value SHOULD be used only if the [lineLeftDashing](#) property is either not present or equal to **msolineSolid**.

### 2.3.9.20 lineLeftStartArrowhead

The **lineLeftStartArrowhead** property specifies the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftStartArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0550. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftStartArrowhead (4 bytes):** An **MSLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the start of the line. The default value for this property is **mslineNoEnd**.

### 2.3.9.21 lineLeftEndArrowhead

The **lineLeftEndArrowhead** property specifies the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftEndArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0551. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftEndArrowhead (4 bytes):** An **MSLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the end of the line. The default value for this property is **mslineNoEnd**.

### 2.3.9.22 lineLeftStartArrowWidth

The **lineLeftStartArrowWidth** property specifies the width of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftStartArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0552. |



|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineLeftStartArrowWidth (4 bytes):** An **MSLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumWidthArrow**.

### 2.3.9.23 lineLeftStartArrowLength

The **lineLeftStartArrowLength** property specifies the length of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |                          |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|--------------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineLeftStartArrowLength |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                          |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0553. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftStartArrowLength (4 bytes):** An **MSLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.9.24 lineLeftEndArrowWidth

The **lineLeftEndArrowWidth** property specifies the width of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |                       |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineLeftEndArrowWidth |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                       |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0554. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftEndArrowWidth (4 bytes):** An **MSOLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumWidthArrow**.

### 2.3.9.25 lineLeftEndArrowLength

The **lineLeftEndArrowLength** property specifies the length of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftEndArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

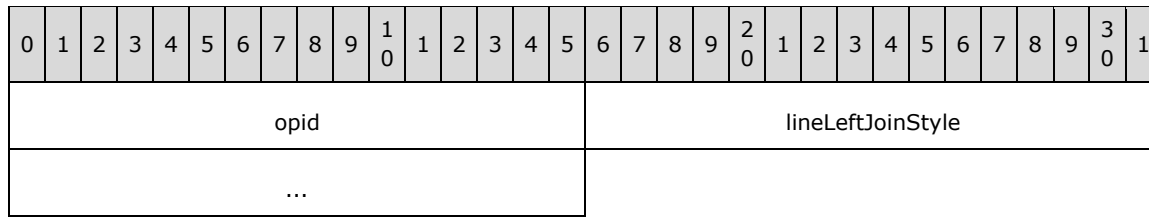
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0555. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftEndArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.9.26 lineLeftJoinStyle

The **lineLeftJoinStyle** property specifies the style of the line joins.



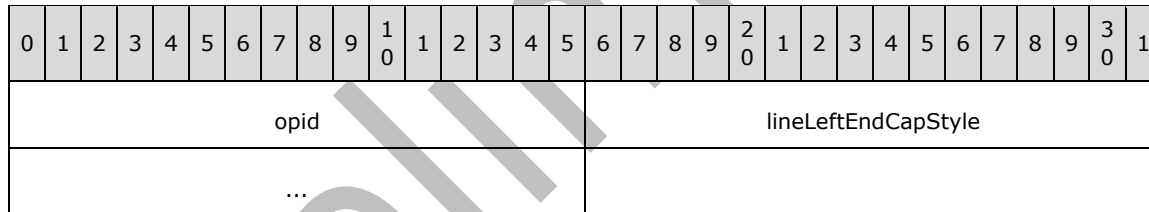
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0556. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftJoinStyle (4 bytes):** An **MSOLINEJOIN** enumeration value, as defined in section [2.4.19](#), that specifies the style of the line joins. The default value for this property is **msolineJoinRound**.

### 2.3.9.27 lineLeftEndCapStyle

The **lineLeftEndCapStyle** property specifies the style of the line end caps.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0557. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftEndCapStyle (4 bytes):** An **MSOLINECAP** enumeration value, as defined in section [2.4.20](#), that specifies the style of the line end caps. The default value for this property is **msolineEndCapFlat**.

### 2.3.9.28 lineLeftColorExt

The **lineLeftColorExt** property specifies the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0559. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended foreground color. The default value for this property is 0xFFFFFFFF.

### 2.3.9.29 reserved1370

The **reserved1370** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1370 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x055A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1370 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.9.30 lineLeftColorExtMod

The **lineLeftColorExtMod** property specifies the color modification of the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                  | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineLeftColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x055B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftColorExtMod (4 bytes):** An MSOTINTSHADE record that specifies the extended foreground color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.9.31 reserved1372

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11           | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | reserved1372 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x055C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1372 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.9.32 lineLeftBackColorExt

The **lineLeftBackColorExt** property specifies the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftBackColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x055D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftBackColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended background color. The default value for this property is 0xFFFFFFFF.

### 2.3.9.33 reserved1374

The **reserved1374** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1374 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x055E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1374 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.9.34 lineLeftBackColorExtMod

The **lineLeftBackColorExtMod** property specifies the color modification of the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineLeftBackColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x055F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineLeftBackColorExtMod (4 bytes):** An MSOTINTSHADE record that specifies the extended background color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section 2.2.2. The default value for this property is 0x20000000.

### 2.3.9.35 reserved1376

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1376 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0560. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**reserved1376 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.9.36 reserved1377

The **reserved1377** property MUST be 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1377 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0561. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1377 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.9.37 reserved1378

The **reserved1378** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1378 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0562. |



|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**reserved1378 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.9.38 Left Line Style Boolean Properties

The **Left Line Style Boolean Properties** specify a 32-bit field of Boolean properties for the left line style.

|         |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    | unused1 |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |    |    |    |    |    |
| unused6 |   |   |   |   |   | K | L | M | N | O  | P       | Q  | R  | S  | T  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x057F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (6 bits):** A value that is undefined and MUST be ignored.

**A - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**B - unused3 (1 bit):** A value that is undefined and MUST be ignored.

**C - unused4 (1 bit):** A value that is undefined and MUST be ignored.

**D - fUseLeftInsetPen (1 bit):** A bit that specifies whether the **fLeftInsetPen** bit is set. A value of 0x0 specifies that the **fLeftInsetPen** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**E - fUseLeftInsetPenOK (1 bit):** A bit that specifies whether the **fLeftInsetPenOK** bit is set. A value of 0x0 specifies that the **fLeftInsetPenOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**F - unused5 (1 bit):** A value that is undefined and MUST be ignored.

**G - fUsefLeftLine (1 bit):** A bit that specifies whether the **fLeftLine** bit is set. A value of 0x0 specifies that the **fLeftLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**H - fUsefLeftHitTestLine (1 bit):** A bit that specifies whether the **fLeftHitTestLine** bit is set. A value of 0x0 specifies that the **fLeftHitTestLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**I - fUsefLineLeftFillShape (1 bit):** A bit that specifies whether the **fLineLeftFillShape** bit is set. A value of 0x0 specifies that the **fLineLeftFillShape** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**J - fUsefLeftNoLineDrawDash (1 bit):** A bit that specifies whether the **fLeftNoLineDrawDash** bit is set. A value of 0x0 specifies that the **fLeftNoLineDrawDash** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused6 (6 bits):** A value that is undefined and MUST be ignored.

**K - unused7 (1 bit):** A value that is undefined and MUST be ignored.

**L - reserved1 (1 bit):** A value that MUST be zero and MUST be ignored.

**M - reserved2 (1 bit):** A value that MUST be zero and MUST be ignored.

**N - fLeftInsetPen (1 bit):** A bit that specifies whether to draw the line inside the **shape**. If **fLeftInsetPenOK** equals 0x0, this bit MUST be ignored. If **fUsefLeftInsetPen** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

**O - fLeftInsetPenOK (1 bit):** A bit that specifies whether insetting the pen is allowed. If **fUsefLeftInsetPenOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

**P - reserved3 (1 bit):** A value that MUST be zero and MUST be ignored.

**Q - fLeftLine (1 bit):** A bit that specifies whether to display the other line properties in this line style when handling the left side of a rectangular 2-D shape. If **fUsefLeftLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x0. If the **rh.recInstance** field in the **OfficeArtFSP** record, as defined in section [2.2.40](#), for the shape is not set to one of the **MSOSPT** enumeration values, as defined in section [2.4.24](#), in the following list, the line properties in this line style MUST NOT be displayed:

- **msosptRectangle**
- **msosptTextBox**
- **msosptBevel**
- **msosptHostControl**
- **msosptPictureFrame**
- **msosptFlowChartProcess**
- **msosptFlowChartPredefinedProcess**
- **msosptFlowChartInternalStorage**
- **msosptActionButtonBlank**
- **msosptActionButtonHome**
- **msosptActionButtonHelp**

- **msosptActionButtonInformation**
- **msosptActionButtonForwardNext**
- **msosptActionButtonBackPrevious**
- **msosptActionButtonEnd**
- **msosptActionButtonBeginning**
- **msosptActionButtonReturn**
- **msosptActionButtonDocument**
- **msosptActionButtonSound**
- **msosptActionButtonMovie**

**R - fLeftHitTestLine (1 bit):** A bit that specifies whether this line will be hit tested. If **fUsefLeftHitTestLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

**S - fLineLeftFillShape (1 bit):** A bit that specifies how the fill is aligned. The following table specifies the meaning of each value for this field. If **fUsefLineLeftFillShape** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that the fill is aligned with the origin of the view.                               |
| 0x1   | Specifies that the fill is aligned relative to the shape so that it will move with the shape. |

**T - fLeftNoLineDrawDash (1 bit):** A bit that specifies whether a dashed line will be drawn if the other properties specify that no line exists. If **fUsefLeftNoLineDrawDash** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

### 2.3.10 Top Line Style

The **Top Line Style** property set specifies the line attributes that are applied to the top side of a rectangular **shape**.

#### 2.3.10.1 lineTopColor

The **lineTopColor** property specifies the foreground color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. Sub-fields are further specified in the following table:

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0580. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line. The default value for this property is 0x00000000.

### 2.3.10.2 lineTopOpacity

The **lineTopOpacity** property specifies the opacity level of the foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0581. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopOpacity (4 bytes):** A signed integer that specifies the opacity level of the foreground color. This property MUST be from 0x00000000 through 0x00010000, inclusive. A value of 0x00000000 is completely transparent. A value of 0x00010000 is completely opaque. The default value for this property is 0x00010000.

### 2.3.10.3 lineTopBackColor

The **lineTopBackColor** property specifies the background color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopBackColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0582. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopBackColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the background color of the line. The default value for this property is 0x00FFFFFF.

#### 2.3.10.4 lineTopCrMod

The **lineTopCrMod** property specifies the foreground color of the line for black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0583. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line for black-and-white display mode. The default value for this property is 0x20000000.

#### 2.3.10.5 lineTopType

The **lineTopType** property specifies the type of line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0584. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopType (4 bytes):** An **MSOLINETYPE** enumeration value, as defined in section [2.4.13](#), that specifies the type of line. The default value for this property is **mslineSolid**.

### 2.3.10.6 lineTopFillBlip

The **lineTopFillBlip** property specifies the **BLIP** that is used to fill this line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopFillBlip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0585.  |
| <b>opid.fBid</b>     | A value that MUST be ignored if <b>fComplex</b> equals 0x1. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , then the value MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineTopFillBlip_complex</b> property, as defined in section <a href="#">2.3.10.7</a> , exists. If the value equals 0x1, <b>lineTopFillBlip_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record then the value MUST be ignored. |

**lineTopFillBlip (4 bytes):** An unsigned integer specifying the BLIP that is used to fill this line when the **lineTopType** property, as defined in section [2.3.10.5](#), is set to **msolinePattern** or **msolineTexture**. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record then the value MUST be ignored.

| Value of <b>opid.fComplex</b> | Meaning of <b>lineTopFillBlip</b> field   |
|-------------------------------|---|
| <b>0x0</b>                    | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section <a href="#">2.2.20</a> . A value of 0x00000000 MUST be ignored. |
| <b>0x1</b>                    | Specifies the number of bytes of data in the <b>lineTopFillBlip_complex</b> property.   |

### 2.3.10.7 lineTopFillBlip\_complex

The **lineTopFillBlip\_complex** property specifies additional data for the **lineTopFillBlip** property, as defined in section [2.3.10.6](#). If the **opid.fComplex** bit of **lineTopFillBlip** equals 0x1, this property MUST exist.

|                                    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| lineTopFillBlip_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                                |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**lineTopFillBlip\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), specifying the **BLIP** that is used to fill this line if the **lineTopType** property, as defined in section [2.3.10.5](#), is set to **msolinePattern** or **msolineTexture**.

### 2.3.10.8 lineTopFillBlipName

The **lineTopFillBlipName** property specifies a comment about the **lineTopFillBlip** property, as defined in section [2.3.10.6](#).

|      |   |   |   |   |   |   |   |   |   |    |                     |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|---------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    | lineTopFillBlipName |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |                     |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning  |
|------------------|--|
| <b>opid.opid</b> | A value that MUST be 0x0586.                   |
| <b>opid.fBid</b> | A value that is undefined and MUST be ignored. |

|                      |  |
|----------------------|--|
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineTopFillBlipName_complex</b> property, as defined in section <a href="#">2.3.10.9</a> , exists. If the value equals 0x1, <b>lineTopFillBlipName_complex</b> MUST exist. |
|----------------------|--|

**lineTopFillBlipName (4 bytes):** The number of bytes of data in the **lineTopFillBlipName\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.10.9 lineTopFillBlipName\_complex

The **lineTopFillBlipName\_complex** property specifies additional data for the **lineTopFillBlipName** property, as defined in section [2.3.10.8](#). If the **opid.fComplex** bit of **lineTopFillBlipName** equals 0x1, this property MUST exist.

|  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineTopFillBlipName_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineTopFillBlipName\_complex (variable):** A null-terminated **Unicode** string that specifies a comment about the **lineTopFillBlip** property, as defined in section [2.3.10.6](#), as specified by the **lineTopFillBlipFlags** property, as defined in section [2.3.10.10](#).

### 2.3.10.10 lineTopFillBlipFlags

The **lineTopFillBlipFlags** property specifies how to interpret the **lineTopFillBlipName\_complex** property, as defined in section [2.3.10.9](#).

|      |   |   |   |   |   |   |   |   |   |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                   | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   | lineTopFillBlipFlags |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0587. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**lineTopFillBlipFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **lineTopFillBlipName**\_complex property. This value MUST be **msoblipflagComment**. The default value for this property is **msoblipflagComment**.

### 2.3.10.11 lineTopFillWidth

The **lineTopFillWidth** property specifies the width of a pattern or texture that is used to fill this line. The **lineTopFillDztype** property, as defined in section [2.3.10.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopFillWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0588. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopFillWidth (4 bytes):** A signed integer specifying the width of a pattern or texture that is used to fill this line. If this value is 0x00000000, the width of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.10.12 lineTopFillHeight

The **lineTopFillHeight** property specifies the height of a pattern or texture that is used to fill this line. The **lineTopFillDztype** property, as defined in section [2.3.10.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopFillHeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0589. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineTopFillHeight (4 bytes):** A signed integer specifying the height of a pattern or texture that is used to fill this line. If this value is 0x00000000, the height of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.10.13 lineTopFillDztype

The **lineTopFillDztype** property specifies how the **lineTopFillWidth**, as defined in section [2.3.10.11](#), and **lineTopFillHeight**, as defined in section [2.3.10.12](#), properties MUST be interpreted.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopFillDztype |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x058A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopFillDztype (4 bytes):** An **MSODZTYPE** enumeration value, as defined in section [2.4.12](#), that specifies how the **lineTopFillWidth**, as defined in section [2.3.10.11](#), and **lineTopFillHeight**, as defined in section [2.3.10.12](#), properties MUST be interpreted. The default value for this property is **msodztypeDefault**.

### 2.3.10.14 lineTopWidth

The **lineTopWidth** property specifies the width of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x058B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopWidth (4 bytes):** A signed integer that specifies the width, in **EMUs**, of the line. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00002535.

### 2.3.10.15 lineTopMiterLimit

The **lineTopMiterLimit** property specifies the maximum allowed ratio of miter length to line width. The miter length is the distance from the intersection of the line walls on the inside of the join to the intersection of the line walls on the outside of the join. For an explanation of miter length, see section [2.3.8.15](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopMiterLimit |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x058C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopMiterLimit (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the maximum allowed ratio of miter length to line width. The default value for this property is 0x00080000.

### 2.3.10.16 lineTopStyle

The **lineTopStyle** property specifies the style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x058D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopStyle (4 bytes):** An **MSOLINESTYLE** enumeration value, as defined in section [2.4.14](#), that specifies the style of the line. The default value for this property is **msolineSimple**.

### 2.3.10.17 lineTopDashing

The **lineTopDashing** property specifies the dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopDashing |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x058E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopDashing (4 bytes):** An **MSOLINEDASHING** enumeration value, as defined in section [2.4.15](#), that specifies the dash style of the line. The default value for this property is **msolineSolid**.

### 2.3.10.18 lineTopDashStyle

The **lineTopDashStyle** property specifies the custom dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopDashStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x058F.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineTopDashStyle_complex</b> property, as defined in section <a href="#">2.3.10.19</a> , exists. If the value equals 0x1, <b>lineTopDashStyle_complex</b> MUST exist. |

**lineTopDashStyle (4 bytes):** The number of bytes of data in the **lineTopDashStyle\_complex** property, as defined in section [2.3.10.19](#). If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.10.19 lineTopDashStyle\_complex

The **lineTopDashStyle\_complex** property, as defined in section [2.3.10.19](#), specifies additional data for the **lineTopDashStyle** property, as defined in section [2.3.10.18](#). If the **opid.fComplex** bit of **lineTopDashStyle** equals 0x1, this property MUST exist.

|                                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineTopDashStyle_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineTopDashStyle\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of 32-bit unsigned integers that specifies a custom dash style for the line. The length of each dash and space in the dash style of the line is the product of a multiplier and the line width. The first element of the array specifies the multiplier of the first dash, the second element of the array specifies the multiplier of the first space, the third element of the array specifies the multiplier of the second dash, and so on—alternating between spaces and dashes. This value SHOULD be used only if the **lineTopDashing** property, as defined in section [2.3.10.17](#), is either not present or equal to **msolineSolid**.

### 2.3.10.20 lineTopStartArrowhead

The **lineTopStartArrowhead** property specifies the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopStartArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0590. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopStartArrowhead (4 bytes):** An **MSOLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the start of the line. The default value for this property is **msolineNoEnd**.

### 2.3.10.21 lineTopEndArrowhead

The **lineTopEndArrowhead** property specifies the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopEndArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0591. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopEndArrowhead (4 bytes):** An **MSLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the end of the line. The default value for this property is **mslineNoEnd**.

### 2.3.10.22 lineTopStartArrowWidth

The **lineTopStartArrowWidth** property specifies the width of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopStartArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0592. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopStartArrowWidth (4 bytes):** An **MSLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the start of the line. The default value for this property is **mslineMediumWidthArrow**.

### 2.3.10.23 lineTopStartArrowLength

The **lineTopStartArrowLength** property specifies the length of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopStartArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0593. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineTopStartArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.10.24 lineTopEndArrowWidth

The **lineTopEndArrowWidth** property specifies the width of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                   | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineTopEndArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0594. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopEndArrowWidth (4 bytes):** An **MSOLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumWidthArrow**.

### 2.3.10.25 lineTopEndArrowLength

The **lineTopEndArrowLength** property specifies the length of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                    | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineTopEndArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0595. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopEndArrowLength (4 bytes):** An **MSLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.10.26 lineTopJoinStyle

The **lineTopJoinStyle** property specifies the style of the line joins.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopJoinStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0596. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopJoinStyle (4 bytes):** An **MSLINEJOIN** enumeration value, as defined in section [2.4.19](#), that specifies the style of the line joins. The default value for this property is **msolineJoinRound**.

### 2.3.10.27 lineTopEndCapStyle

The **lineTopEndCapStyle** property specifies the style of the line end caps.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopEndCapStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0597. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopEndCapStyle (4 bytes):** An **MSOLINECAP** enumeration value, as defined in section [2.4.20](#), that specifies the style of the line end caps. The default value for this property is **msolineEndCapFlat**.

### 2.3.10.28 lineTopColorExt

The **lineTopColorExt** property specifies the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0599. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended foreground color. The default value for this property is 0xFFFFFFFF.

### 2.3.10.29 reserved1434

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1434 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x059A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1434 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.10.30 lineTopColorExtMod

The **lineTopColorExtMod** property specifies the color modification of the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x059B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopColorExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the extended foreground color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.10.31 reserved1436

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1436 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x059C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1436 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.10.32 lineTopBackColorExt

The **lineTopBackColorExt** property specifies the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopBackColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x059D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopBackColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended background color. The default value for this property is 0xFFFFFFFF.

### 2.3.10.33 reserved1438

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1438 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x059E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1438 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.10.34 lineTopBackColorExtMod

The **lineTopBackColorExtMod** property specifies the color modification of the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineTopBackColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x059F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineTopBackColorExtMod (4 bytes):** An MSOTINTSHADE record that specifies the extended background color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.10.35 reserved1440

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1440 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05A0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1440 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.10.36 reserved1441

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1441 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05A1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1441 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.10.37 reserved1442

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1442 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05A2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1442 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.10.38 Top Line Style Boolean Properties

The **Top Line Style Boolean Properties** specify a 32-bit field of Boolean properties for the top line style.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |
| unused6 |   |   |   |   |   | K | L | M | N | O  | P  | Q  | R  | S  | T  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x05BF. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

- unused1 (6 bits):** A value that is undefined and MUST be ignored.
- A - unused2 (1 bit):** A value that is undefined and MUST be ignored.
- B - unused3 (1 bit):** A value that is undefined and MUST be ignored.
- C - unused4 (1 bit):** A value that is undefined and MUST be ignored.
- D - fUsefTopInsetPen (1 bit):** A bit that specifies whether the **fTopInsetPen** bit is set. A value of 0x0 specifies that the **fTopInsetPen** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- E - fUsefTopInsetPenOK (1 bit):** A bit that specifies whether the **fTopInsetPenOK** bit is set. A value of 0x0 specifies that the **fTopInsetPenOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- F - unused5 (1 bit):** A value that is undefined and MUST be ignored.
- G - fUsefTopLine (1 bit):** A bit that specifies whether the **fTopLine** bit is set. A value of 0x0 specifies that the **fTopLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- H - fUsefTopHitTestLine (1 bit):** A bit that specifies whether the **fTopHitTestLine** bit is set. A value of 0x0 specifies that the **fTopHitTestLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- I - fUsefLineTopFillShape (1 bit):** A bit that specifies whether the **fLineTopFillShape** bit is set. A value of 0x0 specifies that the **fLineTopFillShape** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- J - fUsefTopNoLineDrawDash (1 bit):** A bit that specifies whether the **fTopNoLineDrawDash** bit is set. A value of 0x0 specifies that the **fTopNoLineDrawDash** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- unused6 (6 bits):** A value that is undefined and MUST be ignored.
- K - unused7 (1 bit):** A value that is undefined and MUST be ignored.
- L - reserved1 (1 bit):** A value that MUST be zero and MUST be ignored.
- M - reserved2 (1 bit):** A value that MUST be zero and MUST be ignored.
- N - fTopInsetPen (1 bit):** A bit that specifies whether to draw the line inside the **shape**. If **fTopInsetPenOK** equals 0x0, this bit MUST be ignored. If **fUsefTopInsetPen** equals 0x0, his value MUST be ignored. The default value for this property is 0x0.
- O - fTopInsetPenOK (1 bit):** A bit that specifies whether inseting the pen is allowed. If **fUsefTopInsetPenOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- P - reserved3 (1 bit):** A value that MUST be zero and MUST be ignored.
- Q - fTopLine (1 bit):** A bit that specifies whether to display the other line properties in this line style when handling the top side of a rectangular 2-D shape. If **fUsefTopLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x0. If the **rh.recInstance** field in the **OfficeArtFSP** record, as defined in section [2.2.40](#), for the shape is not set to one of the **MSOSPT**



enumeration values, as defined in section [2.4.24](#), in the following list, the line properties in this line style MUST NOT be displayed:

- **msosptRectangle**
- **msosptTextBox**
- **msosptBevel**
- **msosptHostControl**
- **msosptPictureFrame**
- **msosptFlowChartProcess**
- **msosptFlowChartPredefinedProcess**
- **msosptFlowChartInternalStorage**
- **msosptActionButtonBlank**
- **msosptActionButtonHome**
- **msosptActionButtonHelp**
- **msosptActionButtonInformation**
- **msosptActionButtonForwardNext**
- **msosptActionButtonBackPrevious**
- **msosptActionButtonEnd**
- **msosptActionButtonBeginning**
- **msosptActionButtonReturn**
- **msosptActionButtonDocument**
- **msosptActionButtonSound**
- **msosptActionButtonMovie**

**R - fTopHitTestLine (1 bit):** A bit that specifies whether this line will be hit tested. If **fUsefTopHitTestLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

**S - fLineTopFillShape (1 bit):** A bit that specifies how the fill is aligned. The following table specifies the meaning of each value for this field. If **fUsefLineTopFillShape** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that the fill is aligned with the origin of the view.                               |
| 0x1   | Specifies that the fill is aligned relative to the shape so that it will move with the shape. |

**T - fTopNoLineDrawDash (1 bit):** A bit that specifies whether a dashed line will be drawn if the other properties specify that no line exists. If **fUsefTopNoLineDrawDash** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

### 2.3.11 Right Line Style

The **Right Line Style** property set specifies the line attributes that are applied to the right side of a rectangular **shape**.

#### 2.3.11.1 lineRightColor

The **lineRightColor** property specifies the foreground color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line. The default value for this property is 0x00000000.

#### 2.3.11.2 lineRightOpacity

The **lineRightOpacity** property specifies the opacity level of the foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x05C1. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**lineRightOpacity (4 bytes):** A signed integer that specifies the opacity level of the foreground color. This property MUST be from 0x00000000 through 0x00010000, inclusive. A value of 0x00000000 is completely transparent. A value of 0x00010000 is completely opaque. The default value for this property is 0x00010000.

### 2.3.11.3 lineRightBackColor

The **lineRightBackColor** property specifies the background color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightBackColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightBackColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the background color of the line. The default value for this property is 0x00FFFFFF.

### 2.3.11.4 lineRightCrMod

The **lineRightCrMod** property specifies the foreground color of the line for black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line for black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.11.5 lineRightType

The **lineRightType** property specifies the type of line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightType (4 bytes):** An **MSOLINETYPE** enumeration value, as defined in section [2.4.13](#), that specifies the type of line. The default value for this property is **msolineSolid**.

### 2.3.11.6 lineRightFillBlip

The **lineRightFillBlip** property specifies the **BLIP** that is used to fill this line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightFillBlip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x05C5.  |
| <b>opid.fBid</b>     | A value that MUST be 0x0 if <b>fComplex</b> equals 0x1 or 0x1 if <b>fComplex</b> equals 0x0. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , the value MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineRightFillBlip_complex</b> property, as defined in section <a href="#">2.3.11.7</a> , exists. If the value equals 0x1, <b>lineRightFillBlip_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record then the value MUST be ignored. |

**lineRightFillBlip (4 bytes):** An unsigned integer specifying the BLIP that is used to fill this line when the **lineRightType** property, as defined in section [2.3.11.5](#), is set to **msolinePattern** or **msolineTexture**. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record then the value MUST be ignored.

| Value of opid.fComplex | Meaning of lineRightFillBlip field  |
|------------------------|---|
| <b>0x0</b>             | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section <a href="#">2.2.20</a> . A value of 0x00000000 MUST be ignored. |
| <b>0x1</b>             | Specifies the number of bytes of data in the <b>lineRightFillBlip_complex</b> property, as defined in section <a href="#">2.3.11.7</a> .  |

### 2.3.11.7 lineRightFillBlip\_complex

The **lineRightFillBlip\_complex** property specifies additional data for the **lineRightFillBlip** property, as defined in section [2.3.11.6](#). If the **opid.fComplex** bit of **lineRightFillBlip** equals 0x1, this property MUST exist.

|                                      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| lineRightFillBlip_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                                  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**lineRightFillBlip\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), specifying the **BLIP** that is used to fill this line if the **lineRightType** property, as defined in section [2.3.11.5](#), is set to **msolinePattern** or **msolineTexture**.

### 2.3.11.8 lineRightFillBlipName

The **lineRightFillBlipName** property specifies a comment about the **lineRightFillBlip** property, as defined in section [2.3.11.6](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightFillBlipName |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x05C6.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineRightFillBlipName_complex</b> property, as defined in section <a href="#">2.3.11.9</a> , exists. If the value equals 0x1, <b>lineRightFillBlipName_complex</b> MUST exist. |

**lineRightFillBlipName (4 bytes):** The number of bytes of data in the **lineRightFillBlipName\_complex** property. If **opid.fComplex** equal 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.11.9 lineRightFillBlipName\_complex

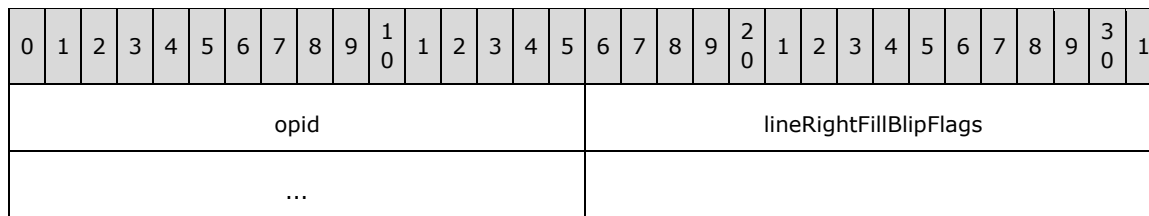
The **lineRightFillBlipName\_complex** property specifies additional data for the **lineRightFillBlipName** property, as defined in section [2.3.11.8](#). If the **opid.fComplex** bit of **lineRightFillBlipName** equals 0x1, this property MUST exist.

|  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineRightFillBlipName_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineRightFillBlipName\_complex (variable):** A null-terminated **Unicode** string that specifies a comment about the **lineRightFillBlip** property, as defined in section [2.3.11.6](#), as specified by the **lineRightFillBlipFlags** property, as defined in section [2.3.11.10](#).

### 2.3.11.10 lineRightFillBlipFlags

The **lineRightFillBlipFlags** property specifies how to interpret the **lineRightFillBlipName\_complex** property, as defined in section [2.3.11.9](#).



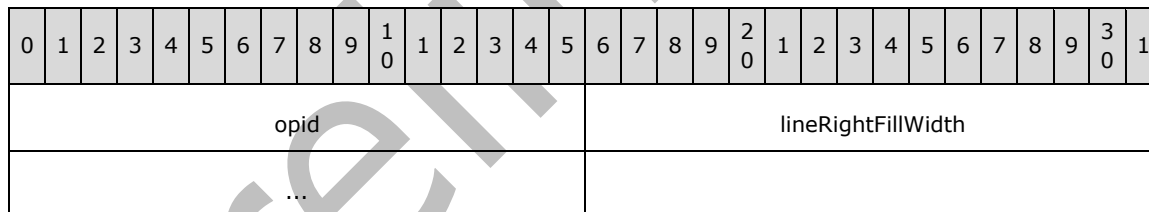
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C7. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightFillBlipFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **lineRightFillBlipName\_complex** property. This value MUST be **msoblipflagComment**. The default value for this property is **msoblipflagComment**.

### 2.3.11.11 lineRightFillWidth

The **lineRightFillWidth** property specifies the width of a pattern or texture that is used to fill this line. The **lineRightFillDztype** property, as defined in section [2.3.11.13](#), specifies how to interpret this value.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C8. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightFillWidth (4 bytes):** A signed integer specifying the width of a pattern or texture that is used to fill this line. If this value is 0x00000000, the width of the pixel data contained in the

pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.11.12 lineRightFillHeight

The **lineRightFillHeight** property specifies the height of a pattern or texture that is used to fill this line. The **lineRightFillDztype** property, as defined in section [2.3.11.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightFillHeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05C9. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightFillHeight (4 bytes):** A signed integer specifying the height of a pattern or texture that is used to fill this line. If this value is 0x00000000, the height of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.11.13 lineRightFillDztype

The **lineRightFillDztype** property specifies how the **lineRightFillWidth**, as defined in section [2.3.11.11](#), and **lineRightFillHeight**, as defined in section [2.3.11.12](#), properties MUST be interpreted.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightFillDztype |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x05CA. |



|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineRightFillDztype (4 bytes):** An **MSODZTYPE** enumeration value, as defined in section [2.4.12](#), that specifies how the **lineRightFillWidth**, as defined in section 2.3.11.11, and **lineRightFillHeight**, as defined in section 2.3.11.12, properties MUST be interpreted. The default value for this property is **msodztypeDefault**.

### 2.3.11.14 lineRightWidth

The **lineRightWidth** property specifies the width of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05CB. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightWidth (4 bytes):** A signed integer that specifies the width, in **EMUs**, of the line. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00002535.

### 2.3.11.15 lineRightMiterLimit

The **lineRightMiterLimit** property specifies the maximum allowed ratio of miter length to line width. The miter length is the distance from the intersection of the line walls on the inside of the join to the intersection of the line walls on the outside of the join. For an explanation of miter length, see section [2.3.8.15](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightMiterLimit |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05CC. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightMiterLimit (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the maximum allowed ratio of miter length to line width. The default value for this property is 0x00080000.

### 2.3.11.16 lineRightStyle

The **lineRightStyle** property specifies the style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05CD. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightStyle (4 bytes):** An **MSOLINESTYLE** enumeration value, as defined in section [2.4.14](#), that specifies the style of the line. The default value for this property is **msolineSimple**.

### 2.3.11.17 lineRightDashing

The **lineRightDashing** property specifies the dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightDashing |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05CE. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightDashing (4 bytes):** An **MSOLINEDASHING** enumeration value, as defined in section [2.4.15](#), that specifies the dash style of the line. The default value for this property is **msolineSolid**.

### 2.3.11.18 lineRightDashStyle

The **lineRightDashStyle** property specifies the custom dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightDashStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x05CF.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineRightDashStyle_complex</b> property, as defined in section <a href="#">2.3.11.19</a> , exists. If the value equals 0x1, <b>lineRightDashStyle_complex</b> MUST exist. |

**lineRightDashStyle (4 bytes):** The number of bytes of data in the **lineRightDashStyle\_complex** property, as defined in section 2.3.11.19. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.11.19 lineRightDashStyle\_complex

The **lineRightDashStyle\_complex** property specifies additional data for the **lineRightDashStyle** property, as defined in section [2.3.11.18](#). If the **opid.fComplex** bit of **lineRightDashStyle** equals 0x1, this property MUST exist.

|                                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineRightDashStyle_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineRightDashStyle\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of 32-bit unsigned integers that specifies a custom dash style for the line. The length of each dash and space in the dash style of the line is the product of a multiplier and the line width. The first element specifies the multiplier of the first dash, the second element specifies the multiplier of the first space, the third element specifies the multiplier of the second dash, and so on—alternating between spaces and dashes. This value SHOULD be used only if the **lineRightDashing** property, as defined in section [2.3.11.17](#), is either not present or equal to **msolineSolid**.

### 2.3.11.20 lineRightStartArrowhead

The **lineRightStartArrowhead** property specifies the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightStartArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

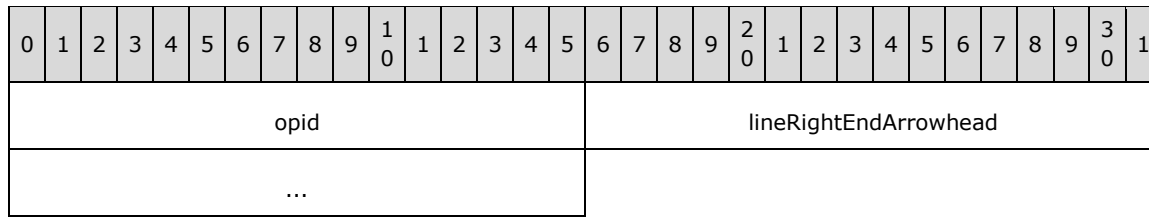
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightStartArrowhead (4 bytes):** An **MSOLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the start of the line. The default value for this property is **msolineNoEnd**.

### 2.3.11.21 lineRightEndArrowhead

The **lineRightEndArrowhead** property specifies the **line end decoration** that is used at the end of the line.



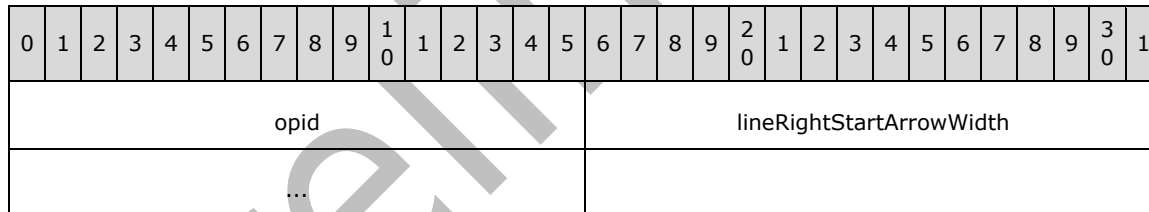
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightEndArrowhead (4 bytes):** An **MSLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the end of the line. The default value for this property is **mslineNoEnd**.

### 2.3.11.22 lineRightStartArrowWidth

The **lineRightStartArrowWidth** property specifies the width of the **line end decoration** that is used at the start of the line.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightStartArrowWidth (4 bytes):** An **MSLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the start of the line. The default value for this property is **mslineMediumWidthArrow**.

### 2.3.11.23 lineRightStartArrowLength

The **lineRightStartArrowLength** property specifies the length of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightStartArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightStartArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.11.24 lineRightEndArrowWidth

The **lineRightEndArrowWidth** property specifies the width of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightEndArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightEndArrowWidth (4 bytes):** An **MSOLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumWidthArrow**.

### 2.3.11.25 lineRightEndArrowLength

The **lineRightEndArrowLength** property specifies the length of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightEndArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D5. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightEndArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.11.26 lineRightJoinStyle

The **lineRightJoinStyle** property specifies the style of the line joins.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightJoinStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x05D6. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineRightJoinStyle (4 bytes):** An **MSOLINEJOIN** enumeration value, as defined in section [2.4.19](#), that specifies the style of the line joins. The default value for this property is **msolineJoinRound**.

### 2.3.11.27 lineRightEndCapStyle

The **lineRightEndCapStyle** property specifies the style of the line end caps.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightEndCapStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D7. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightEndCapStyle (4 bytes):** An **MSOLINECAP** enumeration value, as defined in section [2.4.20](#), that specifies the style of the line end caps. The default value for this property is **msolineEndCapFlat**.

### 2.3.11.28 lineRightColorExt

The **lineRightColorExt** property specifies the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.



| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05D9. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended foreground color. The default value for this property is 0xFFFFFFFF.

### 2.3.11.29 reserved1498

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1498 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05DA. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1498 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.11.30 lineRightColorExtMod

The **lineRightColorExtMod** property specifies the color modification of the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05DB. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightColorExtMod (4 bytes):** An [MSOTINTSHADE](#) record that specifies the extended foreground color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.11.31 reserved1500

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1500 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05DC. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1500 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.11.32 lineRightBackColorExt

The **lineRightBackColorExt** property specifies the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightBackColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

|     |
|-----|
| ... |
|-----|

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05DD. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightBackColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended background color. The default value for this property is 0xFFFFFFFF.

### 2.3.11.33 reserved1502

The **reserved1502** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1502 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05DE. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1502 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.11.34 lineRightBackColorExtMod

The **lineRightBackColorExtMod** property specifies the color modification of the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineRightBackColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05DF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineRightBackColorExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the extended background color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.11.35 reserved1504

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1504 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05E0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1504 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.11.36 reserved1505

The **reserved1505** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1505 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05E1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1505 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.11.37 reserved1506

The **reserved1506** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1506 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05E2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1506 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.11.38 Right Line Style Boolean Properties

The **Right Line Style Boolean Properties** specify a 32-bit field of Boolean properties for the right line style.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |
| unused6 |   |   |   |   |   | K | L | M | N | O  | P  | Q  | R  | S  | T  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x05FF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (6 bits):** A value that is undefined and MUST be ignored.

**A - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**B - unused3 (1 bit):** A value that is undefined and MUST be ignored.

**C - unused4 (1 bit):** A value that is undefined and MUST be ignored.

**D - fUsefRightInsetPen (1 bit):** A bit that specifies whether the **fRightInsetPen** bit is set. A value of 0x0 specifies that the **fRightInsetPen** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**E - fUsefRightInsetPenOK (1 bit):** A bit that specifies whether the **fRightInsetPenOK** bit is set. A value of 0x0 specifies that the **fRightInsetPenOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**F - unused5 (1 bit):** A value that is undefined and MUST be ignored.

**G - fUsefRightLine (1 bit):** A bit that specifies whether the **fRightLine** bit is set. A value of 0x0 specifies that the **fRightLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**H - fUsefRightHitTestLine (1 bit):** A bit that specifies whether the **fRightHitTestLine** bit is set. A value of 0x0 specifies that the **fRightHitTestLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**I - fUsefLineRightFillShape (1 bit):** A bit that specifies whether the **fLineRightFillShape** bit is set. A value of 0x0 specifies that the **fLineRightFillShape** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**J - fUsefRightNoLineDrawDash (1 bit):** A bit that specifies whether the **fRightNoLineDrawDash** bit is set. A value of 0x0 specifies that the **fRightNoLineDrawDash** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused6 (6 bits):** A value that is undefined and MUST be ignored.

**K - unused7 (1 bit):** A value that is undefined and MUST be ignored.

**L - reserved1 (1 bit):** A value that MUST be zero and MUST be ignored.

**M - reserved2 (1 bit):** A value that MUST be zero and MUST be ignored.

**N - fRightInsetPen (1 bit):** A bit that specifies whether to draw the line inside the **shape**. If **fRightInsetPenOK** equals 0x0, this bit MUST be ignored. If **fUsefRightInsetPen** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

**O - fRightInsetPenOK (1 bit):** A bit that specifies whether insetting the pen is allowed. If **fUsefRightInsetPenOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

**P - reserved3 (1 bit):** A value that MUST be zero and MUST be ignored.

**Q - fRightLine (1 bit):** A bit that specifies whether to display the other line properties in this line style when handling the right side of a rectangular 2-D shape. If **fUsefRightLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x0. If the **rh.recInstance** field in the **OfficeArtFSP** record, as defined in section [2.2.40](#), for the shape is not set to one of the **MSOSPT** enumeration values, as defined in section [2.4.24](#), in the following list, the line properties in this line style MUST NOT be displayed:

- **msosptRectangle**
- **msosptTextBox**
- **msosptBevel**
- **msosptHostControl**
- **msosptPictureFrame**
- **msosptFlowChartProcess**
- **msosptFlowChartPredefinedProcess**
- **msosptFlowChartInternalStorage**
- **msosptActionButtonBlank**
- **msosptActionButtonHome**
- **msosptActionButtonHelp**
- **msosptActionButtonInformation**
- **msosptActionButtonForwardNext**
- **msosptActionButtonBackPrevious**
- **msosptActionButtonEnd**
- **msosptActionButtonBeginning**
- **msosptActionButtonReturn**

- **msosptActionButtonDocument**
- **msosptActionButtonSound**
- **msosptActionButtonMovie**

**R - fRightHitTestLine (1 bit):** A bit that specifies whether this line will be hit tested. If **fUsefRightHitTestLine** equal 0x0, this value MUST be ignored. The default value for this property is 0x1.

**S - fLineRightFillShape (1 bit):** A bit that specifies how the fill is aligned. The following table specifies the meaning of each value for this field. If **fUsefLineRightFillShape** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that the fill is aligned with the origin of the view.                               |
| 0x1   | Specifies that the fill is aligned relative to the shape so that it will move with the shape. |

**T - fRightNoLineDrawDash (1 bit):** A bit that specifies whether a dashed line will be drawn if the other properties specify that no line exists. If **fUsefRightNoLineDrawDash** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

### 2.3.12 Bottom Line Style

The **Bottom Line Style** property set specifies the line attributes that are applied to the bottom side of a rectangular **shape**.

#### 2.3.12.1 lineBottomColor

The **lineBottomColor** property specifies the foreground color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0600. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**lineBottomColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line. The default value for this property is 0x00000000.

### 2.3.12.2 lineBottomOpacity

The **lineBottomOpacity** property specifies the opacity level of the foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0601. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomOpacity (4 bytes):** A signed integer that specifies the opacity level of the foreground color. This property MUST be from 0x00000000 through 0x00010000, inclusive. A value of 0x00000000 is completely transparent. A value of 0x00010000 is completely opaque. The default value for this property is 0x00010000.

### 2.3.12.3 lineBottomBackColor

This property specifies the background color of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomBackColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0602. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**lineBottomBackColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the background color of the line. The default value for this property is 0x00FFFFFF.

### 2.3.12.4 lineBottomCrMod

The **lineBottomCrMod** property specifies the foreground color of the line for black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0603. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the foreground color of the line for black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.12.5 lineBottomType

The **lineBottomType** property specifies the type of line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0604. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomType (4 bytes):** An **MSOLINETYPE** enumeration value, as defined in section [2.4.13](#), that specifies the type of line. The default value for this property is **msolineSolid**.

### 2.3.12.6 lineBottomFillBlip

The **lineBottomFillBlip** property specifies the **BLIP** that is used to fill this line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomFillBlip |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0605.  |
| <b>opid.fBid</b>     | A value that MUST be 0x0 if <b>fComplex</b> equals 0x1 or 0x1 if <b>fComplex</b> equals 0x0. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , the value MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineBottomFillBlip_complex</b> property, as defined in section <a href="#">2.3.12.7</a> , exists. If the value equals 0x1, <b>lineBottomFillBlip_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record then the value MUST be ignored. |

**lineBottomFillBlip (4 bytes):** An unsigned integer specifying the BLIP that is used to fill this line when the **lineBottomType** property, as defined in section [2.3.12.5](#), is set to **msolinePattern** or **msolineTexture**. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record then the value MUST be ignored.

| Value of opid.fComplex | Meaning of lineBottomFillBlip field   |
|------------------------|---|
| <b>0x0</b>             | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section <a href="#">2.2.20</a> . A value of 0x00000000 MUST be ignored. |

|            |  |
|------------|--|
| <b>0x1</b> | Specifies the number of bytes of data in the <b>lineBottomFillBlip_complex</b> property. |
|------------|--|

### 2.3.12.7 lineBottomFillBlip\_complex

The **lineBottomFillBlip\_complex** property specifies additional data for the **lineBottomFillBlip** property, as defined in section [2.3.12.6](#). If the **opid.fComplex** bit of **lineBottomFillBlip** equals 0x1, this property MUST exist.

|                                       |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
|---------------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0                                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |
| lineBottomFillBlip_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
| ...                                   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |

**lineBottomFillBlip\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), specifying the **BLIP** that is used to fill this line if the **lineBottomType** property, as defined in section [2.3.12.5](#), is set to **msolinePattern** or **msolineTexture**.

### 2.3.12.8 lineBottomFillBlipName

The **lineBottomFillBlipName** property specifies a comment about the **lineBottomFillBlip** property, as defined in section [2.3.12.6](#).

|      |   |   |   |   |   |   |   |   |   |    |                        |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
|------|---|---|---|---|---|---|---|---|---|----|------------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |
| opid |   |   |   |   |   |   |   |   |   |    | lineBottomFillBlipName |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                        |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0606.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineBottomFillBlipName_complex</b> property, as defined in section <a href="#">2.3.12.9</a> , exists. If the value equals 0x1, <b>lineBottomFillBlipName_complex</b> MUST exist. |

**lineBottomFillBlipName (4 bytes):** The number of bytes of data in the **lineBottomFillBlipName\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.12.9 lineBottomFillBlipName\_complex

The **lineBottomFillBlipName\_complex** property specifies additional data for the **lineBottomFillBlipName** property, as defined in section [2.3.12.8](#). If the **opid.fComplex** bit of **lineBottomFillBlipName** equals 0x1, this property MUST exist.

|   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| lineBottomFillBlipName_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**lineBottomFillBlipName\_complex (variable):** A null-terminated **Unicode** string that specifies a comment about the **lineBottomFillBlip** property, as specified by the **lineBottomFillBlipFlags** property, as defined in section [2.3.12.10](#).

### 2.3.12.10 lineBottomFillBlipFlags

The **lineBottomFillBlipFlags** property specifies how to interpret the **lineBottomFillBlipName\_complex** property, as defined in section [2.3.12.9](#).

|      |   |   |   |   |   |   |   |   |   |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | lineBottomFillBlipFlags |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0607. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomFillBlipFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **lineBottomFillBlipName\_complex** property, as defined in section 2.3.12.9. This value MUST be **msoblipflagComment**. The default value for this property is **msoblipflagComment**.

### 2.3.12.11 lineBottomFillWidth

The **lineBottomFillWidth** property specifies the width of a pattern or texture that is used to fill this line. The **lineBottomFillDztype** property, as defined in section [2.3.12.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomFillWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0608. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomFillWidth (4 bytes):** A signed integer specifying the width of a pattern or texture that is used to fill this line. If this value is 0x00000000, the width of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.12.12 lineBottomFillHeight

The **lineBottomFillHeight** property specifies the height of a pattern or texture that is used to fill this line. The **lineBottomFillDztype** property, as defined in section [2.3.12.13](#), specifies how to interpret this value.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomFillHeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0609. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomFillHeight (4 bytes):** A signed integer specifying the height of a pattern or texture that is used to fill this line. If this value is 0x00000000, the height of the pixel data contained in the pattern or texture is to be used, and the appearance of the line fill will depend on the settings of the device on which it is rendered. The default value for this property is 0x00000000.

### 2.3.12.13 lineBottomFillDztype

The **lineBottomFillDztype** property specifies how the **lineBottomFillWidth**, as defined in section [2.3.12.11](#), and **lineBottomFillHeight**, as defined in section [2.3.12.12](#), properties MUST be interpreted.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                      |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|----------------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6                    | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | lineBottomFillDztype |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                      |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x060A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomFillDztype (4 bytes):** An **MSODZTYPE** enumeration value, as defined in section [2.4.12](#), that specifies how the **lineBottomFillWidth**, as defined in section [2.3.12.11](#), and **lineBottomFillHeight**, as defined in section [2.3.12.12](#), properties MUST be interpreted. The default value for this property is **msodztypeDefault**.

### 2.3.12.14 lineBottomWidth

The **lineBottomWidth** property specifies the width of the line.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                 |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|-----------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6               | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | lineBottomWidth |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                 |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x060B. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**lineBottomWidth (4 bytes):** A signed integer that specifies the width, in **EMUs**, of the line. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00002535.

### 2.3.12.15 lineBottomMiterLimit

The **lineBottomMiterLimit** property specifies the maximum allowed ratio of miter length to line width. The miter length is the distance from the intersection of the line walls on the inside of the join to the intersection of the line walls on the outside of the join. For an explanation of miter length, see section [2.3.8.15](#).

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomMiterLimit |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x060C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomMiterLimit (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the maximum allowed ratio of miter length to line width. The default value for this property is 0x00080000.

### 2.3.12.16 lineBottomStyle

The **lineBottomStyle** property specifies the style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x060D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomStyle (4 bytes):** An **MSOLINESTYLE** enumeration value, as defined in section [2.4.14](#), that specifies the style of the line. The default value for this property is **msolineSimple**.

### 2.3.12.17 lineBottomDashing

The **lineBottomDashing** property specifies the dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomDashing |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x060E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomDashing (4 bytes):** An **MSOLINEDASHING** enumeration value, as defined in section [2.4.15](#), that specifies the dash style of the line. The default value for this property is **msolineSolid**.

### 2.3.12.18 lineBottomDashStyle

The **lineBottomDashStyle** property specifies the custom dash style of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomDashStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x060F.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>lineBottomDashStyle_complex</b> property, as defined in section <a href="#">2.3.12.19</a> , exists. If the value equals 0x1, <b>lineBottomDashStyle_complex</b> MUST exist. |

**lineBottomDashStyle (4 bytes):** The number of bytes of data in the **lineBottomDashStyle\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.12.19 lineBottomDashStyle\_complex

The **lineBottomDashStyle\_complex** property specifies additional data for the **lineBottomDashStyle** property, as defined in section [2.3.12.18](#). If the **opid.fComplex** bit of **lineBottomDashStyle** equals 0x1, this property MUST exist.

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| lineBottomDashStyle_complex (variable) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**lineBottomDashStyle\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), of 32-bit unsigned integers that specifies a custom dash style for the line. The length of each dash and space in the dash style of the line is the product of a multiplier and the line width. The first element specifies the multiplier of the first dash, the second element specifies the multiplier of the first space, the third element specifies the multiplier of the second dash, and so on—alternating between spaces and dashes. This value SHOULD be used only if the **lineBottomDashing** property, as defined in section [2.3.12.17](#), is either not present or equal to **mslineSolid**.

### 2.3.12.20 lineBottomStartArrowhead

The **lineBottomStartArrowhead** property specifies the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 0 | 1 | 2 | 3 | 4 | 5                        | 6 | 7 | 8 | 9 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 0 | 1 |
| opid |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | lineBottomStartArrowhead |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ...  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0610. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomStartArrowhead (4 bytes):** An **MSOLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the start of the line. The default value for this property is **msolineNoEnd**.

### 2.3.12.21 lineBottomEndArrowhead

The **lineBottomEndArrowhead** property specifies the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomEndArrowhead |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0611. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomEndArrowhead (4 bytes):** An **MSOLINEEND** enumeration value, as defined in section [2.4.16](#), specifying the line end decoration that is used at the end of the line. The default value for this property is **msolineNoEnd**.

### 2.3.12.22 lineBottomStartArrowWidth

The **lineBottomStartArrowWidth** property specifies the width of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomStartArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0612. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomStartArrowWidth (4 bytes):** An **MSOLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumWidthArrow**.

### 2.3.12.23 lineBottomStartArrowLength

The **lineBottomStartArrowLength** property specifies the length of the **line end decoration** that is used at the start of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomStartArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0613. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomStartArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the start of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.12.24 lineBottomEndArrowWidth

The **lineBottomEndArrowWidth** property specifies the width of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomEndArrowWidth |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0614. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomEndArrowWidth (4 bytes):** An **MSLINEENDWIDTH** enumeration value, as defined in section [2.4.17](#), specifying the width of the line end decoration that is used at the end of the line. The default value for this property is **mslineMediumWidthArrow**.

### 2.3.12.25 lineBottomEndArrowLength

The **lineBottomEndArrowLength** property specifies the length of the **line end decoration** that is used at the end of the line.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomEndArrowLength |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0615. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomEndArrowLength (4 bytes):** An **MSOLINEENDLENGTH** enumeration value, as defined in section [2.4.18](#), specifying the length of the line end decoration that is used at the end of the line. The default value for this property is **msolineMediumLenArrow**.

### 2.3.12.26 lineBottomJoinStyle

The **lineBottomJoinStyle** property specifies the style of the line joins.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomJoinStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0616. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomJoinStyle (4 bytes):** An **MSOLINEJOIN** enumeration value, as defined in section [2.4.19](#), specifying the style of the line joins. The default value for this property is **msolineJoinRound**.

### 2.3.12.27 lineBottomEndCapStyle

The **lineBottomEndCapStyle** property specifies the style of the line end caps.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomEndCapStyle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0617. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**lineBottomEndCapStyle (4 bytes):** An **MSOLINECAP** enumeration value, as defined in section [2.4.20](#), specifying the style of the line end caps. The default value for this property is **msolineEndCapFlat**.

### 2.3.12.28 lineBottomColorExt

The **lineBottomColorExt** property specifies the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0619. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended foreground color. The default value for this property is 0xFFFFFFFF.

### 2.3.12.29 reserved1562

The **reserved1562** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1562 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x061A. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**reserved1562 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.12.30 lineBottomColorExtMod

The **lineBottomColorExtMod** property specifies the color modification of the extended foreground color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x061B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomColorExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the extended foreground color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.12.31 reserved1564

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1564 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.



| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x061C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1564 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.12.32 lineBottomBackColorExt

The **lineBottomBackColorExt** property specifies the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomBackColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x061D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomBackColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended background color. The default value for this property is 0xFFFFFFFF.

### 2.3.12.33 reserved1566

The **reserved1566** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1566 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x061E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1566 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.12.34 lineBottomBackColorExtMod

The **lineBottomBackColorExtMod** property specifies the color modification of the extended background color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | lineBottomBackColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x061F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**lineBottomBackColorExtMod (4 bytes):** An [MSOTINTSHADE](#) record that specifies the extended background color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.12.35 reserved1568

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1568 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0620. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1568 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.12.36 reserved1569

The **reserved1569** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1569 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0621. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1569 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.12.37 reserved1570

The **reserved1570** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved1570 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0622. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved1570 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.12.38 Bottom Line Style Boolean Properties

The **Bottom Line Style Boolean Properties** specify a 32-bit field of Boolean properties for the bottom line style.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |
| unused6 |   |   |   |   |   | K | L | M | N | O  | P  | Q  | R  | S  | T  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x063F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (6 bits):** A value that is undefined and MUST be ignored.

- A - unused2 (1 bit):** A value that is undefined and MUST be ignored.
- B - unused3 (1 bit):** A value that is undefined and MUST be ignored.
- C - unused4 (1 bit):** A value that is undefined and MUST be ignored.
- D - fUsefBottomInsetPen (1 bit):** A bit that specifies whether the **fBottomInsetPen** bit is set. A value of 0x0 specifies that the **fBottomInsetPen** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- E - fUsefBottomInsetPenOK (1 bit):** A bit that specifies whether the **fBottomInsetPenOK** bit is set. A value of 0x0 specifies that the **fBottomInsetPenOK** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- F - unused5 (1 bit):** A value that is undefined and MUST be ignored.
- G - fUsefBottomLine (1 bit):** A bit that specifies whether the **fBottomLine** bit is set. A value of 0x0 specifies that the **fBottomLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- H - fUsefBottomHitTestLine (1 bit):** A bit that specifies whether the **fBottomHitTestLine** bit is set. A value of 0x0 specifies that the **fBottomHitTestLine** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- I - fUsefLineBottomFillShape (1 bit):** A bit that specifies whether the **fLineBottomFillShape** bit is set. A value of 0x0 specifies that the **fLineBottomFillShape** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- J - fUsefBottomNoLineDrawDash (1 bit):** A bit that specifies whether the **fBottomNoLineDrawDash** bit is set. A value of 0x0 specifies that the **fBottomNoLineDrawDash** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.
- unused6 (6 bits):** A value that is undefined and MUST be ignored.
- K - unused7 (1 bit):** A value that is undefined and MUST be ignored.
- L - reserved1 (1 bit):** A value that MUST be zero and MUST be ignored.
- M - reserved2 (1 bit):** A value that MUST be zero and MUST be ignored.
- N - fBottomInsetPen (1 bit):** A bit that specifies whether to draw the line inside the **shape**. If **fBottomInsetPenOK** equals 0x0, this bit MUST be ignored. If **fUsefBottomInsetPen** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.
- O - fBottomInsetPenOK (1 bit):** A bit that specifies whether insetting the pen is allowed. If **fUsefBottomInsetPenOK** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.
- P - reserved3 (1 bit):** A value that MUST be zero and MUST be ignored.
- Q - fBottomLine (1 bit):** A bit that specifies whether to display the other line properties in this line style when handling the bottom side of a rectangular 2-D shape. If **fUsefBottomLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x0. If the **rh.recInstance** field in the **OfficeArtFSP** record, as defined in section [2.2.40](#), for the shape is not set to one of the **MSOSPT** enumeration values, as defined in section [2.4.24](#), in the following list, the line properties in this line style MUST NOT be displayed:
- **msosptRectangle**
  - **msosptTextBox**

- **msosptBevel**
- **msosptHostControl**
- **msosptPictureFrame**
- **msosptFlowChartProcess**
- **msosptFlowChartPredefinedProcess**
- **msosptFlowChartInternalStorage**
- **msosptActionButtonBlank**
- **msosptActionButtonHome**
- **msosptActionButtonHelp**
- **msosptActionButtonInformation**
- **msosptActionButtonForwardNext**
- **msosptActionButtonBackPrevious**
- **msosptActionButtonEnd**
- **msosptActionButtonBeginning**
- **msosptActionButtonReturn**
- **msosptActionButtonDocument**
- **msosptActionButtonSound**
- **msosptActionButtonMovie**

**R - fBottomHitTestLine (1 bit):** A bit that specifies whether this line will be hit tested. If **fUsefBottomHitTestLine** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

**S - fLineBottomFillShape (1 bit):** A bit that specifies how the fill is aligned. The following table specifies the meaning of each value for this field. If **fUsefLineBottomFillShape** equals 0x0, this value MUST be ignored. The default value for this property is 0x1.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that the fill is aligned with the origin of the view.                               |
| 0x1   | Specifies that the fill is aligned relative to the shape so that it will move with the shape. |

**T - fBottomNoLineDrawDash (1 bit):** A bit that specifies whether a dashed line will be drawn if the other properties specify that no line exists. If **fUsefBottomNoLineDrawDash** equals 0x0, this value MUST be ignored. The default value for this property is 0x0.

### 2.3.13 Shadow Style

The **Shadow Style** property set specifies how a shadow will appear when drawn.

### 2.3.13.1 shadowType

The **shadowType** property specifies the style of shadow to display with the object.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0200. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowType (4 bytes):** An **MSOSHADOWTYPE** enumeration value, as defined in section [2.4.21](#), that specifies the type of shadow. The default value for this property is **msoshadowOffset**.

### 2.3.13.2 shadowColor

The **shadowColor** property specifies the primary color of the shadow.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowColor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0201. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the primary color of the shadow. The default value for this property is 0x00808080.

### 2.3.13.3 shadowHighlight

The **shadowHighlight** property specifies the highlight color of the shadow. This property MUST exist if the **shadowType** property, as defined in section [2.3.13.1](#), equals **msoshadowDouble** or **msoshadowEmbossOrEngrave**; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11              | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | shadowHighlight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0202. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowHighlight (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the highlight color of the shadow. The default value for this property is 0x00CBCBCB.

### 2.3.13.4 shadowCrMod

The **shadowCrMod** property specifies the shadow's primary color modifier to use when running in black-and-white display mode. This property MUST exist if black-and-white display mode is to be used; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11          | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | shadowCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0203. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**shadowCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the shadow's primary color modifier to use when running in black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.13.5 shadowOpacity

The **shadowOpacity** property specifies the opacity level of the shadow.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowOpacity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0204. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowOpacity (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the opacity level of the shadow. This value MUST be from 0.0 through 1.0. The default value for this property is 0x00010000.

### 2.3.13.6 shadowOffsetX

The **shadowOffsetX** property specifies the distance along the x-axis that the shadow lies away from the **shape**. This property MUST exist if the **shadowType** property, as defined in section [2.3.13.1](#), equals **msoshadowOffset** or **msoshadowDouble**; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowOffsetX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0205. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**shadowOffsetX (4 bytes):** A signed integer that specifies the distance, in **EMUs**, along the x-axis that the shadow lies away from the shape. If this value is positive, the shadow is offset from the right side of the axis-aligned **bounding rectangle** for the shape. If this value is negative, the shadow is offset from the left side of the axis-aligned bounding rectangle for the shape. The default value for this property is 0x00006338.

### 2.3.13.7 shadowOffsetY

The **shadowOffsetY** property specifies the distance along the y-axis that the shadow lies away from the **shape**. This property MUST exist if the **shadowType** property, as defined in section [2.3.13.1](#), equals **msoshadowOffset** or **msoshadowDouble**; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowOffsetY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0206. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowOffsetY (4 bytes):** A signed integer that specifies the distance, in **EMUs**, along the y-axis that the shadow lies away from the shape. If this value is positive, the shadow is offset from the bottom of the axis-aligned **bounding rectangle** for the shape. If this value is negative, the shadow is offset from the top of the axis-aligned bounding rectangle for the shape. The default value for this property is 0x00006338.

### 2.3.13.8 shadowSecondOffsetX

The **shadowSecondOffsetX** property specifies the distance along the x-axis that the highlighted shadow lies away from the **shape**. This property MUST exist if the **shadowType** property, as defined in section [2.3.13.1](#), equals **msoshadowDouble**; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowSecondOffsetX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0207. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowSecondOffsetX (4 bytes):** A signed integer that specifies the distance, in **EMUs**, along the x-axis that the highlighted portion of the shadow lies away from the shape. If this value is positive, the shadow is offset from the right side of the axis-aligned **bounding rectangle** for the shape. If this value is negative, the shadow is offset from the left side of the axis-aligned bounding rectangle for the shape. The default value for this property is 0x00000000.

### 2.3.13.9 shadowSecondOffsetY

The **shadowSecondOffsetY** property specifies the distance along the y-axis that the highlighted shadow lies away from the **shape**. This property MUST exist if the **shadowType** property, as defined in section [2.3.13.1](#), equals **msoshadowDouble**; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowSecondOffsetY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0208. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowSecondOffsetY (4 bytes):** A signed integer that specifies the distance, in **EMUs**, along the y-axis that the highlighted portion of the shadow lies away from the shape. If this value is positive, the shadow is offset from the bottom of the axis-aligned **bounding rectangle** for the shape. If this value is negative, the shadow is offset from the top of the axis-aligned bounding rectangle for the shape.

The default value for this property is 0x00000000.

### 2.3.13.10 shadowOriginX

The **shadowOriginX** property specifies the origin of the shadow on the x-axis, relative to the center of the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowOriginX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0210. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowOriginX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the origin, in **EMUs**, of the shadow relative to the center of the shape on the x-axis. The default value for this property is 0x00000000.

### 2.3.13.11 shadowOriginY

The **shadowOriginY** property specifies the origin of the shadow on the y-axis, relative to the center of the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowOriginY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0211. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowOriginY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the origin, in **EMUs**, of the shadow relative to the center of the shape on the y-axis. The default value for this property is 0x00000000.

### 2.3.13.12 shadowColorExt

The **shadowColorExt** property specifies the primary extended color of the shadow.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0212. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the primary extended color of the shadow. The default value for this property is 0xFFFFFFFF.

### 2.3.13.13 reserved531

The **reserved531** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved531 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0213. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved531 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.13.14 shadowColorExtMod

The **shadowColorExtMod** property specifies the color modification of the primary extended color of the shadow.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0214. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowColorExtMod (4 bytes):** An [MSOTINTSHADE](#) record that specifies the shadow's primary extended color modification. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.13.15 reserved533

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved533 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0215. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved533 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.13.16 shadowHighlightExt

The **shadowHighlightExt** property specifies the extended highlight color of the shadow.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowHighlightExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0216. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**shadowHighlightExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended highlight color of the shadow. The default value for this property is 0xFFFFFFFF.

### 2.3.13.17 reserved535

The **reserved535** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved535 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0217. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved535 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.13.18 shadowHighlightExtMod

The **shadowHighlightExtMod** property specifies the color modification of the extended highlight color of the shadow.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowHighlightExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0218. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**shadowHighlightExtMod (4 bytes):** An [MSOTINTSHADE](#) record that specifies the color modification of the extended highlight color of the shadow. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.13.19 reserved537

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved537 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0219. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved537 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.13.20 reserved538

The **reserved538** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved538 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x021A. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**reserved538 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.13.21 reserved539

The **reserved539** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved539 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x021B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved539 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.13.22 shadowSoftness

The **shadowSoftness** property specifies the blur radius of the shadow. This property SHOULD [<43>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | shadowSoftness |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x021C. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**shadowSoftness (4 bytes):** A signed integer that specifies the blur radius of the shadow. This value MUST be from 0x00000000 through 0x001170D8, inclusive. The default value for this property is 0x00000000<44>.

### 2.3.13.23 Shadow Style Boolean Properties

The **Shadow Style Boolean Properties** specify a 32-bit field of Boolean properties for the state of the shadow.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15      | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    |    |    | A  | B  | C  |    |    |
| unused2 |   |   |   |   |   |   |   |   |   |    |    | D  | E  | F  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x023F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (13 bits):** A value that is undefined and MUST be ignored.

**A - fUsefInnerShadow (1 bit):** This bit is not used and MUST be ignored.

**B - fUsefShadow (1 bit):** A bit that specifies whether the **fShadow** bit is set. A value of 0x0 specifies that the **fShadow** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

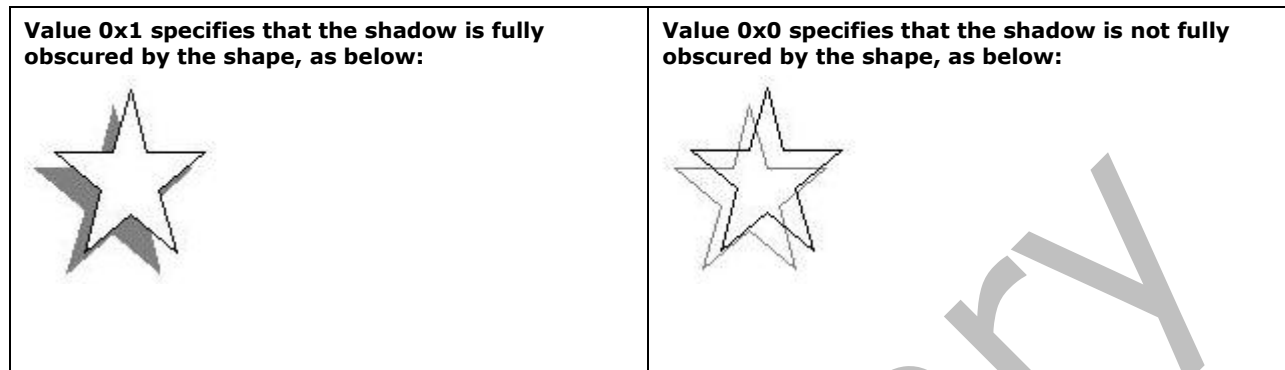
**C - fUsefshadowObscured (1 bit):** A bit that specifies whether the **fshadowObscured** bit is set. A value of 0x0 specifies that the **fshadowObscured** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused2 (13 bits):** A value that is undefined and MUST be ignored.

**D - fInnerShadow (1 bit):** This bit is not used and MUST be ignored.

**E - fShadow (1 bit):** A bit that specifies whether the **shape** has a shadow. This value MUST be ignored if **fUsefShadow** is 0x0. The default value for this property is 0x0.

**F - fshadowObscured (1 bit):** A bit that specifies whether the shadow is fully obscured by the shape. Being fully obscured and not being fully obscured, as illustrated by the following figure, are visually different only when the shape has no fill properties. This value MUST be ignored if **fUsefshadowObscured** is 0x0. The default value for this property is 0x0.



### 2.3.14 Perspective Style

The **Perspective Style** property set specifies how a **perspective transform** is constructed and applied to a **shape**. The following figure shows how the perspective transform matrix is specified.

$$\begin{bmatrix} \text{perspectiveScaleXToX} & \text{perspectiveScaleXToY} & 0 \\ \text{perspectiveScaleYToX} & \text{perspectiveScaleYToY} & 0 \\ \text{perspectivePerspectiveX} & \text{perspectivePerspectiveY} & 1 \end{bmatrix}$$

**Figure 9: Structure of the perspective matrix**

#### 2.3.14.1 perspectiveType

The **perspectiveType** property specifies the style of the transform to be constructed for the perspective matrix.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15              | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    | perspectiveType |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0240. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveType (4 bytes):** An **MSOXFORMTYPE** enumeration value, as defined in section [2.4.22](#), that specifies how the transform is to be applied to the **shape**. The default value for this property is **msoxformShape**.

### 2.3.14.2 perspectiveOffsetX

The **perspectiveOffsetX** property specifies the offset that is applied to the **shape** along the x-axis before the **perspective transform** is applied.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectiveOffsetX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0241. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveOffsetX (4 bytes):** A value of variable type that specifies the offset applied to a shape. If the **perspectiveType** property, as defined in section [2.3.14.1](#), equals **msoxformShape**, the offset is of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6. Otherwise, the offset is an integral value, in **EMUs**. The default value for this property is 0x00000000.

### 2.3.14.3 perspectiveOffsetY

The **perspectiveOffsetY** property specifies the offset that is applied to the **shape** along the y-axis before the **perspective transform** is applied.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectiveOffsetY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0242. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveOffsetY (4 bytes):** A value of variable type that specifies the offset applied to a shape. If the **perspectiveType** property, as defined in section [2.3.14.1](#), equals **msoxformShape**, the offset is of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6. Otherwise, the offset is an integral value, in **EMUs**. The default value for this property is 0x00000000.

### 2.3.14.4 perspectiveScaleXToX

The **perspectiveScaleXToX** property specifies the x-axis scale value of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectiveScaleXToX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0243. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveScaleXToX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to scale along the x-axis. The default value for this property is 0x00010000.

### 2.3.14.5 perspectiveScaleYToX

The **perspectiveScaleYToX** property specifies the y-axis to x-axis transform value of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectiveScaleYToX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0244. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveScaleYToX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to transform from the y-axis to the x-axis. The default value for this property is 0x00000000.

### 2.3.14.6 perspectiveScaleXToY

The **perspectiveScaleXToY** property specifies the x-axis to y-axis transform value of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectiveScaleXToY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0245. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveScaleXToY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to transform from the x-axis to the y-axis. The default value for this property is 0x00000000.

### 2.3.14.7 perspectiveScaleYToY

The **perspectiveScaleYToY** property specifies the y-axis scale value of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                   | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | perspectiveScaleYToY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0246. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveScaleYToY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to scale along the y-axis. The default value for this property is 0x00010000.

### 2.3.14.8 perspectivePerspectiveX

The **perspectivePerspectiveX** property specifies the offset on the x-axis of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | perspectivePerspectiveX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0247. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**perspectivePerspectiveX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, this is divided by the [perspectiveWeight](#) property to produce a value that specifies the perspective offset on the x-axis. The default value for this property is 0x00000000.

### 2.3.14.9 perspectivePerspectiveY

The **perspectivePerspectiveY** property specifies the offset on the y-axis of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectivePerspectiveY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0248. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectivePerspectiveY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, this is divided by the [perspectiveWeight](#) property to produce a value that specifies the perspective offset on the y-axis. The default value for this property is 0x00000000.

### 2.3.14.10 perspectiveWeight

The **perspectiveWeight** property specifies the perspective weighting of the **perspective transform** matrix for the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | perspectiveWeight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0249. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**perspectiveWeight (4 bytes):** An unsigned integer that specifies the weighting of the [perspectivePerspectiveX](#) and [perspectivePerspectiveY](#) properties for the perspective transform. The default value for this property is 0x00000100.

### 2.3.14.11 perspectiveOriginX

The **perspectiveOriginX** property specifies the origin of the **shape** on the x-axis, relative to the center of the shape.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |                    |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|--------------------|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7                  | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   | perspectiveOriginX |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |                    |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x024A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveOriginX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the origin, in **EMUs**, of the shape relative to the center of the shape along the x-axis. The default value for this property is 0x00008000.

### 2.3.14.12 perspectiveOriginY

The **perspectiveOriginY** property specifies the origin of the **shape** on the y-axis, relative to the center of the shape.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |                    |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|--------------------|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7                  | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   | perspectiveOriginY |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |                    |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x024B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**perspectiveOriginY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the origin, in **EMUs**, of the shape relative to the center of the shape along the y-axis. The default value for this property is 0x00008000.

### 2.3.14.13 Perspective Style Boolean Properties

The **Perspective Style Boolean Properties** specify a 32-bit field of Boolean properties for the **perspective transform**.

| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15      | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    |    | A  |    |    |    |    |    |
| unused2 |   |   |   |   |   |   |   |   |   |    |    |    |    |    | B       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x027F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (15 bits):** A value that is undefined and MUST be ignored.

**A - fUsefPerspective (1 bit):** A bit that specifies whether the **fPerspective** bit is set. A value of 0x0 specifies that the **fPerspective** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused2 (15 bits):** A value that is undefined and MUST be ignored.

**B - fPerspective (1 bit):** A bit that specifies whether the perspective transform is to be applied to a **shape**. This value MUST be ignored if **fUsefPerspective** is 0x0. The default value for this property is 0x0.

### 2.3.15 3D Object

The **3D Object** property set specifies how a **shape** is to be rendered when displayed three-dimensionally.

#### 2.3.15.1 c3DSpecularAmt

The **c3DSpecularAmt** property specifies the ratio of incident to specular light that is reflected on a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DSpecularAmt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0280. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DSpecularAmt (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the ratio of incident to specular light that is reflected on a shape. The default value for this property is 0x00000000.

#### 2.3.15.2 c3DDiffuseAmt

The **c3DDiffuseAmt** property specifies the ratio of incident to diffuse light that is reflected on a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DDiffuseAmt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0281. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**c3DDiffuseAmt (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the ratio of incident to diffuse light that is reflected on a shape. The default value for this property is 0x00010000.

### 2.3.15.3 c3DShininess

The **c3DShininess** property specifies the specular power that is applied to the specular light reflected from a **shape**. The higher the specular power, the larger the area of reflected specular light.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DShininess |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0282. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DShininess (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount of specular power to be applied to the specular highlight on a shape. The default value for this property is 0x00000005.

### 2.3.15.4 c3DEdgeThickness

The **c3DEdgeThickness** property specifies the thickness of the specular edge.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DEdgeThickness |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0283. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DEdgeThickness (4 bytes):** A signed integer that specifies how thick the edge will be around the specular highlight. This value is expressed in **EMUs**. The default value for this property is 0x0000319C.

### 2.3.15.5 c3DExtrudeForward

The **c3DExtrudeForward** property specifies the distance to extrude the front face of the **shape**. The front face of the shape points toward the screen on a shape that has not been rotated.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DExtrudeForward |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0284. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DExtrudeForward (4 bytes):** A signed integer that specifies the distance to extrude the front face of the shape toward the screen. This value is expressed in **EMUs**. This value MUST be from 0x00000000 through 0x007445A0 inclusive. The default value for this property is 0x00000000.

### 2.3.15.6 c3DExtrudeBackward

The **c3DExtrudeBackward** property specifies the distance to extrude the back face of the **shape**. The back face of the shape points away from the screen on a shape that has not been rotated.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DExtrudeBackward |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0285. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DExtrudeBackward (4 bytes):** A signed integer value that specifies the distance to extrude the back face of the shape away from the screen. This value is expressed in **EMUs**. This value MUST be from 0x00000000 through 0x07445A00. The default value for this property is 0x0006F9F0.

### 2.3.15.7 reserved646

The **reserved646** property MUST equal 0x00000000 and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved646 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

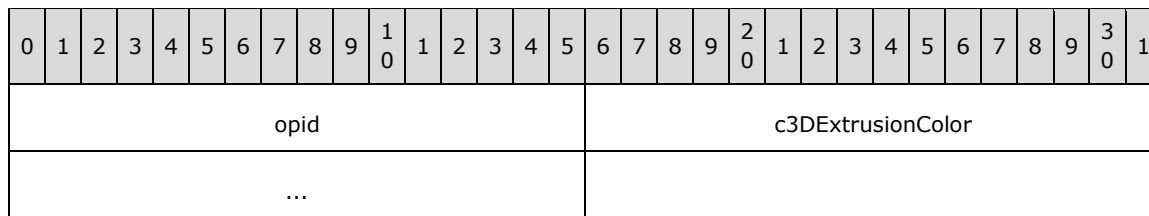
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0286. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved646 (4 bytes):** A value that MUST equal 0x00000000 and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.15.8 c3DExtrusionColor

The **c3DExtrusionColor** property specifies the color to apply to extruded geometry.



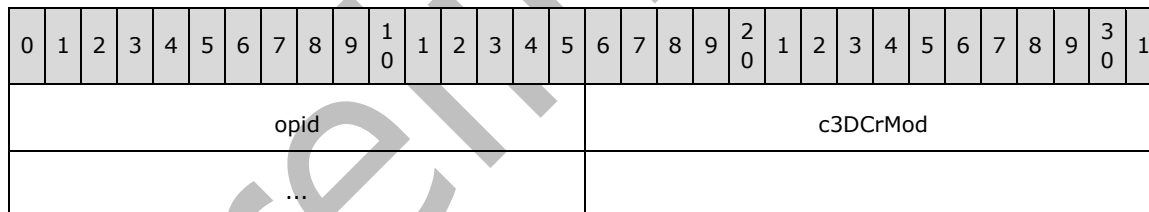
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0287. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DExtrusionColor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the color of the extruded **shape** geometry. The default value for this property is 0x100000F7.

### 2.3.15.9 c3DCrMod

The **c3DCrMod** property specifies the extrusion color modifier when running in black-and-white display mode. This property MUST exist if black-and-white display mode is to be used. Otherwise, this property MUST be ignored.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0288. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**c3DCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extrusion color modifier when running in black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.15.10 c3DExtrusionColorExt

The **c3DExtrusionColorExt** property specifies the extrusion extended color of the **shape** geometry.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DExtrusionColorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0289. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DExtrusionColorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended color of the extruded geometry. The default value for this property is 0xFFFFFFFF.

### 2.3.15.11 reserved650

The **reserved650** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved650 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x028A. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**reserved650 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.15.12 c3DExtrusionColorExtMod

The **c3DExtrusionColorExtMod** property specifies the color modification of the extended color for the extruded geometry.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DExtrusionColorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x028B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DExtrusionColorExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the extended color modification for the extruded geometry. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.15.13 reserved652

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved652 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x028C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved652 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

#### 2.3.15.14 reserved653

The **reserved653** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved653 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x028D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved653 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

#### 2.3.15.15 3D-Object Boolean Properties

The **3D-Object Boolean Properties** specify a 32-bit field of Boolean properties for a 3-D object.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    | A  | B  | C  | D  |    |    |
| unused2 |   |   |   |   |   |   |   |   |   |    | E  | F  | G  | H  |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02BF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (12 bits):** A value that is undefined and MUST be ignored.

**A - fUsef3D (1 bit):** A bit that specifies whether the **f3D** bit is set. A value of 0x0 specifies that the **f3D** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**B - fUsefc3DMetallic (1 bit):** A bit that specifies whether the **fc3DMetallic** bit is set. A value of 0x0 specifies that the **fc3DMetallic** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**C - fUsefc3DUseExtrusionColor (1 bit):** A bit that specifies whether the **fc3DUseExtrusionColor** bit is set. A value of 0x0 specifies that the **fc3DUseExtrusionColor** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**D - fUsefc3DLightFace (1 bit):** A bit that specifies whether the **fc3DLightFace** bit is set. A value of 0x0 specifies that the **fc3DLightFace** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused2 (12 bits):** A value that is undefined and MUST be ignored.

**E - f3D (1 bit):** A bit that specifies whether the **shape** contains 3-D properties. This value MUST be ignored if **fUsef3D** is 0x0. The default value for this property is 0x0.

**F - fc3DMetallic (1 bit):** A bit that specifies whether the 3-D shape lighting algorithm will treat the specular color as the diffuse color. This value MUST be ignored if **fUsefc3DMetallic** is 0x0. The default value for this property is 0x0.

**G - fc3DUseExtrusionColor (1 bit):** A bit that specifies whether the extruded geometry will use a color that is separate from the shape color, as specified in the following table. This value MUST be ignored if **fUsefc3DUseExtrusionColor** is 0x0. The default value for this property is 0x0.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that the diffuse color will be used.                              |
| 0x1   | Specifies that the <a href="#">c3DExtrusionColor</a> property will be used. |

**H - fc3DLightFace (1 bit):** A bit that specifies whether the extruded geometry will be lit according to the current lighting model. This value MUST be ignored if **fUsefc3DLightFace** is 0x0. The default value for this property is 0x1.

### 2.3.16 3D Style

The **3D Style** property set specifies how a **shape** will be oriented when displayed three-dimensionally.

### 2.3.16.1 c3DYRotationAngle

The **c3DYRotationAngle** property specifies the **shape** rotation around the y-axis. A shape with constrained 3D rotation is rotated in the following manner:

1. Around the y-axis by the angle specified by **c3DYRotationAngle**.
2. Around the x-axis by the angle specified by [c3DXRotationAngle](#).

If the **fc3DConstrainRotation** bit of the [3D-Style Boolean Properties](#) equals 0x1, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DYRotationAngle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DYRotationAngle (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the number of degrees to rotate the shape around the y-axis. Positive values rotate in the clockwise direction. Negative values rotate in the counterclockwise direction. The valid range is from -90.0 degrees through 90.0 degrees. The default value for this property is 0x00000000.

### 2.3.16.2 c3DXRotationAngle

The **c3DXRotationAngle** property specifies the shape rotation around the x-axis. A shape with constrained 3D rotation is rotated in the following manner:

1. Around the y-axis by the angle specified by the **c3DYRotationAngle** property, as defined in section [2.3.16.1](#).
2. Around the x-axis by the angle specified by **c3DXRotationAngle**.

If the **fc3DConstrainRotation** bit of the [3D-Style Boolean Properties](#) equals 0x1, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DXRotationAngle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DXRotationAngle (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the number of degrees to rotate the **shape** around the x-axis. Positive values rotate in the clockwise direction. Negative values rotate in the counterclockwise direction. The valid range is from -90.0 degrees through 90.0 degrees. The default value for this property is 0x00000000.

### 2.3.16.3 c3DRotationAxisX

The **c3DRotationAxisX** property specifies the x portion of the axis that is used to rotate the **shape**. If the **fc3DConstrainRotation** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11               | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    | c3DRotationAxisX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRotationAxisX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the x portion of the axis that is used to rotate a shape. The default value for this property is 0x00000064.

### 2.3.16.4 c3DRotationAxisY

The **c3DRotationAxisY** property specifies the Y portion of the axis that is used to rotate the **shape**. If the **fc3DConstrainRotation** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRotationAxisY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRotationAxisY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the Y portion of the axis that is used to rotate a shape. The default value for this property is 0x00000000.

### 2.3.16.5 c3DRotationAxisZ

The **c3DRotationAxisZ** property specifies the Z portion of the axis that is used to rotate the **shape**. If the **fc3DConstrainRotation** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRotationAxisZ |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x02C4. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**c3DRotationAxisZ (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the Z portion of the axis that is used to rotate a shape. The default value for this property is 0x00000000.

### 2.3.16.6 c3DRotationAngle

The **c3DRotationAngle** property specifies the number of degrees to rotate a **shape** around an axis.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRotationAngle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C5. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRotationAngle (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the number of degrees to rotate the shape around the vector specified by the **c3DRotationAxisX**, as defined in section [2.3.16.3](#), **c3DRotationAxisY**, as defined in section [2.3.16.4](#), and **c3DRotationAxisZ**, as defined in section [2.3.16.5](#), properties. Positive values rotate in the clockwise direction. Negative values rotate in the counterclockwise direction. The default value for this property is 0x00000000.

### 2.3.16.7 c3DRotationCenterX

The **c3DRotationCenterX** property specifies the location of the center of the **shape** along the x-axis. If the **fc3DRotationCenterAuto** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRotationCenterX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C6. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRotationCenterX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies a fraction of the geometry's scaled width and height. The default value for this property is 0x00000000.

### 2.3.16.8 c3DRotationCenterY

The **c3DRotationCenterY** property specifies the location of the center of the **shape** along the y-axis. If the **fc3DRotationCenterAuto** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRotationCenterY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C7. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRotationCenterY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies a fraction of the geometry's scaled width and height. The default value for this property is 0x00000000.

### 2.3.16.9 c3DRotationCenterZ

The **c3DRotationCenterZ** property specifies the location of the center of the **shape** along the z-axis. If the **fc3DRotationCenterAuto** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRotationCenterZ |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C8. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRotationCenterZ (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies a fraction of the geometry's scaled width and height. The default value for this property is 0x00000000.

### 2.3.16.10 c3DRenderMode

The **c3DRenderMode** property specifies how to display a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DRenderMode |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02C9. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DRenderMode (4 bytes):** An **MSO3DRENDERMODE** enumeration value, as defined in section [2.4.23](#), that specifies how to display the shape. The default value for this property is **msoFullRender**.

### 2.3.16.11 c3DTolerance

If the geometry is broken up for rendering purposes, the **c3DTolerance** property specifies the geometric deviation that is permitted for rendering the **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DTolerance |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02CA. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DTolerance (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the number of pixels that the geometry is allowed to deviate from the original geometry during rendering. This value MUST be greater than or equal to 0x00000000. The default value for this property is 0x00007530.

### 2.3.16.12 c3DXViewpoint

The **c3DXViewpoint** property specifies the location of the perspective camera on the x-axis. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DXViewpoint |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x02CB. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**c3DXViewpoint (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the location, in **EMUs**, of the perspective camera on the x-axis. The default value for this property is 0x001312D0.

### 2.3.16.13 c3DYViewpoint

The **c3DYViewpoint** property specifies the location of the perspective camera on the y-axis. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DYViewpoint |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02CC. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DYViewpoint (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the location, in **EMUs**, of the perspective camera on the y-axis. The default value for this property is 0xFFECED30.

### 2.3.16.14 c3DZViewpoint

The **c3DZViewpoint** property specifies the distance from the view plane of the perspective camera on the z-axis. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DZViewpoint |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02CD. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DZViewpoint (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the distance, in **EMUs**, from the view plane of the perspective camera on the z-axis. The default value for this property is 0x00895440.

### 2.3.16.15 c3DOriginX

The **c3DOriginX** property specifies the origin of the **shape** on the x-axis when displayed with the perspective camera. The origin is specified as a multiple of the width and height of the shape, relative to the center of the shape. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DOriginX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02CE. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DOriginX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the displacement from the center of the shape to use as the shape origin on the x-axis. The default value for this property is 0x00008000.

### 2.3.16.16 c3DOriginY

The **c3DOriginY** property specifies the origin of the **shape** on the y-axis when displayed with the perspective camera. The origin is specified as a multiple of the width and height of the shape, relative

to the center of the shape. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x0, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DOriginY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02CF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DOriginY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the displacement from the center of the shape to use as the shape origin on the y-axis. The default value for this property is 0xFFFF8000.

### 2.3.16.17 c3DSkewAngle

The **c3DSkewAngle** property specifies the amount of skew that is added to the **shape** when a parallel projection is used. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x1, this property MUST exist; otherwise, this property MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DSkewAngle |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DSkewAngle (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the angle to skew the shape with a parallel projection. A value of 0x00000000 specifies an orthographic projection. A negative value skews the shape to the right. A positive value skews the shape to the left. The default value for this property is 0xFF790000.

### 2.3.16.18 c3DSkewAmount

The **c3DSkewAmount** property specifies the amount of skew to add to a **shape** as a percentage of the skew. If the **fc3DParallel** bit of the [3D-Style Boolean Properties](#) equals 0x1, this property **MUST** exist; otherwise, this property **MUST** be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DSkewAmount |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                             |
|----------------------|-------------------------------------|
| <b>opid.opid</b>     | A value that <b>MUST</b> be 0x02D1. |
| <b>opid.fBid</b>     | A value that <b>MUST</b> be 0x0.    |
| <b>opid.fComplex</b> | A value that <b>MUST</b> be 0x0.    |

**c3DSkewAmount (4 bytes):** A signed integer that specifies the percentage, as a value from 0xFFFFF9C through 0x00000064, to skew the shape. The default value for this property is 0x00000032.

### 2.3.16.19 c3DAmbientIntensity

The **c3DAmbientIntensity** property specifies the intensity of the ambient light.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DAmbientIntensity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                             |
|------------------|-------------------------------------|
| <b>opid.opid</b> | A value that <b>MUST</b> be 0x02D2. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**c3DAmbientIntensity (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the intensity of the ambient light. This value MUST be from 0.0 through 1.0. The default value for this property is 0x00004E20.

### 2.3.16.20 c3DKeyX

The **c3DKeyX** property specifies the directional vector of the primary light source along the x-axis.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DKeyX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DKeyX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the directional vector of the primary light source along the x-axis. The default value for this property is 0x0000C350.

### 2.3.16.21 c3DKeyY

The **c3DKeyY** property specifies the directional vector of the primary light source along the y-axis.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DKeyY |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.



| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DKeyY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the directional vector of the primary light source along the y-axis. The default value for this property is 0x00000000.

### 2.3.16.22 c3DKeyZ

The **c3DKeyZ** property specifies the directional vector of the primary light source along the z-axis.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DKeyZ |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D5. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DKeyZ (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the directional vector of the primary light source along the z-axis. The default value for this property is 0x00002710.

### 2.3.16.23 c3DKeyIntensity

The **c3DKeyIntensity** property specifies the intensity of the primary light source.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DKeyIntensity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D6. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DKeyIntensity (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the intensity of the primary light source. This value SHOULD [<45>](#) be from 0.0 through 1.0. The default value for this property is 0x00009470.

### 2.3.16.24 c3DFilIX

The **c3DFilIX** property specifies the directional vector along the x-axis of the secondary light source.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DFilIX |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

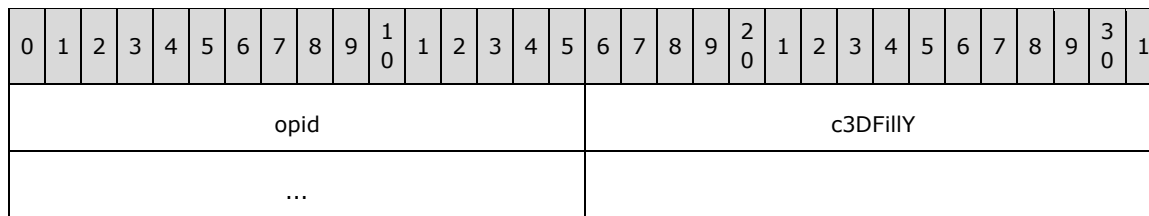
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D7. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DFilIX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the directional vector along the x-axis of the secondary light source. The default value for this property is 0xFFFF3CB0.

### 2.3.16.25 c3DFilIY

The **c3DFilIY** property specifies the directional vector along the y-axis of the secondary light source.



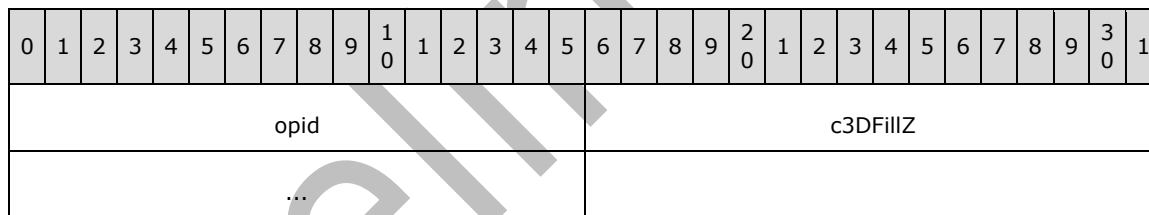
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D8. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DFillY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the directional vector along the y-axis of the secondary light source. The default value for this property is 0x00000000.

### 2.3.16.26 c3DFillZ

The **c3DFillZ** property specifies the directional vector along the z-axis of the secondary light source.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02D9. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DFillZ (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the directional vector along the z-axis of the secondary light source. The default value for this property is 0x00002710.

### 2.3.16.27 c3DFillIntensity

The **c3DFillIntensity** property specifies the intensity of the secondary light source.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | c3DFillIntensity |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02DA. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**c3DFillIntensity (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the intensity of the secondary light source. This value SHOULD [<46>](#) be from 0.0 through 1.0. The default value for this property is 0x00009470.

### 2.3.16.28 3D-Style Boolean Properties

The **3D-Style Boolean Properties** specify a 32-bit field of Boolean properties for the style of the 3-D object.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    | A  | B  | C  | D  | E  |    |
| unused2 |   |   |   |   |   |   |   |   |   |    | F  | G  | H  | I  | J  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x02FF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (11 bits):** A value that is undefined and MUST be ignored.

**A - fUsefc3DConstrainRotation (1 bit):** A bit that specifies whether the **fc3DConstrainRotation** bit is set. A value of 0x0 specifies that the **fc3DConstrainRotation** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**B - fUsefc3DRotationCenterAuto (1 bit):** A bit that specifies whether the **fc3DRotationCenterAuto** bit is set. A value of 0x0 specifies that the **fc3DRotationCenterAuto** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**C - fUsefc3DParallel (1 bit):** A bit that specifies whether the **fc3DParallel** bit is set. A value of 0x0 specifies that the **fc3DParallel** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**D - fUsefc3DKeyHarsh (1 bit):** A bit that specifies whether the **fc3DKeyHarsh** bit is set. A value of 0x0 specifies that the **fc3DKeyHarsh** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**E - fUsefc3DFillHarsh (1 bit):** A bit that specifies whether the **fc3DFillHarsh** bit is set. A value of 0x0 specifies that the **fc3DFillHarsh** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused2 (11 bits):** A value that is undefined and MUST be ignored.

**F - fc3DConstrainRotation (1 bit):** A bit that specifies how to rotate a **shape**. The following table specifies the meaning of each value for this field. The default value for this property is 0x1.

| Value | Meaning  |
|-------|--|
| 0x0   | Specifies that the shape will rotate around an axis that is specified by the <b>3D style</b> property set. |
| 0x1   | Specifies that the shape will rotate along the screen's z-axis.  |

**G - fc3DRotationCenterAuto (1 bit):** A bit that specifies how to treat the center of the shape. The following table specifies the meaning of each value for this field. The default value for this property is 0x0.

| Value | Meaning  |
|-------|--|
| 0x0   | Specifies that a user-specified value will be used.  |
| 0x1   | Specifies that the center of the shape will be used. |

**H - fc3DParallel (1 bit):** A bit that specifies whether the 3-D object will use a parallel projection. The following table specifies the meaning of each value for this field. The default value for this property is 0x1.

| Value | Meaning                             |
|-------|-------------------------------------|
| 0x0   | Specifies a perspective projection. |
| 0x1   | Specifies a parallel projection.    |

**I - fc3DKeyHarsh (1 bit):** A bit that specifies the lighting algorithm on the primary light source. The following table specifies the meaning of each value for this field. The default value for this property is 0x1.

| Value | Meaning |
|-------|---------|
|-------|---------|

| Value | Meaning  |
|-------|--|
| 0x0   | Specifies an infinite, uniform, planar light source. |
| 0x1   | Specifies a directional light source.                |

**J - fc3DFillHarsh (1 bit):** A bit that specifies the lighting algorithm on the secondary light source. The following table specifies the meaning of each value for this field. The default value for this property is 0x0.

| Value | Meaning  |
|-------|--|
| 0x0   | Specifies an infinite, uniform, planar light source. |
| 0x1   | Specifies a directional light source.                |

### 2.3.17 Diagram

The **Diagram** property set specifies the style and layout attributes of a **diagram**.

#### 2.3.17.1 dgmt

The **dgmt** property specifies the type of the **diagram**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dgmt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

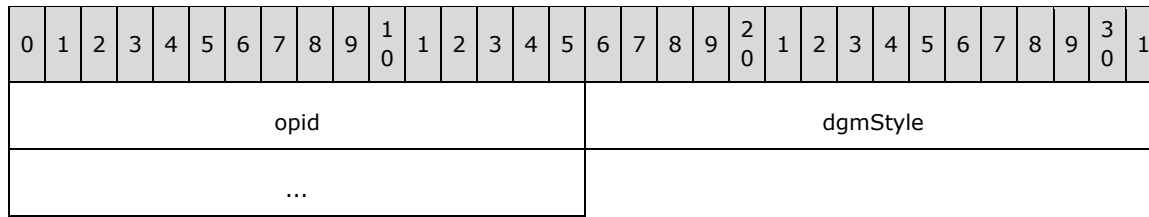
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0500. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmt (4 bytes):** An **MSODGMT** enumeration value, as defined in section [2.4.27](#), that specifies the type of the diagram. The default value for this property is 0x00000FFF.

#### 2.3.17.2 dgmStyle

The **dgmStyle** property specifies a **diagram** style.



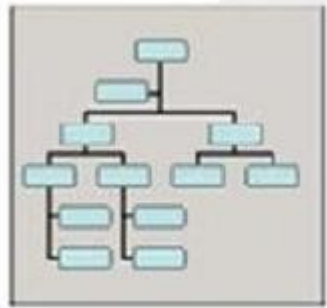
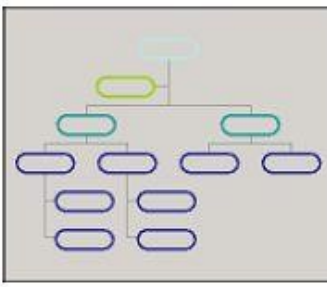
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

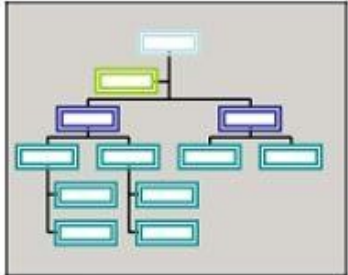
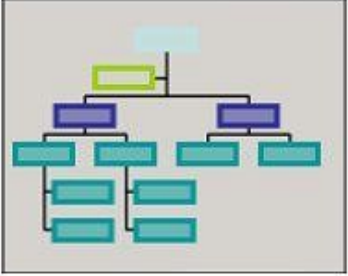
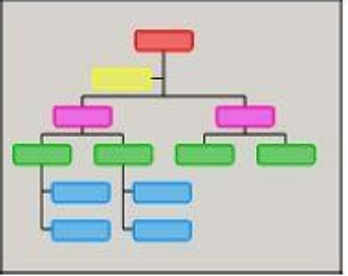
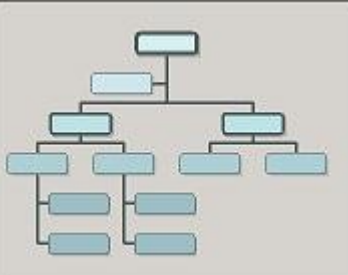
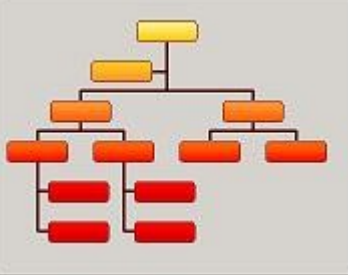
| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0501. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmStyle (4 bytes):** An enumeration value that specifies a diagram style. The meaning of this value depends on the value of the **dgmt** property, as defined in section [2.3.17.1](#). The default value for this property is **msodgmstNil**, which is represented as 0x0000FFFF.

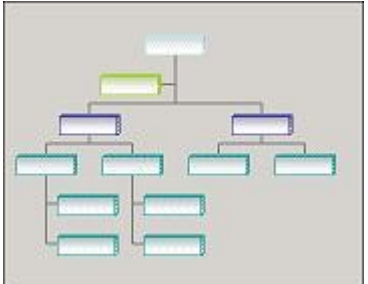
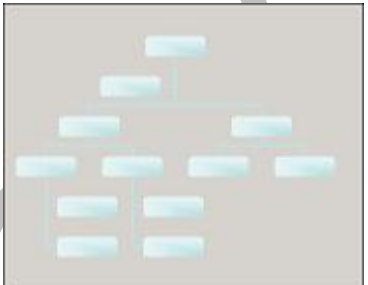
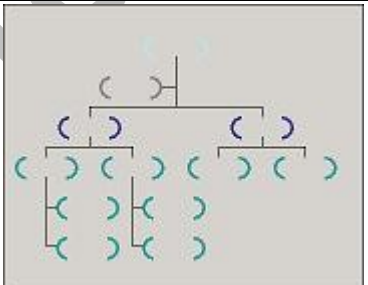
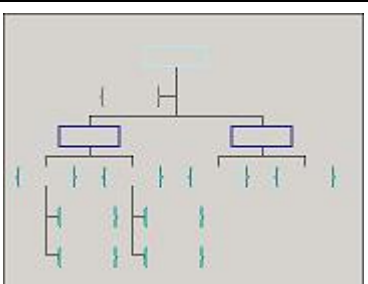
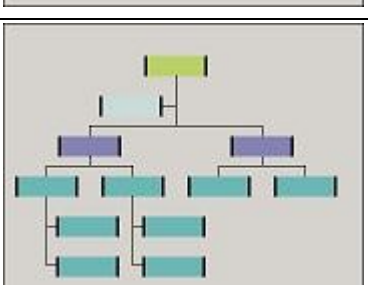
If the value of the **dgmt** property equals **msodgmtCanvas**, **dgmStyle** MUST be ignored.

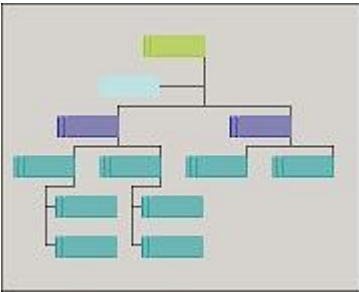
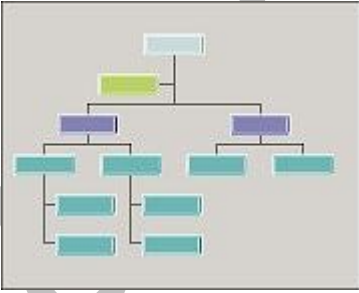
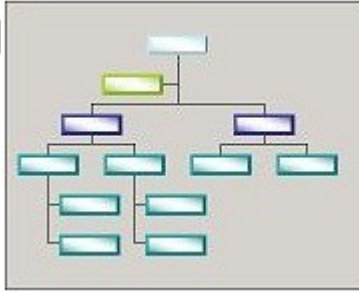
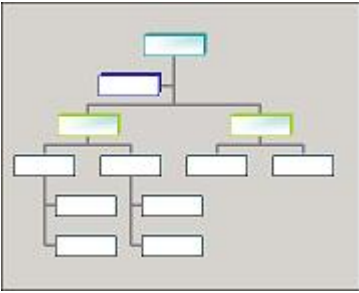
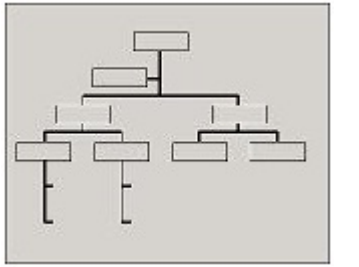
If the value of the **dgmt** property equals **msodgmtOrgChart**, **dgmStyle** MUST be a value from the enumeration that is listed in the following table.

| Name                         | Value      | Meaning | Style   |
|------------------------------|------------|---------|---|
| <b>msodgmstOrgChartFirst</b> | 0x00000000 | Default |  |
| <b>msodgmstOrgChart2</b>     | 0x00000001 | Outline |  |

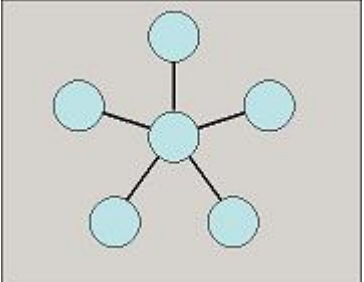

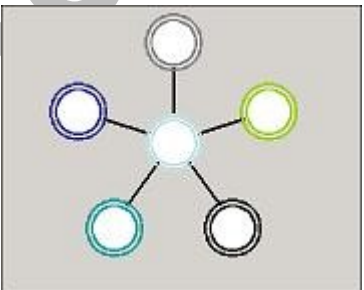

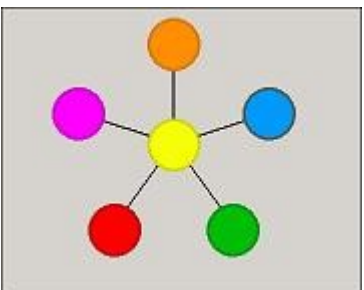
| Name                     | Value      | Meaning        | Style   |
|--------------------------|------------|----------------|---|
| <b>msodgmstOrgChart3</b> | 0x00000002 | Double outline |    |
| <b>msodgmstOrgChart4</b> | 0x00000003 | Thick outline  |    |
| <b>msodgmstOrgChart5</b> | 0x00000004 | Primary colors |   |
| <b>msodgmstOrgChart6</b> | 0x00000005 | Shaded         |  |
| <b>msodgmstOrgChart7</b> | 0x00000006 | Fire           |  |

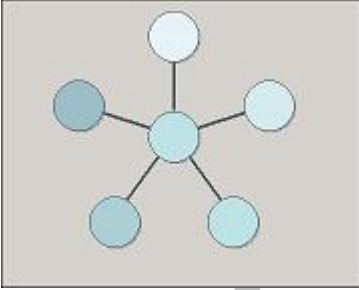
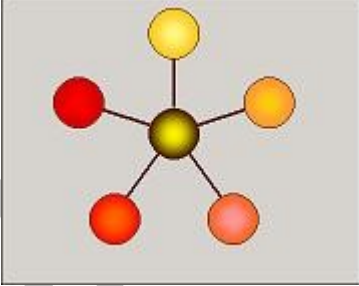
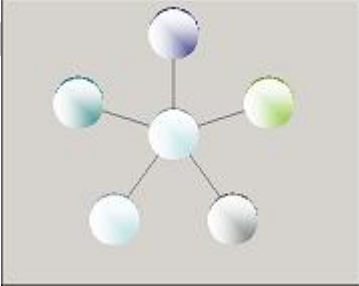
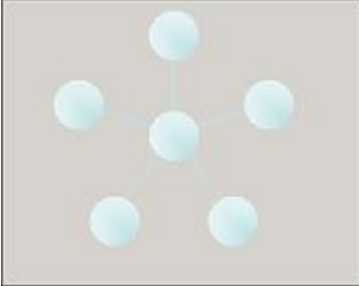
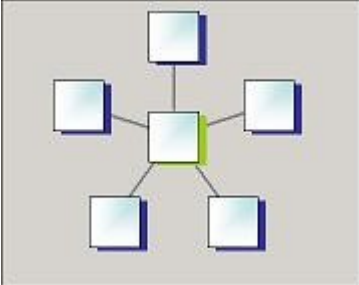


| Name                      | Value      | Meaning       | Style   |
|---------------------------|------------|---------------|---|
| <b>msodgmstOrgChart8</b>  | 0x00000007 | 3-D color     |    |
| <b>msodgmstOrgChart9</b>  | 0x00000008 | Gradient      |    |
| <b>msodgmstOrgChart10</b> | 0x00000009 | Brackets      |   |
| <b>msodgmstOrgChart11</b> | 0x0000000A | Braces        |  |
| <b>msodgmstOrgChart12</b> | 0x0000000B | Bookend fills |  |

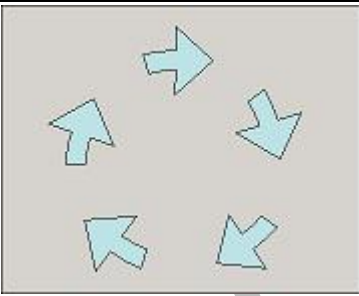
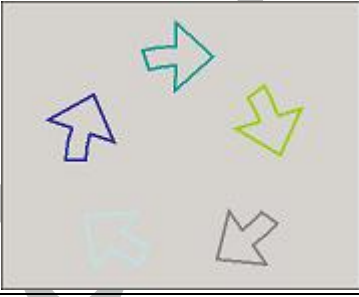
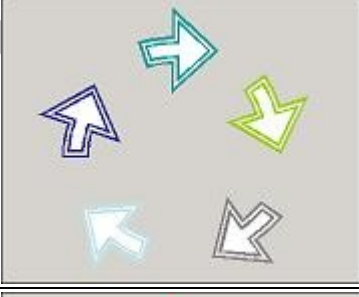

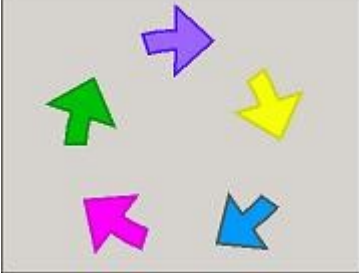
| Name                      | Value      | Meaning          | Style   |
|---------------------------|------------|------------------|---|
| <b>msodgmstOrgChart13</b> | 0x0000000C | Stripes          |    |
| <b>msodgmstOrgChart14</b> | 0x0000000D | Beveled          |    |
| <b>msodgmstOrgChart15</b> | 0x0000000E | Beveled gradient |   |
| <b>msodgmstOrgChart16</b> | 0x0000000F | Square shadows   |  |
| <b>msodgmstOrgChart17</b> | 0x00000010 | Wire frame       |  |

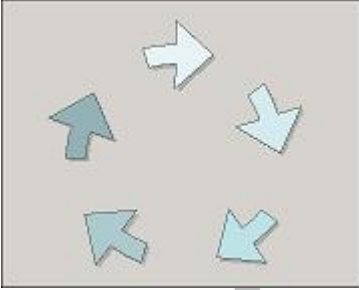
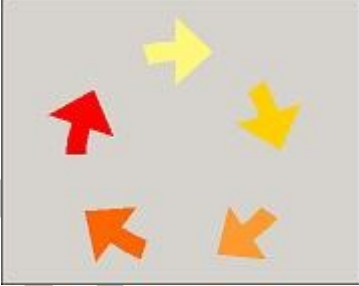
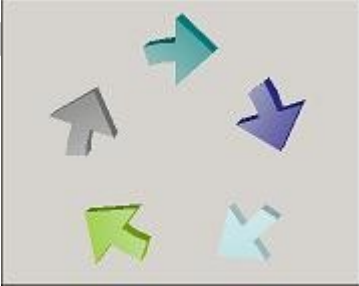

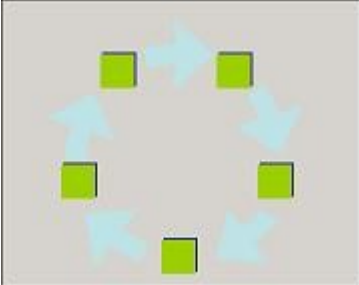
If the value of the **dgmt** property equals **msodgmtRadial**, **dgmStyle** MUST be a value from the enumeration that is listed in the following table.

| Name                       | Value      | Meaning        | Style   |
|----------------------------|------------|----------------|---|
| <b>msodgmstRadialFirst</b> | 0x00000000 | Default        |    |
| <b>msodgmstRadial2</b>     | 0x00000001 | Outline        |    |
| <b>msodgmstRadial3</b>     | 0x00000002 | Double outline |   |
| <b>msodgmstRadial4</b>     | 0x00000003 | Thick outline  |  |
| <b>msodgmstRadial5</b>     | 0x00000004 | Primary colors |  |

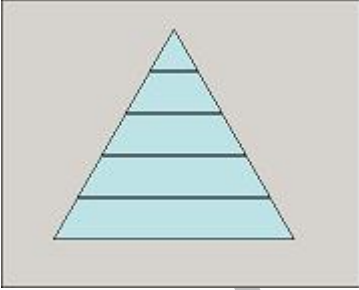
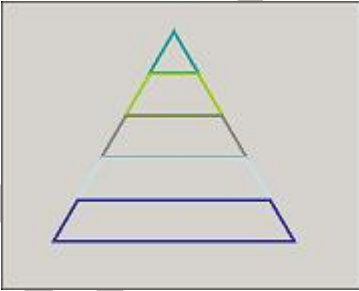
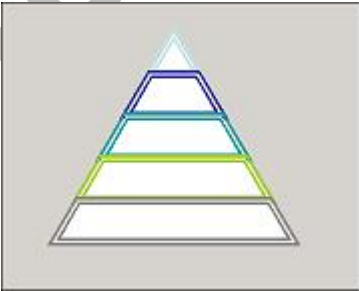
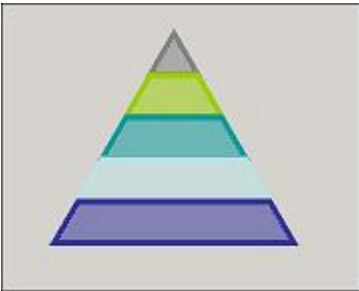
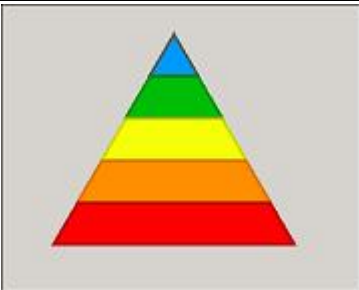
| Name                    | Value      | Meaning        | Style  |
|-------------------------|------------|----------------|--|
| <b>msodgmstRadial6</b>  | 0x00000005 | Shaded         |  A diagram with a central light blue node connected to five surrounding nodes. The nodes are shaded with a gradient from light blue to white.                           |
| <b>msodgmstRadial7</b>  | 0x00000006 | Fire           |  A diagram with a central yellow node connected to five surrounding nodes. The nodes are colored in a fire-themed palette: yellow, orange, and red.                     |
| <b>msodgmstRadial8</b>  | 0x00000007 | 3-D color      |  A diagram with a central white node connected to five surrounding nodes. The nodes are rendered with 3-D effects and various colors: purple, green, and white.        |
| <b>msodgmstRadial9</b>  | 0x00000008 | Gradient       |  A diagram with a central light blue node connected to five surrounding nodes. The nodes are rendered with a gradient effect, transitioning from light blue to white. |
| <b>msodgmstRadial10</b> | 0x00000009 | Square shadows |  A diagram with a central white square node connected to five surrounding square nodes. The nodes are rendered with a gradient and a shadow effect.                   |

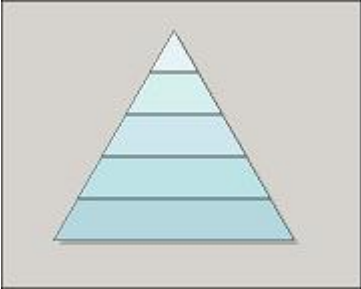



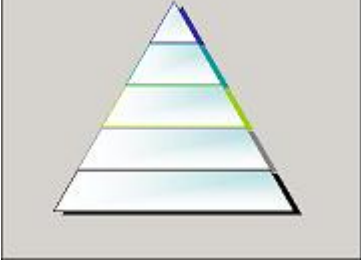
If the value of the **dgmt** property equals **msodgmtCycle**, **dgmStyle** MUST be a value from the enumeration that is listed in the following table.

| Name                   | Value      | Meaning        | Style   |
|------------------------|------------|----------------|---|
| <b>msodgmstCycle11</b> | 0x0000000A | Default        |    |
| <b>msodgmstCycle12</b> | 0x0000000B | Outline        |    |
| <b>msodgmstCycle13</b> | 0x0000000C | Double outline |   |
| <b>msodgmstCycle14</b> | 0x0000000D | Thick outline  |  |
| <b>msodgmstCycle15</b> | 0x0000000E | Primary colors |  |

| Name                   | Value      | Meaning        | Style   |
|------------------------|------------|----------------|---|
| <b>msodgmstCycle16</b> | 0x0000000F | Shaded         |    |
| <b>msodgmstCycle17</b> | 0x00000010 | Fire           |    |
| <b>msodgmstCycle18</b> | 0x00000011 | 3-D color      |   |
| <b>msodgmstCycle19</b> | 0x00000012 | Gradient       |  |
| <b>msodgmstCycle20</b> | 0x00000013 | Square shadows |  |


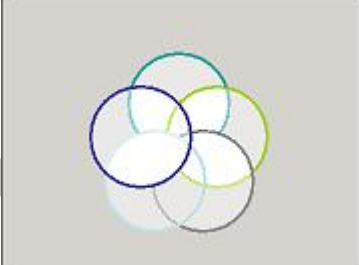
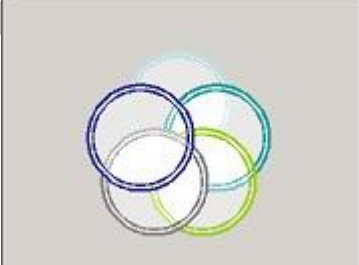

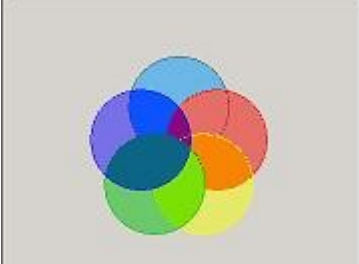
If the value of the **dgmt** property equals **msodgmtStacked**, **dgmStyle** MUST be a value from the enumeration that is listed in the following table.

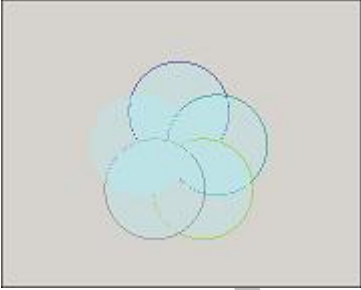
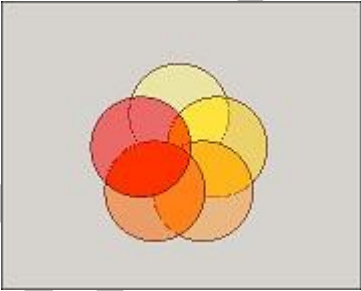
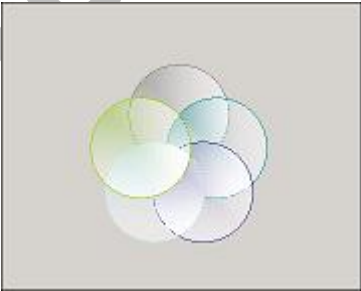

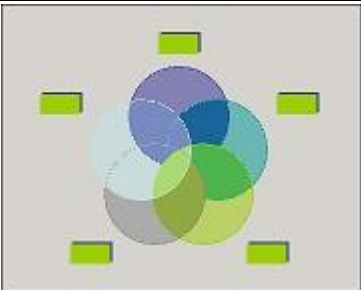
| Name                        | Value      | Meaning        | Style   |
|-----------------------------|------------|----------------|---|
| <b>msodgmstStackedFirst</b> | 0x00000000 | Default        |    |
| <b>msodgmstStacked2</b>     | 0x00000001 | Outline        |    |
| <b>msodgmstStacked3</b>     | 0x00000002 | Double outline |   |
| <b>msodgmstStacked4</b>     | 0x00000003 | Thick outline  |  |
| <b>msodgmstStacked5</b>     | 0x00000004 | Primary colors |  |

| Name                     | Value      | Meaning        | Style   |
|--------------------------|------------|----------------|---|
| <b>msodgmstStacked6</b>  | 0x00000005 | Shaded         |    |
| <b>msodgmstStacked7</b>  | 0x00000006 | Fire           |    |
| <b>msodgmstStacked8</b>  | 0x00000007 | 3-D color      |   |
| <b>msodgmstStacked9</b>  | 0x00000008 | Gradient       |  |
| <b>msodgmstStacked10</b> | 0x00000009 | Square shadows |  |

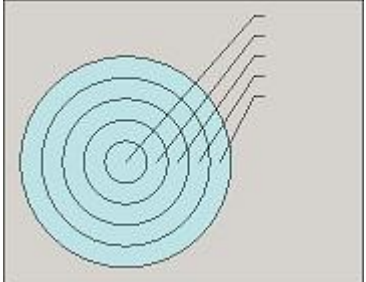
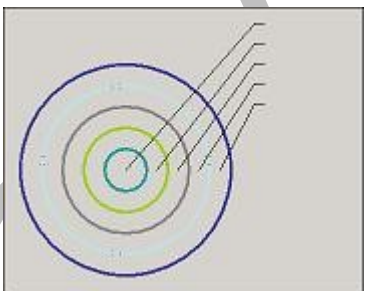
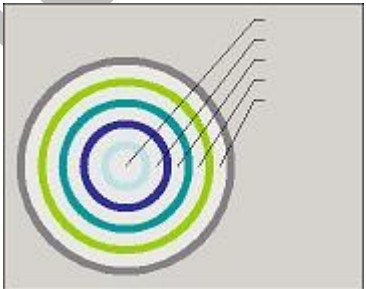
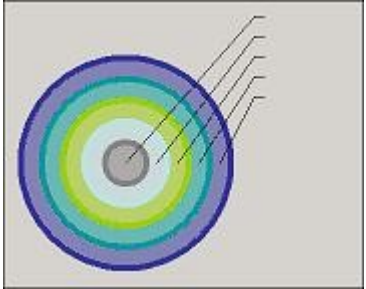
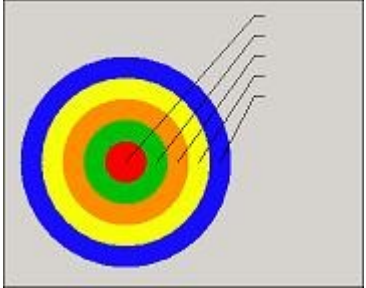
If the value of the **dgmt** property equals **msodgmtVenn**, **dgmStyle** MUST be a value from the enumeration that is listed in the following table.

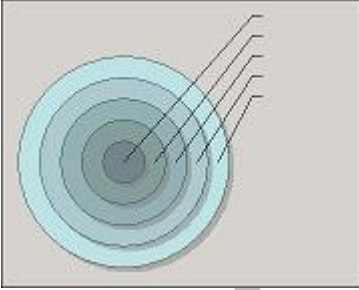
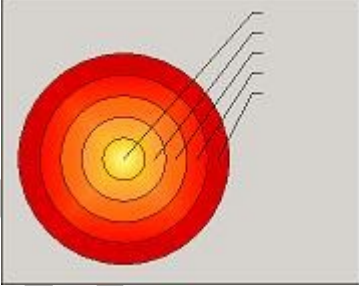
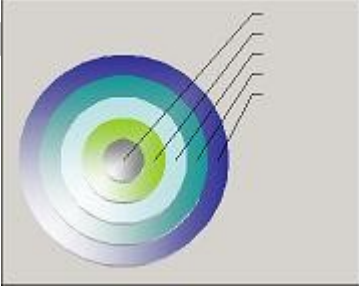
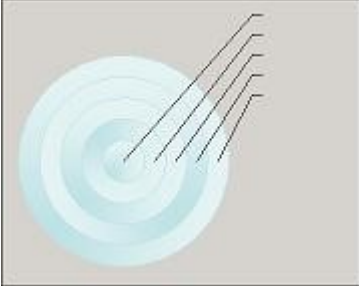
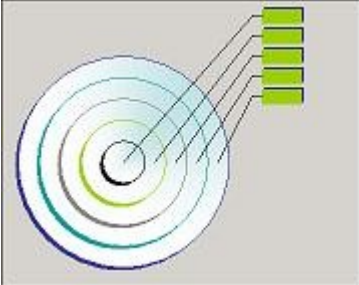


| Name                     | Value      | Meaning        | Style   |
|--------------------------|------------|----------------|---|
| <b>msodgmstVennFirst</b> | 0x00000000 | Default        |    |
| <b>msodgmstVenn2</b>     | 0x00000001 | Outline        |    |
| <b>msodgmstVenn3</b>     | 0x00000002 | Double outline |   |
| <b>msodgmstVenn4</b>     | 0x00000003 | Thick outline  |  |
| <b>msodgmstVenn5</b>     | 0x00000004 | Primary colors |  |

| Name                  | Value      | Meaning        | Style   |
|-----------------------|------------|----------------|---|
| <b>msodgmstVenn6</b>  | 0x00000005 | Shaded         |    |
| <b>msodgmstVenn7</b>  | 0x00000006 | Fire           |    |
| <b>msodgmstVenn8</b>  | 0x00000007 | 3-D color      |   |
| <b>msodgmstVenn9</b>  | 0x00000008 | Gradient       |  |
| <b>msodgmstVenn10</b> | 0x00000009 | Square shadows |  |

If the value of the **dgmt** property equals **msodgmtBullsEye**, **dgmStyle** MUST be a value from the enumeration that is listed in the following table.

| Name                         | Value      | Meaning        | Style   |
|------------------------------|------------|----------------|---|
| <b>msodgmstBullsEyeFirst</b> | 0x00000000 | Default        |    |
| <b>msodgmstBullsEye2</b>     | 0x00000001 | Outline        |    |
| <b>msodgmstBullsEye3</b>     | 0x00000002 | Double outline |   |
| <b>msodgmstBullsEye4</b>     | 0x00000003 | Thick outline  |  |
| <b>msodgmstBullsEye5</b>     | 0x00000004 | Primary colors |  |

| Name                      | Value      | Meaning        | Style   |
|---------------------------|------------|----------------|---|
| <b>msodgmstBullsEye6</b>  | 0x00000005 | Shaded         |    |
| <b>msodgmstBullsEye7</b>  | 0x00000006 | Fire           |    |
| <b>msodgmstBullsEye8</b>  | 0x00000007 | 3-D color      |   |
| <b>msodgmstBullsEye9</b>  | 0x00000008 | Gradient       |  |
| <b>msodgmstBullsEye10</b> | 0x00000009 | Square shadows |  |

### 2.3.17.3 pRelationTbl

The **pRelationTbl** property specifies relationships in a **diagram**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pRelationTbl |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0504.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pRelationTbl_complex</b> property, as defined in section <a href="#">2.3.17.4</a> , exists. If the value equals 0x1, <b>pRelationTbl_complex</b> MUST exist. |

**pRelationTbl (4 bytes):** The number of bytes of data in the **pRelationTbl\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.17.4 pRelationTbl\_complex

The **pRelationTbl\_complex** property specifies additional data for the **pRelationTbl** property, as defined in section [2.3.17.3](#). If the **opid.fComplex** bit of **pRelationTbl** equals 0x1, this property MUST exist.

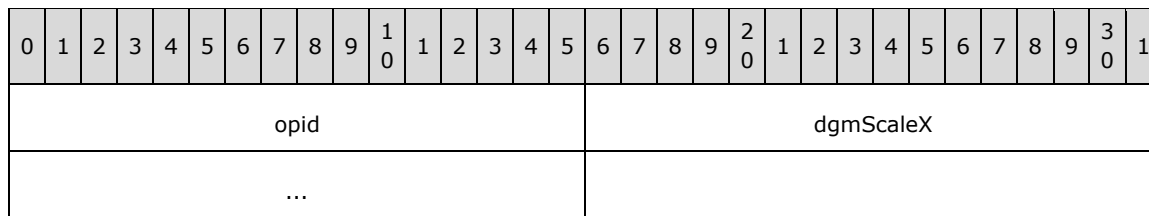
|                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pRelationTbl_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pRelationTbl\_complex (variable):** An **IMsoArray** record, as defined in section [2.2.51](#), that specifies relationships in a **diagram**. Each array element describes a connection between two **shapes**. Each element is 12 bytes and consists of three values of type **MSOSPID**, as defined in section [2.1.2](#).

The three **MSOSPID** values specify the source shape, the destination shape, and the **connector** shape, in that order. Each array element specifies a connection from the source to the destination via the connector.

### 2.3.17.5 dgmScaleX

The **dgmScaleX** property specifies the amount to scale along the x-axis.



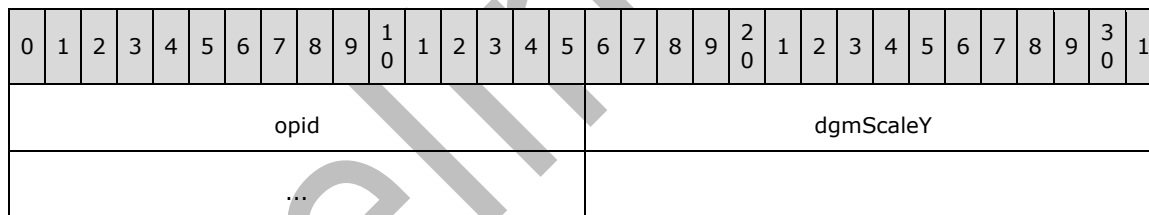
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0505. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmScaleX (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to scale along the x-axis. The default value for this property is 0x00010000.

### 2.3.17.6 dgmScaleY

The **dgmScaleY** property specifies the amount to scale along the y-axis.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0506. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmScaleY (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to scale along the y-axis. The default value for this property is 0x00010000.

### 2.3.17.7 dgmDefaultFontSize

The **dgmDefaultFontSize** property specifies the default font size for new text in the **diagram**.

|      |   |   |   |   |   |   |   |   |   |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | dgmDefaultFontSize |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0507. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmDefaultFontSize (4 bytes):** A signed integer that specifies the default font size, in **points**, for new text in the diagram. A value of 0xFFFFFFFF MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.17.8 dgmConstrainBounds

The **dgmConstrainBounds** property specifies the bounds of the **diagram**.

|      |   |   |   |   |   |   |   |   |   |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    | dgmConstrainBounds |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

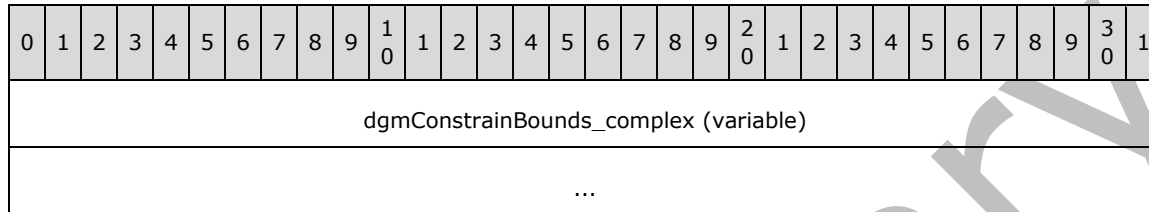
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0508.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>dgmConstrainBounds_complex</b> property, as defined in section <a href="#">2.3.17.9</a> , exists. If the value equals 0x1, <b>dgmConstrainBounds_complex</b> MUST exist. |

**dgmConstrainBounds (4 bytes):** The number of bytes of data in the **dgmConstrainBounds\_complex** property, as defined in section 2.3.17.9. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.17.9 dgmConstrainBounds\_complex

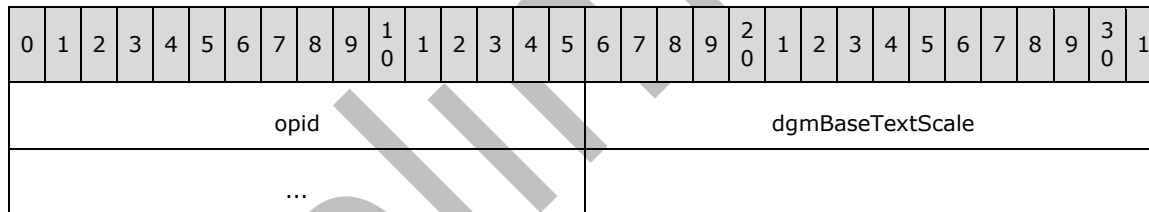
The **dgmConstrainBounds\_complex** property specifies additional data for the **dgmConstrainBounds** property, as defined in section 2.3.17.8. If the **opid.fComplex** bit of **dgmConstrainBounds** equals 0x1, this property MUST exist.



**dgmConstrainBounds\_complex (variable):** An **IMsoArray** record, as defined in section 2.2.51, that specifies the bounds of the **diagram**. Each element in this array is a 32-bit signed integer. The value of **dgmConstrainBounds\_complex.nElems** MUST equal 0x0004. The four elements of this array specify, in order, the left, top, right, and bottom bound, in application-defined coordinates, of the diagram.

### 2.3.17.10 dgmBaseTextScale

The **dgmBaseTextScale** property specifies the amount to scale text. This property MAY [<47>](#) be ignored.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0509. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dgmBaseTextScale (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the amount to scale text. The default value for this property is 0x00010000.



### 2.3.17.11 Diagram Boolean Properties

The **Diagram Boolean Properties** specify a 32-bit field of Boolean properties for a **diagram**.

|         |   |   |   |   |   |   |   |   |   |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10      | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   | unused1 |    |    |    |    |    |    |    |    |    | A  | B  | C  | D  | E  | F  |    |    |    |    |    |    |
| unused4 |   |   |   |   |   |   |   |   |   | G       | H  | I  | J  | K  | L  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x053F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (10 bits):** A value that is undefined and MUST be ignored.

**A - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**B - unused3 (1 bit):** A value that is undefined and MUST be ignored.

**C - fUsefDoFormat (1 bit):** A bit that specifies whether the **fDoFormat** bit is set. A value of 0x0 specifies that the **fDoFormat** bit MUST be ignored. The default value for this property is 0x0.

**D - fUsefReverse (1 bit):** A bit that specifies whether the **fReverse** bit is set. A value of 0x0 specifies that the **fReverse** bit MUST be ignored. The default value for this property is 0x0.

**E - fUsefDoLayout (1 bit):** A bit that specifies whether the **fDoLayout** bit is set. A value of 0x0 specifies that the **fDoLayout** bit MUST be ignored. The default value for this property is 0x0.

**F - fUsefPseudoInline (1 bit):** A bit that specifies whether the **fPseudoInline** bit is set. A value of 0x0 specifies that the **fPseudoInline** bit MUST be ignored. The default value for this property is 0x0.

**unused4 (10 bits):** A value that is undefined and MUST be ignored.

**G - unused5 (1 bit):** A value that is undefined and MUST be ignored.

**H - unused6 (1 bit):** A value that is undefined and MUST be ignored.

**I - fDoFormat (1 bit):** A bit that specifies whether the **dgmStyle** property, as defined in section [2.3.17.2](#), specifies a nondefault formatting style for the diagram type. This value MUST be ignored if **fUsefDoFormat** is 0x0. The default value for this property is 0x0.

**J - fReverse (1 bit):** A bit that specifies whether the diagram is horizontally mirrored. This value MUST be ignored if **fUsefReverse** is 0x0. The default value for this property is 0x0.

**K - fDoLayout (1 bit):** A bit that specifies whether the diagram has a layout that is not directly editable. This value MUST be ignored if **fUsefDoLayout** is 0x0. The default value for this property is 0x1.

**L - fPseudoInline (1 bit):** A bit that specifies whether the diagram is placed inline with surrounding text. This value MUST be ignored if **fUsefPseudoInline** is 0x0. The default value for this property is 0x0.

### 2.3.18 Transform

The **Transform** property set specifies the values that are necessary to construct a transform that is applied to a **shape** prior to rendering.

#### 2.3.18.1 left

The **left** property specifies the left side of the **bounding rectangle** that contains an object.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | left |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0000. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**left (4 bytes):** A signed integer that specifies the left side, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000000.

#### 2.3.18.2 top

The **top** property specifies the top of the **bounding rectangle** that contains an object.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | top |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0001. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**top (4 bytes):** A signed integer that specifies the top, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000000.

### 2.3.18.3 right

The **right** property specifies the right side of the **bounding rectangle** that contains an object.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | right |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0002. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**right (4 bytes):** A signed integer that specifies the right side, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000001.

### 2.3.18.4 bottom

The **bottom** property specifies the bottom of the **bounding rectangle** that contains an object.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | bottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0003. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**bottom (4 bytes):** A signed integer value that specifies the bottom, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000001.

### 2.3.18.5 rotation

The **rotation** property specifies the rotation on a **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | rotation |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0004. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**rotation (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the rotation, in degrees, that is applied to a shape. Positive values specify rotation in the clockwise direction. Negative values specify rotation in the counterclockwise direction. Rotation occurs around the center of the shape. The default value for this property is 0x00000000.

### 2.3.18.6 gvPage

The **gvPage** property specifies the page on which an object is located. This property SHOULD [<48>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | gvPage |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0005. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**gvPage (4 bytes):** An unsigned integer that specifies the page on which an object is located. The default value for this property is 0x00000000.

### 2.3.18.7 Transform Boolean Properties

The **Transform Boolean Properties** specify a 32-bit field of Boolean properties for the **shape** transform.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    | A  | B  | C  |    |    |    |
| unused3 |   |   |   |   |   |   |   |   |   |    |    | D  | E  | F  |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x003F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (13 bits):** A value that is undefined and MUST be ignored.

**A - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**B - fUseFlipV (1 bit):** A bit that specifies whether the **fFlipV** bit is set. A value of 0x0 specifies that the **fFlipV** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**C - fUseFlipH (1 bit):** A bit that specifies whether the **fFlipH** bit is set. A value of 0x0 specifies that the **fFlipH** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**unused3 (13 bits):** A value that is undefined and MUST be ignored.

**D - unused4 (1 bit):** A value that is undefined and MUST be ignored.

**E - fFlipV (1 bit):** A bit that specifies whether the object will be flipped along the vertical axis. This value MUST be ignored if **fUseFlipV** is 0x0. The default value of this property is 0x0.

**F - fFlipH (1 bit):** A bit that specifies whether the object will be flipped along the horizontal axis. This value MUST be ignored if **fUseFlipH** is 0x0. The default value of this property is 0x0.

### 2.3.19 Relative Transform

The **Relative Transform** property set specifies the values that are necessary to construct a transform, relative to another **shape**, that is applied to a shape prior to rendering.

#### 2.3.19.1 relLeft

The **relLeft** property specifies the left side of the **bounding rectangle** that contains an object. The bounding rectangle specifies the location of the object, relative to a parent object or **group**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | relLeft |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03C0. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**relLeft (4 bytes):** A signed integer that specifies the left side, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000000.

#### 2.3.19.2 relTop

The **relTop** property specifies the top of the **bounding rectangle** that contains an object. The bounding rectangle specifies the location of the object, relative to a parent object or **group**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16     | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | relTop |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03C1. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**relTop (4 bytes):** A signed integer that specifies the top, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000000.

### 2.3.19.3 relRight

The **relRight** property specifies the right side of the **bounding rectangle** that contains an object. The bounding rectangle specifies the location of the object, relative to a parent object or **group**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | relRight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03C2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**relRight (4 bytes):** A signed integer that specifies the right side, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000001.

### 2.3.19.4 relBottom

The **relBottom** property specifies the bottom of the **bounding rectangle** that contains an object. The bounding rectangle specifies the location of the object, relative to a parent object or **group**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | relBottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03C3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**relBottom (4 bytes):** A signed integer that specifies the bottom, in application-defined coordinates, of the bounding rectangle. The default value for this property is 0x00000001.

### 2.3.19.5 relRotation

The **relRotation** property specifies the rotation on a **shape**, relative to the parent object or **group**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | relRotation |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03C4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |



**relRotation (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the rotation, in degrees, that is applied to a shape, relative to the parent object or group. Positive values specify rotation in the clockwise direction. Negative values specify rotation in the counterclockwise direction. Rotation occurs around the center of the shape. The default value for this property is 0x00000000.

### 2.3.19.6 gvRelPage

The **gvRelPage** property specifies the page on which an object is located, relative to a parent object or **group**. This property SHOULD [<49>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | gvRelPage |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x03C5. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**gvRelPage (4 bytes):** An unsigned integer that specifies the page on which an object is located, relative to a parent object or group. The default value for this property is 0x00000000.

### 2.3.19.7 Relative Transform Boolean Properties

The **Relative Transform Boolean Properties** specify a 32-bit field of Boolean properties for the relative transform of the **shape**.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    | A  | B  | C  |    |    |    |
| unused3 |   |   |   |   |   |   |   |   |   |    |    | D  | E  | F  |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x03FF. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**unused1 (13 bits):** A value that is undefined and MUST be ignored.

**A - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**B - fUseRelFlipV (1 bit):** A bit that specifies whether the **fRelFlipV** bit is set. A value of 0x0 specifies that the **fRelFlipV** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**C - fUseRelFlipH (1 bit):** A bit that specifies whether the **fRelFlipH** bit is set. A value of 0x0 specifies that the **fRelFlipH** bit MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused3 (13 bits):** A value that is undefined and MUST be ignored.

**D - unused4 (1 bit):** A value that is undefined and MUST be ignored.

**E - fRelFlipV (1 bit):** A bit that specifies whether the object will be flipped along the vertical axis, relative to its parent or **group**. This value MUST be ignored if **fUseRelFlipV** is 0x0. The default value for this property is 0x0.

**F - fRelFlipH (1 bit):** A bit that specifies whether the object will be flipped along the horizontal axis, relative to its parent or group. This value MUST be ignored if **fUseRelFlipH** is 0x0. The default value for this property is 0x0.

### 2.3.20 Protection

The **Protection** property set specifies the protection attributes that apply to a **shape**.

#### 2.3.20.1 Protection Boolean Properties

The **Protection Boolean Properties** specify a 32-bit field of Boolean properties for the protection of the **shape**.

|         |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    | unused1 |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |    |    |    |    |    |    |    |
| unused2 |   |   |   |   |   | K | L | M | N | O  | P       | Q  | R  | S  | T  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x007F. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**unused1 (6 bits):** A value that is undefined and MUST be ignored.

**A - fUsefLockAgainstUngrouping (1 bit):** A bit that specifies whether the **fLockAgainstUngrouping** bit is set. A value of 0x0 specifies that the **fLockAgainstUngrouping** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**B - fUsefLockRotation (1 bit):** A bit that specifies whether the **fLockRotation** bit is set. A value of 0x0 specifies that the **fLockRotation** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**C - fUsefLockAspectRatio (1 bit):** A bit that specifies whether the **fLockAspectRatio** bit is set. A value of 0x0 specifies that the **fLockAspectRatio** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**D - fUsefLockPosition (1 bit):** A bit that specifies whether the **fLockPosition** bit is set. A value of 0x0 specifies that the **fLockPosition** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**E - fUsefLockAgainstSelect (1 bit):** A bit that specifies whether the **fLockAgainstSelect** bit is set. A value of 0x0 specifies that the **fLockAgainstSelect** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**F - fUsefLockCropping (1 bit):** A bit that specifies whether the **fLockCropping** bit is set. A value of 0x0 specifies that the **fLockCropping** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**G - fUsefLockVertices (1 bit):** A bit that specifies whether the **fLockVertices** bit is set. A value of 0x0 specifies that the **fLockVertices** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**H - fUsefLockText (1 bit):** A bit that specifies whether the **fLockText** bit is set. A value of 0x0 specifies that the **fLockText** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**I - fUsefLockAdjustHandles (1 bit):** A bit that specifies whether the **fLockAdjustHandles** bit is set. A value of 0x0 specifies that the **fLockAdjustHandles** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**J - fUsefLockAgainstGrouping (1 bit):** A bit that specifies whether the **fLockAgainstGrouping** bit is set. A value of 0x0 specifies that the **fLockAgainstGrouping** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**unused2 (6 bits):** A value that is undefined and MUST be ignored.

**K - fLockAgainstUngrouping (1 bit):** A bit that specifies whether a grouped shape is be locked from being ungrouped. This bit MAY [<50>](#) be ignored. This value MUST be ignored if **fUsefLockAgainstUngrouping** is 0x0. The default value of this property is 0x0.

**L - fLockRotation (1 bit):** A bit that specifies whether the rotation of a shape is be locked from being edited. This value MUST be ignored if **fUsefLockRotation** is 0x0. The default value of this property is 0x0.

**M - fLockAspectRatio (1 bit):** A bit that specifies whether the aspect ratio of a shape is be locked from being edited. This value MUST be ignored if **fUsefLockAspectRatio** is 0x0. The default value of this property is 0x0.

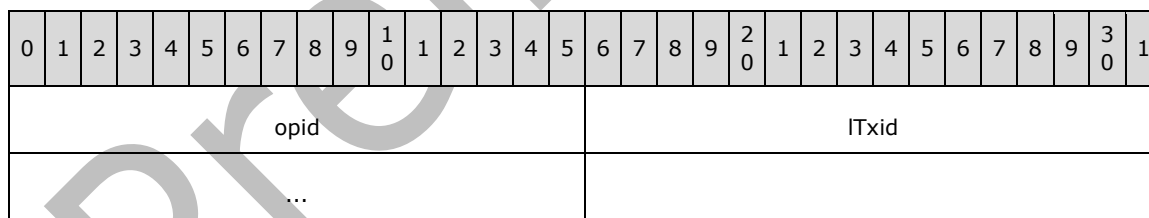
- N - fLockPosition (1 bit):** A bit that specifies whether the position of a shape is be locked from being edited. This value MUST be ignored if **fUsefLockPosition** is 0x0. The default value of this property is 0x0.
- O - fLockAgainstSelect (1 bit):** A bit that specifies whether the shape is be locked from being selectable in an editor application. This value MUST be ignored if **fUsefLockAgainstSelect** is 0x0. The default value of this property is 0x0.
- P - fLockCropping (1 bit):** A bit that specifies whether the cropping of a picture is be locked from being edited. This value MUST be ignored if **fUsefLockCropping** is 0x0. The default value of this property is 0x0.
- Q - fLockVertices (1 bit):** A bit that specifies whether the vertices of a path is be locked from being edited. This value MUST be ignored if **fUsefLockVertices** is 0x0. The default value of this property is 0x0.
- R - fLockText (1 bit):** A bit that specifies whether the text that is attached to a shape is be locked from being edited. This value MUST be ignored if **fUsefLockText** is 0x0. The default value of this property is 0x0.
- S - fLockAdjustHandles (1 bit):** A bit that specifies whether the **adjust handles** of a shape, as specified by the **pAdjustHandles\_complex** property, as defined in section [2.3.6.25](#), is locked from being edited. This value MUST be ignored if **fUsefLockAdjustHandles** is 0x0. The default value of this property is 0x0.
- T - fLockAgainstGrouping (1 bit):** A bit that specifies whether the shape is locked from being grouped with other shapes. This value MUST be ignored if **fUsefLockAgainstGrouping** is 0x0. The default value of this property is 0x0.

### 2.3.21 Text

The **Text** property set specifies properties for text that is contained by **shapes**.

#### 2.3.21.1 ITxid

The **ITxid** property specifies an identifier for the text.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0080. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**ITxid (4 bytes):** A signed integer that specifies an identifier for the text. This value is determined by the host application. The default value for this property is 0x00000000.

### 2.3.21.2 dxTextLeft

The **dxTextLeft** property specifies the size of the margin to the left of the text.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dxTextLeft |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0081. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxTextLeft (4 bytes):** A signed integer that specifies the size, in **EMUs**, of the margin inside the containing **shape** to the left of the text. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00016530.

### 2.3.21.3 dyTextTop

The **dyTextTop** property specifies the size of the margin above the text.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | dyTextTop |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0082. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**dyTextTop (4 bytes):** A signed integer that specifies the size, in **EMUs**, of the margin inside the containing **shape** above the text. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x0000B298.

### 2.3.21.4 dxTextRight

The **dxTextRight** property specifies the size of the margin to the right of the text.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17          | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | dxTextRight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0083. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dxTextRight (4 bytes):** A signed integer that specifies the size, in **EMUs**, of the margin inside the containing **shape** to the right of the text. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x00016530.

### 2.3.21.5 dyTextBottom

The **dyTextBottom** property specifies the size of the margin below the text.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17           | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | dyTextBottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0084. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**dyTextBottom (4 bytes):** A signed integer that specifies the size, in **EMUs**, of the margin inside the containing **shape** below the text. This value MUST be from 0x00000000 through 0x0132F540, inclusive. The default value for this property is 0x0000B298.

### 2.3.21.6 WrapText

The **WrapText** property specifies the type of wrapping that is applied to the text.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | WrapText |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0085. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**WrapText (4 bytes):** An **MSOWRAPMODE** enumeration value, as defined in section [2.4.3](#), specifying the type of wrapping that is applied to the text. The default value for this property is **msowrapSquare**.

### 2.3.21.7 unused134

The **unused134** property is undefined and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused134 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0086. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused134 (4 bytes):** A value that is undefined and MUST be ignored.

### 2.3.21.8 anchorText

The **anchorText** property specifies the type of **anchor** that is applied to the text. This value MAY [<51>](#) be used.

| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | anchorText |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0087. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**anchorText (4 bytes):** An **MSOANCHOR** enumeration value, as defined in section [2.4.4](#), specifying the type of anchor that is applied to the text. The default value for this property is **msoanchorTop**.

### 2.3.21.9 txflTextFlow

The **txflTextFlow** property specifies the type of flow that is applied to the text.

| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | txflTextFlow |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0088. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**txflTextFlow (4 bytes):** An **MSOTXFL** enumeration value, as defined in section [2.4.5](#), specifying the type of flow that is applied to the text. The default value for this property is **msotxflHorzN**.

### 2.3.21.10 cdirFont

The **cdirFont** property specifies the rotation that is applied to the text. This property MAY [<52>](#) be used.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | cdirFont |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0089. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cdirFont (4 bytes):** An **MSOCDIR** enumeration value, as defined in section [2.4.6](#), specifying the rotation that is applied to the text. The default value for this property is **msocdir0**.

### 2.3.21.11 hspNext

The **hspNext** property specifies the next **shape** in a sequence of linked shapes. This property MAY [<53>](#) be used.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | hspNext |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x008A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**hspNext (4 bytes):** A value of type **MSOSPID**, as defined in section [2.1.2](#), that specifies the next shape in a sequence of linked shapes. The default value for this property is 0x00000000.

### 2.3.21.12 txdir

The **txdir** property specifies the direction of the text. This property MAY [<54>](#) be used.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | txdir |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x008B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**txdir (4 bytes):** An **MSOTXDIR** enumeration value, as defined in section [2.4.7](#), that specifies the direction of the text. The default value for this property is **msotxdirLTR**.

### 2.3.21.13 unused140

The **unused140** property is undefined and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused140 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x008C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused140 (4 bytes):** A value that is undefined and MUST be ignored.

### 2.3.21.14 unused141

The **unused141** property is undefined and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused141 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x008D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused141 (4 bytes):** A value that is undefined and MUST be ignored.

### 2.3.21.15 Text Boolean Properties

The **Text Boolean Properties** specify a 32-bit field of Boolean properties for the text that is contained by a **shape**.

|         |   |   |   |   |   |   |   |   |   |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11      | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    | unused1 |    |    |    |    |    |    |    |    |    |    | A  | B  | C  | D  | E  |    |    |    |    |    |
| unused4 |   |   |   |   |   |   |   |   |   |    | F       | G  | H  | I  | J  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x00BF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (11 bits):** A value that is undefined and MUST be ignored.

**A - fUsefSelectText (1 bit):** A bit that specifies whether the **fSelectText** bit is set. A value of 0x0 specifies that the **fSelectText** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**B - fUsefAutoTextMargin (1 bit):** A bit that specifies whether the **fAutoTextMargin** bit is set. A value of 0x0 specifies that the **fAutoTextMargin** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**C - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**D - fUsefFitShapeToText (1 bit):** A bit that specifies whether the **fFitShapeToText** bit is set. A value of 0x0 specifies that the **fFitShapeToText** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.

**E - unused3 (1 bit):** A value that is undefined and MUST be ignored.

**unused4 (11 bits):** A value that is undefined and MUST be ignored.

**F - fSelectText (1 bit):** A bit that specifies whether the containing shape SHOULD [<55>](#) enter a text editing mode when the user clicks the contained text area. A value of 0x0 specifies that a single click selects the shape and that a second click will enter a text editing mode. This value MUST be ignored if **fUsefSelectText** is 0x0. The default value of this property is 0x1.

**G - fAutoTextMargin (1 bit):** A bit that specifies whether the containing shape SHOULD [<56>](#) use a set of default internal margins for text on shapes. A value of 0x0 specifies that the internal margins of the containing shape will assume the values that are specified by the [dxTextLeft](#), [dyTextTop](#), [dxTextRight](#), and [dyTextBottom](#) properties in the containing **OfficeArtRGFOPE** record, as defined in section [2.3.1](#), using the default for any of these values that are not specified. This value MUST be ignored if **fUsefAutoTextMargin** is 0x0. The default value of this property is 0x0.

**H - unused5 (1 bit):** A value that is undefined and MUST be ignored.

**I - fFitShapeToText (1 bit):** A bit that specifies whether the containing shape SHOULD [adjust](#) its dimensions to fit its contained text. This value MUST be ignored if **fUseFitShapeToText** is 0x0. The default value of this property is 0x0.

**J - unused6 (1 bit):** A value that is undefined and MUST be ignored.

### 2.3.22 Geometry Text

The **Geometry Text** property set specifies text that is drawn to follow the geometry of the **shape** containing it, as opposed to text box text, which uses the geometry of the shape as a **bounding rectangle**. A shape SHOULD NOT have both **geometry text** and text for a text box.

#### 2.3.22.1 gtextUNICODE

The **gtextUNICODE** property specifies the text for this shape's **geometry text**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | gtextUNICODE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x00C0.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>gtextUNICODE_complex</b> property, as defined in section <a href="#">2.3.22.2</a> , exists. If the value equals 0x1, <b>gtextUNICODE_complex</b> MUST exist. |

**gtextUNICODE (4 bytes):** The number of bytes of data in the **gtextUNICODE\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

#### 2.3.22.2 gtextUNICODE\_complex

The **gtextUNICODE\_complex** property specifies additional data for the **gtextUNICODE** property, as defined in section [2.3.22.1](#). If the **opid.fComplex** bit of **gtextUNICODE** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| gtextUNICODE_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**gtextUNICODE\_complex (variable):** A null-terminated **Unicode** string that specifies the text to show.

### 2.3.22.3 gtextAlign

The **gtextAlign** property specifies how **geometry text** is aligned on this **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | gtextAlign |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x00C2. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

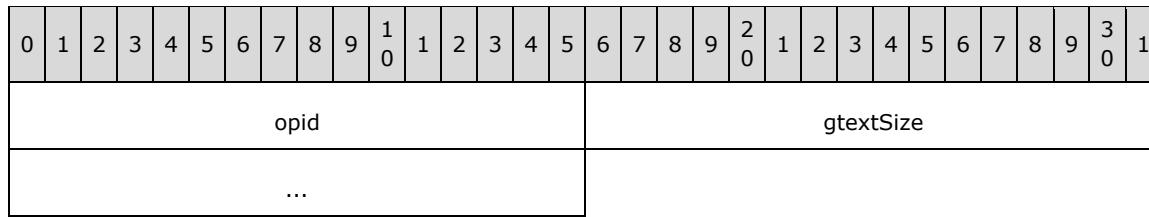
**gtextAlign (4 bytes):** An unsigned integer that specifies how geometry text is aligned on this shape. The alignment is applicable only if space remains after laying out a line of text along the geometry of the shape. The curve on which a single line of text is laid out is known as the path of that text. The allowed values are shown in the following table. The default value for this property is **msoalignTextCenter**.

| Name                       | Value      | Meaning   |
|----------------------------|------------|---|
| <b>msoalignTextStretch</b> | 0x00000000 | Text SHOULD <a href="#">&lt;58&gt;</a> be stretched to fill the entire length of the path:<br><br><b>Multiple Lines<br/>of Text</b> |
| <b>msoalignTextCenter</b>  | 0x00000001 | Text is centered along the length of the path:  |

| Name                          | Value      | Meaning   |
|-------------------------------|------------|---|
|                               |            | <b>Multiple Lines<br/>of Text</b>   |
| <b>msoalignTextLeft</b>       | 0x00000002 | Text is placed at the beginning of the path:<br><b>Multiple Lines<br/>of Text</b>   |
| <b>msoalignTextRight</b>      | 0x00000003 | Text is placed at the end of the path:<br><b>Multiple Lines<br/>of Text</b>   |
| <b>msoalignTextLetterJust</b> | 0x00000004 | Spacing between individual letters SHOULD <a href="#">&lt;59&gt;</a><br>be added so that the letters fill the entire path:<br><b>Multiple Lines<br/>o f T e x t</b> |
| <b>msoalignTextWordJust</b>   | 0x00000005 | Spacing between individual words SHOULD <a href="#">&lt;60&gt;</a><br>be added so that the words fill the entire path:<br><b>Multiple Lines<br/>of Text</b>         |

#### 2.3.22.4 gtextSize

The **gtextSize** property specifies the font size, in points, of the **geometry text** for this **shape**.



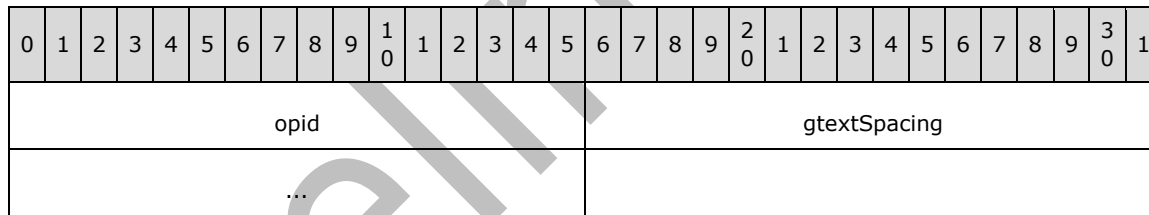
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x00C3. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**gtextSize (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the font size, in points, of the geometry text for this shape. This value MUST be greater than or equal to 0x00000000. The default value for this property is 0x00240000.

### 2.3.22.5 gtextSpacing

The **gtextSpacing** property specifies the amount of spacing between characters in the text.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x00C4. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**gtextSpacing (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies a scaling factor to apply to the spacing between characters in the **geometry text** for this **shape**. The quantity to which the scaling factor is applied is specified by the **gtextFTight** bit of the [Geometry Text Boolean Properties](#) for this shape. This value MUST be greater than or



equal to 0x00000000 and less than or equal to 0x00050000. A value of 0x00010000 means that no scaling is necessary. The default value for this property is 0x00010000.

### 2.3.22.6 gtextFont

The **gtextFont** property specifies the font to use for the text.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | gtextFont |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x00C5.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>gtextFont_complex</b> property, as defined in section <a href="#">2.3.22.7</a> , exists. If the value equals 0x1, <b>gtextFont_complex</b> MUST exist. |

**gtextFont (4 bytes):** The number of bytes of data in the **gtextFont\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is an empty string.

### 2.3.22.7 gtextFont\_complex

The **gtextFont\_complex** property specifies additional data for the **gtextFont** property, as defined in section [2.3.22.6](#). If the **opid.fComplex** bit of **gtextFont** equals 0x1, this property MUST exist.

|                              |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| gtextFont_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**gtextFont\_complex (variable):** A null-terminated **Unicode** string that specifies the font name to use for this text.

### 2.3.22.8 gtextCSSFont

The **gtextCSSFont** property specifies extra font information, beyond the single font in the **gtextFont\_complex** property, as defined in section [2.3.22.7](#). This property SHOULD [<61>](#) be used so that on conversion to and from **HTML**, the correct font information will be preserved.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | gtextCSSFont |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x00C6.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>gtextCSSFont_complex</b> property, as defined in section <a href="#">2.3.22.9</a> , exists. If the value equals 0x1, <b>gtextCSSFont_complex</b> MUST exist. |

**gtextCSSFont (4 bytes):** The number of bytes of data in the **gtextCSSFont\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.22.9 gtextCSSFont\_complex

The **gtextCSSFont\_complex** property specifies additional data for the **gtextCSSFont** property, as defined in section [2.3.22.8](#). If the **opid.fComplex** bit of **gtextCSSFont** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| gtextCSSFont_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**gtextCSSFont\_complex (variable):** A null-terminated **Unicode** string that specifies extra font information, beyond the font that is stored in the **gTextFont\_complex** property, as defined in section [2.3.22.7](#), for this **shape**. The string contains a comma-delimited list of font-family names and generic font-family names, according to the **font** or **font-family** property as specified in [\[CSS-LEVEL2\]](#), minus the first value in that string. The first value is stored instead in the **gtextFont\_complex** property. The font names are always enclosed by double quotation marks.

### 2.3.22.10 Geometry Text Boolean Properties

The **Geometry Text Boolean Properties** specify a 32-bit field of Boolean values for text that is drawn with visual effects.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  | K  | L  | M  | N  | O  | P  |
| Q    | R | S | T | U | V | W | X | Y | Z | a  | b  | c  | d  | e  | f  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

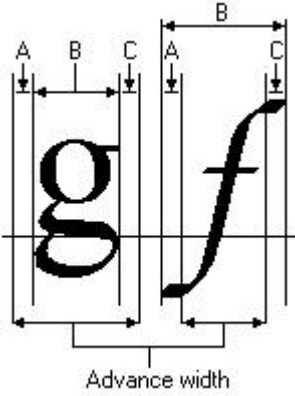
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x00FF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

- A - fUsegtextFReverseRows (1 bit):** A bit that specifies whether the **gtextFReverseRows** bit is set. A value of 0x0 specifies that the **gtextFReverseRows** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- B - fUsefGtext (1 bit):** A bit that specifies whether the **fGtext** bit is set. A value of 0x0 specifies that the **fGtext** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- C - fUsegtextFVertical (1 bit):** A bit that specifies whether the **gtextFVertical** bit is set. A value of 0x0 specifies that the **gtextFVertical** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- D - fUsegtextFKern (1 bit):** A bit that specifies whether the **gtextFKern** bit is set. A value of 0x0 specifies that the **gtextFKern** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- E - fUsegtextFTight (1 bit):** A bit that specifies whether the **gtextFTight** bit is set. A value of 0x0 specifies that the **gtextFTight** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- F - fUsegtextFStretch (1 bit):** A bit that specifies whether the **gtextFStretch** bit is set. A value of 0x0 specifies that the **gtextFStretch** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- G - fUsegtextFShrinkFit (1 bit):** A bit that specifies whether the **gtextFShrinkFit** bit is set. A value of 0x0 specifies that the **gtextFShrinkFit** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- H - fUsegtextFBestFit (1 bit):** A bit that specifies whether the **gtextFBestFit** bit is set. A value of 0x0 specifies that the **gtextFBestFit** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- I - fUsegtextFNormalize (1 bit):** A bit that specifies whether the **gtextFNormalize** bit is set. A value of 0x0 specifies that the **gtextFNormalize** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.



- J - fUsegtextFDxMeasure (1 bit):** A bit that specifies whether the **gtextFDxMeasure** bit is set. A value of 0x0 specifies that the **gtextFDxMeasure** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- K - fUsegtextFBold (1 bit):** A bit that specifies whether the **gtextFBold** bit is set. A value of 0x0 specifies that the **gtextFBold** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- L - fUsegtextFItalic (1 bit):** A bit that specifies whether the **gtextFItalic** bit is set. A value of 0x0 specifies that the **gtextFItalic** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- M - fUsegtextFUnderline (1 bit):** A bit that specifies whether the **gtextFUnderline** bit is set. A value of 0x0 specifies that the **gtextFUnderline** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- N - fUsegtextFShadow (1 bit):** A bit that specifies whether the **gtextFShadow** bit is set. A value of 0x0 specifies that the **gtextFShadow** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- O - fUsegtextFSmallcaps (1 bit):** A bit that specifies whether the **gtextFSmallcaps** bit is set. A value of 0x0 specifies that the **gtextFSmallcaps** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- P - fUsegtextFStrikethrough (1 bit):** A bit that specifies whether the **gtextFStrikethrough** bit is set. A value of 0x0 specifies that the **gtextFStrikethrough** bit MUST be ignored and the default value used instead. The default value of this property is 0x0.
- Q - gtextFReverseRows (1 bit):** A bit that specifies whether the order in which lines of **geometry text** are laid out SHOULD [<62>](#) be reversed. This bit is applicable only if the geometry text is vertically oriented, as specified by **gtextFVertical**; otherwise, it MAY be any value. This value MUST be ignored if **fUsegtextFReverseRows** is 0x0. The default value of this property is 0x0.
- R - fGtext (1 bit):** A bit that specifies whether this **shape** has geometry text. If **fGtext** is 0x1, the **gtextUNICODE\_complex** property, as defined in section [2.3.22.2](#), MUST exist. This value MUST be ignored if **fUsefGtext** is 0x0. The default value of this property is 0x0.
- S - gtextFVertical (1 bit):** A bit that specifies whether the characters of the geometry text for this shape are laid out vertically rather than horizontally. This value MUST be ignored if **fUsegtextFVertical** is 0x0. The default value of this property is 0x0.
- T - gtextFKern (1 bit):** A bit that specifies whether the geometry text of this shape SHOULD [<63>](#) use kerning. This value MUST be ignored if **fUsegtextFKern** is 0x0. The default value of this property is 0x0.
- U - gtextFTight (1 bit):** A bit that specifies the quantity that the scaling factor, as specified by the [gtextSpacing](#) property, SHOULD [<64>](#) be applied to. The following table describes the effect of each value for this bit. This value MUST be ignored if **fUsegtextFTight** is 0x0. The default value of this property is 0x0.

| Value | Meaning   |
|-------|---|
| 0x0   | Tightening—the value of <b>gtextSpacing</b> is used to scale the character advance width, as shown in the following figure. |

| Value | Meaning  |
|-------|--|
|       |  <p>The <i>A</i> spacing is the width to add to the current position before placing the character. The <i>B</i> spacing is the width of the character itself. The <i>C</i> spacing is the white space to the right of the character. The total advance width is determined by calculating the sum of <math>A+B+C</math>. Because characters can overhang or underhang the character cell, either or both of the <i>A</i> and <i>C</i> increments can be negative numbers.</p> |
| 0x1   | Tracking—the value of <b>gtextSpacing</b> is used to scale the amount of spacing between the characters.   |

**V - gtextFStretch (1 bit):** A bit that specifies whether the geometry text of this shape SHOULD [<65>](#) be stretched to fit the **bounding rectangle** of the container. This value MUST be ignored if **fUsegtextFStretch** is 0x0. The default value of this property is 0x0.

**W - gtextFShrinkFit (1 bit):** A bit that specifies whether the bounding rectangle of the geometry text SHOULD [<66>](#) be measured according to the bounding rectangle of the characters that are used in the string, rather than according to the bounding rectangle of the characters in the font. The following table shows the effect of this bit on the bounding rectangle of the geometry text. This bit is applicable only if **gtextFStretch** is 0x1 and **fUsegtextFStretch** is 0x1; otherwise, it MAY be any value. This value MUST be ignored if **fUsegtextFShrinkFit** is 0x0.

| Value | Meaning  |
|-------|--|
| 0x0   | <p>The bounding rectangle of the geometry text is measured according to the bounding rectangle of the characters in the font.</p>                  |
| 0x1   | <p>The bounding rectangle of the geometry text is measured according to the bounding rectangle of the characters that are used in the string.</p>  |

**X - gtextFBestFit (1 bit):** A bit that specifies whether the geometry text SHOULD [<67>](#) be stretched to fill the entire line. Stretching occurs in the same direction as the orientation of the geometry text, as specified by **gtextFVertical**. This bit is applicable only if **gtextFStretch** is 0x0 or **fUsegtextFStretch** is 0x0; otherwise, it MAY be any value. This value MUST be ignored if **fUsegtextFBestFit** is 0x0. The default value of this property is 0x0.

**Y - gtextFNormalize (1 bit):** A bit that specifies whether every character in the geometry text is adjusted to fill the available space for that character. The definition of the available space varies based on the text orientation, as specified by **gtextFVertical**. The following table shows how the text orientation affects the normalization of the text. This value MUST be ignored if **fUsegtextFNormalize** is 0x0.

| Text orientation | Original text | Normalized text |
|------------------|---------------|-----------------|
| Horizontal       | <b>Sample</b> | <b>sample</b>   |
| Vertical         | <b>SAMPLE</b> | <b>SAMPLE</b>   |

**Z - gtextFDxMeasure (1 bit):** A bit that specifies whether the distance that is used to calculate the amount to warp text along the geometry of this shape SHOULD [<68>](#) use only the x component rather a combination of the x and y components. This value MUST be ignored if **fUsegtextFDxMeasure** is 0x0. The default value of this property is 0x0.

**a - gtextFBold (1 bit):** A bit that specifies whether this geometry text uses bold text. This value MUST be ignored if **fUsegtextFBold** is 0x0. The default value of this property is 0x0.

**b - gtextFItalic (1 bit):** A bit that specifies whether this geometry text uses italics. This value MUST be ignored if **fUsegtextFItalic** is 0x0. The default value of this property is 0x0.

**c - gtextFUnderline (1 bit):** A bit that specifies whether this geometry text uses an underline effect on the text characters. This value SHOULD [<69>](#) be ignored. This value MUST be ignored if **fUsegtextFUnderline** is 0x0. The default value of this property is 0x0.

**d - gtextFShadow (1 bit):** A bit that specifies whether this geometry text uses a shadow effect on the text characters. This value SHOULD be ignored. This value MUST be ignored if **fUsegtextFShadow** is 0x0. The default value of this property is 0x0.

**e - gtextFSmallcaps (1 bit):** A bit that specifies whether this geometry text shows every character in uppercase, with the lowercase characters in the text being smaller-sized versions of their uppercase counterparts. This value SHOULD [<70>](#) be ignored. This value MUST be ignored if **fUsegtextFSmallcaps** is 0x0. The default value of this property is 0x0.

**f - gtextFStrikethrough (1 bit):** A bit that specifies whether this geometry text has strikethrough formatting. This value SHOULD [<71>](#) be ignored. This value MUST be ignored if **fUsegtextFStrikethrough** is 0x0. The default value of this property is 0x0.

### 2.3.23 Blip

The **Blip** property set specifies the visual attributes of a picture **shape**.

### 2.3.23.1 cropFromTop

The **cropFromTop** property specifies the location of the top of the **crop** rectangle.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | cropFromTop |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0100. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cropFromTop (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the location, expressed as a fraction of the image height, of the top of the crop rectangle. A value of 0x00000000 specifies that the top of the image is uncropped. Positive values specify cropping into the image. Negative values specify cropping out from the image. The default value for this property is 0x00000000.

### 2.3.23.2 cropFromBottom

The **cropFromBottom** property specifies the location of the bottom of the crop rectangle.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | cropFromBottom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0101. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cropFromBottom (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the location, expressed as a fraction of the image height, of the bottom of the crop rectangle. A value of 0x00000000 specifies that the bottom of the image is uncropped. Positive values specify cropping into the image. Negative values specify cropping out from the image. The default value for this property is 0x00000000.

### 2.3.23.3 cropFromLeft

The **cropFromLeft** property specifies the location of the left side of the crop rectangle.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | cropFromLeft |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0102. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cropFromLeft (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the location, expressed as a fraction of the image width, of the left side of the crop rectangle. A value of 0x00000000 specifies that the left side of the image is uncropped. Positive values specify cropping into the image. Negative values specify cropping out from the image. The default value for this property is 0x00000000.

### 2.3.23.4 cropFromRight

The **cropFromRight** property specifies the location of the right side of the crop rectangle.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16            | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | cropFromRight |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field | Meaning |
|-------|---------|
|-------|---------|



|                      |                              |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0103. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**cropFromRight (4 bytes):** A value of type **FixedPoint**, as specified in [\[MS-OSHARED\]](#) section 2.2.1.6, that specifies the location of the right side, expressed as a fraction of the image width, of the crop rectangle. A value of 0x00000000 specifies that the right side of the image is uncropped. Positive values specify cropping into the image. Negative values specify cropping out from the image. The default value for this property is 0x00000000.

### 2.3.23.5 pib

The **pib** property specifies which **BLIP** in the **OfficeArtBStoreContainer** record, as defined in section [2.2.20](#), to display in the picture **shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pib |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0104.  |
| <b>opid.fBid</b>     | A value that MUST be 0x1 if <b>fComplex</b> equals 0x0. Otherwise, this value MUST be ignored. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , then the value MUST be ignored.                                 |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pib_complex</b> property, as defined in section <a href="#">2.3.23.6</a> , exists. If the value equals 0x1, <b>pib_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record then the value MUST be ignored. |

**pib (4 bytes):** An unsigned integer that specifies the BLIP to display in the picture shape. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record then the value MUST be ignored.

| Value of opid.fComplex | Meaning of pib field  |
|------------------------|---|
| <b>0x0</b>             | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> |

|            |   |
|------------|---|
|            | record, as defined in section 2.2.20. A value of 0x00000000 MUST be ignored.                              |
| <b>0x1</b> | Specifies the number of bytes of data in the <b>pib_complex</b> property, as defined in section 2.3.23.6. |

### 2.3.23.6 pib\_complex

The **pib\_complex** property specifies additional data for the **pib** property, as defined in section 2.3.23.5. If the **opid.fComplex** bit of the **pib** equals 0x1, this property MUST exist.

|                        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pib_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pib\_complex (variable):** An **OfficeArtBlip** record, as defined in section 2.2.23, that specifies the **BLIP** to display in the picture **shape**.

### 2.3.23.7 pibName

The **pibName** property specifies the comment, file name, or **URL**, as specified by the **pibFlags** property, as defined in section 2.3.23.9, for this **BLIP**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pibName |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0105.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pibName_complex</b> property, as defined in section 2.3.23.8, exists. If the value equals 0x1, <b>pibName_complex</b> MUST exist. |

**pibName (4 bytes):** The number of bytes of data in the **pibName\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.23.8 pibName\_complex

The **pibName\_complex** property specifies additional data for the **pibName** property, as defined in section [2.3.23.7](#). If the **opid.fComplex** bit of **pibName** equals 0x1, this property MUST exist.

|                            |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pibName_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                        |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pibName\_complex (variable):** A null-terminated **Unicode** string that specifies the comment, file name, or **URL**, as specified by the **pibFlags** property, as defined in section [2.3.23.9](#), for the **BLIP**.

### 2.3.23.9 pibFlags

The **pibFlags** property specifies a set of flags that relate to the usage of the **BLIP**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pibFlags |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0106. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pibFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **pibName\_complex** property, as defined in section [2.3.23.8](#), and other properties of the **BLIP** to display. The default value for this property is **msoblipflagComment**.

### 2.3.23.10 pictureTransparent

The **pictureTransparent** property specifies the transparent pixel color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureTransparent |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0107. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureTransparent (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the color value that is treated as transparent. The default value for this property is 0xFFFFFFFF.

### 2.3.23.11 pictureContrast

The **pictureContrast** property specifies the contrast modification for the picture.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureContrast |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

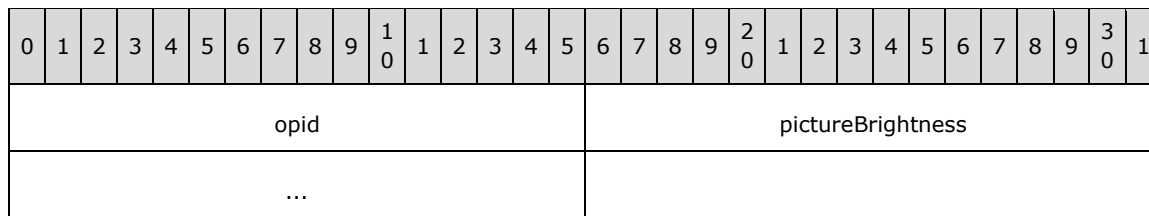
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0108. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureContrast (4 bytes):** A signed integer that specifies the amount with which to modify the contrast of the picture. The minimum value of 0x00000000 specifies that the picture is rendered with no contrast. The maximum value of 0x7FFFFFFF specifies that the picture is rendered with maximum contrast. The default value for this property is 0x00010000 and specifies no change to the contrast of the picture.

### 2.3.23.12 pictureBrightness

The **pictureBrightness** property specifies the brightness modification for the picture.



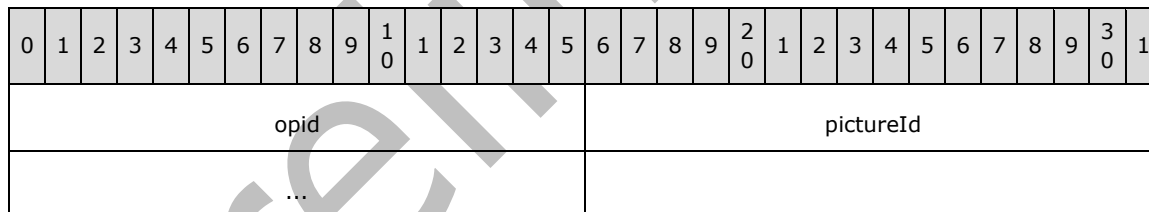
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0109. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureBrightness (4 bytes):** A signed integer that specifies the amount with which to modify the brightness of the picture. The minimum value of 0xFFFF8000 specifies that the picture is rendered with the minimum brightness. The maximum value of 0x00008000 specifies that the picture is rendered with the maximum brightness. The default value for this property is 0x00000000 and specifies no change to the brightness of the picture.

### 2.3.23.13 pictureId

The **pictureId** property specifies the **OLE** identifier of the picture.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x010B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureId (4 bytes):** A signed integer that specifies the host-defined OLE identifier for the picture. The default value for this property is 0x00000000.

### 2.3.23.14 pictureDbICrMod

The **pictureDbICrMod** property specifies a shadow color for pictures that have a double shadow in black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureDbICrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x010C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureDbICrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), specifying the shadow color that is used to modify the picture when a double shadow exists in black-and-white display mode. This value SHOULD be ignored. The default value for this property is 0x100000F4.

### 2.3.23.15 pictureFillCrMod

The **pictureFillCrMod** property specifies the fill color modification that is used in black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureFillCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x010D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureFillCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), specifying the fill color modification that is used in black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.23.16 pictureLineCrMod

The **pictureLineCrMod** property specifies the line color modification that is used in black-and-white display mode.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16               | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureLineCrMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x010E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureLineCrMod (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), specifying the line color modification that is used in black-and-white display mode. The default value for this property is 0x20000000.

### 2.3.23.17 pibPrint

The **pibPrint** property specifies which **BLIP** in the **OfficeArtBStoreContainer** record, as defined in section [2.2.20](#), to print. By default, this property is not set, and the display BLIP that is specified by the **pib**, as defined in section [2.3.23.5](#), property or **pib\_complex** property, as defined in section [2.3.23.6](#), will be printed.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pibPrint |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field | Meaning |
|-------|---------|
|-------|---------|

|                      |  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x010F.   |
| <b>opid.fBid</b>     | A value that MUST be 0x1 if <b>fComplex</b> equals 0x0. Otherwise, this value MUST be ignored. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record, as defined in section <a href="#">2.2.15</a> , the value MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pibPrint_complex</b> property, as defined in section <a href="#">2.3.23.18</a> , exists. If the value equals 0x1, <b>pibPrint_complex</b> MUST exist. If this record is contained in an <b>OfficeArtInlineSpContainer</b> record then the value MUST be ignored. |

**pibPrint (4 bytes):** An unsigned integer that specifies the BLIP to print. The value of **opid.fComplex** determines the meaning of this field, as specified in the following table. The default value for this property is 0x00000000. If this record is contained in an **OfficeArtInlineSpContainer** record then the value MUST be ignored.

| Value of <b>opid.fComplex</b> | Meaning of <b>pibPrint</b> field   |
|-------------------------------|--|
| <b>0x0</b>                    | Specifies a one-based index into the <b>rgfb</b> array of the <b>OfficeArtBStoreContainer</b> record, as defined in section 2.2.20. A value of 0x00000000 MUST be ignored. |
| <b>0x1</b>                    | Specifies the number of bytes of data in the <b>pibPrint_complex</b> property, as defined in section 2.3.23.18.  |

### 2.3.23.18 **pibPrint\_complex**

The **pibPrint\_complex** property specifies additional data for the **pibPrint** property, as defined in section [2.3.23.17](#). If the **opid.fComplex** bit of **pibPrint** equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| pibPrint_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**pibPrint\_complex (variable):** An **OfficeArtBlip** record, as defined in section [2.2.23](#), that specifies the **BLIP** to print.

### 2.3.23.19 **pibPrintName**

The **pibPrintName** property specifies the comment, file name, or **URL**, as specified by the **pibPrintFlags** property, as defined in section [2.3.23.21](#), for the **BLIP** to print.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pibPrintName |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



|     |
|-----|
| ... |
|-----|

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0110.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pibPrintName_complex</b> property, as defined in section <a href="#">2.3.23.20</a> , exists. If the value equals 0x1, <b>pibPrintName_complex</b> MUST exist. |

**pibPrintName (4 bytes):** The number of bytes of data in the **pibPrintName\_complex** property, as defined in section [2.3.23.20](#). If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.23.20 pibPrintName\_complex

The **pibPrintName\_complex** property specifies additional data for the **pibPrintName** property, as defined in section [2.3.23.19](#). If the **opid.fComplex** bit of **pibPrintName** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| pibPrintName_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                             |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**pibPrintName\_complex (variable):** A null-terminated **Unicode** string that specifies the comment, file name, or **URL**, as specified by the **pibPrintFlags** property, as defined in section [2.3.23.21](#), for the **BLIP** to print.

### 2.3.23.21 pibPrintFlags

The **pibPrintFlags** property specifies a set of flags that relate to the usage of the **BLIP** to print.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |               |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6             | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | pibPrintFlags |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |               |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0111. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pibPrintFlags (4 bytes):** An **MSOBLIPFLAGS** enumeration value, as defined in section [2.4.8](#), that specifies how to interpret the **pibPrintName\_complex** property, as defined in section [2.3.23.20](#), and other properties of the BLIP to print. The default value for this property is **msoblipflagComment**.

### 2.3.23.22 movie

The **movie** property specifies movie data. This property SHOULD be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | movie |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0112.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>movie_complex</b> property, as defined in section <a href="#">2.3.23.23</a> , exists. If the value equals 0x1, <b>movie_complex</b> MUST exist. |

**movie (4 bytes):** The number of bytes of data in the **movie\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.23.23 movie\_complex

The **movie\_complex** property specifies movie data. This property SHOULD be ignored.

|                          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| movie_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

...

**movie\_complex (variable):** A binary serialization of movie data, as determined by the implementer.

### 2.3.23.24 pictureTransparentExt

The **pictureTransparentExt** property specifies the transparent pixel extended color.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                       |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|-----------------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | pictureTransparentExt |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                       |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0115. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureTransparentExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), that specifies the extended color value to be treated as transparent. The default value for this property is 0xFFFFFFFF.

### 2.3.23.25 reserved278

The reserved278 property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |             |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|-------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6           | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | reserved278 |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |             |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0116. |
| <b>opid.fBid</b> | A value that MUST be 0x0.    |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fComplex</b> | A value that MUST be 0x0. |
|----------------------|---------------------------|

**reserved278 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.23.26 pictureTransparentExtMod

The **pictureTransparentExtMod** property specifies the color modification of the transparent pixel extended color.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureTransparentExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0117. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureTransparentExtMod (4 bytes):** An **MSOTINTSHADE** record that specifies the color modification of the extended color value. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.23.27 reserved280

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved280 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field | Meaning |
|-------|---------|
|-------|---------|

|                      |                              |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0118. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved280 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.23.28 reserved281

The **reserved281** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved281 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x0119. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved281 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.23.29 pictureRecolor

The **pictureRecolor** property specifies the color that is used to recolor the image.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16             | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureRecolor |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x011A. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureRecolor (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), specifies the color that is used to recolor the image. The default value for this property is 0xFFFFFFFF.

### 2.3.23.30 pictureRecolorExt

The **pictureRecolorExt** property specifies the extended color that is used to recolor the image.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureRecolorExt |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x011B. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureRecolorExt (4 bytes):** An **OfficeArtCOLORREF** record, as defined in section [2.2.2](#), specifying the extended color that is used to recolor the image. The default value for this property is 0xFFFFFFFF.

### 2.3.23.31 reserved284

The **reserved284** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved284 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x011C. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved284 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.

### 2.3.23.32 pictureRecolorExtMod

The **pictureRecolorExtMod** property specifies the color modification of the extended color that is used to recolor the image.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pictureRecolorExtMod |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x011D. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**pictureRecolorExtMod (4 bytes):** An [MSOTINTSHADE](#) record specifying the color modification of the extended color that is used to recolor the image. For more information, see the **OfficeArtCOLORREF** structure, as defined in section [2.2.2](#). The default value for this property is 0x20000000.

### 2.3.23.33 reserved286

This property is reserved and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved286 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x011E. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved286 (4 bytes):** A value that MUST equal zero and MUST be ignored. The default value for this property is 0x00000000.

### 2.3.23.34 reserved287

The **reserved287** property MUST equal 0xFFFFFFFF and MUST be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | reserved287 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x011F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**reserved287 (4 bytes):** A value that MUST equal 0xFFFFFFFF and MUST be ignored. The default value for this property is 0xFFFFFFFF.



### 2.3.23.35 Blip Boolean Properties

The **Blip Boolean Properties** specify a 32-bit field of Boolean properties for the **BLIP** style.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    | A  | B  | C  | D  | E  | F  | G  |    |    |    |
| unused2 |   |   |   |   |   |   |   |   |   | H  | I  | J  | K  | L  | M  | N       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x013F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (9 bits):** A value that is undefined and MUST be ignored.

**A - fUsefPicturePreserveGrays (1 bit):** A bit that specifies whether the **fPicturePreserveGrays** bit is set. A value of 0x0 specifies that **fPicturePreserveGrays** MUST be ignored and the default value used instead. The default value of this property is 0x0.

**B - fUsefRewind (1 bit):** A bit that specifies whether the **fRewind** bit is set. A value of 0x0 specifies that **fRewind** MUST be ignored and the default value used instead. The default value of this property is 0x0.

**C - fUsefLooping (1 bit):** A bit that specifies whether the **fLooping** bit is set. A value of 0x0 specifies that **fLooping** MUST be ignored and the default value used instead. The default value of this property is 0x0.

**D - fUsefNoHitTestPicture (1 bit):** A bit that specifies whether the **fNoHitTestPicture** bit is set. A value of 0x0 specifies that **fNoHitTestPicture** MUST be ignored and the default value used instead. The default value of this property is 0x0.

**E - fUsefPictureGray (1 bit):** A bit that specifies whether the **fPictureGray** bit is set. A value of 0x0 specifies that **fPictureGray** MUST be ignored and the default value used instead. The default value of this property is 0x0.

**F - fUsefPictureBiLevel (1 bit):** A bit that specifies whether the **fPictureBiLevel** bit is set. A value of 0x0 specifies that **fPictureBiLevel** MUST be ignored and the default value be used instead. The default value of this property is 0x0.

**G - fUsefPictureActive (1 bit):** A bit that specifies whether the **fPictureActive** bit is set. A value of 0x0 specifies that **fPictureActive** MUST be ignored and the default value used instead. The default value of this property is 0x0.

**unused2 (9 bits):** A value that is undefined and MUST be ignored.

**H - fPicturePreserveGrays (1 bit):** A bit that specifies whether color modifications to this picture leave gray values unchanged. This value MUST be ignored if **fUsefPicturePreserveGrays** is 0x0. The default value of this property is 0x0.

**I - fRewind (1 bit):** A bit that specifies whether to rewind this animated picture or movie when it is finished playing. This value MUST be ignored if **fUsefRewind** is 0x0. The default value of this property is 0x0.

**J - fLooping (1 bit):** A bit that specifies whether to loop this animated picture or movie. This value MUST be ignored if **fUsefLooping** is 0x0. The default value of this property is 0x0.

**K - fNoHitTestPicture (1 bit):** A bit that specifies whether this picture is selectable from the user interface. A value of 0x0 means that the picture is selectable. This value MUST be ignored if **fUsefNoHitTestPicture** is 0x0. The default value of this property is 0x0.

**L - fPictureGray (1 bit):** A bit that specifies whether this picture SHOULD be displayed in gray scale. This value MUST be ignored if **fUsefPictureGray** is 0x0. The default value of this property is 0x0.

**M - fPictureBiLevel (1 bit):** A bit that specifies whether this picture SHOULD be displayed in two-color black and white. This value MUST be ignored if **fUsefPictureBiLevel** is 0x0. The default value of this property is 0x0.

**N - fPictureActive (1 bit):** A bit specifying whether the **OLE** server that is associated with this picture is active. This value MUST be ignored if **fUsefPictureActive** is 0x0. The default value of this property is 0x0.

### 2.3.24 Unknown HTML

The **Unknown HTML** property set specifies the **Vector Markup Language (VML)**, as specified in [\[ISO/IEC29500-4:2012\]](#), Section 14, of specific attributes of the **shape** that is imported from the **HTML** document.

#### 2.3.24.1 wzLineId

The **wzLineId** property specifies the identifier of the **VML stroke** element, as specified in [\[ISO/IEC29500-4:2012\]](#), Section 14. This property MAY [<72>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzLineId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0402.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzLineId_complex</b> property, as defined in section <a href="#">2.3.24.2</a> , exists. If the value equals 0x1, <b>wzLineId_complex</b> MUST exist. |

**wzLineId (4 bytes):** The number of bytes of data in the **wzLineId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.2 wzLineId\_complex

The **wzLineId\_complex** property specifies additional data for the **wzLineId** property, as defined in section 2.3.24.1. If the **opid.fComplex** bit of **wzLineId** equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzLineId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzLineId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML** stroke element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.3 wzFillId

The **wzFillId** property specifies the identifier of the **VML fill** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY <73> be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzFillId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0403.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzFillId_complex</b> property, as defined in section 2.3.24.4, exists. If the value equals 0x1, <b>wzFillId_complex</b> MUST exist. |

**wzFillId (4 bytes):** The number of bytes of data in the **wzFillId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.4 wzFillId\_complex

The **wzFillId\_complex** property specifies additional data for the **wzFillId** property, as defined in section [2.3.24.3](#). If the **opid.fComplex** bit of **wzFillId** equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzFillId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzFillId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML** fill element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.5 wzPictureId

The **wzPictureId** property specifies the identifier of the **VML imagedata** element, as specified [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<74>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzPictureId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0404.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzPictureId_complex</b> property, as defined in section <a href="#">2.3.24.6</a> , exists. If the value equals 0x1, <b>wzPictureId_complex</b> MUST exist. |

**wzPictureId (4 bytes):** The number of bytes of data in the **wzPictureId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.6 wzPictureId\_complex

The **wzPictureId\_complex** property specifies additional data for the **wzPictureId** property, as defined in section [2.3.24.5](#). If the **opid.fComplex** bit of **wzPictureId** equals 0x1, this property MUST exist.

|                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzPictureId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                            |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzPictureId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML imagedata** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.7 wzPathId

The **wzPathId** property specifies the identifier of the **VML path** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY **<75>** be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzPathId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0405.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzPathId_complex</b> property, as defined in section <a href="#">2.3.24.8</a> , exists. If the value equals 0x1, <b>wzPathId_complex</b> MUST exist. |

**wzPathId (4 bytes):** The number of bytes of data in the **wzPathId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.8 wzPathId\_complex

The **wzPathId\_complex** property specifies additional data for the **wzPathId** property, as defined in section [2.3.24.7](#). If the **opid.fComplex** bit of **wzPathId** equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzPathId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzPathId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML path** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.9 wzShadowId

The **wzShadowId** property specifies the identifier of the **VML shadow** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<76>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |            |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6          | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | wzShadowId |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |            |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0406.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzShadowId_complex</b> property, as defined in section <a href="#">2.3.24.10</a> , exists. If the value equals 0x1, <b>wzShadowId_complex</b> MUST exist. |

**wzShadowId (4 bytes):** The number of bytes of data in the **wzShadowId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.10 wzShadowId\_complex

The **wzShadowId\_complex** property specifies additional data for the **wzShadowId** property, as defined in section [2.3.24.9](#). If the **opid.fComplex** bit of **wzShadowId** equals 0x1, this property MUST exist.

|                               |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
|-------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|--|--|
| 0                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |  |  |
| wzShadowId_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |
| ...                           |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |  |  |

**wzShadowId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML shadow** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.11 wzPerspectiveId

The **wzPerspectiveId** property specifies the identifier of the **VML skew** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<77>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16              | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzPerspectiveId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0407.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzPerspectiveId_complex</b> property, as defined in section <a href="#">2.3.24.12</a> , exists. If the value equals 0x1, <b>wzPerspectiveId_complex</b> MUST exist. |

**wzPerspectiveId (4 bytes):** The number of bytes of data in the **wzPerspectiveId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.12 wzPerspectiveId\_complex

The **wzPerspectiveId\_complex** property specifies additional data for the **wzPerspectiveId** property, as defined in section [2.3.24.11](#). If the **opid.fComplex** bit of **wzPerspectiveId** equals 0x1, this property MUST exist.

|                                    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzPerspectiveId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzPerspectiveId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML skew** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.13 wzGtextId

The **wzGtextId** property specifies the identifier of the **VML textpath** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY **<78>** be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16        | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzGtextId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0408.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzGtextId_complex</b> property, as defined in section <a href="#">2.3.24.14</a> , exists. If the value equals 0x1, <b>wzGtextId_complex</b> MUST exist. |

**wzGtextId (4 bytes):** The number of bytes of data in the **wzGtextId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.14 wzGtextId\_complex

The **wzGtextId\_complex** property specifies additional data for the **wzGtextId** property, as defined in section [2.3.24.13](#). If the **opid.fComplex** bit of **wzGtextId** equals 0x1, this property MUST exist.

|                              |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| wzGtextId_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                          |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**wzGtextId\_complex (variable):** A **Unicode** null-terminated Unicode string that specifies the identifier of the **VML textpath** element, as specified [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.15 wzFormulaeId

The **wzFormulaeId** property specifies the identifier of the **VML formulas** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<79>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |              |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|--------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6            | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | wzFormulaeId |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |              |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0409. |



|                      |   |
|----------------------|---|
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzFormulaeId_complex</b> property, as defined in section <a href="#">2.3.24.16</a> , exists. If the value equals 0x1, <b>wzFormulaeId_complex</b> MUST exist. |

**wzFormulaeId (4 bytes):** The number of bytes of data in the **wzFormulaeId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.16 wzFormulaeId\_complex

The **wzFormulaeId\_complex** property specifies additional data for the **wzFormulaeId** property, as defined in section [2.3.24.15](#). If the **opid.fComplex** bit of **wzFormulaeId** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzFormulaeId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzFormulaeId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML formulas** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.17 wzHandlesId

The **wzHandlesId** property specifies the identifier of the **VML handles** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY <80> be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16          | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzHandlesId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

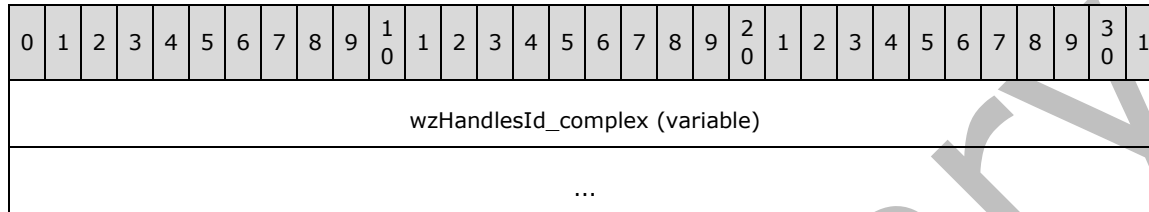
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x040A.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzHandlesId_complex</b> property, as defined in section <a href="#">2.3.24.18</a> , exists. If the value equals 0x1, <b>wzHandlesId_complex</b> MUST exist. |

**wzHandlesId (4 bytes):** The number of bytes of data in the **wzHandlesId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.18 wzHandlesId\_complex

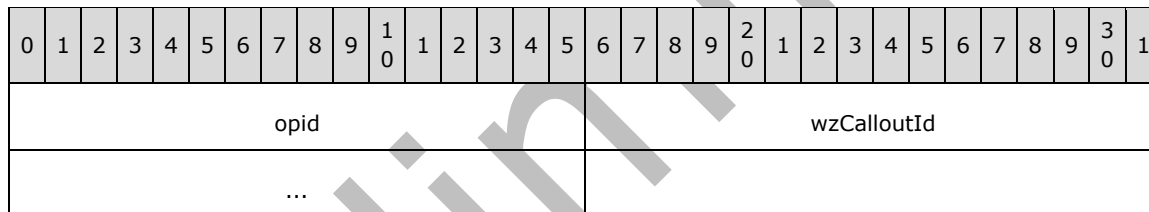
The **wzHandlesId\_complex** property specifies additional data for the **wzHandlesId** property, as defined in section [2.3.24.17](#). If the **opid.fComplex** bit of **wzHandlesId** equals 0x1, this property MUST exist.



**wzHandlesId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML handles** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.19 wzCalloutId

The **wzCalloutId** property specifies the identifier of the **VML callout** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY **<81>** be ignored.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x040B.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzCalloutId_complex</b> property, as defined in section <a href="#">2.3.24.20</a> , exists. If the value equals 0x1, <b>wzCalloutId_complex</b> MUST exist. |

**wzCalloutId (4 bytes):** The number of bytes of data in the **wzCalloutId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.20 wzCalloutId\_complex

The **wzCalloutId\_complex** property specifies additional data for the **wzCalloutId** property, as defined in section [2.3.24.19](#). If the **opid.fComplex** bit of **wzCalloutId** equals 0x1, this property MUST exist.

|                                |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzCalloutId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                            |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzCalloutId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML callout** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.21 wzLockId

The **wzLockId** property specifies the identifier of the **VML lock** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<82>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzLockId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x040C.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzLockId_complex</b> property, as defined in section <a href="#">2.3.24.22</a> , exists. If the value equals 0x1, <b>wzLockId_complex</b> MUST exist. |

**wzLockId (4 bytes):** The number of bytes of data in the **wzLockId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.22 wzLockId\_complex

The **wzLockId\_complex** property specifies additional data for the **wzLockId** property, as defined in section [2.3.24.21](#). If the **opid.fComplex** bit of **wzLockId** equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzLockId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzLockId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML lock** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.23 wzTextId

The **wzTextId** property specifies the identifier of the **VML textbox** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<83>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzTextId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x040D.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzTextId_complex</b> property, as defined in section <a href="#">2.3.24.24</a> , exists. If the value equals 0x1, <b>wzTextId_complex</b> MUST exist. |

**wzTextId (4 bytes):** The number of bytes of data in the **wzTextId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.24 wzTextId\_complex

The **wzTextId\_complex** property specifies additional data for the **wzTextId** property, as defined in section [2.3.24.23](#). If the **opid.fComplex** bit of **wzTextId** equals 0x1, this property MUST exist.

|                             |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzTextId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzTextId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML textbox** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.25 wzThreeDId

The **wzThreeDId** property specifies the identifier of the **VML extrusion** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14. This property MAY [<84>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16         | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzThreeDId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x040E.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzThreeDId_complex</b> property, as defined in section <a href="#">2.3.24.26</a> , exists. If the value equals 0x1, <b>wzThreeDId_complex</b> MUST exist. |

**wzThreeDId (4 bytes):** The number of bytes of data in the **wzThreeDId\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.24.26 wzThreeDId\_complex

The **wzThreeDId\_complex** property specifies additional data for the **wzThreeDId** property, as defined in section [2.3.24.25](#). If the **opid.fComplex** bit of **wzThreeDId** equals 0x1, this property MUST exist.

|                               |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzThreeDId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzThreeDId\_complex (variable):** A null-terminated **Unicode** string that specifies the identifier of the **VML extrusion** element, as specified in [\[ISO/IEC29500-4:2011\]](#), Section 14.

### 2.3.24.27 Unknown HTML Boolean Properties

The **Unknown HTML Boolean Properties** specify a 32-bit field of Boolean properties for the **shape** that is imported from **VML** content, as specified in [ISO/IEC29500-4:2011], Section 14. This property MAY<85> be ignored.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    |    | A  | B  | C  |    |    |
| unused3 |   |   |   |   |   |   |   |   |   |    |    |    | D  | E  | F  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x043F. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (13 bits):** A value that is undefined and MUST be ignored.

**A - fUsefOleFromHtml (1 bit):** A bit that specifies whether the **fOleFromHtml** bit is set. A value of 0x0 specifies that **fOleFromHtml** MUST be ignored. The default value for this property is 0x0.

**B - fUsefFakeMaster (1 bit):** A bit that specifies whether the **fFakeMaster** bit is set. A value of 0x0 specifies that **fFakeMaster** MUST be ignored. The default value for this property is 0x0.

**C - unused2 (1 bit):** A value that is undefined and MUST be ignored.

**unused3 (13 bits):** A value that is undefined and MUST be ignored.

**D - fOleFromHtml (1 bit):** A bit that specifies whether this shape is imported from a VML **shape** element, as specified in [ISO/IEC29500-4:2011], Section 14, which is an embedded object. This value MUST be ignored if **fUsefOleFromHtml** is 0x0. The default value for this property is 0x0.

**E - fFakeMaster (1 bit):** A bit that specifies whether the shape is imported from a VML **shapetype** element, as specified in [ISO/IEC29500-4:2011], Section 14. If this bit is set to 0x1, the shape will not be rendered and can be used to create other shapes. This value MUST be ignored if **fUsefFakeMaster** is 0x0. The default value for this property is 0x0.

**F - unused4 (1 bit):** A value that is undefined and MUST be ignored.

### 2.3.25 Web Component

The **Web Component** property set specifies the **HTML** content attributes of the **shape**.

### 2.3.25.1 webComponentWzHtml

The **webComponentWzHtml** property specifies the **HTML** content of the **Web component**. This property MAY<86> be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | webComponentWzHtml |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0680.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>webComponentWzHtml_complex</b> property, as defined in section 2.3.25.2, exists. If the value equals 0x1, <b>webComponentWzHtml_complex</b> MUST exist. |

**webComponentWzHtml (4 bytes):** The number of bytes of data in the **webComponentWzHtml\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.25.2 webComponentWzHtml\_complex

The **webComponentWzHtml\_complex** property specifies additional data for the **webComponentWzHtml** property, as defined in section 2.3.25.1. If the **opid.fComplex** bit of **webComponentWzHtml** equals 0x1, this property MUST exist.

|                                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| webComponentWzHtml_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**webComponentWzHtml\_complex (variable):** A null-terminated **Unicode** string that specifies **HTML** content.

### 2.3.25.3 webComponentWzName

The **webComponentWzName** property specifies the name of the **Web component**. This property MAY<87> be ignored.

|      |   |   |   |   |   |   |   |   |   |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   | webComponentWzName |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0681.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>webComponentWzName_complex</b> property, as defined in section <a href="#">2.3.25.4</a> , exists. If the value equals 0x1, <b>webComponentWzName_complex</b> MUST exist. |

**webComponentWzName (4 bytes):** The number of bytes of data in the **webComponentWzName\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

#### 2.3.25.4 webComponentWzName\_complex

The **webComponentWzName\_complex** property specifies additional data for the **webComponentWzName** property, as defined in section [2.3.25.3](#). If the **opid.fComplex** bit of **webComponentWzName** equals 0x1, this property MUST exist.

|                                       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| webComponentWzName_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**webComponentWzName\_complex (variable):** A null-terminated **Unicode** string that specifies the name.

#### 2.3.25.5 webComponentWzUrl

The **webComponentWzUrl** property specifies the **URL** of the **Web component**. This property MAY [<88>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   | webComponentWzUrl |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0682.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>webComponentWzUrl_complex</b> property, as defined in section <a href="#">2.3.25.6</a> , exists. If the value equals 0x1, <b>webComponentWzUrl_complex</b> MUST exist. |

**webComponentWzUrl (4 bytes):** The number of bytes of data in the **webComponentWzUrl\_complex** property. If **opid.fComplex** equals 0x0, this value MUST be 0x00000000. The default value for this property is 0x00000000.

### 2.3.25.6 webComponentWzUrl\_complex

The **webComponentWzUrl\_complex** property specifies additional data for the **webComponentWzUrl** property, as defined in section [2.3.25.5](#). If the **opid.fComplex** bit of **webComponentWzUrl** equals 0x1, this property MUST exist.

|                                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| webComponentWzUrl_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**webComponentWzUrl\_complex (variable):** A null-terminated **Unicode** string that specifies the **URL**.

### 2.3.25.7 Web Component Boolean Properties

The **Web Component Boolean Properties** specify a 32-bit field of Boolean properties for the **Web component**. This property MAY [<89>](#) be ignored.

|         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16      | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | unused1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | A  |
| unused2 |   |   |   |   |   |   |   |   |   |    |    |    |    |    | B  |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x06BF. |

|                      |                           |
|----------------------|---------------------------|
| <b>opid.fBid</b>     | A value that MUST be 0x0. |
| <b>opid.fComplex</b> | A value that MUST be 0x0. |

**unused1 (15 bits):** A value that is undefined and MUST be ignored.

**A - fUseIsWebComponent (1 bit):** A bit that specifies whether the **fIsWebComponent** bit is set. A value of 0x0 specifies that the **fIsWebComponent** MUST be ignored. The default value for this property is 0x0.

**unused2 (15 bits):** A value that is undefined and MUST be ignored.

**B - fIsWebComponent (1 bit):** A bit that specifies whether the **shape** is a Web component. This value MUST be ignored if **fUseIsWebComponent** is 0x0. The default value for this property is 0x0.

### 2.3.26 Ink

The **Ink** property set specifies the ink data of an **ink shape**.

#### 2.3.26.1 pInkData

The **pInkData** property specifies the data that is used to represent an **ink shape**.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | pInkData |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

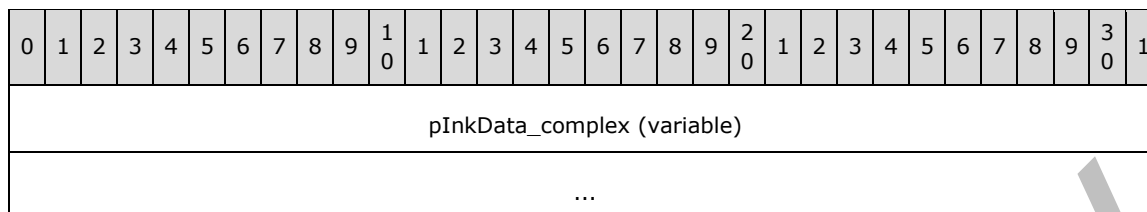
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0700.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>pInkData_complex</b> property, as defined in section <a href="#">2.3.26.2</a> , exists. If the value equals 0x1, <b>pInkData_complex</b> MUST exist. |

**pInkData (4 bytes):** The number of bytes of data in the **pInkData\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.26.2 pInkData\_complex

The **pInkData\_complex** property specifies additional data for the **pInkData** property, as defined in section [2.3.26.1](#). If the **opid.fComplex** bit of **pInkData** equals 0x1, this property **MUST** exist.



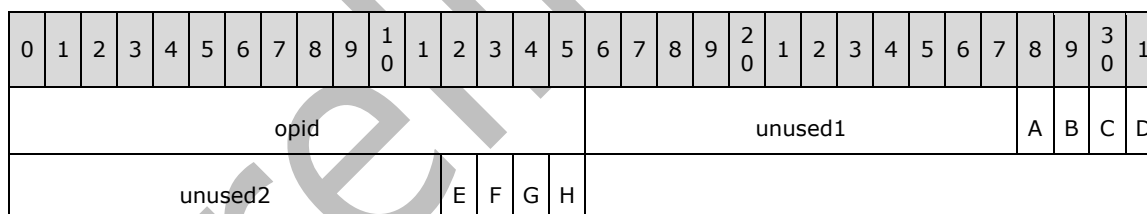
**pInkData\_complex (variable)**: An Ink Serialization Format stream, as specified in [\[MC-ISF\]](#), that specifies the ink strokes in this **shape**.

This property is an **IMsoInkData** record, as specified in section [2.2.52](#). It contains custom data that is stored as extended properties on ink stroke objects. The extended property information is specified in the following table.

| Name                            | GUID                                 | Meaning  |
|---------------------------------|--------------------------------------|--|
| <b>DrawAttributeColorScheme</b> | 000C6800-0000-0000-C000-000000000046 | An <b>MSOCR</b> record, as defined in section <a href="#">2.2.44</a> , that specifies an ink stroke color. |
| <b>TimeStamp</b>                | 8A54CF58-97E6-4fc5-8F06-F8BAD2E19B22 | A Universal Time Coordinates (UTC) time stamp.   |

### 2.3.26.3 Ink Boolean Properties

The **Ink Boolean Properties** specify a 32-bit field of Boolean properties for **ink shapes**.



**opid (2 bytes)**: An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                             |
|----------------------|-------------------------------------|
| <b>opid.opid</b>     | A value that <b>MUST</b> be 0x073F. |
| <b>opid.fBid</b>     | A value that <b>MUST</b> be 0x0.    |
| <b>opid.fComplex</b> | A value that <b>MUST</b> be 0x0.    |

**unused1 (12 bits)**: A value that is undefined and **MUST** be ignored.

**A - fUsefInkAnnotation (1 bit):** A bit that specifies whether the **fInkAnnotation** bit is set. A value of 0x0 specifies that **fInkAnnotation** MUST be ignored and the default value used instead. The default value for this property is 0x0.

**B - fUsefHitTestInk (1 bit):** A bit that specifies whether the **fHitTestInk** bit is set. A value of 0x0 specifies that **fHitTestInk** MUST be ignored and the default value used instead. The default value for this property is 0x0.

**C - fUsefRenderShape (1 bit):** A bit that specifies whether the **fRenderShape** bit is set. A value of 0x0 specifies that **fRenderShape** MUST be ignored and the default value used instead. The default value for this property is 0x0.

**D - fUsefRenderInk (1 bit):** A bit that specifies whether the **fRenderInk** bit is set. A value of 0x0 specifies that **fRenderInk** MUST be ignored and the default value used instead. The default value for this property is 0x0.

**unused2 (12 bits):** A value that is undefined and MUST be ignored.

**E - fInkAnnotation (1 bit):** A bit that specifies whether this shape is an ink annotation. This value MUST be ignored if **fUsefInkAnnotation** is 0x0. The default value for this property is 0x0.

**F - fHitTestInk (1 bit):** A bit that specifies whether to allow mouse hit testing of the ink strokes in this shape. This value MUST be ignored if **fUsefHitTestInk** is 0x0. The default value for this property is 0x1.

**G - fRenderShape (1 bit):** A bit that specifies whether to render the shape effects that are specified by other graphics properties in the **OfficeArtRGFOFTE** record, as defined in section [2.3.1](#). This value MUST be ignored if **fUsefRenderShape** is 0x0. The default value for this property is 0x0.

**H - fRenderInk (1 bit):** A bit that specifies whether to render the ink strokes in this shape. This value MUST be ignored if **fUsefRenderInk** is 0x0. The default value for this property is 0x0.

### 2.3.27 Signature Line

The **Signature Line** property set specifies the attributes of the **digital signature** signing setup of the **shape**.

#### 2.3.27.1 wzSigSetupId

The **wzSigSetupId** property specifies the GUID of the **signature line**. This property SHOULD [<90>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzSigSetupId |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning                      |
|------------------|------------------------------|
| <b>opid.opid</b> | A value that MUST be 0x0781. |

|                      |  |
|----------------------|--|
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupId_complex</b> property, as defined in section <a href="#">2.3.27.2</a> , exists. If the value equals 0x1, <b>wzSigSetupId_complex</b> MUST exist. |

**wzSigSetupId (4 bytes):** The number of bytes of data in the **wzSigSetupId\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.2 wzSigSetupId\_complex

The **wzSigSetupId\_complex** property specifies additional data for the **wzSigSetupId** property, as defined in section [2.3.27.1](#). If the **opid.fComplex** bit of **wzSigSetupId** equals 0x1, this property MUST exist.

|                                 |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| wzSigSetupId_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...                             |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**wzSigSetupId\_complex (variable):** A null-terminated **Unicode** string that specifies the GUID of the **signature line**. The GUID is formatted in the following pattern:

{XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}

where the value of the GUID is represented as a series of hexadecimal digits in groups of 8, 4, 4, 4, and 12 digits that are separated by hyphens, with the entire series enclosed by braces.

### 2.3.27.3 wzSigSetupProvId

The **wzSigSetupProvId** property specifies the GUID of the provider that creates the **signature line**. This property SHOULD [<91>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |                  |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    | wzSigSetupProvId |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |                  |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field            | Meaning  |
|------------------|--|
| <b>opid.opid</b> | A value that MUST be 0x0782.                   |
| <b>opid.fBid</b> | A value that is undefined and MUST be ignored. |

|                      |  |
|----------------------|--|
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupProvId_complex</b> property, as defined in section <a href="#">2.3.27.4</a> , exists. If the value equals 0x1, <b>wzSigSetupProvId_complex</b> MUST exist. |
|----------------------|--|

**wzSigSetupProvId (4 bytes):** The number of bytes of data in the **wzSigSetupProvId\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.4 wzSigSetupProvId\_complex

The **wzSigSetupProvId\_complex** property specifies additional data for the **wzSigSetupProvId** property, as defined in section [2.3.27.3](#). If the **opid.fComplex** bit of **wzSigSetupProvId** equals 0x1, this property MUST exist.

|                                     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzSigSetupProvId_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzSigSetupProvId\_complex (variable):** A null-terminated **Unicode** string that specifies the GUID of the provider that creates the **signature line**. The GUID is formatted in the following pattern:

{XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}

where the value of the GUID is represented as a series of hexadecimal digits in groups of 8, 4, 4, 4, and 12 digits that are separated by hyphens, with the entire series enclosed by braces.

### 2.3.27.5 wzSigSetupSuggSigner

The **wzSigSetupSuggSigner** property specifies the name of the suggested signer. This property SHOULD [<92>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                   | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzSigSetupSuggSigner |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0783.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupSuggSigner_complex</b> property, as defined in |

|  |   |
|--|---|
|  | section <a href="#">2.3.27.6</a> , exists. If the value equals 0x1, <b>wzSigSetupSuggSigner_complex</b> MUST exist. |
|--|---|

**wzSigSetupSuggSigner (4 bytes):** The number of bytes of data in the **wzSigSetupSuggSigner\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.6 wzSigSetupSuggSigner\_complex

The **wzSigSetupSuggSigner\_complex** property specifies additional data for the **wzSigSetupSuggSigner** property, as defined in section [2.3.27.5](#). If the **opid.fComplex** bit of **wzSigSetupSuggSigner** equals 0x1, this property MUST exist.

|   |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |
|---|---|---|---|---|---|---|---|---|---|--------|---|---|---|---|---|---|---|---|---|--------|---|---|---|---|---|---|---|---|---|--------|---|
| 0                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1<br>0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2<br>0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3<br>0 | 1 |
| wzSigSetupSuggSigner_complex (variable) |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |
| ...                                     |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |

**wzSigSetupSuggSigner\_complex (variable):** A null-terminated **Unicode** string that specifies the name of the suggested signer.

### 2.3.27.7 wzSigSetupSuggSigner2

The **wzSigSetupSuggSigner2** property specifies the title or additional information about the suggested signer. This property SHOULD [<93>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |                       |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |
|------|---|---|---|---|---|---|---|---|---|-----------------------|---|---|---|---|---|---|---|---|---|--------|---|---|---|---|---|---|---|---|---|--------|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1<br>0                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2<br>0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3<br>0 | 1 |
| opid |   |   |   |   |   |   |   |   |   | wzSigSetupSuggSigner2 |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |
| ...  |   |   |   |   |   |   |   |   |   |                       |   |   |   |   |   |   |   |   |   |        |   |   |   |   |   |   |   |   |   |        |   |

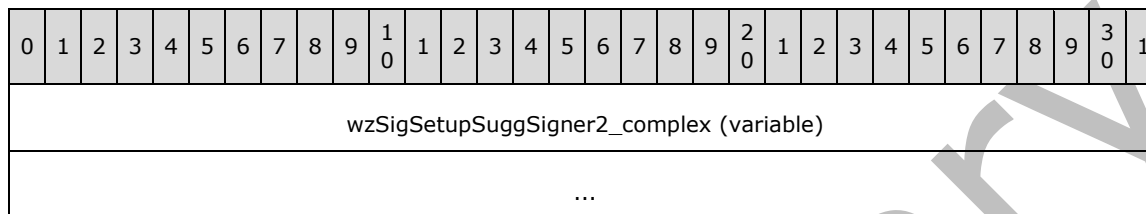
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0784.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupSuggSigner2_complex</b> property, as defined in section <a href="#">2.3.27.8</a> , exists. If the value equals 0x1, <b>wzSigSetupSuggSigner2_complex</b> MUST exist. |

**wzSigSetupSuggSigner2 (4 bytes):** The number of bytes of data in the **wzSigSetupSuggSigner2\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.8 wzSigSetupSuggSigner2\_complex

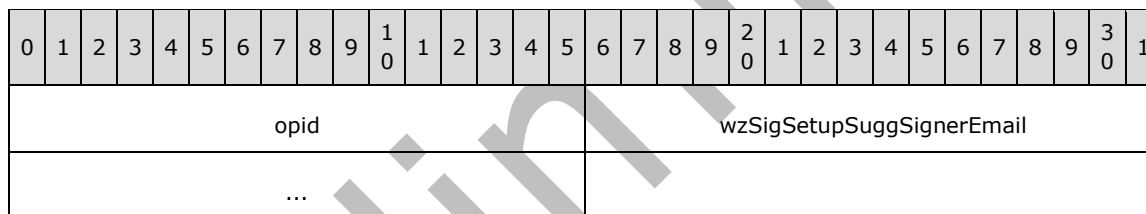
This property specifies additional data for the **wzSigSetupSuggSigner2** property, as defined in section 2.3.27.7. If the **opid.fComplex** bit of **wzSigSetupSuggSigner2** equals 0x1, this property MUST exist.



**wzSigSetupSuggSigner2\_complex (variable):** A null-terminated **Unicode** string that specifies the title or additional information about the suggested signer.

### 2.3.27.9 wzSigSetupSuggSignerEmail

The **wzSigSetupSuggSignerEmail** property specifies the e-mail address of the suggested signer. This property SHOULD <94> be ignored.



**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0785.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupSuggSignerEmail_complex</b> property, as defined in section 2.3.27.10, exists. If the value equals 0x1, <b>wzSigSetupSuggSignerEmail_complex</b> MUST exist. |

**wzSigSetupSuggSignerEmail (4 bytes):** The number of bytes of data in the **wzSigSetupSuggSignerEmail\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.



### 2.3.27.10 wzSigSetupSuggSignerEmail\_complex

The **wzSigSetupSuggSignerEmail\_complex** property specifies additional data for the **wzSigSetupSuggSignerEmail** property, as defined in section [2.3.27.9](#). If the **opid.fComplex** bit of **wzSigSetupSuggSignerEmail** equals 0x1, this property MUST exist.

|  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|--|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| wzSigSetupSuggSignerEmail_complex (variable) |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

**wzSigSetupSuggSignerEmail\_complex (variable):** A null-terminated **Unicode** string that specifies the e-mail address of the suggested signer.

### 2.3.27.11 wzSigSetupSignInst

The **wzSigSetupSignInst** property specifies the signing instruction that is displayed to the signer. This property SHOULD [<95>](#) be ignored.

|      |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                    |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
|------|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|--------------------|---|---|---|----|---|---|---|---|---|---|---|---|---|----|---|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6                  | 7 | 8 | 9 | 20 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 30 | 1 |
| opid |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   | wzSigSetupSignInst |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |
| ...  |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |                    |   |   |   |    |   |   |   |   |   |   |   |   |   |    |   |

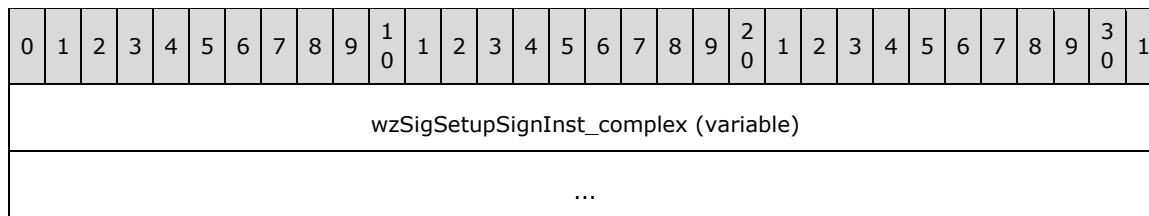
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0786.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupSignInst_complex</b> property, as defined in section <a href="#">2.3.27.12</a> , exists. If the value equals 0x1, <b>wzSigSetupSignInst_complex</b> MUST exist. |

**wzSigSetupSignInst (4 bytes):** The number of bytes of data in the **wzSigSetupSignInst\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.12 wzSigSetupSignInst\_complex

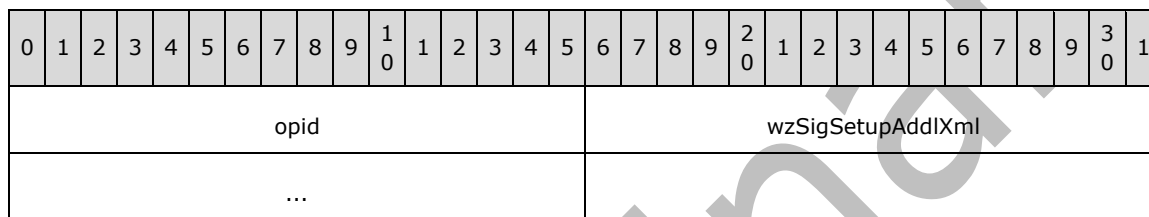
The **wzSigSetupSignInst\_complex** property specifies additional data for the **wzSigSetupSignInst** property, as defined in section [2.3.27.11](#). If the **opid.fComplex** bit of **wzSigSetupSignInst** equals 0x1, this property MUST exist.



**wzSigSetupSignInst\_complex (variable):** A null-terminated **Unicode** string specifying the signing instruction that is displayed to the signer.

### 2.3.27.13 wzSigSetupAddIXml

The **wzSigSetupAddIXml** property specifies additional information in **XML** format that is provided by the provider that creates the **signature line**. This property SHOULD [<96>](#) be ignored.



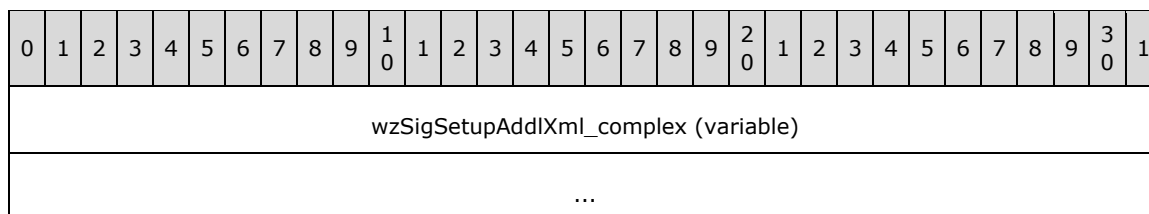
**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning   |
|----------------------|---|
| <b>opid.opid</b>     | A value that MUST be 0x0787.  |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.  |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupAddIXml_complex</b> property, as defined in section <a href="#">2.3.27.14</a> , exists. If the value equals 0x1, <b>wzSigSetupAddIXml_complex</b> MUST exist. |

**wzSigSetupAddIXml (4 bytes):** The number of bytes of data in the **wzSigSetupAddIXml\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.14 wzSigSetupAddIXml\_complex

The **wzSigSetupAddIXml\_complex** property specifies additional data for the **wzSigSetupAddIXml** property, as defined in section [2.3.27.13](#). If the **opid.fComplex** bit of **wzSigSetupAddIXml** equals 0x1, this property MUST exist.



**wzSigSetupAddXml\_complex (variable):** A null-terminated **Unicode** string that specifies additional information in **XML** format.

### 2.3.27.15 wzSigSetupProvUrl

The **wzSigSetupProvUrl** property specifies the **URL** of the provider that creates the **signature line**. This property SHOULD<97> be ignored.

|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16                | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    | wzSigSetupProvUrl |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning  |
|----------------------|--|
| <b>opid.opid</b>     | A value that MUST be 0x0788.   |
| <b>opid.fBid</b>     | A value that is undefined and MUST be ignored.   |
| <b>opid.fComplex</b> | A bit that indicates whether the <b>wzSigSetupProvUrl_complex</b> property, as defined in section 2.3.27.16, exists. If the value equals 0x1, <b>wzSigSetupProvUrl_complex</b> MUST exist. |

**wzSigSetupProvUrl (4 bytes):** The number of bytes of data in the **wzSigSetupProvUrl\_complex** property. This value MUST be 0x00000000 if **opid.fComplex** is 0x0. The default value for this property is 0x00000000.

### 2.3.27.16 wzSigSetupProvUrl\_complex

The **wzSigSetupProvUrl\_complex** property specifies additional data for the **wzSigSetupProvUrl** property, as defined in section 2.3.27.15. If the **opid.fComplex** bit of **wzSigSetupProvUrl** equals 0x1, this property MUST exist.

|                                      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| wzSigSetupProvUrl_complex (variable) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ...                                  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**wzSigSetupProvUrl\_complex (variable):** A null-terminated **Unicode** string that specifies the **URL** of the provider.

### 2.3.27.17 Signature Line Boolean Properties

The **Signature Line Boolean Properties** specify a 32-bit field of Boolean properties for the **signature line**. This property SHOULD [<98>](#) be ignored.

|         |   |   |   |   |   |   |   |   |   |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------|---|---|---|---|---|---|---|---|---|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12      | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| opid    |   |   |   |   |   |   |   |   |   |    |    | unused1 |    |    |    |    |    |    |    |    |    |    |    | A  | B  | C  | D  |    |    |    |    |
| unused2 |   |   |   |   |   |   |   |   |   |    |    | E       | F  | G  | H  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**opid (2 bytes):** An **OfficeArtFOPTEOPID** record, as defined in section [2.2.8](#), that specifies the header for this property. The following table specifies the subfields.

| Field                | Meaning                      |
|----------------------|------------------------------|
| <b>opid.opid</b>     | A value that MUST be 0x07BF. |
| <b>opid.fBid</b>     | A value that MUST be 0x0.    |
| <b>opid.fComplex</b> | A value that MUST be 0x0.    |

**unused1 (12 bits):** A value that is undefined and MUST be ignored.

**A - fUsefSigSetupShowSignDate (1 bit):** A bit that specifies whether the **fSigSetupShowSignDate** bit is set. A value of 0x0 specifies that **fSigSetupShowSignDate** MUST be ignored. The default value for this property is 0x0.

**B - fUsefSigSetupAllowComments (1 bit):** A bit that specifies whether the **fSigSetupAllowComments** bit is set. A value of 0x0 specifies that **fSigSetupAllowComments** MUST be ignored. The default value for this property is 0x0.

**C - fUsefSigSetupSignInstSet (1 bit):** A bit that specifies whether the **fSigSetupSignInstSet** bit is set. A value of 0x0 specifies that **fSigSetupSignInstSet** MUST be ignored. The default value for this property is 0x0.

**D - fUsefIsSignatureLine (1 bit):** A bit that specifies whether the **fIsSignatureLine** bit is set. A value of 0x0 specifies that **fIsSignatureLine** MUST be ignored. The default value for this property is 0x0.

**unused2 (12 bits):** A value that is undefined and MUST be ignored.

**E - fSigSetupShowSignDate (1 bit):** A bit that specifies whether the signing date will be displayed. This value MUST be ignored if **fUsefSigSetupShowSignDate** is 0x0. The default value for this property is 0x1.

**F - fSigSetupAllowComments (1 bit):** A bit that specifies whether a comment from the signer is allowed. This value MUST be ignored if **fUsefSigSetupAllowComments** is 0x0. The default value for this property is 0x0.

**G - fSigSetupSignInstSet (1 bit):** A bit that specifies whether the signing instruction will be overridden. The following table specifies the meaning of each value for this bit. This value MUST be ignored if **fUsefSigSetupSignInstSet** is 0x0. The default value for this property is 0x0.

| Value | Meaning   |
|-------|---|
| 0x0   | Specifies that a default signing instruction will be displayed.                           |
| 0x1   | Specifies that the <a href="#">wzSigSetupSignInst_complex</a> property will be displayed. |

**H - fIsSignatureLine (1 bit):** A bit that specifies whether the **shape** is a signature line. This value MUST be ignored if **fUsefIsSignatureLine** is 0x0. The default value for this property is 0x0.

## 2.4 Enumerations

### 2.4.1 MSOBLIPTYPE

Referenced by: [OfficeArtFBSE](#)

The **MSOBLIPTYPE** enumeration, as shown in the following table, specifies the persistence format of bitmap data.

| Name                   | Value | Meaning                               |
|------------------------|-------|---------------------------------------|
| <b>msoblipERROR</b>    | 0x00  | Error reading the file.               |
| <b>msoblipUNKNOWN</b>  | 0x01  | Unknown <b>BLIP</b> type.             |
| <b>msoblipEMF</b>      | 0x02  | <b>EMF</b> .                          |
| <b>msoblipWMF</b>      | 0x03  | <b>WMF</b> .                          |
| <b>msoblipPICT</b>     | 0x04  | <b>Macintosh PICT</b> .               |
| <b>msoblipJPEG</b>     | 0x05  | <b>JPEG</b> .                         |
| <b>msoblipPNG</b>      | 0x06  | <b>PNG</b> .                          |
| <b>msoblipDIB</b>      | 0x07  | <b>DIB</b>                            |
| <b>msoblipTIFF</b>     | 0x11  | <b>TIFF</b>                           |
| <b>msoblipCMYKJPEG</b> | 0x12  | JPEG in the YCCK or CMYK color space. |

### 2.4.2 MSODGCID

The **MSODGCID** enumeration, as shown in the following table, specifies the command identifiers that are used for customizing toolbars and keyboard shortcuts.

| Name                        | Value  | Meaning  |
|-----------------------------|--------|--|
| <b>msodgcidNil</b>          | 0x0000 | Undefined—the command is specified by a <b>toolbar control identifier (TCID)</b> . |
| <b>msodgcidPaste</b>        | 0x0004 | Paste the <b>drawing object</b> .  |
| <b>msodgcidSelectAll</b>    | 0x0006 | Select all drawing objects.  |
| <b>msodgcidRepeat</b>       | 0x0008 | Repeat the last action.  |
| <b>msodgcidBringToFront</b> | 0x000C | Bring the drawing objects to the front.  |
| <b>msodgcidSendToBack</b>   | 0x000D | Send the drawing objects to the back.  |

| Name                                  | Value  | Meaning   |
|---------------------------------------|--------|---|
| <b>msodgcidBringForward</b>           | 0x000E | Bring the drawing objects forward. (Not necessarily all the way to the front.)  |
| <b>msodgcidSendBackward</b>           | 0x000F | Send the drawing objects backward. (Not necessarily all the way to the back.)   |
| <b>msodgcidBringInFrontOfDocument</b> | 0x0010 | Bring the drawing objects in front of the text.   |
| <b>msodgcidSendBehindDocument</b>     | 0x0011 | Send the drawing objects behind the text.   |
| <b>msodgcidGroup</b>                  | 0x0012 | Group the drawing objects.  |
| <b>msodgcidUngroup</b>                | 0x0013 | Ungroup the grouped drawing objects.  |
| <b>msodgcidRegroup</b>                | 0x0014 | Regroup the drawing objects.  |
| <b>msodgcidInsertPolygonPt</b>        | 0x0019 | Add a point to a polygon <b>shape</b> .   |
| <b>msodgcidDeletePolygonPt</b>        | 0x001A | Delete a point from a polygon shape.  |
| <b>msodgcidCopyPolygonPt</b>          | 0x001C | Copy a polygon point.   |
| <b>msodgcidClosePolygon</b>           | 0x001D | Close the path on a shape that has an open path.  |
| <b>msodgcidOpenPolygon</b>            | 0x001E | Open the path on a shape that has a closed path.  |
| <b>msodgcidPolygonReshape</b>         | 0x0020 | Update the vertex and segment information in the polygon.   |
| <b>msodgcidAutoVertex</b>             | 0x0021 | Edit a point on a shape to be an automatic point. An automatic point has Bezier handles which are automatically calculated based on the positions of the adjacent vertices. |
| <b>msodgcidSmoothVertex</b>           | 0x0022 | Edit a point on a shape to be a smooth point. A smooth point has Bezier handles which are collinear with and equidistant from the point.                                    |
| <b>msodgcidStraightVertex</b>         | 0x0023 | Edit a point on a shape to be a straight point. A straight point has Bezier handles which are collinear with the point, but not necessarily equidistant from it.            |
| <b>msodgcidCornerVertex</b>           | 0x0024 | Edit a point on a shape to be a corner point.   |
| <b>msodgcidStraightSegment</b>        | 0x0025 | Edit a segment on a shape to be a straight segment.   |
| <b>msodgcidCurvedSegment</b>          | 0x0026 | Edit a segment on a shape to be a curved segment.   |
| <b>msodgcidRotateLeft90</b>           | 0x0029 | Rotate the drawing objects 90 degrees counterclockwise.   |
| <b>msodgcidRotateRight90</b>          | 0x002A | Rotate the drawing objects 90 degrees clockwise.  |

| Name                                  | Value  | Meaning  |
|---------------------------------------|--------|--|
| <b>msodgcidFlipHorizontal</b>         | 0x002B | Horizontally flip the drawing objects.   |
| <b>msodgcidFlipVertical</b>           | 0x002C | Vertically flip the drawing objects.   |
| <b>msodgcidAlignLeft</b>              | 0x002D | Align the drawing objects to the left side.  |
| <b>msodgcidAlignCenterHorizontal</b>  | 0x002E | Align the drawing objects to the center.   |
| <b>msodgcidAlignRight</b>             | 0x002F | Align the drawing objects to the right side.   |
| <b>msodgcidAlignTop</b>               | 0x0030 | Align the drawing objects to the top.  |
| <b>msodgcidAlignCenterVertical</b>    | 0x0031 | Vertically align the drawing objects to the middle.  |
| <b>msodgcidAlignBottom</b>            | 0x0032 | Align the drawing objects to the bottom.   |
| <b>msodgcidAlignPageRelative</b>      | 0x0033 | Align the drawing objects relative to the page, rather than relative to one another.                       |
| <b>msodgcidDistributeHorizontal</b>   | 0x0034 | Horizontally distribute the drawing objects.   |
| <b>msodgcidDistributeVertical</b>     | 0x0035 | Vertically distribute the drawing objects.   |
| <b>msodgcidDistributePageRelative</b> | 0x0036 | Distribute the drawing objects relative to the page or <b>slide</b> , rather than relative to one another. |
| <b>msodgcidNudgeLeft</b>              | 0x0037 | Nudge the drawing objects to the left.   |
| <b>msodgcidNudgeRight</b>             | 0x0038 | Nudge the drawing objects to the right.  |
| <b>msodgcidNudgeUp</b>                | 0x0039 | Nudge the drawing objects up.  |
| <b>msodgcidNudgeDown</b>              | 0x003A | Nudge the drawing objects down.  |
| <b>msodgcidNudgeLeftOne</b>           | 0x003B | Nudge the drawing objects to the left by one pixel.  |
| <b>msodgcidNudgeRightOne</b>          | 0x003C | Nudge the drawing objects to the right by one pixel.   |
| <b>msodgcidNudgeUpOne</b>             | 0x003D | Nudge the drawing objects up by one pixel.   |
| <b>msodgcidNudgeDownOne</b>           | 0x003E | Nudge the drawing objects down by one pixel.   |
| <b>msodgcidToggleReshapeMode</b>      | 0x003F | Toggle the reshape mode.   |
| <b>msodgcidToggleRotateMode</b>       | 0x0040 | Toggle the rotate mode.  |
| <b>msodgcidToggleCropMode</b>         | 0x0041 | Crop the picture.  |
| <b>msodgcidMoreFillColor</b>          | 0x0043 | Show more fill colors.   |
| <b>msodgcidFillEffect</b>             | 0x0044 | Show more fill effects.  |
| <b>msodgcidMoreLineColor</b>          | 0x0045 | Show more outline colors.  |
| <b>msodgcidMoreLineWidth</b>          | 0x0046 | Show more line widths.   |

| <b>Name</b>                                  | <b>Value</b> | <b>Meaning</b>  |
|--|--------------|---|
| <b>msodgcidMoreArrow</b>                     | 0x0047       | Show more line end decorations.                                       |
| <b>msodgcidTextEffectRotateCharacters</b>    | 0x0048       | Display the text in stylized text objects as vertical text.           |
| <b>msodgcidTextEffectStretchToFill</b>       | 0x0049       | Stretch the text in stylized text objects to fill the shape.          |
| <b>msodgcidTextEffectSameHeight</b>          | 0x004A       | Set all the letters to the same height in stylized text objects.      |
| <b>msodgcidTextEffectAlignLeft</b>           | 0x004B       | Align the text in stylized text objects to the left side.             |
| <b>msodgcidTextEffectAlignCenter</b>         | 0x004C       | Align the text in stylized text objects to the center.                |
| <b>msodgcidTextEffectAlignRight</b>          | 0x004D       | Align the text in stylized text objects to the right side.            |
| <b>msodgcidTextEffectAlignLetterJustify</b>  | 0x004E       | Set the alignment for stylized text objects to letter justify.        |
| <b>msodgcidTextEffectAlignWordJustify</b>    | 0x0050       | Set the alignment for stylized text objects to word justify.          |
| <b>msodgcidTextEffectAlignStretchJustify</b> | 0x0051       | Set the alignment for stylized text objects to stretch justify.       |
| <b>msodgcidTextEffectSpacingVeryTight</b>    | 0x0052       | Set the text spacing for stylized text objects to very tight.         |
| <b>msodgcidTextEffectSpacingTight</b>        | 0x0053       | Set the text spacing for stylized text objects to tight.              |
| <b>msodgcidTextEffectSpacingNormal</b>       | 0x0054       | Set the text spacing for stylized text objects to normal.             |
| <b>msodgcidTextEffectSpacingLoose</b>        | 0x0055       | Set the text spacing for stylized text objects to loose.              |
| <b>msodgcidTextEffectSpacingVeryLoose</b>    | 0x0056       | Set the text spacing for stylized text objects to very loose.         |
| <b>msodgcidTextEffectKernPairs</b>           | 0x0057       | Kern character pairs that exist in the text in stylized text objects. |
| <b>msodgcidTextEffectEditText</b>            | 0x0058       | Edit the text in a stylized text object.                              |
| <b>msodgcidPictureMoreContrast</b>           | 0x0059       | Increase the contrast of the picture.                                 |
| <b>msodgcidPictureLessContrast</b>           | 0x005A       | Decrease the contrast of the picture.                                 |
| <b>msodgcidPictureMoreBrightness</b>         | 0x005B       | Increase the brightness of the picture.                               |
| <b>msodgcidPictureLessBrightness</b>         | 0x005C       | Decrease the brightness of the picture.                               |
| <b>msodgcidPictureReset</b>                  | 0x005D       | Reset the picture to the default settings.                            |
| <b>msodgcidPictureImageAutomatic</b>         | 0x005E       | Use automatic picture colors.   |
| <b>msodgcidPictureImageGrayscale</b>         | 0x005F       | Display the picture in grayscale.                                     |



| Name                                  | Value  | Meaning                                     |
|---------------------------------------|--------|---|
| <b>msodgcidPictureImageBlackWhite</b> | 0x0060 | Display picture in black and white.         |
| <b>msodgcidPictureImageWatermark</b>  | 0x0061 | Add a watermark to the picture.             |
| <b>msodgcidPictureInLine</b>          | 0x0062 | Set the picture to be inline with the text. |
| <b>msodgcidMoreShadow</b>             | 0x0067 | Show the shadow settings.                   |
| <b>msodgcidMoreShadowColor</b>        | 0x0068 | Show more shadow colors.                    |
| <b>msodgcidNudgeShadowUp</b>          | 0x0069 | Nudge the shadow up.                        |
| <b>msodgcidNudgeShadowDown</b>        | 0x006A | Nudge the shadow down.                      |
| <b>msodgcidNudgeShadowLeft</b>        | 0x006B | Nudge the shadow to the left.               |
| <b>msodgcidNudgeShadowRight</b>       | 0x006C | Nudge the shadow to the right.              |
| <b>msodgcidMore3D</b>                 | 0x006D | Show the 3-D settings.                      |
| <b>msodgcidMore3DColor</b>            | 0x006E | Show more 3-D colors.                       |
| <b>msodgcid3DToggle</b>               | 0x006F | Toggle the 3-D options on or off.           |
| <b>msodgcid3DTiltForward</b>          | 0x0070 | Tilt the 3-D drawing objects down.          |
| <b>msodgcid3DTiltBackward</b>         | 0x0071 | Tilt the 3-D drawing objects up.            |
| <b>msodgcid3DTiltLeft</b>             | 0x0072 | Tilt the 3-D drawing objects to the left.   |
| <b>msodgcid3DTiltRight</b>            | 0x0073 | Tilt the 3-D drawing objects to the right.  |
| <b>msodgcid3DDepth0</b>               | 0x0074 | Set the 3-D depth to 0 <b>points</b> .      |
| <b>msodgcid3DDepth1</b>               | 0x0075 | Set the 3-D depth to 36 points.             |
| <b>msodgcid3DDepth2</b>               | 0x0076 | Set the 3-D depth to 72 points.             |
| <b>msodgcid3DDepth3</b>               | 0x0077 | Set the 3-D depth to 144 points.            |
| <b>msodgcid3DDepth4</b>               | 0x0078 | Set the 3-D depth to 288 points.            |
| <b>msodgcid3DDepthInfinite</b>        | 0x0079 | Set the 3-D depth to infinity.              |
| <b>msodgcid3DPerspective</b>          | 0x007A | Set the 3-D direction to perspective.       |
| <b>msodgcid3DParallel</b>             | 0x007B | Set the 3-D direction to parallel.          |
| <b>msodgcid3DLightingFlat</b>         | 0x007C | Set the 3-D lighting to bright.             |
| <b>msodgcid3DLightingNormal</b>       | 0x007D | Set the 3-D lighting to normal.             |
| <b>msodgcid3DLightingHarsh</b>        | 0x007E | Set the 3-D lighting to dim.                |
| <b>msodgcid3DSurfaceMatte</b>         | 0x007F | Set the 3-D surface to matte.               |
| <b>msodgcid3DSurfacePlastic</b>       | 0x0080 | Set the 3-D surface to plastic.             |
| <b>msodgcid3DSurfaceMetal</b>         | 0x0081 | Set the 3-D surface to metal.               |
| <b>msodgcid3DSurfaceWireFrame</b>     | 0x0082 | Set the 3-D surface to wire frame.          |
| <b>msodgcidToolPointer</b>            | 0x0087 | Select drawing objects.                     |

| Name  | Value  | Meaning  |
|---|--------|--|
| <b>msodgcidToolMarquee</b>                      | 0x0088 | Drag a rectangle to select multiple drawing objects.           |
| <b>msodgcidToolLine</b>                         | 0x008C | Insert a line shape.   |
| <b>msodgcidToolArrow</b>                        | 0x008D | Insert an arrow shape.   |
| <b>msodgcidToolDoubleArrow</b>                  | 0x008E | Insert a double arrow shape.                                   |
| <b>msodgcidToolArc</b>                          | 0x008F | Insert an arc shape.   |
| <b>msodgcidToolPolygon</b>                      | 0x0090 | Insert a polygon shape.  |
| <b>msodgcidToolFilledPolygon</b>                | 0x0091 | Insert a filled polygon shape.                                 |
| <b>msodgcidToolCurve</b>                        | 0x0092 | Insert a curve shape.  |
| <b>msodgcidToolFreeform</b>                     | 0x0093 | Insert a freeform shape.                                       |
| <b>msodgcidToolFilledFreeform</b>               | 0x0094 | Insert a filled freeform shape.                                |
| <b>msodgcidToolFreehand</b>                     | 0x0095 | Insert a scribble shape.                                       |
| <b>msodgcidToolText</b>                         | 0x0098 | Insert a text box.   |
| <b>msodgcidToolStraightConnector</b>            | 0x009D | Insert a straight <b>connector</b> shape.                      |
| <b>msodgcidToolAngledConnector</b>              | 0x009E | Insert an elbow connector shape.                               |
| <b>msodgcidToolCurvedConnector</b>              | 0x009F | Insert a curved connector shape.                               |
| <b>msodgcidSwatchFillColorNone</b>              | 0x00A1 | Set the fill color to no color.                                |
| <b>msodgcidSwatchFillColorStandard</b>          | 0x00A2 | Use standard colors to fill a shape.                           |
| <b>msodgcidSwatchFillColorMRU</b>               | 0x00A3 | Use recently used colors to fill a shape.                      |
| <b>msodgcidSwatchLineColorNone</b>              | 0x00A4 | Set the line color to no color.                                |
| <b>msodgcidSwatchLineColorStandard</b>          | 0x00A5 | Use standard colors for a line.                                |
| <b>msodgcidSwatchLineColorMRU</b>               | 0x00A6 | Use recently used colors for a line.                           |
| <b>msodgcidSwatchShadowColorStandard</b>        | 0x00A8 | Use standard colors for a shadow.                              |
| <b>msodgcidSwatchShadowColorMRU</b>             | 0x00A9 | Use recently used colors for a shadow.                         |
| <b>msodgcidSwatch3DColorAutomatic</b>           | 0x00AB | Use automatic colors for a 3-D shape..                         |
| <b>msodgcidSwatch3DColorStandard</b>            | 0x00AC | Use standard colors for a 3-D shape.                           |
| <b>msodgcidSwatch3DColorMRU</b>                 | 0x00AD | Use recently used colors for a 3-D shape.                      |
| <b>msodgcidSwatchDlgGradientFgColorStandard</b> | 0x00BD | Select the gradient foreground color from the standard colors. |
| <b>msodgcidSwatchDlgColorMRU</b>                | 0x00C7 | Select from all recently used colors.                          |
| <b>msodgcidSplitMenuLineColor</b>               | 0x00DF | Select from colors that were recently used for a line.         |
| <b>msodgcidSplitMenuShadowColor</b>             | 0x00E0 | Select from colors that were recently used for a shadow.       |

| Name   | Value  | Meaning   |
|--|--------|---|
| <b>msodgcidSplitMenu3DColor</b>              | 0x00E1 | Select from colors that were recently used for a 3-D shape. |
| <b>msodgcidRerouteConnections</b>            | 0x00E2 | Reroute the connectors.                                     |
| <b>msodgcidStraightStyle</b>                 | 0x00E3 | Change the selected connector to a straight connector.      |
| <b>msodgcidAngledStyle</b>                   | 0x00E4 | Change the selected connector to an elbow connector.        |
| <b>msodgcidCurvedStyle</b>                   | 0x00E5 | Change the selected connector to a curved connector.        |
| <b>msodgcidToggleFill</b>                    | 0x00E6 | Toggle the fill color on or off.                            |
| <b>msodgcidToggleLine</b>                    | 0x00E7 | Toggle the line color on or off.                            |
| <b>msodgcidToggleShadow</b>                  | 0x00E8 | Toggle the shadow on or off.                                |
| <b>msodgcidEditPicture</b>                   | 0x00EB | Edit the picture.   |
| <b>msodgcidFormatShape</b>                   | 0x00EC | Format the shape object.                                    |
| <b>msodgcidTextEffectInsert</b>              | 0x00F0 | Show the options for stylized text objects.                 |
| <b>msodgcidTextEffectToolbarToggle</b>       | 0x00F1 | Show the toolbar for stylized text objects.                 |
| <b>msodgcidLinePatternFill</b>               | 0x00FD | Show the options for patterned lines.                       |
| <b>msodgcidActivateText</b>                  | 0x010A | Add text to the drawing object.                             |
| <b>msodgcidToggleShadowOpacity</b>           | 0x010B | Set the shadow opacity.                                     |
| <b>msodgcidExitReshapeMode</b>               | 0x010C | Exit edit point mode.                                       |
| <b>msodgcidToolVerticalText</b>              | 0x010D | Insert a vertical text box.                                 |
| <b>msodgcidExitRotateMode</b>                | 0x010E | Exit rotate mode.   |
| <b>msodgcidTogglePictureToolbar</b>          | 0x010F | Show the picture toolbar.                                   |
| <b>msodgcidSetDefaults</b>                   | 0x0110 | Set the selected shape as the default shape.                |
| <b>msodgcidToolStraightArrowConnector</b>    | 0x0112 | Insert a straight arrow connector shape.                    |
| <b>msodgcidToolAngledArrowConnector</b>      | 0x0113 | Insert an elbow arrow connector shape.                      |
| <b>msodgcidToolCurvedArrowConnector</b>      | 0x0114 | Insert a curved arrow connector shape.                      |
| <b>msodgcidToolStraightDbIArrowConnector</b> | 0x0115 | Insert a straight double-arrow connector shape.             |
| <b>msodgcidToolAngledDbIArrowConnector</b>   | 0x0116 | Insert an elbow double-arrow connector shape.               |
| <b>msodgcidToolCurvedDbIArrowConnector</b>   | 0x0117 | Insert a curved double-arrow connector shape.               |
| <b>msodgcidToolSetTransparentColor</b>       | 0x0118 | Set the transparent color.                                  |
| <b>msodgcidTextEffectGallery</b>             | 0x0119 | Show the gallery for stylized text objects.                 |

| Name  | Value  | Meaning   |
|---|--------|---|
|   |        | The gallery is a series of sample images that illustrate the various stylized text objects available. Any option may be customized after it has been selected from the gallery. |
| <b>msodgcidShowAutoShapesAndDrawingToolbars</b> | 0x011A | Show the automatic shapes and drawing toolbars.   |
| <b>msodgcidDeleteSegment</b>                    | 0x011D | Delete a line segment from a shape.   |
| <b>msodgcidTogglePointerMode</b>                | 0x0122 | Select objects.   |
| <b>msodgcidInsertScript</b>                     | 0x0136 | Insert a script on the Web page.  |
| <b>msodgcidRunCag</b>                           | 0x0139 | Open the task pane for clip art.  |
| <b>msodgcidRunCagForPictures</b>                | 0x013A | Insert a picture from the clip organizer.   |
| <b>msodgcidRunCagForMovies</b>                  | 0x013B | Insert a movie from the clip organizer.   |
| <b>msodgcidRunCagForSounds</b>                  | 0x013C | Insert a sound from the clip organizer.   |
| <b>msodgcidRunCagForShapes</b>                  | 0x013D | Show the automatic shapes from the clip organizer.  |
| <b>msodgcidMultiSelect</b>                      | 0x013F | Select multiple objects.  |
| <b>msodgcidInsertDrawingCanvas</b>              | 0x0140 | Insert a new drawing canvas.  |
| <b>msodgcidInsertOrgChart</b>                   | 0x0141 | Insert an organizational chart <b>diagram</b> .   |
| <b>msodgcidInsertRadialChart</b>                | 0x0142 | Insert a radial diagram.  |
| <b>msodgcidInsertCycleChart</b>                 | 0x0143 | Insert a cycle diagram.   |
| <b>msodgcidInsertStackedChart</b>               | 0x0144 | Insert a pyramid diagram.   |
| <b>msodgcidInsertBullsEyeChart</b>              | 0x0145 | Insert a target diagram.  |
| <b>msodgcidInsertVennDiagram</b>                | 0x0146 | Insert a Venn diagram.  |
| <b>msodgcidOrgChartInsertSubordinate</b>        | 0x0147 | Insert a subordinate node for an organizational chart.  |
| <b>msodgcidOrgChartInsertCoworker</b>           | 0x0148 | Insert a coworker node for an organizational chart.   |
| <b>msodgcidOrgChartInsertAssistant</b>          | 0x0149 | Insert an assistant node for an organizational chart.   |
| <b>msodgcidOrgChartDeleteNode</b>               | 0x014A | Delete the diagram node.  |
| <b>msodgcidOrgChartLayoutHorizontal1</b>        | 0x014B | Set the organizational chart layout to standard.  |
| <b>msodgcidOrgChartLayoutHorizontal2</b>        | 0x014C | Set the organizational chart layout to both hanging.  |
| <b>msodgcidOrgChartLayoutVertical1</b>          | 0x014D | Set the organizational chart layout to right hanging.   |
| <b>msodgcidOrgChartLayoutVertical2</b>          | 0x014E | Set the organizational chart layout to left   |

| Name                                       | Value  | Meaning   |
|--|--------|---|
|  |        | hanging.  |
| <b>msodgcidDiagramStyle</b>                | 0x014F | Change the diagram style.   |
| <b>msodgcidConvertToVenn</b>               | 0x0151 | Convert the selected diagram to a Venn diagram.   |
| <b>msodgcidConvertToRadial</b>             | 0x0152 | Convert the selected diagram to a radial diagram.   |
| <b>msodgcidConvertToCycle</b>              | 0x0153 | Convert the selected diagram to a cycle diagram.  |
| <b>msodgcidConvertToBullsEye</b>           | 0x0154 | Convert the selected diagram to a target diagram.   |
| <b>msodgcidConvertToPyramid</b>            | 0x0155 | Convert the selected diagram to a pyramid diagram.  |
| <b>msodgcidMoveDiagramShapeUp</b>          | 0x0156 | Move the diagram shape backward.  |
| <b>msodgcidMoveDiagramShapeDown</b>        | 0x0157 | Move the diagram shape forward.   |
| <b>msodgcidInsertDiagramShape</b>          | 0x0158 | Insert a shape into diagram.  |
| <b>msodgcidInsertDiagram</b>               | 0x0159 | Insert a diagram.   |
| <b>msodgcidCanvasFit</b>                   | 0x015B | Fit the diagram to the canvas.  |
| <b>msodgcidCanvasResize</b>                | 0x015C | Resize the drawing canvas.  |
| <b>msodgcidToggleCanvasToolbar</b>         | 0x015D | Show the drawing canvas toolbar.  |
| <b>msodgcidCanvasExpand</b>                | 0x015F | Expand the drawing canvas.  |
| <b>msodgcidAlignCanvasRelative</b>         | 0x0179 | Align the diagram relative to the drawing canvas, rather than relative to the page or to other objects. |
| <b>msodgcidOrgChartSelectLevel</b>         | 0x017A | Select the level inside the organizational chart.   |
| <b>msodgcidOrgChartSelectBranch</b>        | 0x017B | Select the branch inside the organizational chart.  |
| <b>msodgcidOrgChartSelectAllAssistants</b> | 0x017C | Select all the assistants.  |
| <b>msodgcidOrgChartSelectAllConnectors</b> | 0x017D | Select all the connector shapes.  |
| <b>msodgcidDiagramDeleteNode</b>           | 0x017E | Delete the shape from the diagram.  |
| <b>msodgcidDiagramReverse</b>              | 0x017F | Reverse the direction of the diagram.   |
| <b>msodgcidDiagramAutoLayout</b>           | 0x0180 | Set the diagram layout to automatic layout.   |
| <b>msodgcidOrgChartAutoLayout</b>          | 0x0181 | Set the organizational chart layout to automatic layout.  |
| <b>msodgcidOptimizePictDialog</b>          | 0x0187 | Show the compress pictures options.   |
| <b>msodgcidDiagramFit</b>                  | 0x018D | Fit the diagram to its contents.  |

| Name                                       | Value  | Meaning  |
|--|--------|--|
| <b>msodgcidDiagramResize</b>               | 0x018E | Resize the diagram.  |
| <b>msodgcidDiagramExpand</b>               | 0x018F | Expand the diagram.  |
| <b>msodgcidOrgChartFit</b>                 | 0x0190 | Fit the organizational chart to its contents.                                |
| <b>msodgcidOrgChartResize</b>              | 0x01F5 | Resize the organizational chart.   |
| <b>msodgcidOrgChartExpand</b>              | 0x01F6 | Expand the organizational chart.   |
| <b>msodgcidOrgChartStyle</b>               | 0x01F7 | Change the style for the organizational chart.                               |
| <b>msodgciSplitMenuOrgChartInsertShape</b> | 0x01F8 | Insert a shape in the organizational chart.                                  |
| <b>msodgcidDiagramAutoFormat</b>           | 0x01F9 | Use automatic formatting for the organizational chart.                       |
| <b>msodgcidCanvasScale</b>                 | 0x01FB | Scale the drawing canvas.  |
| <b>msodgcidOrgChartScale</b>               | 0x01FC | Scale the organizational chart.  |
| <b>msodgcidDiagramScale</b>                | 0x01FD | Scale the diagram.   |
| <b>msodgcidAlignOrgChartRelative</b>       | 0x01FF | Align the selection relative to the organizational chart it is contained in. |
| <b>msodgcidAlignDiagramRelative</b>        | 0x0200 | Align the selection relative to the diagram it is contained in.              |
| <b>msodgcidSplitMenuInkColor</b>           | 0x0204 | Select from recently used <b>ink</b> colors.                                 |
| <b>msodgcidSplitMenuInkAnntColor</b>       | 0x0206 | Select from recently used annotation colors.                                 |
| <b>msodgcidInkStyle1</b>                   | 0x0208 | Set the ink style to Color 1.  |
| <b>msodgcidInkStyle2</b>                   | 0x0209 | Set the ink style to Color 2.  |
| <b>msodgcidInkStyle3</b>                   | 0x020A | Set the ink style to Color 3.  |
| <b>msodgcidInkStyle4</b>                   | 0x020B | Set the ink style to Color 4.  |
| <b>msodgcidInkStyle5</b>                   | 0x020C | Set the ink style to Color 5.  |
| <b>msodgcidInkStyle6</b>                   | 0x020D | Set the ink style to Color 6.  |
| <b>msodgcidInkStyle7</b>                   | 0x020E | Set the ink style to Color 7.  |
| <b>msodgcidInkStyle8</b>                   | 0x020F | Set the ink style to Color 8.  |
| <b>msodgcidInkStyle9</b>                   | 0x0210 | Set the ink style to Color 9.  |
| <b>msodgcidInkAnnotationStyle1</b>         | 0x0211 | Set the annotation style to Color 1.   |
| <b>msodgcidInkAnnotationStyle2</b>         | 0x0212 | Set the annotation style to Color 2.   |
| <b>msodgcidInkAnnotationStyle3</b>         | 0x0213 | Set the annotation style to Color 3.   |
| <b>msodgcidInkAnnotationStyle4</b>         | 0x0214 | Set the annotation style to Color 4.   |
| <b>msodgcidInkAnnotationStyle5</b>         | 0x0215 | Set the annotation style to Color 5.   |

| Name                                       | Value  | Meaning  |
|--|--------|--|
| <b>msodgcidInkAnnotationStyle6</b>         | 0x0216 | Set the annotation style to Color 6.             |
| <b>msodgcidInkAnnotationStyle7</b>         | 0x0217 | Set the annotation style to Color 7.             |
| <b>msodgcidInkAnnotationStyle8</b>         | 0x0218 | Set the annotation style to Color 8.             |
| <b>msodgcidInkAnnotationStyle9</b>         | 0x0219 | Set the annotation style to Color 9.             |
| <b>msodgcidToggleInkToolbar</b>            | 0x021A | Show the ink drawing and writing toolbar.        |
| <b>msodgcidToggleInkAnnotationToolbar</b>  | 0x021B | Show the ink annotations toolbar.                |
| <b>msodgcidClearAllInkAnnotations</b>      | 0x021C | Delete all the ink annotations in the document.  |
| <b>msodgcidInkDrawing</b>                  | 0x021E | Toggle the ink drawing/writing mode.             |
| <b>msodgcidExitInkMode</b>                 | 0x0220 | Exit ink mode.                                   |
| <b>msodgcidInkEraser</b>                   | 0x0221 | Use the ink eraser.                              |
| <b>msodgcidInkAnnotationEraser</b>         | 0x0222 | Use the annotation eraser.                       |
| <b>msodgcidExitInkAnnotationMode</b>       | 0x0223 | Exit ink annotation mode.                        |
| <b>msodgcidInkLabel1</b>                   | 0x0224 | Use the ballpoint pen for ink.                   |
| <b>msodgcidInkLabel2</b>                   | 0x0225 | Use the felt tip pen for ink.                    |
| <b>msodgcidInkLabel3</b>                   | 0x0226 | Use the highlighter pen for ink.                 |
| <b>msodgcidOrgChartFitText</b>             | 0x0227 | Fit text inside the organizational chart.        |
| <b>msodgcidEyedropperFillColor</b>         | 0x0228 | Set the eyedropper fill color.                   |
| <b>msodgcidEyedropperLineColor</b>         | 0x0229 | Set the eyedropper line color.                   |
| <b>msodgcidEyedropperShadowColor</b>       | 0x022A | Set the eyedropper shadow color.                 |
| <b>msodgcidEyedropper3DColor</b>           | 0x022B | Set the eyedropper 3-D color.                    |
| <b>msodgcidPictureFill</b>                 | 0x022C | Set the picture fill.                            |
| <b>msodgcidAlignSelectionRelativeSmart</b> | 0x022D | Align the selected objects relative to the page. |
| <b>msodgcidAlignContainerRelativeSmart</b> | 0x022E | Align all drawing objects relative to the page.  |
| <b>msodgcidDistributeHorizontalSmart</b>   | 0x0235 | Horizontally distribute the drawing objects.     |
| <b>msodgcidDistributeVerticalSmart</b>     | 0x0236 | Vertically distribute the drawing objects.       |
| <b>msodgcidInkInsertSpace</b>              | 0x023A | Insert a space inside the ink shape.             |
| <b>msodgcidInkAnnotationBallpoint</b>      | 0x0242 | Use the ballpoint pen for ink annotation.        |
| <b>msodgcidInkAnnotationFelt</b>           | 0x0243 | Use the felt tip pen for ink annotation.         |
| <b>msodgcidInkAnnotationHighlighter</b>    | 0x0244 | Use the highlighter pen for ink annotation.      |
| <b>msodgcidMoreColorsLines</b>             | 0x0245 | Show additional color and line options.          |

| Name                                      | Value  | Meaning  |
|---|--------|--|
| <b>msodgcidAlignRelativeToMarginSmart</b> | 0x0248 | Align the drawing objects to the nearest margin. |
| <b>msodgcidMoreSize</b>                   | 0x0249 | Show additional size options.                    |
| <b>msodgcidMoreInkColor</b>               | 0x024B | Show more pen colors.                            |
| <b>msodgcidFillEffectGradient</b>         | 0x024C | Show the gradient options.                       |
| <b>msodgcidFillEffectTexture</b>          | 0x024D | Show the texture options.                        |
| <b>msodgcidFillEffectPattern</b>          | 0x024E | Show the pattern options.                        |
| <b>msodgcidCloseInkTab</b>                | 0x024F | Close the ink tools.                             |
| <b>msodgcidShapeRectangle</b>             | 0x1001 | Insert a rectangle shape.                        |
| <b>msodgcidShapeRoundRectangle</b>        | 0x1002 | Insert a rounded rectangle shape.                |
| <b>msodgcidShapeEllipse</b>               | 0x1003 | Insert an oval shape.                            |
| <b>msodgcidShapeDiamond</b>               | 0x1004 | Insert a diamond shape.                          |
| <b>msodgcidShapeIsocelesTriangle</b>      | 0x1005 | Insert an isosceles triangle shape.              |
| <b>msodgcidShapeRightTriangle</b>         | 0x1006 | Insert a right triangle shape.                   |
| <b>msodgcidShapeParallelogram</b>         | 0x1007 | Insert a parallelogram shape.                    |
| <b>msodgcidShapeTrapezoid</b>             | 0x1008 | Insert a trapezoid shape.                        |
| <b>msodgcidShapeHexagon</b>               | 0x1009 | Insert a hexagon shape.                          |
| <b>msodgcidShapeOctagon</b>               | 0x100A | Insert an octagon shape.                         |
| <b>msodgcidShapePlus</b>                  | 0x100B | Insert a cross shape.                            |
| <b>msodgcidShapeStar</b>                  | 0x100C | Insert a 5-point star shape.                     |
| <b>msodgcidShapeArrow</b>                 | 0x100D | Insert a right arrow shape.                      |
| <b>msodgcidShapeHomePlate</b>             | 0x100F | Insert a pentagon shape.                         |
| <b>msodgcidShapeCube</b>                  | 0x1010 | Insert a cube shape.                             |
| <b>msodgcidShapeBalloon</b>               | 0x1011 | Insert a balloon shape.                          |
| <b>msodgcidShapeArc</b>                   | 0x1013 | Insert an arc shape.                             |
| <b>msodgcidShapePlaque</b>                | 0x1015 | Insert a plaque shape.                           |
| <b>msodgcidShapeCan</b>                   | 0x1016 | Insert a can shape.                              |
| <b>msodgcidShapeDonut</b>                 | 0x1017 | Insert a donut shape.                            |
| <b>msodgcidShapeCallout1</b>              | 0x1029 | Insert a Line Callout 2 (no border) shape.       |
| <b>msodgcidShapeCallout2</b>              | 0x102A | Insert a Line Callout 3 (no border) shape.       |
| <b>msodgcidShapeCallout3</b>              | 0x102B | Insert a Line Callout 4 (no border) shape.       |
| <b>msodgcidShapeAccentCallout1</b>        | 0x102C | Insert a Line Callout 2 (accent bar) shape.      |



| Name                                     | Value  | Meaning  |
|--|--------|--|
| <b>msodgcidShapeAccentCallout2</b>       | 0x102D | Insert a Line Callout 3 (accent bar) shape.            |
| <b>msodgcidShapeAccentCallout3</b>       | 0x102E | Insert a Line Callout 4 (accent bar) shape.            |
| <b>msodgcidShapeBorderCallout1</b>       | 0x102F | Insert a Line Callout 2 shape.                         |
| <b>msodgcidShapeBorderCallout2</b>       | 0x1030 | Insert a Line Callout 3 shape.                         |
| <b>msodgcidShapeBorderCallout3</b>       | 0x1031 | Insert a Line Callout 4 shape.                         |
| <b>msodgcidShapeAccentBorderCallout1</b> | 0x1032 | Insert a Line Callout 2 (border and accent bar) shape. |
| <b>msodgcidShapeAccentBorderCallout2</b> | 0x1033 | Insert a Line Callout 3 (border and accent bar) shape. |
| <b>msodgcidShapeAccentBorderCallout3</b> | 0x1034 | Insert a Line Callout 4 (border and accent bar) shape. |
| <b>msodgcidShapeRibbon</b>               | 0x1035 | Insert a down ribbon shape.                            |
| <b>msodgcidShapeRibbon2</b>              | 0x1036 | Insert an up ribbon shape.                             |
| <b>msodgcidShapeChevron</b>              | 0x1037 | Insert a chevron shape.                                |
| <b>msodgcidShapePentagon</b>             | 0x1038 | Insert a regular pentagon shape.                       |
| <b>msodgcidShapeNoSmoking</b>            | 0x1039 | Insert a no symbol shape.                              |
| <b>msodgcidShapeSeal8</b>                | 0x103A | Insert an 8-point star shape.                          |
| <b>msodgcidShapeSeal16</b>               | 0x103B | Insert a 16-point star shape.                          |
| <b>msodgcidShapeSeal32</b>               | 0x103C | Insert a 32-point star shape.                          |
| <b>msodgcidShapeWedgeRectCallout</b>     | 0x103D | Insert a rectangular callout shape.                    |
| <b>msodgcidShapeWedgeRRectCallout</b>    | 0x103E | Insert a rounded rectangular callout shape.            |
| <b>msodgcidShapeWedgeEllipseCallout</b>  | 0x103F | Insert an oval callout shape.                          |
| <b>msodgcidShapeWave</b>                 | 0x1040 | Insert a wave shape.                                   |
| <b>msodgcidShapeFoldedCorner</b>         | 0x1041 | Insert a folded corner shape.                          |
| <b>msodgcidShapeLeftArrow</b>            | 0x1042 | Insert a left arrow shape.                             |
| <b>msodgcidShapeDownArrow</b>            | 0x1043 | Insert a down arrow shape.                             |
| <b>msodgcidShapeUpArrow</b>              | 0x1044 | Insert an up arrow shape.                              |
| <b>msodgcidShapeLeftRightArrow</b>       | 0x1045 | Insert a left-right arrow shape.                       |
| <b>msodgcidShapeUpDownArrow</b>          | 0x1046 | Insert an up-down arrow shape.                         |
| <b>msodgcidShapeIrregularSeal1</b>       | 0x1047 | Insert an Explosion 1 shape.                           |
| <b>msodgcidShapeIrregularSeal2</b>       | 0x1048 | Insert an Explosion 2 shape.                           |
| <b>msodgcidShapeLightningBolt</b>        | 0x1049 | Insert a lightning bolt shape.                         |
| <b>msodgcidShapeHeart</b>                | 0x104A | Insert a heart shape.                                  |

| <b>Name</b>                               | <b>Value</b> | <b>Meaning</b>                           |
|---|--------------|--|
| <b>msodgcidShapeQuadArrow</b>             | 0x104C       | Insert a quad arrow shape.               |
| <b>msodgcidShapeLeftArrowCallout</b>      | 0x104D       | Insert a left-arrow callout shape.       |
| <b>msodgcidShapeRightArrowCallout</b>     | 0x104E       | Insert a right-arrow callout shape.      |
| <b>msodgcidShapeUpArrowCallout</b>        | 0x104F       | Insert an up-arrow callout shape.        |
| <b>msodgcidShapeDownArrowCallout</b>      | 0x1050       | Insert a down-arrow callout shape.       |
| <b>msodgcidShapeLeftRightArrowCallout</b> | 0x1051       | Insert a left-right arrow callout shape. |
| <b>msodgcidShapeUpDownArrowCallout</b>    | 0x1052       | Insert an up-down arrow callout shape.   |
| <b>msodgcidShapeQuadArrowCallout</b>      | 0x1053       | Insert a quad-arrow callout shape.       |
| <b>msodgcidShapeBevel</b>                 | 0x1054       | Insert a bevel shape.                    |
| <b>msodgcidShapeLeftBracket</b>           | 0x1055       | Insert a left bracket shape.             |
| <b>msodgcidShapeRightBracket</b>          | 0x1056       | Insert a right bracket shape.            |
| <b>msodgcidShapeLeftBrace</b>             | 0x1057       | Insert a left brace shape.               |
| <b>msodgcidShapeRightBrace</b>            | 0x1058       | Insert a right brace shape.              |
| <b>msodgcidShapeLeftUpArrow</b>           | 0x1059       | Insert a left-up arrow shape.            |
| <b>msodgcidShapeBentUpArrow</b>           | 0x105A       | Insert a bent-up arrow shape.            |
| <b>msodgcidShapeBentArrow</b>             | 0x105B       | Insert a bent arrow shape.               |
| <b>msodgcidShapeSeal24</b>                | 0x105C       | Insert a 24-point star shape.            |
| <b>msodgcidShapeStripedRightArrow</b>     | 0x105D       | Insert a striped right-arrow shape.      |
| <b>msodgcidShapeNotchedRightArrow</b>     | 0x105E       | Insert a notched right-arrow shape.      |
| <b>msodgcidShapeBlockArc</b>              | 0x105F       | Insert a block arc shape.                |
| <b>msodgcidShapeSmileyFace</b>            | 0x1060       | Insert a smiling face shape.             |
| <b>msodgcidShapeVerticalScroll</b>        | 0x1061       | Insert a vertical scroll shape.          |
| <b>msodgcidShapeHorizontalScroll</b>      | 0x1062       | Insert a horizontal scroll shape.        |
| <b>msodgcidShapeCircularArrow</b>         | 0x1063       | Insert a circular arrow shape.           |
| <b>msodgcidShapeNotchedCircularArrow</b>  | 0x1064       | Insert a reserved shape.                 |
| <b>msodgcidShapeUturnArrow</b>            | 0x1065       | Insert a U-turn arrow shape.             |
| <b>msodgcidShapeCurvedRightArrow</b>      | 0x1066       | Insert a curved right-arrow shape.       |
| <b>msodgcidShapeCurvedLeftArrow</b>       | 0x1067       | Insert a curved left-arrow shape.        |
| <b>msodgcidShapeCurvedUpArrow</b>         | 0x1068       | Insert a curved up-arrow shape.          |
| <b>msodgcidShapeCurvedDownArrow</b>       | 0x1069       | Insert a curved down-arrow shape.        |
| <b>msodgcidShapeCloudCallout</b>          | 0x106A       | Insert a cloud callout shape.            |
| <b>msodgcidShapeEllipseRibbon</b>         | 0x106B       | Insert a curved-down ribbon shape.       |

| <b>Name</b>                                    | <b>Value</b> | <b>Meaning</b>                                      |
|--|--------------|---|
| <b>msodgcidShapeEllipseRibbon2</b>             | 0x106C       | Insert a curved-up ribbon shape.                    |
| <b>msodgcidShapeFlowChartProcess</b>           | 0x106D       | Insert a flowchart process shape.                   |
| <b>msodgcidShapeFlowChartDecision</b>          | 0x106E       | Insert a flowchart decision shape.                  |
| <b>msodgcidShapeFlowChartInputOutput</b>       | 0x106F       | Insert a flowchart data shape.                      |
| <b>msodgcidShapeFlowChartPredefinedProcess</b> | 0x1070       | Insert a flowchart predefined-process shape.        |
| <b>msodgcidShapeFlowChartInternalStorage</b>   | 0x1071       | Insert a flowchart internal-storage shape.          |
| <b>msodgcidShapeFlowChartDocument</b>          | 0x1072       | Insert a flowchart document shape.                  |
| <b>msodgcidShapeFlowChartMultidocument</b>     | 0x1073       | Insert a flowchart multiple-document shape.         |
| <b>msodgcidShapeFlowChartTerminator</b>        | 0x1074       | Insert a flowchart terminator shape.                |
| <b>msodgcidShapeFlowChartPreparation</b>       | 0x1075       | Insert a flowchart preparation shape.               |
| <b>msodgcidShapeFlowChartManualInput</b>       | 0x1076       | Insert a flowchart manual-input shape.              |
| <b>msodgcidShapeFlowChartManualOperation</b>   | 0x1077       | Insert a flowchart manual-operation shape.          |
| <b>msodgcidShapeFlowChartConnector</b>         | 0x1078       | Insert a flowchart connector shape.                 |
| <b>msodgcidShapeFlowChartPunchedCard</b>       | 0x1079       | Insert a flowchart card shape.                      |
| <b>msodgcidShapeFlowChartPunchedTape</b>       | 0x107A       | Insert a flowchart punched-tape shape.              |
| <b>msodgcidShapeFlowChartSummingJunction</b>   | 0x107B       | Insert a flowchart summing-junction shape.          |
| <b>msodgcidShapeFlowChartOr</b>                | 0x107C       | Insert a flowchart OR shape.                        |
| <b>msodgcidShapeFlowChartCollate</b>           | 0x107D       | Insert a flowchart collate shape.                   |
| <b>msodgcidShapeFlowChartSort</b>              | 0x107E       | Insert a flowchart sort shape.                      |
| <b>msodgcidShapeFlowChartExtract</b>           | 0x107F       | Insert a flowchart extract shape.                   |
| <b>msodgcidShapeFlowChartMerge</b>             | 0x1080       | Insert a flowchart merge shape.                     |
| <b>msodgcidShapeFlowChartOfflineStorage</b>    | 0x1081       | Insert a flowchart offline-storage shape.           |
| <b>msodgcidShapeFlowChartOnlineStorage</b>     | 0x1082       | Insert a flowchart stored-data shape.               |
| <b>msodgcidShapeFlowChartMagneticTape</b>      | 0x1083       | Insert a flowchart sequential-access storage shape. |
| <b>msodgcidShapeFlowChartMagneticDisk</b>      | 0x1084       | Insert a flowchart magnetic-disk shape.             |
| <b>msodgcidShapeFlowChartMagneticDrum</b>      | 0x1085       | Insert a flowchart direct-access storage shape.     |
| <b>msodgcidShapeFlowChartDisplay</b>           | 0x1086       | Insert a flowchart display shape.                   |
| <b>msodgcidShapeFlowChartDelay</b>             | 0x1087       | Insert a flowchart delay shape.                     |
| <b>msodgcidShapeFlowChartAlternateProcess</b>  | 0x10B0       | Insert a flowchart alternate-process                |

| Name   | Value  | Meaning  |
|--|--------|--|
|  |        | shape.   |
| <b>msodgcidShapeFlowChartOffpageConnector</b>      | 0x10B1 | Insert a flowchart off-page connector shape.   |
| <b>msodgcidShapeCallout90</b>                      | 0x10B2 | Insert a Line Callout 1 (no border) shape.   |
| <b>msodgcidShapeAccentCallout90</b>                | 0x10B3 | Insert a Line Callout 1 (accent bar) shape.  |
| <b>msodgcidShapeBorderCallout90</b>                | 0x10B4 | Insert a Line Callout 1 shape.   |
| <b>msodgcidShapeAccentBorderCallout90</b>          | 0x10B5 | Insert a Line Callout 1 (border and accent bar) shape.                                     |
| <b>msodgcidShapeLeftRightUpArrow</b>               | 0x10B6 | Insert a left-right-up arrow shape.  |
| <b>msodgcidShapeSun</b>                            | 0x10B7 | Insert a sun shape.  |
| <b>msodgcidShapeMoon</b>                           | 0x10B8 | Insert a moon shape.   |
| <b>msodgcidShapeBracketPair</b>                    | 0x10B9 | Insert a double bracket shape.   |
| <b>msodgcidShapeBracePair</b>                      | 0x10BA | Insert a double brace shape.   |
| <b>msodgcidShapeSeal4</b>                          | 0x10BB | Insert a 4-point star shape.   |
| <b>msodgcidShapeDoubleWave</b>                     | 0x10BC | Insert a double wave shape.  |
| <b>msodgcidShapeMinusSign</b>                      | 0x10CC | Insert a minus sign shape.   |
| <b>msodgcidShapeMultiplySign</b>                   | 0x10CD | Insert a multiply sign shape.  |
| <b>msodgcidShapeDivisionSign</b>                   | 0x10CE | Insert a division sign shape.  |
| <b>msodgcidShapeEqualSign</b>                      | 0x10CF | Insert an equal sign shape.  |
| <b>msodgcidShapeNotEqualSign</b>                   | 0x10D0 | Insert a not-equal sign shape.   |
| <b>msodgcidShapeSnipSingleCornerRectangle</b>      | 0x10D1 | Insert a rectangle shape which has a single snipped corner.                                |
| <b>msodgcidShapeSnipSameSideCornerRectangle</b>    | 0x10D2 | Insert a rectangle shape which has two snipped corners on the same side.                   |
| <b>msodgcidShapeSnipDiagonalCornerRectangle</b>    | 0x10D3 | Insert a rectangle shape which has two snipped corners diagonally across from one another. |
| <b>msodgcidShapeSnipRoundSingleCornerRectangle</b> | 0x10D4 | Insert a rectangle shape which has one rounded and one snipped corner on the same side.    |
| <b>msodgcidShapeRoundSingleCornerRectangle</b>     | 0x10D5 | Insert a rectangle shape which has a single rounded corner.                                |
| <b>msodgcidShapeRoundSameSideCornerRectangle</b>   | 0x10D6 | Insert a rectangle shape which has two rounded corners on the same side.                   |
| <b>msodgcidShapeRoundDiagonalCornerRectangle</b>   | 0x10D7 | Insert a rectangle shape which has two rounded corners diagonally across from one another. |
| <b>msodgcidShapeDecagon</b>                        | 0x10D8 | Insert a decagon shape.  |

| <b>Name</b>                                | <b>Value</b> | <b>Meaning</b>  |
|--|--------------|---|
| <b>msodgcidShapeDodecagon</b>              | 0x10D9       | Insert a dodecagon shape.                                 |
| <b>msodgcidShapeDiagonalStripe</b>         | 0x10DA       | Insert a diagonal stripe shape.                           |
| <b>msodgcidShapeTearDrop</b>               | 0x10DB       | Insert a teardrop shape.                                  |
| <b>msodgcidShapeChord</b>                  | 0x10DC       | Insert a chord shape.                                     |
| <b>msodgcidShapeHeptagon</b>               | 0x10DD       | Insert a heptagon shape.                                  |
| <b>msodgcidShapeFrame</b>                  | 0x10DE       | Insert a frame shape.                                     |
| <b>msodgcidShapeHalfFrame</b>              | 0x10DF       | Insert a half-frame shape.                                |
| <b>msodgcidShapePie</b>                    | 0x10E0       | Insert a pie shape.                                       |
| <b>msodgcidShapeLShape</b>                 | 0x10E1       | Insert an L-shape shape.                                  |
| <b>msodgcidShape6PointStar</b>             | 0x10E2       | Insert a 6-point star shape.                              |
| <b>msodgcidShape7PointStar</b>             | 0x10E3       | Insert a 7-point star shape.                              |
| <b>msodgcidShape10PointStar</b>            | 0x10E4       | Insert a 10-point star shape.                             |
| <b>msodgcidShape12PointStar</b>            | 0x10E5       | Insert a 12-point star shape.                             |
| <b>msodgcidShapeCloud</b>                  | 0x10E6       | Insert a cloud shape.                                     |
| <b>msodgcidChangeShapeRectangle</b>        | 0x2001       | Change the selected shape to a rectangle shape.           |
| <b>msodgcidChangeShapeRoundRectangle</b>   | 0x2002       | Change the selected shape to a rounded rectangle shape.   |
| <b>msodgcidChangeShapeEllipse</b>          | 0x2003       | Change the selected shape to an oval shape.               |
| <b>msodgcidChangeShapeDiamond</b>          | 0x2004       | Change the selected shape to a diamond shape.             |
| <b>msodgcidChangeShapeIsocolesTriangle</b> | 0x2005       | Change the selected shape to an isosceles triangle shape. |
| <b>msodgcidChangeShapeRightTriangle</b>    | 0x2006       | Change the selected shape to a right triangle shape.      |
| <b>msodgcidChangeShapeParallelogram</b>    | 0x2007       | Change the selected shape to a parallelogram shape.       |
| <b>msodgcidChangeShapeTrapezoid</b>        | 0x2008       | Change the selected shape to a trapezoid shape.           |
| <b>msodgcidChangeShapeHexagon</b>          | 0x2009       | Change the selected shape to a hexagon shape.             |
| <b>msodgcidChangeShapeOctagon</b>          | 0x200A       | Change the selected shape to an octagon shape.            |
| <b>msodgcidChangeShapePlus</b>             | 0x200B       | Change the selected shape to a cross shape.               |
| <b>msodgcidChangeShapeStar</b>             | 0x200C       | Change the selected shape to a 5-point star shape.        |

| <b>Name</b>                                    | <b>Value</b> | <b>Meaning</b>   |
|--|--------------|--|
| <b>msodgcidChangeShapeArrow</b>                | 0x200D       | Change the selected shape to a right arrow shape.                            |
| <b>msodgcidChangeShapeHomePlate</b>            | 0x200F       | Change the selected shape to a pentagon shape.                               |
| <b>msodgcidChangeShapeCube</b>                 | 0x2010       | Change the selected shape to a cube shape.                                   |
| <b>msodgcidChangeShapeArc</b>                  | 0x2013       | Change the selected shape to an arc shape.                                   |
| <b>msodgcidChangeShapePlaque</b>               | 0x2015       | Change the selected shape to a plaque shape.                                 |
| <b>msodgcidChangeShapeCan</b>                  | 0x2016       | Change the selected shape to a can shape.                                    |
| <b>msodgcidChangeShapeDonut</b>                | 0x2017       | Change the selected shape to a donut shape.                                  |
| <b>msodgcidChangeShapeCallout1</b>             | 0x2029       | Change the selected shape to a Line Callout 2 (no border) shape.             |
| <b>msodgcidChangeShapeCallout2</b>             | 0x202A       | Change the selected shape to a Line Callout 3 (no border) shape.             |
| <b>msodgcidChangeShapeCallout3</b>             | 0x202B       | Change the selected shape to a Line Callout 4 (no border) shape.             |
| <b>msodgcidChangeShapeAccentCallout1</b>       | 0x202C       | Change the selected shape to a Line Callout 2 (accent bar) shape.            |
| <b>msodgcidChangeShapeAccentCallout2</b>       | 0x202D       | Change the selected shape to a Line Callout 3 (accent bar) shape.            |
| <b>msodgcidChangeShapeAccentCallout3</b>       | 0x202E       | Change the selected shape to a Line Callout 4 (accent bar) shape.            |
| <b>msodgcidChangeShapeBorderCallout1</b>       | 0x202F       | Change the selected shape to a Line Callout 2 shape.                         |
| <b>msodgcidChangeShapeBorderCallout2</b>       | 0x2030       | Change the selected shape to a Line Callout 3 shape.                         |
| <b>msodgcidChangeShapeBorderCallout3</b>       | 0x2031       | Change the selected shape to a Line Callout 4 shape.                         |
| <b>msodgcidChangeShapeAccentBorderCallout1</b> | 0x2032       | Change the selected shape to a Line Callout 2 (border and accent bar) shape. |
| <b>msodgcidChangeShapeAccentBorderCallout2</b> | 0x2033       | Change the selected shape to a Line Callout 3 (border and accent bar) shape. |
| <b>msodgcidChangeShapeAccentBorderCallout3</b> | 0x2034       | Change the selected shape to a Line Callout 4 (border and accent bar) shape. |
| <b>msodgcidChangeShapeRibbon</b>               | 0x2035       | Change the selected shape to a down ribbon shape.                            |
| <b>msodgcidChangeShapeRibbon2</b>              | 0x2036       | Change the selected shape to an up ribbon shape.                             |
| <b>msodgcidChangeShapeChevron</b>              | 0x2037       | Change the selected shape to a chevron                                       |

| Name  | Value  | Meaning   |
|---|--------|---|
|   |        | shape.  |
| <b>msodgcidChangeShapePentagon</b>            | 0x2038 | Change the selected shape to a regular pentagon shape.            |
| <b>msodgcidChangeShapeNoSmoking</b>           | 0x2039 | Change the selected shape to a no symbol shape.                   |
| <b>msodgcidChangeShapeSeal8</b>               | 0x203A | Change the selected shape to an 8-point star shape.               |
| <b>msodgcidChangeShapeSeal16</b>              | 0x203B | Change the selected shape to a 16-point star shape.               |
| <b>msodgcidChangeShapeSeal32</b>              | 0x203C | Change the selected shape to a 32-point star shape.               |
| <b>msodgcidChangeShapeWedgeRectCallout</b>    | 0x203D | Change the selected shape to a rectangular callout shape.         |
| <b>msodgcidChangeShapeWedgeRRectCallout</b>   | 0x203E | Change the selected shape to a rounded-rectangular callout shape. |
| <b>msodgcidChangeShapeWedgeEllipseCallout</b> | 0x203F | Change the selected shape to an oval callout shape.               |
| <b>msodgcidChangeShapeWave</b>                | 0x2040 | Change the selected shape to a wave shape.                        |
| <b>msodgcidChangeShapeFoldedCorner</b>        | 0x2041 | Change the selected shape to a folded corner shape.               |
| <b>msodgcidChangeShapeLeftArrow</b>           | 0x2042 | Change the selected shape to a left arrow shape.                  |
| <b>msodgcidChangeShapeDownArrow</b>           | 0x2043 | Change the selected shape to a down arrow shape.                  |
| <b>msodgcidChangeShapeUpArrow</b>             | 0x2044 | Change the selected shape to an up arrow shape.                   |
| <b>msodgcidChangeShapeLeftRightArrow</b>      | 0x2045 | Change the selected shape to a left-right arrow shape.            |
| <b>msodgcidChangeShapeUpDownArrow</b>         | 0x2046 | Change the selected shape to an up-down arrow shape.              |
| <b>msodgcidChangeShapeIrregularSeal1</b>      | 0x2047 | Change the selected shape to an Explosion 1 shape.                |
| <b>msodgcidChangeShapeIrregularSeal2</b>      | 0x2048 | Change the selected shape to an Explosion 2 shape.                |
| <b>msodgcidChangeShapeLightningBolt</b>       | 0x2049 | Change the selected shape to lightning bolt shape.                |
| <b>msodgcidChangeShapeHeart</b>               | 0x204A | Change the selected shape to a heart shape.                       |
| <b>msodgcidChangeShapeQuadArrow</b>           | 0x204C | Change the selected shape to a quad arrow shape.                  |
| <b>msodgcidChangeShapeLeftArrowCallout</b>    | 0x204D | Change the selected shape to a left-arrow                         |

| Name  | Value  | Meaning  |
|---|--------|--|
|   |        | callout shape.   |
| <b>msodgcidChangeShapeRightArrowCallout</b>     | 0x204E | Change the selected shape to a right-arrow callout shape.      |
| <b>msodgcidChangeShapeUpArrowCallout</b>        | 0x204F | Change the selected shape to an up-arrow callout shape.        |
| <b>msodgcidChangeShapeDownArrowCallout</b>      | 0x2050 | Change the selected shape to a down-arrow callout shape.       |
| <b>msodgcidChangeShapeLeftRightArrowCallout</b> | 0x2051 | Change the selected shape to a left-right arrow callout shape. |
| <b>msodgcidChangeShapeUpDownArrowCallout</b>    | 0x2052 | Change the selected shape to an up-down arrow callout shape.   |
| <b>msodgcidChangeShapeQuadArrowCallout</b>      | 0x2053 | Change the selected shape to a quad-arrow callout shape.       |
| <b>msodgcidChangeShapeBevel</b>                 | 0x2054 | Change the selected shape to a bevel shape.                    |
| <b>msodgcidChangeShapeLeftBracket</b>           | 0x2055 | Change the selected shape to a left bracket shape.             |
| <b>msodgcidChangeShapeRightBracket</b>          | 0x2056 | Change the selected shape to a right bracket shape.            |
| <b>msodgcidChangeShapeLeftBrace</b>             | 0x2057 | Change the selected shape to a left brace shape.               |
| <b>msodgcidChangeShapeRightBrace</b>            | 0x2058 | Change the selected shape to a right brace shape.              |
| <b>msodgcidChangeShapeLeftUpArrow</b>           | 0x2059 | Change the selected shape to a left-up arrow shape.            |
| <b>msodgcidChangeShapeBentUpArrow</b>           | 0x205A | Change the selected shape to a bent-up arrow shape.            |
| <b>msodgcidChangeShapeBentArrow</b>             | 0x205B | Change the selected shape to a bent arrow shape.               |
| <b>msodgcidChangeShapeSeal24</b>                | 0x205C | Change the selected shape to a 24-point star shape.            |
| <b>msodgcidChangeShapeStripedRightArrow</b>     | 0x205D | Change the selected shape to a striped right-arrow shape.      |
| <b>msodgcidChangeShapeNotchedRightArrow</b>     | 0x205E | Change the selected shape to a notched right-arrow shape.      |
| <b>msodgcidChangeShapeBlockArc</b>              | 0x205F | Change the selected shape to a block arc shape.                |
| <b>msodgcidChangeShapeSmileyFace</b>            | 0x2060 | Change the selected shape to a smiling face shape.             |
| <b>msodgcidChangeShapeVerticalScroll</b>        | 0x2061 | Change the selected shape to a vertical scroll shape.          |
| <b>msodgcidChangeShapeHorizontalScroll</b>      | 0x2062 | Change the selected shape to a horizontal                      |



| Name   | Value  | Meaning  |
|--|--------|--|
|  |        | scroll shape.  |
| <b>msodgcidChangeShapeCircularArrow</b>              | 0x2063 | Change the selected shape to a circular arrow shape.               |
| <b>msodgcidChangeShapeUturnArrow</b>                 | 0x2065 | Change the selected shape to a U-turn arrow shape.                 |
| <b>msodgcidChangeShapeCurvedRightArrow</b>           | 0x2066 | Change the selected shape to a curved right-arrow shape.           |
| <b>msodgcidChangeShapeCurvedLeftArrow</b>            | 0x2067 | Change the selected shape to a curved left-arrow shape.            |
| <b>msodgcidChangeShapeCurvedUpArrow</b>              | 0x2068 | Change the selected shape to a curved up-arrow shape.              |
| <b>msodgcidChangeShapeCurvedDownArrow</b>            | 0x2069 | Change the selected shape to a curved down-arrow shape.            |
| <b>msodgcidChangeShapeCloudCallout</b>               | 0x206A | Change the selected shape to a cloud callout shape.                |
| <b>msodgcidChangeShapeEllipseRibbon</b>              | 0x206B | Change the selected shape to a curved-down ribbon shape.           |
| <b>msodgcidChangeShapeEllipseRibbon2</b>             | 0x206C | Change the selected shape to a curved-up ribbon shape.             |
| <b>msodgcidChangeShapeFlowChartProcess</b>           | 0x206D | Change the selected shape to a flowchart process shape.            |
| <b>msodgcidChangeShapeFlowChartDecision</b>          | 0x206E | Change the selected shape to a flowchart decision shape.           |
| <b>msodgcidChangeShapeFlowChartInputOutput</b>       | 0x206F | Change the selected shape to a flowchart data shape.               |
| <b>msodgcidChangeShapeFlowChartPredefinedProcess</b> | 0x2070 | Change the selected shape to a flowchart predefined-process shape. |
| <b>msodgcidChangeShapeFlowChartInternalStorage</b>   | 0x2071 | Change the selected shape to a flowchart internal-storage shape.   |
| <b>msodgcidChangeShapeFlowChartDocument</b>          | 0x2072 | Change the selected shape to a flowchart document shape.           |
| <b>msodgcidChangeShapeFlowChartMultidocument</b>     | 0x2073 | Change the selected shape to a flowchart multiple-document shape.  |
| <b>msodgcidChangeShapeFlowChartTerminator</b>        | 0x2074 | Change the selected shape to a flowchart terminator shape.         |
| <b>msodgcidChangeShapeFlowChartPreparation</b>       | 0x2075 | Change the selected shape to a flowchart preparation shape.        |
| <b>msodgcidChangeShapeFlowChartManualInput</b>       | 0x2076 | Change the selected shape to a flowchart manual-input shape.       |
| <b>msodgcidChangeShapeFlowChartManualOperation</b>   | 0x2077 | Change the selected shape to a flowchart manual-operation shape.   |
| <b>msodgcidChangeShapeFlowChartConnector</b>         | 0x2078 | Change the selected shape to a flowchart                           |

| Name  | Value  | Meaning  |
|---|--------|--|
|   |        | connector shape.   |
| <b>msodgcidChangeShapeFlowChartPunchedCard</b>      | 0x2079 | Change the selected shape to a flowchart card shape.                         |
| <b>msodgcidChangeShapeFlowChartPunchedTape</b>      | 0x207A | Change the selected shape to a flowchart punched-tape shape.                 |
| <b>msodgcidChangeShapeFlowChartSummingJunction</b>  | 0x207B | Change the selected shape to a flowchart summing-junction shape.             |
| <b>msodgcidChangeShapeFlowChartOr</b>               | 0x207C | Change the selected shape to a flowchart OR shape.                           |
| <b>msodgcidChangeShapeFlowChartCollate</b>          | 0x207D | Change the selected shape to a flowchart collate shape.                      |
| <b>msodgcidChangeShapeFlowChartSort</b>             | 0x207E | Change the selected shape to a flowchart sort shape.                         |
| <b>msodgcidChangeShapeFlowChartExtract</b>          | 0x207F | Change the selected shape to a flowchart extract shape.                      |
| <b>msodgcidChangeShapeFlowChartMerge</b>            | 0x2080 | Change the selected shape to a flowchart merge shape.                        |
| <b>msodgcidChangeShapeFlowChartOnlineStorage</b>    | 0x2082 | Change the selected shape to a flowchart stored-data shape.                  |
| <b>msodgcidChangeShapeFlowChartMagneticTape</b>     | 0x2083 | Change the selected shape to a flowchart sequential-access storage shape.    |
| <b>msodgcidChangeShapeFlowChartMagneticDisk</b>     | 0x2084 | Change the selected shape to a flowchart magnetic-disk shape.                |
| <b>msodgcidChangeShapeFlowChartMagneticDrum</b>     | 0x2085 | Change the selected shape to a flowchart direct-access storage shape.        |
| <b>msodgcidChangeShapeFlowChartDisplay</b>          | 0x2086 | Change the selected shape to a flowchart display shape.                      |
| <b>msodgcidChangeShapeFlowChartDelay</b>            | 0x2087 | Change the selected shape to a flowchart delay shape.                        |
| <b>msodgcidChangeShapeFlowChartAlternateProcess</b> | 0x20B0 | Change the selected shape to a flowchart alternate-process shape.            |
| <b>msodgcidChangeShapeFlowChartOffpageConnector</b> | 0x20B1 | Change the selected shape to a flowchart off-page connector shape.           |
| <b>msodgcidChangeShapeCallout90</b>                 | 0x20B2 | Change the selected shape to a Line Callout 1 (no border) shape.             |
| <b>msodgcidChangeShapeAccentCallout90</b>           | 0x20B3 | Change the selected shape to a Line Callout 1 (accent bar) shape.            |
| <b>msodgcidChangeShapeBorderCallout90</b>           | 0x20B4 | Change the selected shape to a Line Callout 1 shape.                         |
| <b>msodgcidChangeShapeAccentBorderCallout90</b>     | 0x20B5 | Change the selected shape to a Line Callout 1 (border and accent bar) shape. |
| <b>msodgcidChangeShapeLeftRightUpArrow</b>          | 0x20B6 | Change the selected shape to a left-right-                                   |

| Name                                  | Value  | Meaning  |
|---------------------------------------|--------|--|
|                                       |        | up arrow shape.                                      |
| <b>msodgcidChangeShapeSun</b>         | 0x20B7 | Change the selected shape to a sun shape.            |
| <b>msodgcidChangeShapeMoon</b>        | 0x20B8 | Change the selected shape to a moon shape.           |
| <b>msodgcidChangeShapeBracketPair</b> | 0x20B9 | Change the selected shape to a double bracket shape. |
| <b>msodgcidChangeShapeBracePair</b>   | 0x20BA | Change the selected shape to a double brace shape.   |
| <b>msodgcidChangeShapeSeal4</b>       | 0x20BB | Change the selected shape to a 4-point star shape.   |
| <b>msodgcidChangeShapeDoubleWave</b>  | 0x20BC | Change the selected shape to a double wave shape.    |

### 2.4.3 MSOWRAPMODE

Referenced by: [WrapText](#)

The **MSOWRAPMODE** enumeration, as shown in the following table, specifies the wrapping **rules** for a body of text.

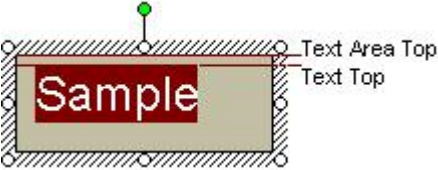

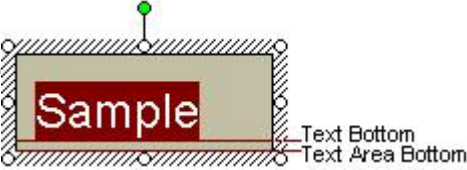
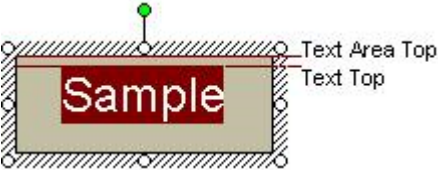
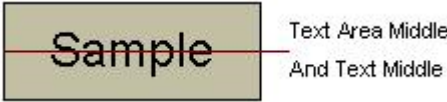
| Name                    | Value      | Meaning   |
|-------------------------|------------|---|
| <b>msowrapSquare</b>    | 0x00000000 | Specifies that a line of text will continue on subsequent lines instead of extending into or beyond a margin. This value MAY <a href="#">&lt;99&gt;</a> be used.    |
| <b>msowrapByPoints</b>  | 0x00000001 | Specifies a wrapping rule that is equivalent to that of <b>msowrapSquare</b> . This value MAY <a href="#">&lt;100&gt;</a> be used.                                  |
| <b>msowrapNone</b>      | 0x00000002 | Specifies that a line of text will extend into or beyond a margin instead of continuing on subsequent lines. This value SHOULD <a href="#">&lt;101&gt;</a> be used. |
| <b>msowrapTopBottom</b> | 0x00000003 | Specifies a wrapping rule that is undefined and MUST be ignored.  |
| <b>msowrapThrough</b>   | 0x00000004 | Specifies a wrapping rule that is undefined and MUST be ignored.  |

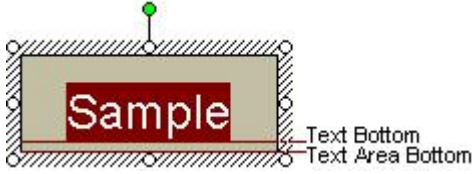
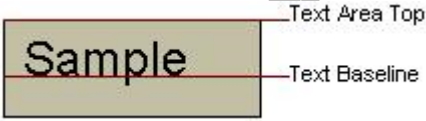

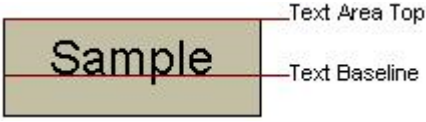
### 2.4.4 MSOANCHOR


Referenced by: [anchorText](#)

The **MSOANCHOR** enumeration, as shown in the following table, specifies the suggested placement **rule** for a body of text. These enumeration values are relative to the orientation, text box area, and margin sizes of the containing **shape**. The exact placement of the text is application dependent and varies to accommodate other languages and text properties. These enumeration values MAY [<102>](#) be used.

| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msoanchorTop</b> | 0x00000000 | The primary determinant for the placement of the text is that the top of the text coincides with the top internal margin of the text box area. |

| Name                           | Value      | Meaning  |
|--------------------------------|------------|--|
|                                |            |    |
| <b>msoanchorMiddle</b>         | 0x00000001 | <p>The primary determinant for the placement of the text is that the vertical center of the text coincides with the vertical midpoint of the internal margins of the text box area.</p>    |
| <b>msoanchorBottom</b>         | 0x00000002 | <p>The primary determinant for the placement of the text is that the bottom of the text coincides with the bottom internal margin of the text box area.</p>    |
| <b>msoanchorTopCentered</b>    | 0x00000003 | <p>This <b>anchor</b> mode specifies the same vertical placement as that of <b>msoanchorTop</b>. Additionally, the primary determinant for the horizontal placement of the text is that the horizontal center of the text coincides with the horizontal center of the text box area, respecting the specified internal margins.</p>  |
| <b>msoanchorMiddleCentered</b> | 0x00000004 | <p>This anchor mode specifies the same vertical placement as that of <b>msoanchorMiddle</b>. Additionally, the primary determinant for the horizontal placement of the text is that the horizontal center of the text coincides with the horizontal center of the text box area, respecting the specified internal margins.</p>      |
| <b>msoanchorBottomCentered</b> | 0x00000005 | <p>This anchor mode specifies the same vertical placement as that of <b>msoanchorBottom</b>. Additionally, the primary determinant for the horizontal placement of the text is that the horizontal center of the text coincides with the horizontal center of the text box area, respecting the specified internal margins.</p>  |





| Name                                   | Value      | Meaning   |
|--|------------|---|
|  |            |   |
| <b>msoanchorTopBaseline</b>            | 0x00000006 | <p>The primary determinant for the placement of the text is the offset of the baseline of the text from the top internal margin of the text box area. The offset is determined by the host application. This value SHOULD NOT <a href="#">&lt;103&gt;</a> be used. The value <b>msoanchorTop</b> MAY be used instead.</p>   |
| <b>msoanchorBottomBaseline</b>         | 0x00000007 | <p>The primary determinant for the placement of the text is the offset of the baseline of the text from the bottom internal margin of the text box area. The offset is determined by the host application. This value SHOULD NOT <a href="#">&lt;104&gt;</a> be used. The value <b>msoanchorBottom</b> MAY be used instead.</p>    |
| <b>msoanchorTopCenteredBaseline</b>    | 0x00000008 | <p>This anchor mode specifies the same vertical placement as that of <b>msoanchorTopBaseline</b>. Additionally, the primary determinant for the horizontal placement of the text is that the horizontal center of the text coincides with the horizontal center of the text box area, respecting the specified internal margins. This value SHOULD NOT <a href="#">&lt;105&gt;</a> be used. The value <b>msoanchorTopCentered</b> MAY be used instead.</p>  |
| <b>msoanchorBottomCenteredBaseline</b> | 0x00000009 | <p>This anchor mode specifies the same vertical placement as that of <b>msoanchorBottomBaseline</b>. Additionally, the primary determinant for the horizontal placement of the text is that the horizontal center of the text coincides with the horizontal center of the text box area, respecting the specified internal margins. This value SHOULD NOT <a href="#">&lt;106&gt;</a> be used. The value <b>msoanchorBottomCentered</b> MAY be used instead.</p>  |



| Name | Value | Meaning  |
|------|-------|--|
|      |       |  |

## 2.4.5 MSOTXFL

Referenced by: [txflTextFlow](#)

The **MSOTXFL** enumeration, as shown in the following table, specifies the text flow **rules** for a body of text. These rules encompass the rotation of individual character glyphs, the relational positioning of a sequence of character glyphs, and the relational positioning of a sequence of lines of text. The descriptions in the table use spatial direction terminology that is relative to the container of the body of text. The exact placement of the text is application dependent and varies to accommodate other languages and text properties.

| Name                | Value      | Meaning  |
|---------------------|------------|--|
| <b>msotxfIHorzN</b> | 0x00000000 | <p>Character glyphs are oriented such that their tops are closest to the top of the text body container. Subsequent character glyphs are placed to the right of antecedent character glyphs. Subsequent lines of text are placed below antecedent lines of text. This value SHOULD NOT <a href="#">&lt;107&gt;</a> be used.</p>   |
| <b>msotxfITtoBA</b> | 0x00000001 | <p>Character glyphs are oriented such that their tops are closest to the right side of the text body container. Subsequent character glyphs are placed below antecedent character glyphs. Subsequent lines of text are placed to the left of antecedent lines of text. This value MAY <a href="#">&lt;108&gt;</a> be used.</p>  |
| <b>msotxfIBtoT</b>  | 0x00000002 | <p>Character glyphs are oriented such that their tops are closest to the left side of the text body container. Subsequent character glyphs are placed above antecedent character glyphs. Subsequent lines of text are placed to the right of antecedent lines of text. This value MAY <a href="#">&lt;109&gt;</a> be used.</p>  |
| <b>msotxfITtoBN</b> | 0x00000003 | <p>Character glyphs are oriented such that their tops are closest to the right side of the text body container. Subsequent character glyphs are placed below antecedent character glyphs. Subsequent lines of text are placed to the left of antecedent lines of text. This value MAY <a href="#">&lt;110&gt;</a> be used.</p>  |

| Name                | Value      | Meaning   |
|---------------------|------------|---|
| <b>msotxfiHorzA</b> | 0x00000004 | Character glyphs are oriented such that their tops are closest to the top of the text body container. Subsequent character glyphs are placed to the right of antecedent character glyphs. Subsequent lines of text are placed below antecedent lines of text. This value SHOULD NOT <a href="#">&lt;111&gt;</a> be used.<br><br> |
| <b>msotxfiVertN</b> | 0x00000005 | Character glyphs are oriented such that their tops are closest to the right side of the text body container. Subsequent character glyphs are placed below antecedent character glyphs. Subsequent lines of text are placed to the left of antecedent lines of text. This value MAY <a href="#">&lt;112&gt;</a> be used.<br><br>  |

#### 2.4.6 MSOCDIR

Referenced by: [cdirFont](#)

The **MSOCDIR** enumeration, as shown in the following table, specifies a rotation. Rotation begins horizontally to the right and proceeds in a clockwise direction, completing a full rotation at 360 degrees.

| Name              | Value      | Meaning   |
|-------------------|------------|---|
| <b>msocdir0</b>   | 0x00000000 | Specifies either no rotation or a direction that is horizontally to the right.          |
| <b>msocdir90</b>  | 0x00000001 | Specifies either a 90-degree rotation or a direction that is vertically down.           |
| <b>msocdir180</b> | 0x00000002 | Specifies either a 180-degree rotation or a direction that is horizontally to the left. |
| <b>msocdir270</b> | 0x00000003 | Specifies either a 270-degree rotation or a direction that is vertically up.            |

#### 2.4.7 MSOTXDIR

Referenced by: [txdir](#)

The **MSOTXDIR** enumeration, which is used for bidirectional text, specifies the direction of a **text run**.

| Name                   | Value      | Meaning   |
|------------------------|------------|---|
| <b>msotxdirLTR</b>     | 0x00000000 | Specifies that the text is read from left to right. <a href="#">&lt;113&gt;</a>   |
| <b>msotxdirRTL</b>     | 0x00000001 | Specifies that the text is read from right to left. <a href="#">&lt;114&gt;</a>   |
| <b>msotxdirContext</b> | 0x00000002 | Specifies that the direction is determined from the text string. If no associated text string exists, the text SHOULD be read from left to right. |

## 2.4.8 MSOBLIPFLAGS

Referenced by: [fillBlipFlags](#), [lineBottomFillBlipFlags](#), [lineFillBlipFlags](#), [lineLeftFillBlipFlags](#), [lineRightFillBlipFlags](#), [lineTopFillBlipFlags](#), [pibFlags](#), [pibPrintFlags](#)

The **MSOBLIPFLAGS** enumeration, as shown in the following table, specifies a set of flags that are used by the **BLIP** properties. The enumeration values can be combined, except where prohibited as indicated in the table.

| Name                         | Value      | Meaning   |
|------------------------------|------------|---|
| <b>msoblipflagComment</b>    | 0x00000000 | Specifies that the name in the property set designates a comment. This value, <b>msoblipflagFile</b> , and <b>msoblipflagURL</b> are mutually exclusive.          |
| <b>msoblipflagFile</b>       | 0x00000001 | Specifies that the name in the property set designates a file name. This value, <b>msoblipflagComment</b> , and <b>msoblipflagURL</b> are mutually exclusive.     |
| <b>msoblipflagURL</b>        | 0x00000002 | Specifies that the name in the property set designates a <b>URL</b> . This value, <b>msoblipflagComment</b> , and <b>msoblipflagFile</b> are mutually exclusive.  |
| <b>msoblipflagDoNotSave</b>  | 0x00000004 | Specifies that the BLIP data <b>MUST</b> not be embedded on save. If this flag is set, <b>msoblipflagLinkToFile</b> <b>MUST</b> also be set.                      |
| <b>msoblipflagLinkToFile</b> | 0x00000008 | Specifies that the BLIP data is linked in the specified URL. If this flag is set, either <b>msoblipflagFile</b> or <b>msoblipflagURL</b> <b>MUST</b> also be set. |

## 2.4.9 MSOSHAPEPATH

Referenced by: [shapePath](#)

The **MSOSHAPEPATH** enumeration, as shown in the following table, specifies how all of the vertices along the path of a **shape** are connected by lines.

| Name                        | Value      | Meaning  |
|-----------------------------|------------|--|
| <b>msoshapeLines</b>        | 0x00000000 | An open path of straight line segments.  |
| <b>msoshapeLinesClosed</b>  | 0x00000001 | A closed path of straight line segments.   |
| <b>msoshapeCurves</b>       | 0x00000002 | An open path of Bezier curve line segments.  |
| <b>msoshapeCurvesClosed</b> | 0x00000003 | A closed path of Bezier curve line segments.   |
| <b>msoshapeComplex</b>      | 0x00000004 | A complex path composed of a combination of multiple types of lines. The <b>pSegmentInfo_complex</b> property, as defined in section <a href="#">2.3.6.9</a> , of this shape specifies the types of lines that form the path, and that property <b>MUST</b> exist. |

## 2.4.10 MSOCXK

Referenced by: [cxk](#)

The **MSOCXK** enumeration, as shown in the following table, specifies the types of **connection points**.

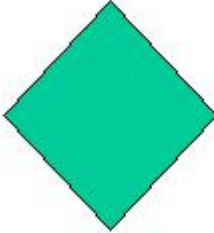
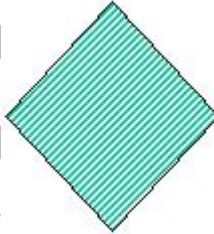







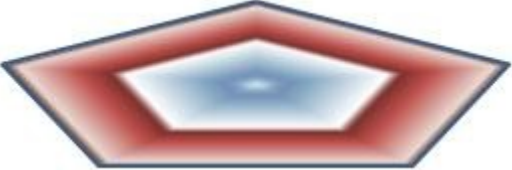
| Name                  | Value      | Meaning  |
|-----------------------|------------|--|
| <b>msocxkNone</b>     | 0x00000000 | No connection points exist.  |
| <b>msocxkSegments</b> | 0x00000001 | The <b>edit points</b> of the <b>shape</b> are used as connection points.                                |
| <b>msocxkCustom</b>   | 0x00000002 | A custom array of connection points is used.   |
| <b>msocxkRect</b>     | 0x00000003 | The standard four connection points at the midpoints of the top, bottom, left, and right sides are used. |



#### 2.4.11 MSOFILLTYPE

Referenced by: [fillType](#)

The **MSOFILLTYPE** enumeration, as shown in the following table, specifies the fill types.

| Name                  | Value      | Meaning  |
|-----------------------|------------|--|
| <b>msofillSolid</b>   | 0x00000000 | A solid fill:<br>       |
| <b>msofillPattern</b> | 0x00000001 | A patterned fill:<br> |
| <b>msofillTexture</b> | 0x00000002 | A textured fill:<br>  |
| <b>msofillPicture</b> | 0x00000003 | A picture fill:  |

| Name                      | Value      | Meaning  |
|---------------------------|------------|--|
|                           |            |    |
| <b>msofillShade</b>       | 0x00000004 | <p>A gradient fill that starts and ends with defined endpoints:</p>    |
| <b>msofillShadeCenter</b> | 0x00000005 | <p>A gradient fill that starts and ends based on the bounds of the <b>shape</b>:</p>   |
| <b>msofillShadeShape</b>  | 0x00000006 | <p>A gradient fill that starts on the outline of the shape and ends at a point defined within the shape:</p>   |
| <b>msofillShadeScale</b>  | 0x00000007 | <p>A gradient fill that starts on the outline of the shape and ends at a point defined within the shape. The fill angle is scaled by the aspect ratio of the shape:</p>  <p>shape:</p> |

| Name                     | Value      | Meaning  |
|--------------------------|------------|--|
| <b>msofillShadeTitle</b> | 0x00000008 | A gradient fill interpreted by the host application:<br> |
| <b>msofillBackground</b> | 0x00000009 | A fill that matches the background fill:<br>              |

#### 2.4.12 MSODZTYPE

Referenced by: [fillDztype](#), [lineBottomFillDztype](#), [lineFillDztype](#), [lineLeftFillDztype](#), [lineRightFillDztype](#), [lineTopFillDztype](#)

The **MSODZTYPE** enumeration, as shown in the following table, specifies the units for measuring length and how drawing parameters will be interpreted.




| Name                               | Value      | Meaning  |
|------------------------------------|------------|--|
| <b>msodztypeDefault</b>            | 0x00000000 | The width and height are ignored, and the <b>shape</b> dimensions are used.  |
| <b>msodztypeA</b>                  | 0x00000001 | Values are in <b>EMUs</b> .  |
| <b>msodztypeV</b>                  | 0x00000002 | Values are in pixels.  |
| <b>msodztypeShape</b>              | 0x00000003 | Values are of type <b>FixedPoint</b> , as specified in <a href="#">[MS-OSHARED]</a> section 2.2.1.6, and specify fractions of a shape dimension. |
| <b>msodztypeFixedAspect</b>        | 0x00000004 | The aspect ratio of the shape is maintained. The width and height are ignored, and the shape dimensions are used.                                |
| <b>msodztypeAFixed</b>             | 0x00000005 | Values are in EMUs. The aspect ratio of the shape is maintained.   |
| <b>msodztypeVFixed</b>             | 0x00000006 | Values are in pixels. The aspect ratio of the shape is maintained.   |
| <b>msodztypeShapeFixed</b>         | 0x00000007 | Values are proportional to the size of the shape. The aspect ratio of the shape is maintained.   |
| <b>msodztypeFixedAspectEnlarge</b> | 0x00000008 | The aspect ratio is maintained, favoring the largest dimension.  |
| <b>msodztypeAFixedBig</b>          | 0x00000009 | Values are in EMUs. The aspect ratio is maintained, favoring the largest dimension.  |

| Name                          | Value      | Meaning   |
|-------------------------------|------------|---|
| <b>msodztypeVFixedBig</b>     | 0x0000000A | Values are in pixels. The aspect ratio is maintained, favoring the largest dimension.                             |
| <b>msodztypeShapeFixedBig</b> | 0x0000000B | Values are proportional to the size of the shape. The aspect ratio is maintained, favoring the largest dimension. |

### 2.4.13 MSOLINETYPE

Referenced by: [lineBottomType](#), [lineLeftType](#), [lineRightType](#), [lineTopType](#), [lineType](#)



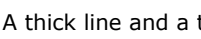
The **MSOLINETYPE** enumeration, as shown in the following table, specifies the fill properties for a line.




| Name                    | Value      | Meaning   |
|-------------------------|------------|---|
| <b>msolineSolidType</b> | 0x00000000 | A solid fill:<br>      |
| <b>msolinePattern</b>   | 0x00000001 | A patterned fill:<br>  |
| <b>msolineTexture</b>   | 0x00000002 | A textured fill:<br> |

### 2.4.14 MSOLINESTYLE

Referenced by: [lineBottomStyle](#), [lineLeftStyle](#), [lineRightStyle](#), [lineStyle](#), [lineTopStyle](#)

The **MSOLINESTYLE** enumeration, as shown in the following table, specifies the type of line style that will be used.











| Name                    | Value      | Meaning  |
|-------------------------|------------|--|
| <b>msolineSimple</b>    | 0x00000000 | A simple line:<br>                |
| <b>msolineDouble</b>    | 0x00000001 | A double line:<br>                |
| <b>msolineThickThin</b> | 0x00000002 | A thick line and a thin line:<br> |


| Name                    | Value      | Meaning  |
|-------------------------|------------|--|
|                         |            |                                   |
| <b>msolineThinThick</b> | 0x00000003 | A thin line and a thick line:<br> |
| <b>msolineTriple</b>    | 0x00000004 | A triple line:<br>                |

#### 2.4.15 MSOLINEDASHING

Referenced by: [lineBottomDashing](#), [lineDashing](#), [lineLeftDashing](#), [lineRightDashing](#), [lineTopDashing](#)

The **MSOLINEDASHING** enumeration, as shown in the following table, specifies preset dashed-line values. Each style corresponds to a precise binary representation of the repeating dash style. Each 1 corresponds to a line segment, and each 0 corresponds to a space.






| Name                         | Value      | Meaning   |
|------------------------------|------------|---|
| <b>msolineSolid</b>          | 0x00000000 | 1<br>                |
| <b>msolineDashSys</b>        | 0x00000001 | 1110<br>            |
| <b>msolineDotSys</b>         | 0x00000002 | 10<br>              |
| <b>msolineDashDotSys</b>     | 0x00000003 | 111010<br>          |
| <b>msolineDashDotDotSys</b>  | 0x00000004 | 11101010<br>        |
| <b>msolineDotGEL</b>         | 0x00000005 | 1000<br>            |
| <b>msolineDashGEL</b>        | 0x00000006 | 1111000<br>         |
| <b>msolineLongDashGEL</b>    | 0x00000007 | 11111111000<br>     |
| <b>msolineDashDotGEL</b>     | 0x00000008 | 11110001000<br>     |
| <b>msolineLongDashDotGEL</b> | 0x00000009 | 111111110001000<br> |

| Name                     | Value      | Meaning   |
|--------------------------|------------|---|
| msolineLongDashDotDotGEL | 0x0000000A | 1111111100010001000<br> |

## 2.4.16 MSOLINEEND

Referenced by: [lineBottomEndArrowhead](#), [lineBottomStartArrowhead](#), [lineEndArrowhead](#), [lineLeftEndArrowhead](#), [lineLeftStartArrowhead](#), [lineRightEndArrowhead](#), [lineRightStartArrowhead](#), [lineStartArrowhead](#), [lineTopEndArrowhead](#), [lineTopStartArrowhead](#)



The **MSOLINEEND** enumeration, as shown in the following table, specifies the **line end decorations** that appear at the ends of lines.


| Name                         | Value      | Meaning   |
|------------------------------|------------|---|
| msolineNoEnd                 | 0x00000000 | No <b>shape</b> .   |
| msolineArrowEnd              | 0x00000001 | A triangular arrow head:<br> |
| msolineArrowStealthEnd       | 0x00000002 | A stealth arrow head:<br>    |
| msolineArrowDiamondEnd       | 0x00000003 | A diamond:<br>               |
| msolineArrowOvalEnd          | 0x00000004 | An oval:<br>                |
| msolineArrowOpenEnd          | 0x00000005 | A line arrow head:<br>     |
| msolineArrowChevronEnd       | 0x00000006 | A value that MUST be ignored.   |
| msolineArrowDoubleChevronEnd | 0x00000007 | A value that MUST be ignored.   |

## 2.4.17 MSOLINEENDWIDTH

Referenced by: [lineBottomEndArrowWidth](#), [lineBottomStartArrowWidth](#), [lineEndArrowWidth](#), [lineLeftEndArrowWidth](#), [lineLeftStartArrowWidth](#), [lineRightEndArrowWidth](#), [lineRightStartArrowWidth](#), [lineStartArrowWidth](#), [lineTopEndArrowWidth](#), [lineTopStartArrowWidth](#)

The **MSOLINEENDWIDTH** enumeration, as shown in the following table, specifies widths of **line end decorations** that are relative to the widths of the lines themselves.




| Name                    | Value      | Meaning  |
|-------------------------|------------|--|
| msolineNarrowArrow      | 0x00000000 | Narrow:<br> |
| msolineMediumWidthArrow | 0x00000001 | Medium:<br> |

| Name                    | Value      | Meaning  |
|-------------------------|------------|--|
| <b>msolineWideArrow</b> | 0x00000002 | Wide:<br> |

#### 2.4.18 MSOLINEENDLENGTH

Referenced by: [lineBottomEndArrowLength](#), [lineBottomStartArrowLength](#), [lineEndArrowLength](#), [lineLeftEndArrowLength](#), [lineLeftStartArrowLength](#), [lineRightEndArrowLength](#), [lineRightStartArrowLength](#), [lineStartArrowLength](#), [lineTopEndArrowLength](#), [lineTopStartArrowLength](#)



The **MSOLINEENDLENGTH** enumeration, as shown in the following table, specifies lengths of **line end decorations**.


| Name                         | Value      | Meaning  |
|------------------------------|------------|--|
| <b>msolineShortArrow</b>     | 0x00000000 | Short:<br>  |
| <b>msolineMediumLenArrow</b> | 0x00000001 | Medium:<br> |
| <b>msolineLongArrow</b>      | 0x00000002 | Long:<br> |

#### 2.4.19 MSOLINEJOIN

Referenced by: [lineBottomJoinStyle](#), [lineJoinStyle](#), [lineLeftJoinStyle](#), [lineRightJoinStyle](#), [lineTopJoinStyle](#)

The **MSOLINEJOIN** enumeration, as shown in the following table, specifies the types of **join styles** that can be applied to lines in the document.




| Name                    | Value      | Meaning   |
|-------------------------|------------|---|
| <b>msolineJoinBevel</b> | 0x00000000 | Beveled:<br> |
| <b>msolineJoinMiter</b> | 0x00000001 | Mitered:<br> |
| <b>msolineJoinRound</b> | 0x00000002 | Rounded:  |

| Name | Value | Meaning   |
|------|-------|---|
|      |       |  |

#### 2.4.20 MSOLINECAP

Referenced by: [lineBottomEndCapStyle](#), [lineEndCapStyle](#), [lineLeftEndCapStyle](#), [lineRightEndCapStyle](#), [lineTopEndCapStyle](#)


The **MSOLINECAP** enumeration, as shown in the following table, specifies ways to cap the ends of lines in the document.

| Name                       | Value      | Meaning   |
|----------------------------|------------|---|
| <b>msolineEndCapRound</b>  | 0x00000000 | A rounded end that protrudes past the line endpoint:<br> |
| <b>msolineEndCapSquare</b> | 0x00000001 | A square end that protrudes past the line endpoint:<br>  |
| <b>msolineEndCapFlat</b>   | 0x00000002 | A flat end that ends at the line endpoint:<br>         |






#### 2.4.21 MSOSHADOWTYPE


Referenced by: [shadowType](#)

The **MSOSHADOWTYPE** enumeration, as shown in the following table, specifies how to display shadows that are applied to a **shape**.

| Name                   | Value      | Meaning   |
|------------------------|------------|---|
| <b>msoshadowOffset</b> | 0x00000000 | <br>Only the offset of the shadow is used: |
| <b>msoshadowDouble</b> | 0x00000001 | A double shadow is cast. Only the offset of the shadow is used:   |



| Name                            | Value      | Meaning  |
|---------------------------------|------------|--|
|                                 |            |   |
| <b>msoshadowRich</b>            | 0x00000002 | <p>The shadow offset and a transformation is applied to skew the shadow relative to the <b>drawing</b>:</p>      |
| <b>msoshadowShape</b>           | 0x00000003 | <p>The shadow offset and a transformation is applied to skew the shadow relative to the shape:</p>               |
| <b>msoshadowDrawing</b>         | 0x00000004 | <p>The shadow is cast onto a <b>drawing plane</b>:</p>   |
| <b>msoshadowEmbossOrEngrave</b> | 0x00000005 | <p>A double shadow is cast to create an embossed or engraved appearance.</p> <p>Embossed:</p>  <p>Engraved:</p> |

| Name | Value | Meaning   |
|------|-------|---|
|      |       |  |

#### 2.4.22 MSOXFORMTYPE

Referenced by: [perspectiveType](#)

The **MSOXFORMTYPE** enumeration, as shown in the following table, specifies the ways that a **perspective transform** SHOULD be applied.

| Name                    | Value      | Meaning  |
|-------------------------|------------|--|
| <b>msoxformAbsolute</b> | 0x00000000 | The perspective transform is applied in <b>absolute space</b> , centered on the <b>shape</b> . |
| <b>msoxformShape</b>    | 0x00000001 | The perspective transform is applied to the shape geometry.                                    |
| <b>msoxformDrawing</b>  | 0x00000002 | The perspective transform is applied in the <b>drawing space</b> .                             |

#### 2.4.23 MSO3DRENDERMODE

Referenced by: [c3DRenderMode](#)







The **MSO3DRENDERMODE** enumeration, as shown in the following table, specifies the rendering modes to be used for a **shape**.






| Name                   | Value      | Meaning   |
|------------------------|------------|---|
| <b>msoFullRender</b>   | 0x00000000 | Rendering displays a solid shape.                             |
| <b>msoWireframe</b>    | 0x00000001 | Rendering displays a wireframe shape.                         |
| <b>msoBoundingCube</b> | 0x00000002 | Rendering displays the bounding cube that contains the shape. |






#### 2.4.24 MSOSPT

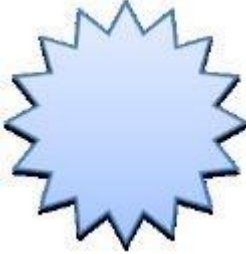




The **MSOSPT** enumeration, as shown in the following table, specifies the preset **shapes** and preset text shape geometries that will be used for a shape. An enumeration of this type is used so that a custom geometry does not need to be specified but can instead be automatically constructed by the generating application.








| Name                      | Value      | Meaning  |
|---------------------------|------------|--|
| <b>msosptNotPrimitive</b> | 0x00000000 | A shape that has no preset geometry and is instead drawn with custom geometry. For example, freeform shapes that are drawn by users fall into this category. |
| <b>msosptRectangle</b>    | 0x00000001 | A rectangle shape:   |






| Name                          | Value      | Meaning   |
|-------------------------------|------------|---|
|                               |            |   |
| <b>msosptRoundRectangle</b>   | 0x00000002 | A rectangle shape with rounded corners:<br> |
| <b>msosptEllipse</b>          | 0x00000003 | An ellipse shape:<br>                       |
| <b>msosptDiamond</b>          | 0x00000004 | A diamond shape:<br>                      |
| <b>msosptIsocelesTriangle</b> | 0x00000005 | An isosceles triangle shape:<br>          |
| <b>msosptRightTriangle</b>    | 0x00000006 | A right triangle shape:<br>               |

| Name                       | Value      | Meaning  |
|----------------------------|------------|--|
| <b>msosptParallelogram</b> | 0x00000007 | A parallelogram shape:<br> |
| <b>msosptTrapezoid</b>     | 0x00000008 | A trapezoid shape:<br>     |
| <b>msosptHexagon</b>       | 0x00000009 | A hexagon shape:<br>      |
| <b>msosptOctagon</b>       | 0x0000000A | An octagon shape:<br>    |
| <b>msosptPlus</b>          | 0x0000000B | A plus shape:<br>        |
| <b>msosptStar</b>          | 0x0000000C | A star shape:  |







| Name                    | Value      | Meaning  |
|-------------------------|------------|--|
|                         |            |                                  |
| <b>msosptArrow</b>      | 0x0000000D | An arrow shape:<br>              |
| <b>msosptThickArrow</b> | 0x0000000E | A value that SHOULD NOT be used.   |
| <b>msosptHomePlate</b>  | 0x0000000F | An irregular pentagon shape:<br> |
| <b>msosptCube</b>       | 0x00000010 | A cube shape:<br>              |
| <b>msosptBalloon</b>    | 0x00000011 | A speech balloon shape:<br>    |
| <b>msosptSeal</b>       | 0x00000012 | A seal shape:  |








| Name                | Value      | Meaning   |
|---------------------|------------|---|
|                     |            |                         |
| <b>msosptArc</b>    | 0x00000013 | A curved arc shape:<br> |
| <b>msosptLine</b>   | 0x00000014 | A line shape:<br>       |
| <b>msosptPlaque</b> | 0x00000015 | A plaque shape:<br>   |
| <b>msosptCan</b>    | 0x00000016 | A cylinder shape:<br> |
| <b>msosptDonut</b>  | 0x00000017 | A donut shape:  |







| Name                     | Value      | Meaning   |
|--------------------------|------------|---|
|                          |            |   |
| <b>msosptTextSimple</b>  | 0x00000018 | <p>A simple text shape. The text SHOULD <a href="#">&lt;115&gt;</a> be drawn on a straight line:</p>                |
| <b>msosptTextOctagon</b> | 0x00000019 | <p>An octagonal text shape. The text SHOULD <a href="#">&lt;116&gt;</a> be drawn within an octagonal boundary:</p>  |
| <b>msosptTextHexagon</b> | 0x0000001A | <p>A hexagonal text shape. The text SHOULD <a href="#">&lt;117&gt;</a> be drawn within a hexagonal boundary:</p>   |
| <b>msosptTextCurve</b>   | 0x0000001B | <p>A curved text shape. The text SHOULD <a href="#">&lt;118&gt;</a> be drawn on a curved line:</p>                |
| <b>msosptTextWave</b>    | 0x0000001C | <p>A wavy text shape. The text SHOULD <a href="#">&lt;119&gt;</a> be drawn on a wavy line:</p>                    |
| <b>msosptTextRing</b>    | 0x0000001D | <p>A ringed text shape. The text SHOULD <a href="#">&lt;120&gt;</a> be drawn within a semicircular arc:</p>       |
| <b>msosptTextOnCurve</b> | 0x0000001E | <p>A text shape that draws text on a curve. The text SHOULD <a href="#">&lt;121&gt;</a> be drawn on a curved line:</p>  |






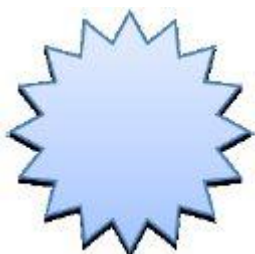
| Name                            | Value      | Meaning  |
|---------------------------------|------------|--|
|                                 |            | Sample Text  |
| <b>msosptTextOnRing</b>         | 0x0000001F | A text shape that draws text on a ring. The text SHOULD<122> be drawn on a semicircular arc:<br> |
| <b>msosptStraightConnector1</b> | 0x00000020 | A straight <b>connector</b> shape:<br>   |
| <b>msosptBentConnector2</b>     | 0x00000021 | A bent connector shape:<br>   |
| <b>msosptBentConnector3</b>     | 0x00000022 | A bent connector shape:<br>  |
| <b>msosptBentConnector4</b>     | 0x00000023 | A bent connector shape:<br>  |
| <b>msosptBentConnector5</b>     | 0x00000024 | A bent connector shape:  |

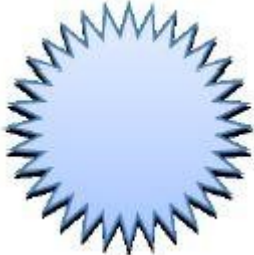







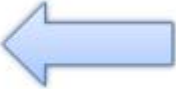




| Name                          | Value      | Meaning  |
|-------------------------------|------------|--|
|                               |            |                              |
| <b>msosptCurvedConnector2</b> | 0x00000025 | A curved connector shape:    |
| <b>msosptCurvedConnector3</b> | 0x00000026 | A curved connector shape:    |
| <b>msosptCurvedConnector4</b> | 0x00000027 | A curved connector shape:  |
| <b>msosptCurvedConnector5</b> | 0x00000028 | A curved connector shape:  |
| <b>msosptCallout1</b>         | 0x00000029 | A <b>callout</b> shape:    |
| <b>msosptCallout2</b>         | 0x0000002A | A callout shape:   |






| Name                        | Value      | Meaning   |
|-----------------------------|------------|---|
|                             |            |   |
| <b>msosptCallout3</b>       | 0x0000002B | A callout shape:<br>                      |
| <b>msosptAccentCallout1</b> | 0x0000002C | A callout shape with a side accent:<br>   |
| <b>msosptAccentCallout2</b> | 0x0000002D | A callout shape with a side accent:<br>  |
| <b>msosptAccentCallout3</b> | 0x0000002E | A callout shape with a side accent:<br> |
| <b>msosptBorderCallout1</b> | 0x0000002F | A callout shape with a border:<br>      |
| <b>msosptBorderCallout2</b> | 0x00000030 | A callout shape with a border:<br>      |





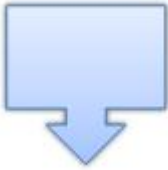
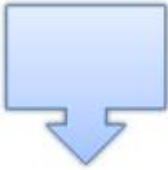
| Name                              | Value      | Meaning  |
|-----------------------------------|------------|--|
|                                   |            |    |
| <b>msosptBorderCallout3</b>       | 0x00000031 | <p>A callout shape with a border:</p>                      |
| <b>msosptAccentBorderCallout1</b> | 0x00000032 | <p>A callout shape with a border and a side accent:</p>    |
| <b>msosptAccentBorderCallout2</b> | 0x00000033 | <p>A callout shape with a border and a side accent:</p>   |
| <b>msosptAccentBorderCallout3</b> | 0x00000034 | <p>A callout shape with a border and a side accent:</p>  |
| <b>msosptRibbon</b>               | 0x00000035 | <p>A ribbon shape:</p>                                   |
| <b>msosptRibbon2</b>              | 0x00000036 | <p>A ribbon shape:</p>   |

| Name                   | Value      | Meaning   |
|------------------------|------------|---|
|                        |            |   |
| <b>msosptChevron</b>   | 0x00000037 | A chevron shape:<br>                     |
| <b>msosptPentagon</b>  | 0x00000038 | A regular pentagon shape:<br>           |
| <b>msosptNoSmoking</b> | 0x00000039 | A circle-with-a-slash shape:<br>       |
| <b>msosptSeal8</b>     | 0x0000003A | A seal shape with eight points:<br>   |
| <b>msosptSeal16</b>    | 0x0000003B | A seal shape with sixteen points:<br> |


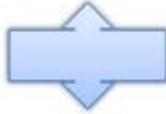




| Name                             | Value      | Meaning   |
|----------------------------------|------------|---|
| <b>msosptSeal32</b>              | 0x0000003C | A seal shape with thirty-two points:<br>              |
| <b>msosptWedgeRectCallout</b>    | 0x0000003D | A rectangular callout shape:<br>                      |
| <b>msosptWedgeRRectCallout</b>   | 0x0000003E | A rectangular callout shape with rounded corners:<br> |
| <b>msosptWedgeEllipseCallout</b> | 0x0000003F | An elliptical callout shape:<br>                    |
| <b>msosptWave</b>                | 0x00000040 | A wave shape:<br>                                   |
| <b>msosptFoldedCorner</b>        | 0x00000041 | A rectangular shape with a folded corner:   |






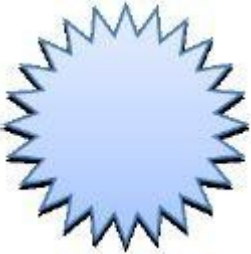
| Name                        | Value      | Meaning   |
|-----------------------------|------------|---|
|                             |            |   |
| <b>msosptLeftArrow</b>      | 0x00000042 | An arrow shape that points to the left:<br>           |
| <b>msosptDownArrow</b>      | 0x00000043 | An arrow shape that points down:<br>                   |
| <b>msosptUpArrow</b>        | 0x00000044 | An arrow shape that points up:<br>                    |
| <b>msosptLeftRightArrow</b> | 0x00000045 | An arrow shape that points both left and right:<br> |
| <b>msosptUpDownArrow</b>    | 0x00000046 | An arrow shape that points both down and up:<br>     |
| <b>msosptIrregularSeal1</b> | 0x00000047 | An irregular seal shape:  |







| Name                        | Value      | Meaning  |
|-----------------------------|------------|--|
|                             |            |                              |
| <b>msosptIrregularSeal2</b> | 0x00000048 | An irregular seal shape:<br> |
| <b>msosptLightningBolt</b>  | 0x00000049 | A lightning bolt shape:<br>  |
| <b>msosptHeart</b>          | 0x0000004A | A heart shape:<br>         |
| <b>msosptPictureFrame</b>   | 0x0000004B | A frame shape:<br>         |
| <b>msosptQuadArrow</b>      | 0x0000004C | A shape that has arrows pointing down, left, right, and up:  |






| Name                               | Value      | Meaning   |
|------------------------------------|------------|---|
|                                    |            |   |
| <b>msosptLeftArrowCallout</b>      | 0x0000004D | A callout shape that has an arrow pointing to the left:<br>         |
| <b>msosptRightArrowCallout</b>     | 0x0000004E | A callout shape that has an arrow pointing to the right:<br>       |
| <b>msosptUpArrowCallout</b>        | 0x0000004F | A callout shape that has an arrow pointing up:<br>                |
| <b>msosptDownArrowCallout</b>      | 0x00000050 | A callout shape that has an arrow pointing down:<br>              |
| <b>msosptLeftRightArrowCallout</b> | 0x00000051 | A callout shape that has arrows pointing both left and right:<br> |





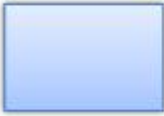










| Name                            | Value      | Meaning   |
|---------------------------------|------------|---|
|                                 |            |   |
| <b>msosptUpDownArrowCallout</b> | 0x00000052 | <p>A callout shape that has arrows pointing both down and up:</p>           |
| <b>msosptQuadArrowCallout</b>   | 0x00000053 | <p>A callout shape that has arrows pointing down, left, right, and up:</p>  |
| <b>msosptBevel</b>              | 0x00000054 | <p>A beveled rectangle shape:</p>   |
| <b>msosptLeftBracket</b>        | 0x00000055 | <p>An opening bracket shape:</p>   |
| <b>msosptRightBracket</b>       | 0x00000056 | <p>A closing bracket shape:</p>    |
| <b>msosptLeftBrace</b>          | 0x00000057 | <p>An opening brace shape:</p>  |








| Name                     | Value      | Meaning  |
|--------------------------|------------|--|
|                          |            |   |
| <b>msosptRightBrace</b>  | 0x00000058 | A closing brace shape:<br>  |
| <b>msosptLeftUpArrow</b> | 0x00000059 | An arrow shape that points both left and up:<br>   |
| <b>msosptBentUpArrow</b> | 0x0000005A | A bent arrow shape that has its base on the left and that points up:<br>                |
| <b>msosptBentArrow</b>   | 0x0000005B | A curved arrow shape that has its base on the bottom and that points to the right:<br> |
| <b>msosptSeal24</b>      | 0x0000005C | A seal shape with twenty-four points:<br>  |







| Name                           | Value      | Meaning   |
|--------------------------------|------------|---|
| <b>msosptStripedRightArrow</b> | 0x0000005D | A striped arrow shape that points to the right:<br> |
| <b>msosptNotchedRightArrow</b> | 0x0000005E | A notched arrow shape that points to the right:<br> |
| <b>msosptBlockArc</b>          | 0x0000005F | A semicircular arc shape:<br>                       |
| <b>msosptSmileyFace</b>        | 0x00000060 | A smiling face shape:<br>                          |
| <b>msosptVerticalScroll</b>    | 0x00000061 | A scroll shape that is vertically opened:<br>     |
| <b>msosptHorizontalScroll</b>  | 0x00000062 | A scroll shape that is horizontally opened:<br>   |
| <b>msosptCircularArrow</b>     | 0x00000063 | A semicircular arrow shape:   |

| Name                              | Value      | Meaning  |
|-----------------------------------|------------|--|
|                                   |            |    |
| <b>msosptNotchedCircularArrow</b> | 0x00000064 | A value that SHOULD NOT be used.   |
| <b>msosptUturnArrow</b>           | 0x00000065 | A semicircular arrow shape that has a straight tail:<br> |
| <b>msosptCurvedRightArrow</b>     | 0x00000066 | An arrow shape that curves to the right:<br>              |
| <b>msosptCurvedLeftArrow</b>      | 0x00000067 | An arrow shape that curves to the left:<br>            |
| <b>msosptCurvedUpArrow</b>        | 0x00000068 | An arrow shape that curves upward:<br>                 |
| <b>msosptCurvedDownArrow</b>      | 0x00000069 | An arrow shape that curves downward:   |






| Name                              | Value      | Meaning  |
|-----------------------------------|------------|--|
|                                   |            |                                        |
| <b>msosptCloudCallout</b>         | 0x0000006A | A cloud-shaped callout:<br>            |
| <b>msosptEllipseRibbon</b>        | 0x0000006B | An elliptical ribbon shape:<br>        |
| <b>msosptEllipseRibbon2</b>       | 0x0000006C | An elliptical ribbon shape:<br>       |
| <b>msosptFlowChartProcess</b>     | 0x0000006D | A process shape for flowcharts:<br>  |
| <b>msosptFlowChartDecision</b>    | 0x0000006E | A decision shape for flowcharts:<br> |
| <b>msosptFlowChartInputOutput</b> | 0x0000006F | An input-output shape for flowcharts:  |

| Name                                    | Value      | Meaning   |
|---|------------|---|
|   |            |   |
| <b>msosptFlowChartPredefinedProcess</b> | 0x00000070 | A predefined process shape for flowcharts:<br>  |
| <b>msosptFlowChartInternalStorage</b>   | 0x00000071 | An internal storage shape for flowcharts:<br>    |
| <b>msosptFlowChartDocument</b>          | 0x00000072 | A document shape for flowcharts:<br>           |
| <b>msosptFlowChartMultidocument</b>     | 0x00000073 | A multiple-document shape for flowcharts:<br> |
| <b>msosptFlowChartTerminator</b>        | 0x00000074 | A terminator shape for flowcharts:<br>        |
| <b>msosptFlowChartPreparation</b>       | 0x00000075 | A preparation shape for flowcharts:<br>       |
| <b>msosptFlowChartManualInput</b>       | 0x00000076 | A manual input shape for flowcharts:  |



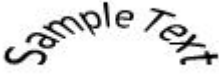

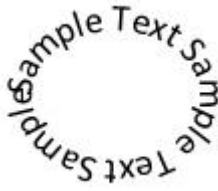

| Name                                  | Value      | Meaning   |
|---------------------------------------|------------|---|
|                                       |            |   |
| <b>msosptFlowChartManualOperation</b> | 0x00000077 | A manual operation shape for flowcharts:<br>  |
| <b>msosptFlowChartConnector</b>       | 0x00000078 | A connector shape for flowcharts:<br>          |
| <b>msosptFlowChartPunchedCard</b>     | 0x00000079 | A punched card shape for flowcharts:<br>     |
| <b>msosptFlowChartPunchedTape</b>     | 0x0000007A | A punched tape shape for flowcharts:<br>    |
| <b>msosptFlowChartSummingJunction</b> | 0x0000007B | A summing junction shape for flowcharts:<br> |
| <b>msosptFlowChartOr</b>              | 0x0000007C | An OR shape for flowcharts:<br>              |

| Name                                 | Value      | Meaning  |
|--------------------------------------|------------|--|
| <b>msosptFlowChartCollate</b>        | 0x0000007D | A collation shape for flowcharts:<br>           |
| <b>msosptFlowChartSort</b>           | 0x0000007E | A sorting shape for flowcharts:<br>             |
| <b>msosptFlowChartExtract</b>        | 0x0000007F | An extraction shape for flowcharts:<br>         |
| <b>msosptFlowChartMerge</b>          | 0x00000080 | A merging shape for flowcharts:<br>           |
| <b>msosptFlowChartOfflineStorage</b> | 0x00000081 | An offline storage shape for flowcharts:<br> |
| <b>msosptFlowChartOnlineStorage</b>  | 0x00000082 | An online storage shape for flowcharts:<br>  |
| <b>msosptFlowChartMagneticTape</b>   | 0x00000083 | A magnetic tape shape for flowcharts:  |



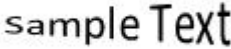


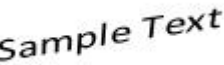
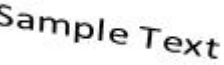



| Name                               | Value      | Meaning   |
|------------------------------------|------------|---|
|                                    |            |    |
| <b>msosptFlowChartMagneticDisk</b> | 0x00000084 | A magnetic disk shape for flowcharts:<br> |
| <b>msosptFlowChartMagneticDrum</b> | 0x00000085 | A magnetic drum shape for flowcharts:<br> |
| <b>msosptFlowChartDisplay</b>      | 0x00000086 | A display shape for flowcharts:<br>      |
| <b>msosptFlowChartDelay</b>        | 0x00000087 | A delay shape for flowcharts:<br>        |
| <b>msosptTextPlainText</b>         | 0x00000088 | A plain text shape:<br>Sample Text  |
| <b>msosptTextStop</b>              | 0x00000089 | An octagonal text shape:<br>sample Text   |
| <b>msosptTextTriangle</b>          | 0x0000008A | A triangular text shape that points upward:   |

| Name                              | Value      | Meaning  |
|-----------------------------------|------------|--|
|                                   |            | sample Text  |
| <b>msosptTextTriangleInverted</b> | 0x0000008B | A triangular text shape that points downward:<br>Sample Text   |
| <b>msosptTextChevron</b>          | 0x0000008C | A chevron text shape that points upward:<br>Sample Text  |
| <b>msosptTextChevronInverted</b>  | 0x0000008D | A chevron text shape that points downward:<br>Sample Text  |
| <b>msosptTextRingInside</b>       | 0x0000008E | A circular text shape, in which reading the text is like reading an inscription on the inside of a ring:<br>sample Text  |
| <b>msosptTextRingOutside</b>      | 0x0000008F | A circular text shape, in which reading the text is like reading an inscription on the outside of a ring:<br>sample Text |
| <b>msosptTextArchUpCurve</b>      | 0x00000090 | An upward-arching curved text shape:<br>sample Text  |
| <b>msosptTextArchDownCurve</b>    | 0x00000091 | A downward-arching curved text shape:<br>Sample Text   |
| <b>msosptTextCircleCurve</b>      | 0x00000092 | A circular text shape:   |

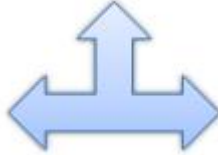



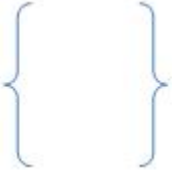

| Name                          | Value      | Meaning   |
|-------------------------------|------------|---|
|                               |            |   |
| <b>msosptTextButtonCurve</b>  | 0x00000093 | A text shape that resembles a button:<br>   |
| <b>msosptTextArchUpPour</b>   | 0x00000094 | An upward-arching text shape:<br>           |
| <b>msosptTextArchDownPour</b> | 0x00000095 | A downward-arching text shape:<br>         |
| <b>msosptTextCirclePour</b>   | 0x00000096 | A circular text shape:<br>                |
| <b>msosptTextButtonPour</b>   | 0x00000097 | A text shape that resembles a button:<br> |
| <b>msosptTextCurveUp</b>      | 0x00000098 | An upward-curving text shape:   |

| Name                         | Value      | Meaning  |
|------------------------------|------------|--|
|                              |            | Sample Text  |
| <b>msosptTextCurveDown</b>   | 0x00000099 | A downward-curving text shape:<br>Sample Text                      |
| <b>msosptTextCascadeUp</b>   | 0x0000009A | A cascading text shape that points up:<br>Sample Text              |
| <b>msosptTextCascadeDown</b> | 0x0000009B | A cascading text shape that points down:<br>Sample Text            |
| <b>msosptTextWave1</b>       | 0x0000009C | A wavy text shape:<br>Sample Text                                  |
| <b>msosptTextWave2</b>       | 0x0000009D | A wavy text shape:<br>Sample Text                                  |
| <b>msosptTextWave3</b>       | 0x0000009E | A wavy text shape:<br>Sample Text                                  |
| <b>msosptTextWave4</b>       | 0x0000009F | A wavy text shape:<br>Sample Text                                  |
| <b>msosptTextInflate</b>     | 0x000000A0 | A text shape that vertically expands in the middle:<br>Sample Text |
| <b>msosptTextDeflate</b>     | 0x000000A1 | A text shape that vertically shrinks in the middle:                |






| Name                                   | Value      | Meaning   |
|--|------------|---|
|  |            | Sample Text   |
| <b>msosptTextInflateBottom</b>         | 0x000000A2 | A text shape that expands downward in the middle:<br>Sample Text  |
| <b>msosptTextDeflateBottom</b>         | 0x000000A3 | A text shape that shrinks upward in the middle:<br>Sample Text  |
| <b>msosptTextInflateTop</b>            | 0x000000A4 | A text shape that expands upward in the middle:<br>Sample Text  |
| <b>msosptTextDeflateTop</b>            | 0x000000A5 | A text shape that shrinks downward in the middle:<br>Sample Text  |
| <b>msosptTextDeflateInflate</b>        | 0x000000A6 | A text shape in which the lower lines expand upward, and the upper lines shrink to compensate:<br>Sample Text<br>Sample Text                                      |
| <b>msosptTextDeflateInflateDeflate</b> | 0x000000A7 | A text shape in which the lines in the center vertically expand, and the upper and lower lines shrink to compensate:<br>Sample Text<br>Sample Text<br>Sample Text |
| <b>msosptTextFadeRight</b>             | 0x000000A8 | A text shape that vertically shrinks on the right side:<br>Sample Text  |
| <b>msosptTextFadeLeft</b>              | 0x000000A9 | A text shape that vertically shrinks on the left side:  |






| Name                                   | Value      | Meaning   |
|--|------------|---|
|  |            |   |
| <b>msosptTextFadeUp</b>                | 0x000000AA | A text shape that horizontally shrinks on the top:<br>                            |
| <b>msosptTextFadeDown</b>              | 0x000000AB | A text shape that horizontally shrinks on the bottom:<br>                         |
| <b>msosptTextSlantUp</b>               | 0x000000AC | An upward-slanted text shape:<br>   |
| <b>msosptTextSlantDown</b>             | 0x000000AD | A downward-slanted text shape:<br>   |
| <b>msosptTextCanUp</b>                 | 0x000000AE | A text shape that is curved upward as if being read on the side of a can:<br>   |
| <b>msosptTextCanDown</b>               | 0x000000AF | A text shape that is curved downward as if being read on the side of a can:<br> |
| <b>msosptFlowChartAlternateProcess</b> | 0x000000B0 | An alternate process shape for flowcharts:<br>                                  |
| <b>msosptFlowChartOffpageConnector</b> | 0x000000B1 | An off-page connector shape for flowcharts:   |




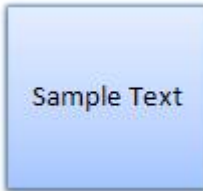
| Name                               | Value      | Meaning  |
|------------------------------------|------------|--|
|                                    |            |   |
| <b>msosptCallout90</b>             | 0x000000B2 | A callout shape:<br>                                   |
| <b>msosptAccentCallout90</b>       | 0x000000B3 | A callout shape with a side accent:<br>                |
| <b>msosptBorderCallout90</b>       | 0x000000B4 | A callout shape with a border:<br>                   |
| <b>msosptAccentBorderCallout90</b> | 0x000000B5 | A callout shape with a border and a side accent:<br> |
| <b>msosptLeftRightUpArrow</b>      | 0x000000B6 | A shape that has arrows pointing left, right, and up:  |

| Name                     | Value      | Meaning  |
|--------------------------|------------|--|
|                          |            |    |
| <b>msosptSun</b>         | 0x000000B7 | A sun shape:<br>                           |
| <b>msosptMoon</b>        | 0x000000B8 | A moon shape:<br>                           |
| <b>msosptBracketPair</b> | 0x000000B9 | A shape that is enclosed in brackets:<br> |
| <b>msosptBracePair</b>   | 0x000000BA | A shape that is enclosed in braces:<br>  |
| <b>msosptSeal4</b>       | 0x000000BB | A seal shape with four points:<br>       |
| <b>msosptDoubleWave</b>  | 0x000000BC | A double wave shape:   |



| Name                                 | Value      | Meaning  |
|--------------------------------------|------------|--|
|                                      |            |                                    |
| <b>msosptActionButtonBlank</b>       | 0x000000BD | A blank button shape:<br>          |
| <b>msosptActionButtonHome</b>        | 0x000000BE | A home button shape:<br>          |
| <b>msosptActionButtonHelp</b>        | 0x000000BF | A help button shape:<br>         |
| <b>msosptActionButtonInformation</b> | 0x000000C0 | An information button shape:<br> |
| <b>msosptActionButtonForwardNext</b> | 0x000000C1 | A forward or next button shape:  |

| Name                                  | Value      | Meaning  |
|---------------------------------------|------------|--|
|                                       |            |                                      |
| <b>msosptActionButtonBackPrevious</b> | 0x000000C2 | A back or previous button shape:<br> |
| <b>msosptActionButtonEnd</b>          | 0x000000C3 | An end button shape:<br>            |
| <b>msosptActionButtonBeginning</b>    | 0x000000C4 | A beginning button shape:<br>      |
| <b>msosptActionButtonReturn</b>       | 0x000000C5 | A return button shape:<br>         |
| <b>msosptActionButtonDocument</b>     | 0x000000C6 | A document button shape:   |

| Name                           | Value      | Meaning  |
|--------------------------------|------------|--|
|                                |            |                            |
| <b>msosptActionButtonSound</b> | 0x000000C7 | A sound button shape:<br>  |
| <b>msosptActionButtonMovie</b> | 0x000000C8 | A movie button shape:<br> |
| <b>msosptHostControl</b>       | 0x000000C9 | A value that SHOULD NOT be used.   |
| <b>msosptTextBox</b>           | 0x000000CA | A text box shape:<br>    |

#### 2.4.25 MSOCXSTYLE

Referenced by: [cxstyle](#)

The **MSOCXSTYLE** enumeration specifies types of **connectors**.

| Name                      | Value      | Meaning                    |
|---------------------------|------------|----------------------------|
| <b>msocxstyleStraight</b> | 0x00000000 | A straight connector.      |
| <b>msocxstyleBent</b>     | 0x00000001 | An elbow-shaped connector. |
| <b>msocxstyleCurved</b>   | 0x00000002 | A curved connector.        |
| <b>msocxstyleNone</b>     | 0x00000003 | No connector.              |

## 2.4.26 MSOBWMODE

Referenced by: [bWMode](#), [bWModeBW](#), [bWModePureBW](#)

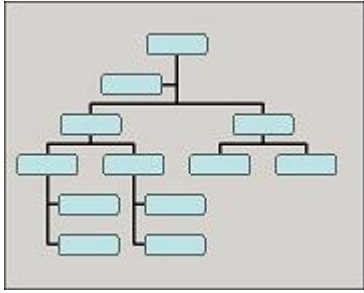
The **MSOBWMODE** enumeration, as shown in the following table, specifies the ways to render an object when black-and-white display mode is specified.

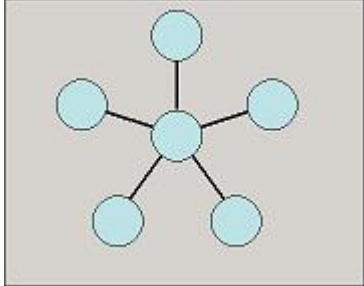
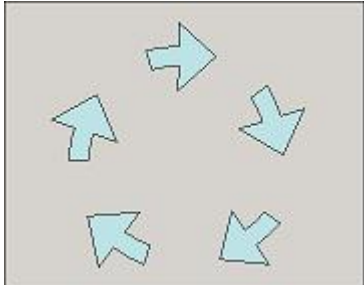
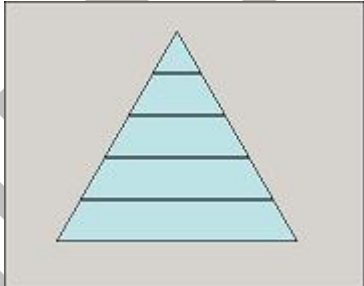
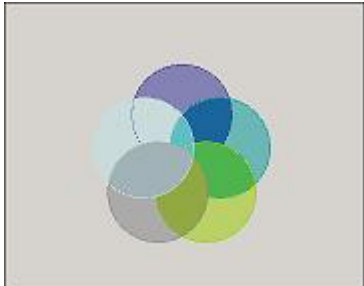
| Name                       | Value      | Meaning   |
|----------------------------|------------|---|
| <b>msobwColor</b>          | 0x00000000 | The object is rendered with normal coloring.          |
| <b>msobwAutomatic</b>      | 0x00000001 | The object is rendered with automatic coloring.       |
| <b>msobwGrayScale</b>      | 0x00000002 | The object is rendered with gray coloring.            |
| <b>msobwLightGrayScale</b> | 0x00000003 | The object is rendered with light gray coloring.      |
| <b>msobwInverseGray</b>    | 0x00000004 | The object is rendered with inverse gray coloring.    |
| <b>msobwGrayOutline</b>    | 0x00000005 | The object is rendered with gray and white coloring.  |
| <b>msobwBlackTextLine</b>  | 0x00000006 | The object is rendered with black and gray coloring.  |
| <b>msobwHighContrast</b>   | 0x00000007 | The object is rendered with black and white coloring. |
| <b>msobwBlack</b>          | 0x00000008 | The object is rendered only with black coloring.      |
| <b>msobwWhite</b>          | 0x00000009 | The object is rendered with white coloring.           |
| <b>msobwDontShow</b>       | 0x0000000A | The object is not rendered.                           |

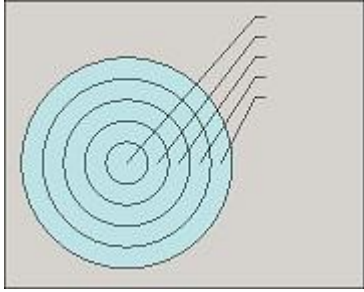
## 2.4.27 MSODGMT

Referenced by: [dgmt](#)

The **MSODGMT** enumeration, as shown in the following table specifies the types of **diagrams**.

| Name                   | Value      | Meaning   |
|------------------------|------------|---|
| <b>msodgmtCanvas</b>   | 0x00000000 | A drawing area for <b>ink</b> and <b>shapes</b> .   |
| <b>msodgmtOrgChart</b> | 0x00000001 | An organizational chart diagram:<br> |
| <b>msodgmtRadial</b>   | 0x00000002 | A diagram that shows the relationships to a central entity:   |

| Name                   | Value      | Meaning   |
|------------------------|------------|---|
|                        |            |    |
| <b>msodgmtCycle</b>    | 0x00000003 | <p>A diagram that shows a cyclical process:</p>  |
| <b>msodgmtStacked</b>  | 0x00000004 | <p>A pyramid diagram:</p>                       |
| <b>msodgmtVenn</b>     | 0x00000005 | <p>A Venn diagram:</p>                         |
| <b>msodgmtBullsEye</b> | 0x00000006 | <p>A diagram that has concentric rings:</p>   |

| Name              | Value      | Meaning   |
|-------------------|------------|---|
|                   |            |  |
| <b>msodgmtNil</b> | 0x00000FFF | No diagram or an invalid diagram.   |

#### 2.4.28 MSODGSLK

Referenced by: [OfficeArtFDGSL](#)

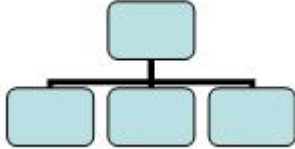
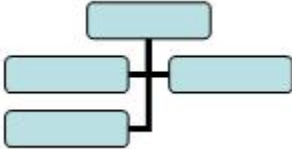
The **MSODGSLK** enumeration, as shown in the following table, specifies selection states for selected **shapes**.

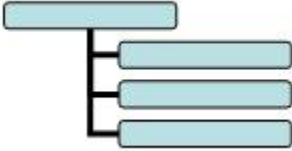
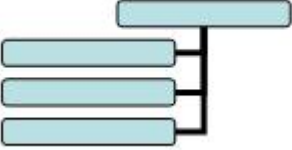
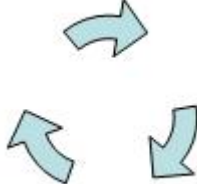
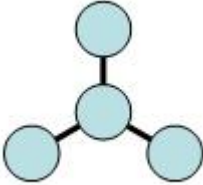
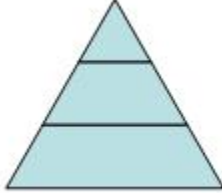
| Name                   | Value      | Meaning                                       |
|------------------------|------------|---|
| <b>msodgslkNormal</b>  | 0x00000000 | The default state.                            |
| <b>msodgslkRotate</b>  | 0x00000001 | Ready to rotate.                              |
| <b>msodgslkReshape</b> | 0x00000002 | Ready to change the curvature of line shapes. |
| <b>msodgslkCrop</b>    | 0x00000007 | Ready to crop the picture.                    |


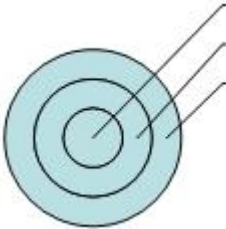
#### 2.4.29 MSODGMLO

Referenced by: [dgmLayout](#), [dgmLayoutMRU](#)

The **MSODGMLO** enumeration, as defined in the following table, specifies layouts for **shapes** that are nodes in a **diagram**. The value 0x000000FF (**msodgmloNil**) indicates that no shape is present.

| Name                               | Value      | Meaning  |
|------------------------------------|------------|--|
| <b>msodgmloOrgChartStd</b>         | 0x00000000 | Organizational chart:<br>  |
| <b>msodgmloOrgChartBothHanging</b> | 0x00000001 | Organizational chart with child nodes hanging both left and right:<br> |

| Name                                | Value      | Meaning   |
|-------------------------------------|------------|---|
| <b>msodgmloOrgChartRightHanging</b> | 0x00000002 | Organizational chart with child nodes hanging to the right:<br> |
| <b>msodgmloOrgChartLeftHanging</b>  | 0x00000003 | Organizational chart with child nodes hanging to the left:<br>  |
| <b>msodgmloCycleStd</b>             | 0x00000004 | Cycle diagram:<br>  |
| <b>msodgmloRadialStd</b>            | 0x00000005 | Radial diagram:<br>   |
| <b>msodgmloStackedStd</b>           | 0x00000006 | Pyramid diagram:<br>  |
| <b>msodgmloVennStd</b>              | 0x00000007 | Venn diagram:   |

| Name                       | Value      | Meaning   |
|----------------------------|------------|---|
|                            |            |                     |
| <b>msodgmIoBullsEyeStd</b> | 0x00000008 | Target diagram:<br> |

### 2.4.30 MSOPATHTYPE

The **MSOPATHTYPE** enumeration, as shown in the following table, specifies how the individual pieces of a path SHOULD be interpreted.

| Name                       | Value      | Meaning  |
|----------------------------|------------|--|
| <b>msopathLineTo</b>       | 0x00000000 | For each <b>POINT</b> record, as defined in section <a href="#">2.2.55</a> , in the array, add a straight line segment from the current ending <b>POINT</b> to the new <b>POINT</b> . The number of <b>POINT</b> values to process equals the number of segments. The last <b>POINT</b> in the array becomes the new ending <b>POINT</b> . |
| <b>msopathCurveTo</b>      | 0x00000001 | For each segment, three <b>POINT</b> values are used to draw a cubic Bezier curve. The first two <b>POINT</b> values are control <b>POINT</b> values, and the last <b>POINT</b> is the new ending <b>POINT</b> . The number of <b>POINT</b> values consumed is three times the number of segments.   |
| <b>msopathMoveTo</b>       | 0x00000002 | Start a new sub-path by using a single <b>POINT</b> . The starting <b>POINT</b> becomes the current ending <b>POINT</b> . The value of the segment field MUST be zero. The number of <b>POINT</b> values used is one.  |
| <b>msopathClose</b>        | 0x00000003 | If the starting <b>POINT</b> and the ending <b>POINT</b> are not the same, a single straight line is drawn to connect the starting <b>POINT</b> and the ending <b>POINT</b> of the path. The number of segments MUST be one. The number of <b>POINT</b> values used is zero.   |
| <b>msopathEnd</b>          | 0x00000004 | The end of the current path. All consecutive lines and fill values MUST be drawn before any subsequent path or line is drawn. The number of segments MUST be zero. The number of <b>POINT</b> values used is zero.   |
| <b>msopathEscape</b>       | 0x00000005 | The <b>MSOPATHINFO</b> record, as defined in section <a href="#">2.2.53</a> , is treated as an <b>MSOPATHESCAPEINFO</b> record, as defined in section <a href="#">2.2.54</a> .   |
| <b>msopathClientEscape</b> | 0x00000006 | The <b>MSOPATHINFO</b> record is treated as an <b>MSOPATHESCAPEINFO</b> record specific to the client.   |



### 2.4.31 MSOPATHESCAPE

The **MSOPATHESCAPE** enumeration, as shown in the following table, modifies the path properties by adding elements to a path, providing additional control, or specifying how to handle the editing of **POINT** data, as defined in section [2.2.55](#).

| Name                               | Value      | Meaning  |
|------------------------------------|------------|--|
| <b>msopathEscapeExtension</b>      | 0x00000000 | This value adds additional <b>POINT</b> values, as defined in section 2.2.55, to the escape code that follows <b>msopathEscapeExtension</b> .  |
| <b>msopathEscapeAngleEllipseTo</b> | 0x00000001 | The first <b>POINT</b> specifies the center of the ellipse. The second <b>POINT</b> specifies the starting radius in the x value and the ending radius in the y value. The third <b>POINT</b> specifies the starting angle in the x value and the ending angle in the y value. Angles are in degrees. The number of ellipse segments drawn equals the number of segments divided by three.   |
| <b>msopathEscapeAngleEllipse</b>   | 0x00000002 | The first <b>POINT</b> specifies the center of the ellipse. The second <b>POINT</b> specifies the starting radius in the x value and the ending radius in the y value. The third <b>POINT</b> specifies the starting angle in the x value and the ending angle in the y value. Angles are in degrees. The number of ellipse segments drawn equals the number of segments divided by three. The first <b>POINT</b> of the ellipse becomes the first <b>POINT</b> of a new path.   |
| <b>msopathEscapeArcTo</b>          | 0x00000003 | The first two <b>POINT</b> values specify the <b>bounding rectangle</b> of the ellipse. The second two <b>POINT</b> values specify the radial vectors for the ellipse. The radial vectors are cast from the center of the bounding rectangle. The path starts at the <b>POINT</b> where the first radial vector intersects the bounding rectangle and goes to the <b>POINT</b> where the second radial vector intersects the bounding rectangle. The drawing direction is always counterclockwise. If the path has already been started, a line is drawn from the last <b>POINT</b> to the starting <b>POINT</b> of the arc; otherwise, a new path is started. The number of arc segments drawn equals the number of segments divided by four. |
| <b>msopathEscapeArc</b>            | 0x00000004 | The first two <b>POINT</b> values specify the bounding rectangle of the ellipse. The second two <b>POINT</b> values specify the radial vectors for the ellipse. The radial vectors are cast from the center of the bounding rectangle. The path starts at the <b>POINT</b> where the first radial vector intersects the bounding rectangle and goes to the <b>POINT</b> where the second radial vector intersects the bounding rectangle. The drawing direction is always counterclockwise. The number of arc segments drawn equals the number of segments divided by four.  |
| <b>msopathEscapeClockwiseArcTo</b> | 0x00000005 | The first two <b>POINT</b> values specify the bounding rectangle of the ellipse. The second two <b>POINT</b> values specify the radial vectors for the ellipse. The radial vectors are cast from the center of the bounding rectangle. The path starts at the <b>POINT</b> where the first radial vector intersects the bounding rectangle and goes to the <b>POINT</b> where the second radial vector intersects the bounding rectangle. The drawing direction is always clockwise. If the path has already been started, a line is drawn from the last <b>POINT</b> to the starting <b>POINT</b> of the  |

| Name                                    | Value      | Meaning   |
|---|------------|---|
|   |            | arc; otherwise, a new path is started. The number of arc segments drawn equals the number of segments divided by four.  |
| <b>msopathEscapeClockwiseArc</b>        | 0x00000006 | The first two <b>POINT</b> values specify the bounding rectangle of the ellipse. The second two <b>POINT</b> values specify the radial vectors for the ellipse. The radial vectors are cast from the center of the bounding rectangle. The path starts at the <b>POINT</b> where the first radial vector intersects the bounding rectangle and goes to the <b>POINT</b> where the second radial vector intersects the bounding rectangle. The drawing direction is always clockwise. The number of arc segments drawn equals the number of segments divided by four. This escape code always starts a new path. |
| <b>msopathEscapeEllipticalQuadrantX</b> | 0x00000007 | This value adds an ellipse to the path from the current <b>POINT</b> to the next <b>POINT</b> . The ellipse is drawn as a quadrant that starts as a tangent to the x-axis. Multiple elliptical quadrants are joined by a straight line. The number of elliptical quadrants drawn equals the number of segments.   |
| <b>msopathEscapeEllipticalQuadrantY</b> | 0x00000008 | This value adds an ellipse to the path from the current <b>POINT</b> to the next <b>POINT</b> . The ellipse is drawn as a quadrant that starts as a tangent to the y-axis. Multiple elliptical quadrants are joined by a straight line. The number of elliptical quadrants drawn equals the number of segments.   |
| <b>msopathEscapeQuadraticBezier</b>     | 0x00000009 | Each <b>POINT</b> defines a control point for a quadratic Bezier curve. The number of control <b>POINT</b> values is defined by the <b>segments</b> property of the containing <b>MSOPATHESCAPEINFO</b> record, as defined in section <a href="#">2.2.54</a> .  |
| <b>msopathEscapeNoFill</b>              | 0x0000000A | The path is not to be filled, even if it is passed to a rendering routine that would normally fill the path.  |
| <b>msopathEscapeNoLine</b>              | 0x0000000B | The path is not to be drawn, even if it passed to a rendering routine that would normally draw the path.  |
| <b>msopathEscapeAutoLine</b>            | 0x0000000C | For Bezier curve editing, the vertex joints are calculated, are of equal length, and are collinear. The segment after the <b>POINT</b> is a line. The tangent is not visible.   |
| <b>msopathEscapeAutoCurve</b>           | 0x0000000D | For Bezier curve editing, the vertex joints are calculated, are of equal length, and are collinear. The segment after the <b>POINT</b> is a curve. The tangent is not visible.  |
| <b>msopathEscapeCornerLine</b>          | 0x0000000E | For Bezier curve editing, the vertex joints are not calculated, are not of equal lengths and are not collinear. The segment after the <b>POINT</b> is a line. The tangent is visible.   |
| <b>msopathEscapeCornerCurve</b>         | 0x0000000F | For Bezier curve editing, the vertex joints are not calculated, are not of equal length, and are not collinear. The segment after the <b>POINT</b> is a curve. The tangent is visible.  |
| <b>msopathEscapeSmoothLine</b>          | 0x00000010 | For Bezier curve editing, the vertex joints are not calculated, are not of equal length, and are not collinear. The segment after the <b>POINT</b> is a line. The tangent is  |

| Name                               | Value      | Meaning  |
|------------------------------------|------------|--|
|                                    |            | visible.   |
| <b>msopathEscapeSmoothCurve</b>    | 0x00000011 | For Bezier curve editing, the vertex joints are not calculated, are not of equal length, and are not collinear. The segment after the <b>POINT</b> is a curve. The tangent is visible.   |
| <b>msopathEscapeSymmetricLine</b>  | 0x00000012 | For Bezier curve editing, the vertex joints are not calculated, are of equal length, and are not collinear. The segment after the <b>POINT</b> is a line. The tangent is visible.  |
| <b>msopathEscapeSymmetricCurve</b> | 0x00000013 | For Bezier curve editing the vertex joints are not calculated, are of equal length, and are not collinear. The segment after the <b>POINT</b> is a curve. The tangent is visible.  |
| <b>msopathEscapeFreeform</b>       | 0x00000014 | For Bezier curve editing, the vertex joints are calculated, are of equal length, and are collinear. The tangent is not visible.  |
| <b>msopathEscapeFillColor</b>      | 0x00000015 | This value sets a new fill color. A single <b>POINT</b> is used to represent the colors. The x value is an <b>OfficeArtCOLORREF</b> structure, as defined in section 2.2.2, that specifies the new foreground color. The y value is an <b>OfficeArtCOLORREF</b> that specifies the new background color.         |
| <b>msopathEscapeLineColor</b>      | 0x00000016 | This value sets a new line drawing color. A single <b>POINT</b> is used to represent the colors. The x value is an <b>OfficeArtCOLORREF</b> structure, as defined in section 2.2.2, that specifies the new foreground color. The y value is an <b>OfficeArtCOLORREF</b> that specifies the new background color. |

## 2.5 Algorithms

### 2.5.1 Data for VtHyperlink

The following algorithm specifies how hyperlink properties, as specified in [\[MS-OSHARED\]](#) section 2.3.3.1.18, that are associated with OfficeArt shapes construct their **dwInfo** structure member values:

- If the hyperlink defines a link that is associated with the shape itself, the **dwInfo** value MUST be 0x00000004.
- If the hyperlink defines a **URL** path to an image resource that specifies the background image of the document, the **dwInfo** value MUST be 0x00000000.
- If the hyperlink defines a URL path to an image resource that specifies the foreground graphic displayed for the shape, the **dwInfo** value MUST be 0x00000001.
- If the hyperlink defines a URL path to an image resource that specifies the fill graphic for the shape, the **dwInfo** value MUST be 0x00000002.
- If the hyperlink defines a URL path to an image resource that specifies the graphic used for the shape outline, the **dwInfo** value MUST be 0x00000003.

### 3 Structure Examples

This section contains examples that illustrate different features of the Office Drawing Binary File Format Structure.

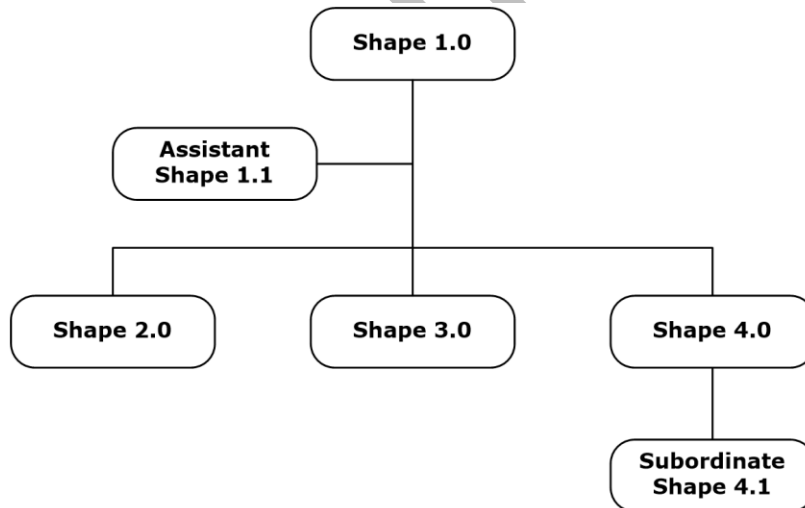
The example structures are derived from sample files<123>. The example structures will be similar for other applications<124>, but records and fields that are defined by the client application might vary slightly.

#### 3.1 Diagram

This section provides an example of the record hierarchy within a **drawing** container that specifies the structure of a **diagram**. This section outlines some of the records that define the structure and properties specific to the following **drawing objects**<125>:

- Basic **shapes**, including:
  - Shape fill and color
  - Shape outline
  - Shape position
  - Shape grouping
- Text
- Diagram type, layout, and protection
- **Connector** lines

The diagram image that is shown in the following figure represents a basic organizational-chart diagram, which consists of a top-level shape, an assistant shape, coworker shapes, and a subordinate shape. Each shape in the diagram contains text, a fill color, and a shape outline. All of the shapes are connected by lines that are called connectors.



**Figure 10: Basic organizational chart**

The remainder of this section shows the record hierarchy that is used to define a diagram and the shapes that are used to construct a diagram. For a detailed specification of each record that is mentioned, see Structures, as defined in section 2.

### 3.1.1 DrawingContainer

All the records that are used to construct the multiple parts of a **diagram** are stored in the **drawing** container. The drawing container is defined by the host application and might be named differently in the file format of the host application.

The following table shows the child-record hierarchy of the **DrawingContainer** record ([MS-PPT] section 2.5.13) named **drawing**. This example focuses on the four top-level containers, which are labeled **1**, **2**, **3**, and **4** within the **OfficeArtDgContainer** record, as defined in section 2.2.13.

| Offset   | Size | Structure  |
|----------|------|--|
| 00000D6F | 0A7E | DrawingContainer - <b>drawing</b>                                    |
| 00000D6F | 0008 | RecordHeader - <b>rh</b>   |
| 00000D77 | 0A76 | OfficeArtDgContainer - <b>OfficeArtDg</b>                            |
| 00000D77 | 0008 | <a href="#">OfficeArtRecordHeader</a> - <b>rh</b>                    |
| 00000D7F | 0010 | <b>1:</b> <a href="#">OfficeArtFDG</a> - <b>drawingData</b>          |
| 00000D8F | 0966 | <b>2:</b> <a href="#">OfficeArtSpgrContainer</a> - <b>groupShape</b> |
| 000016F5 | 0050 | <b>3:</b> <a href="#">OfficeArtSpContainer</a> - <b>shape</b>        |
| 00001745 | 00A8 | <b>4:</b> <a href="#">OfficeArtSolverContainer</a> - <b>solvers</b>  |

**Figure 11: Child-Record Hierarchy of a DrawingContainer Record**

The top-level records of the drawing container are specified as follows:

**drawing:** A drawing container that contains a **RecordHeader** record, as defined in section 2.2.1, and a top-level **OfficeArtDgContainer** drawing container.

**OfficeArtDg:** An **OfficeArtDgContainer** record, as defined in section 2.2.13, that contains all the per-slide, per-document, and per-sheet information, including the **shapes**.

**OfficeArtDg.drawingData:** An **OfficeArtFDG** record, as defined in section 2.2.49, that contains information about the shape count, drawing identifier, and shape identifier of the last shape in a drawing.

**OfficeArtDg.groupShape:** An **OfficeArtSpgrContainer** record, as defined in section 2.2.16, that contains groups of shapes. This group container contains a variable number of shape containers and other group containers. The group itself is a shape.

**OfficeArtDg.shape:** An **OfficeArtSpContainer** record, as defined in section 2.2.14, that acts as a container for shapes.

**OfficeArtDg.solvers:** An **OfficeArtSolverContainer** record, as defined in section 2.2.18, that acts as a container for **rules** that are applicable to shapes.

The containers that are labeled **1**, **2**, **3**, and **4** are described in more detail in the following four subsections.

### 3.1.2 OfficeArtFDG

The following table shows the child-record hierarchy of **OfficeArtFDG**, as defined in section [2.2.49](#), container **1**.

| Offset   | Size    | Structure   | Value      |
|----------|---------|---|------------|
| 00000D7F | 0010    | <b>1: OfficeArtFDG - drawingData</b>              |            |
| 00000D7F | 0008    | <a href="#">OfficeArtRecordHeader</a> - <b>rh</b> |            |
| 00000D7F | 4 bits  | bit - <b>recVer</b>                               | 0x0        |
| 00000D7F | 12 bits | bit - <b>recInstance</b>                          | 0x002      |
| 00000D81 | 0002    | USHORT - <b>recType</b>                           | 0xF008     |
| 00000D83 | 0004    | DWORD - <b>recLen</b>                             | 0x00000008 |
| 00000D87 | 0004    | ULONG - <b>csp</b>                                | 0x0000000E |
| 00000D8B | 0004    | ULONG - <b>spidCur</b>                            | 0x00000818 |

**Figure 12: Child-Record Hierarchy of OfficeArtFDG Container 1**

The records that are contained within **OfficeArtFDG** container **1** are specified as follows:

**rh:** An **OfficeArtRecordHeader** structure, as defined in section 2.2.1, that describes the record data. This 8-byte header contains the record type, the record length, and if it is an **atom** type, a version identifier.

**rh.recVer:** The record version, which is 0x0 if the record is an atom or 0xF if the record is a container.

**rh.recInstance:** The record instance (0x002), which is useful for differentiating atoms when more than one atom of the same type exists in a particular container.

**rh.recType:** The type (0xF008) of the record. OfficeArt uses values from 0xF000 to 0xFFFF. Client applications can define their own records by using other ranges.

**rh.recLen:** The length (0x00000008), in bytes, of the record. If the record is an atom, this value specifies the length of the atom excluding the header. If the record is a container, this value specifies the sum of the lengths of the contained atoms plus the length of the record header for each atom.

**csp:** The number (0x0000000E) of **shapes** in this **drawing**.

**spidCur:** The shape identifier (0x00000818) of the last shape in this drawing.

### 3.1.3 OfficeArtSpgrContainer

The following table shows the child-record hierarchy of **OfficeArtSpgrContainer** container, as defined in section [2.2.16](#), record **2**.

| Offset   | Size | Structure  |
|----------|------|--|
| 00000D8F | 0966 | <b>2: OfficeArtSpgrContainer - groupShape</b>      |
| 00000D8F | 0008 | <a href="#">OfficeArtRecordHeader</a> - <b>rh</b>  |
| 00000D97 | 095E | OfficeArtSpgrContainerFileBlockArray - <b>rgfb</b> |

| Offset   | Size | Structure   |
|----------|------|---|
| 00000D97 | 0030 | <b>A:</b> <a href="#">OfficeArtSpgrContainerFileBlock</a> - <b>OfficeArtSpgrContainerFB</b> |
| 00000DC7 | 092E | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 00000DC7 | 092E | OfficeArtSpgrContainer - <b>case_of_msofbtSpgrContainer</b>                                 |
| 00000DC7 | 0008 | OfficeArtRecordHeader - <b>rh</b>   |
| 00000DCF | 0926 | OfficeArtSpgrContainerFileBlockArray - <b>rgfb</b>  |
| 00000DCF | 00EA | <b>B:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                 |
| 00000EB9 | 005C | <b>C:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                 |
| 00000F15 | 007C | <b>D:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                 |
| 00000F91 | 0076 | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 00001007 | 007C | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 00001083 | 007C | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 000010FF | 007C | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 0000117B | 00EB | <b>E:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                 |
| 00001266 | 00E5 | <b>F:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                 |
| 0000134B | 00E5 | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 00001430 | 00E5 | <b>G:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                 |
| 00001515 | 00EF | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |
| 00001604 | 00F1 | OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b>                           |

**Figure 13: Child-Record Hierarchy of OfficeArtSpgrContainer Container 2**

The record types within **OfficeArtSpgrContainer** container **2** that have not been explained in previous sections are specified as follows:

**rgfb:** An array of **OfficeArtSpgrContainerFileBlock** records, as defined in section 2.2.17, that specifies **groups** or **shapes** contained within this group.

**rgfb.OfficeArtSpgrContainerFB:** A container for groups of shapes. The group container contains a variable number of shape containers and other group containers. Each group is a shape.

The following seven structure examples show the records that are labeled **A**, **B**, **C**, **D**, **E**, **F**, and **G** in the preceding table in more detail.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock** record **A**.

| Offset   | Size | Structure   | Value |
|----------|------|---|-------|
| 00000D97 | 0030 | <b>A:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b> |       |
| 00000D97 | 0030 | <a href="#">OfficeArtSpContainer</a> - <b>case_of_msofbtSpContainer</b>     |       |
| 00000D97 | 0008 | OfficeArtRecordHeader - <b>rh</b>   |       |
| 00000D9F | 0018 | <a href="#">OfficeArtFSPGR</a> - <b>shapeGroup</b>                          |       |

| Offset   | Size | Structure                          | Value      |
|----------|------|------------------------------------|------------|
| 00000D9F | 0008 | OfficeArtRecordHeader - <b>rh</b>  |            |
| 00000DA7 | 0010 | OfficeArtFRC - <b>frc</b>          |            |
| 00000DA7 | 0004 | LONG - <b>xLeft</b>                | 0x00000000 |
| 00000DAB | 0004 | LONG - <b>yTop</b>                 | 0x00000000 |
| 00000DAF | 0004 | LONG - <b>xRight</b>               | 0x00000000 |
| 00000DB3 | 0004 | LONG - <b>yBottom</b>              | 0x00000000 |
| 00000DB7 | 0010 | <b>H: OfficeArtFSP - shapeProp</b> |            |

**Figure 14: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record A**

The record types within **OfficeArtSpgrContainerFileBlock** record **A** that have not been explained in previous structure examples are specified as follows:

**case\_of\_msofbtSpContainer.shapeGroup.frc:** The coordinate system of the **group shape** that the anchors of the child shape are expressed in. This structure is present only in group shapes.

**case\_of\_msofbtSpContainer.shapeGroup.frc.xLeft:** The left boundary (0x00000000) of the coordinate system of the group.

**case\_of\_msofbtSpContainer.shapeGroup.frc.yTop:** The top boundary (0x00000000) of the coordinate system of the group (4).

**case\_of\_msofbtSpContainer.shapeGroup.frc.xRight:** The right boundary (0x00000000) of the coordinate system of the group (4).

**case\_of\_msofbtSpContainer.shapeGroup.frc.yBottom:** The bottom boundary (0x00000000) of the coordinate system of the group (4).

**case\_of\_msofbtSpContainer.shapeProp:** An **OfficeArtFSP** record, as defined in section 2.2.40, that contains an instance of a shape. The record header contains the shape type, and the record itself contains the shape identifier and a set of bits that further define the shape.

The following table shows the child-record hierarchy of **OfficeArtFSP** record **H**.

| Offset   | Size  | Structure                          | Value      |
|----------|-------|------------------------------------|------------|
| 00000DB7 | 0010  | <b>H: OfficeArtFSP - shapeProp</b> |            |
| 00000DB7 | 0008  | OfficeArtRecordHeader - <b>rh</b>  |            |
| 00000DBF | 0004  | ULONG - <b>spid</b>                | 0x00000800 |
| 00000DC3 | 1 bit | bit - <b>fGroup</b>                | 0x1        |
| 00000DC3 | 1 bit | bit - <b>fChild</b>                | 0x0        |
| 00000DC3 | 1 bit | bit - <b>fPatriarch</b>            | 0x1        |
| 00000DC3 | 1 bit | bit - <b>fDeleted</b>              | 0x0        |
| 00000DC3 | 1 bit | bit - <b>fOleShape</b>             | 0x0        |
| 00000DC3 | 1 bit | bit - <b>fHaveMaster</b>           | 0x0        |



| Offset   | Size    | Structure                | Value   |
|----------|---------|--------------------------|---------|
| 00000DC3 | 1 bit   | bit - <b>fFlipH</b>      | 0x0     |
| 00000DC3 | 1 bit   | bit - <b>fFlipV</b>      | 0x0     |
| 00000DC3 | 1 bit   | bit - <b>fConnector</b>  | 0x0     |
| 00000DC3 | 1 bit   | bit - <b>fHaveAnchor</b> | 0x0     |
| 00000DC3 | 1 bit   | bit - <b>fBackground</b> | 0x0     |
| 00000DC3 | 1 bit   | bit - <b>fHaveSpt</b>    | 0x0     |
| 00000DC3 | 20 bits | bit - <b>unused1</b>     | 0x00000 |

**Figure 15: Child-Record Hierarchy of OfficeArtFSP Record H**

The record types within **OfficeArtFSP** record **H** that have not been explained in previous structure examples are specified as follows:

**spid**: The identifier (0x00000800) of this shape.

**fGroup**: A value that specifies whether this shape is a group shape. The value 0x1 specifies that this shape is a group shape.

**fChild**: A value that specifies whether this shape is a **child** shape. The value 0x0 specifies that this shape is not a child shape.

**fPatriarch**: A value that specifies whether this shape is the topmost group shape. The value 0x1 specifies that this shape is the topmost group shape. Exactly one topmost group shape exists per **drawing**.

**fDeleted**: A value that specifies whether this shape has been deleted. The value 0x0 specifies that this shape has not been deleted.

**fOleShape**: A value that specifies whether this shape is an **OLE object**. The value 0x0 specifies that this shape is not an OLE object.

**fHaveMaster**: A value that specifies whether this shape has a valid **master** in the **hspMaster** property, as defined in section [2.3.2.1](#). The value 0x0 specifies that this shape does not have such a valid master.

**fFlipH**: A value that specifies whether this shape is flipped horizontally. The value 0x0 specifies that this shape is not flipped horizontally.

**fFlipV**: A value that specifies whether this shape is flipped vertically. The value 0x0 specifies that this shape is not flipped vertically.

**fConnector**: A value that specifies whether this shape is a **connector** shape. The value 0x0 specifies that this shape is not a connector shape.

**fHaveAnchor**: A value that specifies whether this shape has an **anchor**. The value 0x0 specifies that this shape does not have an anchor.

**fBackground**: A value that specifies whether this shape is a **background shape**. The value 0x0 specifies that this shape is not a background shape.

**fHaveSpt**: A value that specifies whether this shape has a shape type property. The value 0x0 specifies that this shape does not have a shape type property.

**unused1**: A value that is undefined and needs to be ignored.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock**, as defined in section 2.2.17, record **B**.

| Offset   | Size | Structure   | Value      |
|----------|------|---|------------|
| 00000DCF | 00EA | <b>B: OfficeArtSpgrContainerFileBlock - OfficeArtSpgrContainerFB</b>  |            |
| 00000DCF | 00EA | OfficeArtSpContainer - <b>case_of_msofbtSpContainer</b>               |            |
| 00000DCF | 0008 | OfficeArtRecordHeader - <b>rh</b>                                     |            |
| 00000DD7 | 0018 | OfficeArtFSPGR - <b>shapeGroup</b>                                    |            |
| 00000DEF | 0010 | OfficeArtFSP - <b>shapeProp</b>                                       |            |
| 00000DFF | 000E | <a href="#">OfficeArtFOPT</a> - <b>shapePrimaryOptions</b>            |            |
| 00000E0D | 009C | <a href="#">OfficeArtTertiaryFOPT</a> - <b>shapeTertiaryOptions</b>   |            |
| 00000E0D | 0008 | OfficeArtRecordHeader - <b>rh</b>                                     |            |
| 00000E15 | 0094 | <a href="#">OfficeArtRGFOPT</a> - <b>fopt</b>                         |            |
| 00000E15 | 0006 | <a href="#">dgmt</a> - <b>Diagram Type</b>                            |            |
| 00000E15 | 0002 | <a href="#">OfficeArtFOPTEOPID</a> - <b>opid</b>                      |            |
| 00000E17 | 0004 | <a href="#">MSODGMT</a> - <b>dgmt</b>                                 | 0x00000001 |
| 00000E1B | 0006 | <a href="#">dgmStyle</a> - <b>Diagram Style</b>                       |            |
| 00000E1B | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                      |            |
| 00000E1D | 0004 | LONG - <b>dgmStyle</b>  | 0x00000000 |
| 00000E21 | 0006 | <a href="#">pRelationTbl</a> - <b>Diagram Shape Relationship</b>      |            |
| 00000E21 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                      |            |
| 00000E23 | 0004 | ULONG - <b>pRelationTbl</b>   | 0x0000004E |
| 00000E27 | 0006 | <a href="#">dgmScaleX</a> - <b>Diagram ScaleX</b>                     |            |
| 00000E27 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                      |            |
| 00000E29 | 0004 | FixedPoint - <b>dgmScaleX</b>   | 0x00013333 |
| 00000E2D | 0006 | <a href="#">dgmScaleY</a> - <b>Diagram ScaleY</b>                     |            |
| 00000E2D | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                      |            |
| 00000E2F | 0004 | FixedPoint - <b>dgmScaleY</b>   | 0x00011748 |
| 00000E33 | 0006 | <a href="#">dgmDefaultFontSize</a> - <b>Diagram Default Font Size</b> |            |
| 00000E33 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                      |            |
| 00000E35 | 0004 | LONG - <b>dgmDefaultFontSize</b>                                      | 0x0000000D |
| 00000E39 | 0006 | <a href="#">dgmConstrainBounds</a> - <b>Diagram Bounds</b>            |            |
| 00000E39 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                      |            |
| 00000E3B | 0004 | ULONG - <b>dgmConstrainBounds</b>                                     | 0x00000016 |

| Offset   | Size | Structure   | Value |
|----------|------|---|-------|
| 00000E3F | 0006 | I: <a href="#">Diagram Boolean Properties</a> - <b>Diagram Boolean</b>              |       |
| 00000E45 | 004E | J: <a href="#">pRelationTbl_complex</a> - <b>Diagram Shape Relationship</b><br>Data |       |
| 00000E93 | 0016 | K: <a href="#">dgmConstrainBounds_complex</a> - <b>Diagram Bounds</b><br>Data       |       |
| 00000EA9 | 0010 | OfficeArtClientAnchor - <b>clientAnchor</b>   |       |

**Figure 16: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record B**

The record types within **OfficeArtSpgrContainerFileBlock** record **B** that have not been explained in previous structure examples are specified as follows:

**case\_of\_msofbtSpContainer.shapeTertiaryOptions:** An **OfficeArtTertiaryFOPT** record, as defined in section 2.2.11, that contains a table of **OfficeArtRGFOPT** properties, as defined in section 2.3.1.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Type.opid:** An **OfficeArtFOPT** record, as defined in section 2.2.8, that specifies the header for an entry in a property table.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Type.dgmt:** A value that specifies whether this **diagram** type is an organizational-chart diagram. The value 0x00000001 specifies that this diagram type is an organizational-chart diagram.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Style:** A property that specifies a diagram style.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Style.dgmStyle:** A value that specifies whether this diagram has the default style. The value 0x00000000 specifies that this diagram has the default style.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Shape Relationship:** A **pRelationTbl** property that specifies the relationships in a diagram.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Shape Relationship.pRelationTbl:** The number (0x0000004E) of bytes of data in the **pRelationTbl\_complex** property.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram ScaleX:** A property that specifies the amount to scale along the x-axis.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram ScaleX.dgmScaleX:** The amount (0x00013333) to scale along the x-axis.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram ScaleY:** A property that specifies the amount to scale along the y-axis.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram ScaleY.dgmScaleY:** The amount (0x00011748) to scale along the y-axis.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Default Font Size:** A property that specifies the default font size for new text in this diagram.

**case\_of\_msofbtSpContainer.shapeTertiaryOptions.fopt.Diagram Default Font Size.dgmDefaultFontSize:** The default font size (0x0000000D), in **points**, for new text in this diagram.

**case\_of\_msofibtSpContainer.shapeTertiaryOptions.fopt.Diagram Bounds:** A **dgmConstrainBounds** property, as defined in section 2.3.17.8, that specifies the bounds of this diagram.

**case\_of\_msofibtSpContainer.shapeTertiaryOptions.fopt.Diagram Bounds.dgmConstrainBounds:** The number (0x00000016) of bytes of data in the **dgmConstrainBounds\_complex** property, as defined in section 2.3.17.9.

**case\_of\_msofibtSpContainer.shapeTertiaryOptions.fopt.Diagram Boolean:** A 32-bit field of Boolean properties for a diagram.

**case\_of\_msofibtSpContainer.shapeTertiaryOptions.fopt.Diagram Shape Relationship Data:** A **pRelationTbl\_complex** property that specifies additional data for **pRelationTbl**.

**case\_of\_msofibtSpContainer.shapeTertiaryOptions.fopt.Diagram Bounds Data:** A **dgmConstrainBounds\_complex** property, as defined in section 2.3.17.9, that specifies additional data for the **dgmConstrainBounds** property, as defined in section 2.3.17.8.

The following three example structures show the records that are labeled **I**, **J**, and **K** in **OfficeArtSpgrContainerFileBlock** record **B** in more detail.

The following table shows the child-record hierarchy of **Diagram Boolean Properties** record **I**.

| Offset   | Size    | Structure  | Value  |
|----------|---------|--|--------|
| 00000E3F | 0006    | <b>I:</b> Diagram Boolean Properties - <b>Diagram Boolean Properties</b> |        |
| 00000E3F | 0002    | OfficeArtFOPTTEOPID - <b>opid</b>  |        |
| 00000E3F | 14 bits | bit - <b>opid</b>  | 0x053F |
| 00000E3F | 1 bit   | bit - <b>fBid</b>  | 0x0    |
| 00000E3F | 1 bit   | bit - <b>fComplex</b>  | 0x0    |
| 00000E41 | 10 bits | bit - <b>unused6</b>   | 0x000  |
| 00000E41 | 1 bit   | bit - <b>unused5</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>unused4</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fUsefDoFormat</b>   | 0x1    |
| 00000E41 | 1 bit   | bit - <b>fUsefReverse</b>  | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fUsefDoLayout</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fUsefPseudoInline</b>   | 0x0    |
| 00000E41 | 10 bits | bit - <b>unused3</b>   | 0x000  |
| 00000E41 | 1 bit   | bit - <b>unused2</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>unused1</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fDoFormat</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fReverse</b>  | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fDoLayout</b>   | 0x0    |
| 00000E41 | 1 bit   | bit - <b>fPseudoInline</b>   | 0x0    |

## Figure 17: Child-Record Hierarchy of Diagram Boolean Properties Record I

The **Diagram Boolean Properties** that are listed in record **I** are specific to diagrams. The record types within **Diagram Boolean Properties** record **I** that have not been explained in previous structure examples are specified as follows:

**opid.opid:** The identifier (0x053F) of the property in this entry.

**opid.fBid:** A value that specifies whether the value in the **op** field is a **BLIP** identifier. The value 0x0 specifies that the value in the **op** field is not a BLIP identifier.

**opid.fComplex:** A value that specifies whether this property is a complex property. The value 0x0 specifies that this property is not a complex property.

**fUsefDoFormat:** A value that specifies whether the **fDoFormat** bit has been set. The value 0x1 specifies that the **fDoFormat** bit has been set.

**fUsefReverse:** A value that specifies whether the **fReverse** bit needs to be ignored. The value 0x0 specifies that the **fReverse** bit needs to be ignored.

**fUsefDoLayout:** A value that specifies whether the **fDoLayout** bit needs to be ignored. The value 0x0 specifies that the **fDoLayout** bit needs to be ignored.

**fUsefPseudoInline:** A value that specifies whether the **fPseudoInline** bit needs to be ignored. The value 0x0 specifies that the **fPseudoInline** bit needs to be ignored.

**fDoFormat:** A value that specifies whether the **dgmStyle** property, as defined in section 2.3.17.2, for this diagram contains a default formatting style for this diagram type. The value 0x0 specifies that the **dgmStyle** property for this diagram contains a default formatting style for this diagram type.

**fReverse:** A value that specifies whether this diagram is mirrored horizontally. The value 0x0 specifies that this diagram is not mirrored horizontally.

**fDoLayout:** A value that specifies whether this diagram has a layout that is directly editable. The value 0x0 specifies that this diagram has a layout that is directly editable.

**fPseudoInline:** A value that specifies whether this diagram is placed in line with surrounding text. The value 0x0 specifies that this diagram is not placed in line with surrounding text.

The following table shows the child-record hierarchy of **pRelationTbl\_complex** record **J**.

| Offset   | Size | Structure  | Value   |
|----------|------|--|---|
| 00000E45 | 004E | <b>J: pRelationTbl_complex - Diagram Shape Relationship Data</b> |   |
| 00000E45 | 004E | <a href="#">IMsoArray</a> - pRelationTbl                         |   |
| 00000E45 | 0002 | USHORT - nElems  | 0x0006  |
| 00000E47 | 0002 | USHORT - nElemsAlloc   | 0x0008  |
| 00000E49 | 0002 | USHORT - cbElem  | 0x000C  |
| 00000E4B | 0048 | Blob - data  | 40 95 09 97 40 95 09 97 00 00 00 00 EB CE CB F8<br>40 95 09 97 28 9D E6 D3 01 A4 12 8E 40 95 09 97<br>4C DA BC 3B C2 F7 3F A5 40 95 09 97 0D EB A7 22<br>83 C6 24 BC 40 95 09 97 AA FF D0 E1 8E A9 77 40<br>83 C6 24 BC 4D FA 5A 6B |

Figure 18: Child-Record Hierarchy of pRelationTbl\_complex Record J

The record types within **pRelationTbl\_complex** record **J** that have not been explained in previous structure examples are specified as follows:

**pRelationTbl:** An **IMsoArray** record, as defined in section 2.2.51, that specifies the relationships in a diagram. Each array element specifies a connection between two shapes.

**pRelationTbl.nElems:** A value (0x0006) that specifies the number of elements contained in this record. This diagram thus contains six shapes.

**pRelationTbl.nElemsAlloc:** The maximum number (0x0008) of elements that this record can contain.

**pRelationTbl.cbElem:** The size (0x000C), in bytes, of each element in the **data** record.

**pRelationTbl.data:** An array that contains **nElems** elements, each of which is **cbElem** bytes in size.

The following table shows the child-record hierarchy of **dgmConstrainBounds\_complex** record **K**.

| Offset   | Size | Structure  | Value   |
|----------|------|--|---|
| 00000E93 | 0016 | <b>K: dgmConstrainBounds_complex - Diagram Bounds Data</b> |   |
| 00000E93 | 0016 | IMsoArray - <b>dgmConstrainBounds</b>                      |   |
| 00000E93 | 0002 | USHORT - <b>nElems</b>                                     | 0x0004  |
| 00000E95 | 0002 | USHORT - <b>nElemsAlloc</b>                                | 0x0004  |
| 00000E97 | 0002 | USHORT - <b>cbElem</b>                                     | 0x0004  |
| 00000E99 | 0010 | Blob - <b>data</b>   | 00 00 00 00 00 00 00 00 00 00 00 00<br>00 00 00 00 00 |

**Figure 19: Child-Record Hierarchy of dgmConstrainBounds\_complex Record K**

The record types within **dgmConstrainBounds\_complex** record **K** that have not been explained in previous structure examples are specified as follows:

**dgmConstrainBounds:** An **IMsoArray** record, as defined in section 2.2.51, of four elements that specify, in order, the left, top, right, and bottom bounds, in application-defined coordinates, of the diagram.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock**, as defined in section 2.2.17, record **C**.

| Offset   | Size | Structure  | Value |
|----------|------|--|-------|
| 00000EB9 | 005C | <b>C: OfficeArtSpgrContainerFileBlock - OfficeArtSpgrContainerFB</b>         |       |
| 00000EB9 | 005C | OfficeArtSpContainer - <b>case_of_msofbtSpContainer</b>                      |       |
| 00000EB9 | 0008 | OfficeArtRecordHeader - <b>rh</b>  |       |
| 00000EC1 | 0010 | <b>L: OfficeArtFSP - shapeProp</b>   |       |
| 00000ED1 | 002C | OfficeArtFOPT - <b>shapePrimaryOptions</b>                                   |       |
| 00000ED1 | 0008 | OfficeArtRecordHeader - <b>rh</b>  |       |
| 00000ED9 | 0024 | OfficeArtRGFOPT - <b>fopt</b>  |       |
| 00000ED9 | 0006 | <b>M: <a href="#">Protection Boolean Properties</a> - Protection Boolean</b> |       |

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 00000EDF | 0006 | <a href="#">cxk</a> - <b>Shape Connection Points</b>                                 |            |
| 00000EDF | 0002 | OfficeArtFOPTEOPID - <b>opid</b>   |            |
| 00000EE1 | 0004 | <a href="#">MSOCXK</a> - <b>cxk</b>  | 0x00000000 |
| 00000EE5 | 0006 | <b>N:</b> <a href="#">Geometry Boolean Properties</a> - <b>Geometry Boolean</b>      |            |
| 00000EEB | 0006 | <b>O:</b> <a href="#">Fill Style Boolean Properties</a> - <b>Fill Style Boolean</b>  |            |
| 00000EF1 | 0006 | <b>P:</b> <a href="#">Line Style Boolean Properties</a> - <b>Line Style Boolean</b>  |            |
| 00000EF7 | 0006 | <b>Q:</b> <a href="#">Shape Boolean Properties</a> - <b>Shape Boolean Properties</b> |            |
| 00000EFD | 0018 | <b>R:</b> <a href="#">OfficeArtChildAnchor</a> - <b>childAnchor</b>                  |            |

**Figure 20: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record C**

The record types within **OfficeArtSpgrContainerFileBlock** record **C** that have not been explained in previous structure examples are specified as follows:

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Protection Boolean:** A 32-bit field that aggregates Boolean values to prevent the editing of certain shape properties.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Shape Connection Points:** A record that specifies where **connection points** exist on the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Shape Connection Points.cxk:** An **MSOCXK** enumeration value, as defined in section 2.4.10, that specifies where connection points exist on the shape. The value 0x00000000 specifies that this shape has no connection points.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Geometry Boolean:** A 32-bit field that aggregates the Boolean values of the geometry properties for the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Fill Style Boolean:** A 32-bit field that aggregates the Boolean properties of the fill style.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Line Style Boolean:** A 32-bit field that aggregates the Boolean properties of the line style.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.Shape Boolean Properties:** A 32-bit field that aggregates the Boolean properties for a shape.

**case\_of\_msofbtSpContainer.childAnchor:** A record containing four signed integers that specify the anchor for the shape that contains this record. This record is present only when the containing shape is a member of a group of shapes. The integers identify the offset from the origin of the specified coordinate system—that is, specified by the **OfficeArtFSPGR** record, as defined in section 2.2.38, contained in the same **OfficeArtSpgrContainer**, as defined in, as defined in section 2.2.16, that contains this record. The integers are in units of the coordinate system that is specified by the same **OfficeArtFSPGR**.

The following seven example structures show the records labeled **L**, **M**, **N**, **O**, **P**, **Q**, and **R** from **OfficeArtSpgrContainerFileBlock** record **C** in more detail.

The following table shows the child-record hierarchy of **OfficeArtFSP** record, as defined in section 2.2.40, **L**.

| Offset   | Size    | Structure                          | Value      |
|----------|---------|------------------------------------|------------|
| 00000EC1 | 0010    | <b>L: OfficeArtFSP - shapeProp</b> |            |
| 00000EC1 | 0008    | OfficeArtRecordHeader - <b>rh</b>  |            |
| 00000EC9 | 0004    | ULONG - <b>spid</b>                | 0x00000804 |
| 00000ECD | 1 bit   | bit - <b>fGroup</b>                | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fChild</b>                | 0x1        |
| 00000ECD | 1 bit   | bit - <b>fPatriarch</b>            | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fDeleted</b>              | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fOleShape</b>             | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fHaveMaster</b>           | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fFlipH</b>                | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fFlipV</b>                | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fConnector</b>            | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fHaveAnchor</b>           | 0x1        |
| 00000ECD | 1 bit   | bit - <b>fBackground</b>           | 0x0        |
| 00000ECD | 1 bit   | bit - <b>fHaveSpt</b>              | 0x1        |
| 00000ECD | 20 bits | bit - <b>unused1</b>               | 0x00000    |

**Figure 21: Child-Record Hierarchy of OfficeArtFSP Record L**

The records contained in **OfficeArtFSP** record **L** are similar to those in **OfficeArtFSP** record **H** but represent a different shape in the diagram. The differences can be seen in the values of **fChild** and **fPatriarch**. In **OfficeArtFSP** record **H**, the value of **fChild** is 0x0, which specifies that the shape is not a child shape, and the value of **fPatriarch** is 0x1, which specifies that the shape is the topmost one. The values of for **fChild** and **fPatriarch** in **OfficeArtFSP** record **L** specify that the shape is a child shape and that it is not the topmost shape.

The following table shows the child-record hierarchy of **Protection Boolean Properties** record **M**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000ED9 | 0006    | <b>M: Protection Boolean Properties - Protection Boolean Properties</b> |        |
| 00000ED9 | 0002    | OfficeArtFOPTePID - <b>opid</b>   |        |
| 00000ED9 | 14 bits | bit - <b>opid</b>   | 0x007F |
| 00000ED9 | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 00000ED9 | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 00000EDB | 6 bits  | bit - <b>unused2</b>  | 0x00   |
| 00000EDB | 1 bit   | bit - <b>fUsefLockAgainstUngrouping</b>                                 | 0x0    |
| 00000EDB | 1 bit   | bit - <b>fUsefLockRotation</b>  | 0x0    |



| Offset   | Size   | Structure                             | Value |
|----------|--------|---------------------------------------|-------|
| 00000EDB | 1 bit  | bit - <b>fUsefLockAspectRatio</b>     | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockPosition</b>        | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockAgainstSelect</b>   | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockCropping</b>        | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockVertices</b>        | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockText</b>            | 0x1   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockAdjustHandles</b>   | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fUsefLockAgainstGrouping</b> | 0x0   |
| 00000EDB | 6 bits | bit - <b>unused1</b>                  | 0x00  |
| 00000EDB | 1 bit  | bit - <b>fLockAgainstUngrouping</b>   | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockRotation</b>            | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockAspectRatio</b>         | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockPosition</b>            | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockAgainstSelect</b>       | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockCropping</b>            | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockVertices</b>            | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockText</b>                | 0x1   |
| 00000EDB | 1 bit  | bit - <b>fLockAdjustHandles</b>       | 0x0   |
| 00000EDB | 1 bit  | bit - <b>fLockAgainstGrouping</b>     | 0x0   |

**Figure 22: Child-Record Hierarchy of Protection Boolean Properties Record M**

The record types within **Protection Boolean Properties** record **M** that have not been explained in previous structure examples are specified as follows:

**fUsefLockAgainstUngrouping:** A value that specifies whether the **fLockAgainstUngrouping** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockAgainstUngrouping** flag will be ignored and the default value used instead.

**fUsefLockRotation:** A value that specifies whether the **fLockRotation** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockRotation** flag will be ignored and the default value used instead.

**fUsefLockAspectRatio:** A value that specifies whether the **fLockAspectRatio** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockAspectRatio** flag will be ignored and the default value used instead.

**fUsefLockPosition:** A value that specifies whether the **fLockPosition** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockPosition** flag will be ignored and the default value used instead.

**fUsefLockAgainstSelect:** A value that specifies whether the **fLockAgainstSelect** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockAgainstSelect** flag will be ignored and the default value used instead.

**fUsefLockCropping:** A value that specifies whether the **fLockCropping** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockCropping** flag will be ignored and the default value used instead.

**fUsefLockVertices:** A value that specifies whether the **fLockVertices** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockVertices** flag will be ignored and the default value used instead.

**fUsefLockText:** A value that specifies whether the **fLockText** flag is set. The value 0x1 specifies that the **fLockText** flag is set.

**fUsefLockAdjustHandles:** A value that specifies whether the **fLockAdjustHandles** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockAdjustHandles** flag will be ignored and the default value used instead.

**fUsefLockAgainstGrouping:** A value that specifies whether the **fLockAgainstGrouping** flag will be ignored and the default value used instead. The value 0x0 specifies that the **fLockAgainstGrouping** flag will be ignored and the default value used instead.

**fLockAgainstUngrouping:** A value that specifies whether the grouped shape is locked from being ungrouped. The value 0x0 specifies that the grouped shape is not locked from being ungrouped.

**fLockRotation:** A value that specifies whether the rotation of the shape is locked from being edited. The value 0x0 specifies that the rotation of the shape is not locked from being edited.

**fLockAspectRatio:** A value that specifies whether the aspect ratio of the shape is locked from being edited. The value 0x0 specifies that the aspect ratio of the shape is not locked from being edited.

**fLockPosition:** A value that specifies whether the position of the shape is locked from being edited. The value 0x0 specifies that the position of the shape is not locked from being edited.

**fLockAgainstSelect:** A value that specifies whether the shape is locked from being selectable in an editor application. The value 0x0 specifies that the shape is not locked from being selectable in an editor application.

**fLockCropping:** A value that specifies whether the cropping of a picture in the diagram is locked from being edited. The value 0x0 specifies that the cropping of a picture in the diagram is not locked from being edited.

**fLockVertices:** A value that specifies whether the vertices of the path are locked from being edited. The value 0x0 specifies that the vertices of the path are not locked from being edited.

**fLockText:** A value that specifies whether the text attached to the shape is locked from being edited. The value 0x1 specifies that the text attached to the shape is locked from being edited.

**fLockAdjustHandles:** A value that specifies whether the **adjust handles** of the shape are locked from being edited. The value 0x0 specifies that the adjust handles of the shape are not locked from being edited.

**fLockAgainstGrouping:** A value that specifies whether the shape is locked from being grouped with other shapes. The value 0x0 specifies that the shape is not locked from being grouped with other shapes.

The following table shows the child-record hierarchy of **Geometry Boolean Properties** record **N**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000EE5 | 0006    | <b>N: Geometry Boolean Properties - Geometry Boolean Properties</b> |        |
| 00000EE5 | 0002    | OfficeArtFOPTEOPID - <b>opid</b>                                    |        |
| 00000EE5 | 14 bits | bit - <b>opid</b>   | 0x017F |
| 00000EE5 | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 00000EE5 | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 00000EE7 | 9 bits  | bit - <b>unused4</b>  | 0x000  |
| 00000EE7 | 1 bit   | bit - <b>unused3</b>  | 0x0    |
| 00000EE7 | 1 bit   | bit - <b>fUsefShadowOK</b>  | 0x1    |
| 00000EE7 | 1 bit   | bit - <b>fUsef3DOK</b>  | 0x1    |
| 00000EE7 | 1 bit   | bit - <b>fUsefLineOK</b>  | 0x1    |
| 00000EE7 | 1 bit   | bit - <b>fUsefGtextOK</b>   | 0x0    |
| 00000EE7 | 1 bit   | bit - <b>fUsefFillShadeShapeOK</b>                                  | 0x0    |
| 00000EE7 | 1 bit   | bit - <b>fUsefFillOK</b>  | 0x1    |
| 00000EE7 | 9 bits  | bit - <b>unused2</b>  | 0x000  |
| 00000EE7 | 1 bit   | bit - <b>unused1</b>  | 0x0    |
| 00000EE7 | 1 bit   | bit - <b>fShadowOK</b>  | 0x1    |
| 00000EE7 | 1 bit   | bit - <b>f3DOK</b>  | 0x1    |
| 00000EE7 | 1 bit   | bit - <b>fLineOK</b>  | 0x1    |
| 00000EE7 | 1 bit   | bit - <b>fGtextOK</b>   | 0x0    |
| 00000EE7 | 1 bit   | bit - <b>fFillShadeShapeOK</b>                                      | 0x0    |
| 00000EE7 | 1 bit   | bit - <b>fFillOK</b>  | 0x1    |

**Figure 23: Child-Record Hierarchy of Geometry Boolean Properties Record N**

The record types within **Geometry Boolean Properties** record **N** that have not been explained in previous structure examples are specified as follows:

**fUsefShadowOK:** A value that specifies whether the **fShadowOK** bit is set. The value 0x1 specifies that the **fShadowOK** bit is set.

**fUsef3DOK:** A value that specifies whether the **f3DOK** bit is set. The value 0x1 specifies that the **f3DOK** bit is set.

**fUsefLineOK:** A value that specifies whether the **fLineOK** bit is set. The value 0x1 specifies that the **fLineOK** bit is set.

**fUsefGtextOK:** A value that specifies whether the **fGtextOK** bit will be ignored and the default value used instead. The value 0x0 specifies the **fGtextOK** bit will be ignored and the default value used instead.

**fUseFillShadeShapeOK:** A value that specifies whether the **fFillShadeShapeOK** bit will be ignored and the default value used instead. The value 0x0 specifies that the **fFillShadeShapeOK** bit will be ignored and the default value used instead.

**fUseFillOK:** A value that specifies whether the **fFillOK** bit is set. The value 0x1 specifies that the **fFillOK** bit is set.

**fShadowOK:** A value that specifies whether the shadow of this shape is set to display if applied. The value 0x1 specifies that the shadow of this shape is set to display if applied.

**f3DOK:** A value that specifies whether the extrusion effect of this shape is set to display if applied. The value 0x1 specifies that the extrusion effect of this shape is set to display if applied.

**fLineOK:** A value that specifies whether the line of this shape is set to display if applied. The value 0x1 specifies that the line of this shape is set to display if applied.

**fGtextOK:** A value that specifies whether the text aligned to this shape will display. The value 0x0 specifies that the text aligned to this shape will not display.

**fFillShadeShapeOK:** A value that specifies whether the fill is aligned to the **bounding rectangle** of the shape. The value 0x0 specifies that the fill is aligned to the bounding rectangle of the shape.

**fFillOK:** A value that specifies whether the fill of this shape is set to display if applied. The value 0x1 specifies that the fill of this shape is set to display if applied.

The following table shows the child-record hierarchy of **Fill Style Boolean Properties** record **O**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000EEB | 0006    | <b>O: Fill Style Boolean Properties - Fill Style Boolean Properties</b> |        |
| 00000EEB | 0002    | OfficeArtFOPTEOPID - <b>opid</b>  |        |
| 00000EEB | 14 bits | bit - <b>opid</b>   | 0x01BF |
| 00000EEB | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 00000EEB | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 00000EED | 9 bits  | bit - <b>unused2</b>  | 0x000  |
| 00000EED | 1 bit   | bit - <b>fUseRecolorFillAsPicture</b>                                   | 0x0    |
| 00000EED | 1 bit   | bit - <b>fUseUseShapeAnchor</b>   | 0x0    |
| 00000EED | 1 bit   | bit - <b>fUseFilled</b>   | 0x1    |
| 00000EED | 1 bit   | bit - <b>fUseHitTestFill</b>  | 0x0    |
| 00000EED | 1 bit   | bit - <b>fUsefillShape</b>  | 0x0    |
| 00000EED | 1 bit   | bit - <b>fUsefillUseRect</b>  | 0x0    |
| 00000EED | 1 bit   | bit - <b>fUsefNoFillHitTest</b>   | 0x1    |
| 00000EED | 9 bits  | bit - <b>unused1</b>  | 0x000  |
| 00000EED | 1 bit   | bit - <b>fRecolorFillAsPicture</b>                                      | 0x0    |
| 00000EED | 1 bit   | bit - <b>fUseShapeAnchor</b>  | 0x0    |
| 00000EED | 1 bit   | bit - <b>fFilled</b>  | 0x0    |

| Offset   | Size  | Structure                   | Value |
|----------|-------|-----------------------------|-------|
| 00000EED | 1 bit | bit - <b>fHitTestFill</b>   | 0x0   |
| 00000EED | 1 bit | bit - <b>fillShape</b>      | 0x0   |
| 00000EED | 1 bit | bit - <b>fillUseRect</b>    | 0x0   |
| 00000EED | 1 bit | bit - <b>fNoFillHitTest</b> | 0x1   |

**Figure 24: Child-Record Hierarchy of Fill Style Boolean Properties Record O**

The record types within **Fill Style Boolean Properties** record **O** that have not been explained in previous structure examples are specified as follows:

**fUseRecolorFillAsPicture:** A value that specifies whether **fRecolorFillAsPicture** will be ignored and the default value used instead. The value 0x0 specifies that **fRecolorFillAsPicture** will be ignored and the default value used instead.

**fUseUseShapeAnchor:** A value that specifies whether **fUseShapeAnchor** will be ignored and the default value used instead. The value 0x0 specifies that **fUseShapeAnchor** will be ignored and the default value used instead.

**fUseFilled:** A value that specifies whether the **fFilled** bit is set. The value 0x1 specifies that the **fFilled** bit is set.

**fUseHitTestFill:** A value that specifies whether **fHitTestFill** will be ignored and the default value used instead. The value 0x0 specifies that **fHitTestFill** will be ignored and the default value used instead.

**fUsefillShape:** A value that specifies whether **fillShape** will be ignored and the default value used instead. The value 0x0 specifies that **fillShape** will be ignored and the default value used instead.

**fUsefillUseRect:** A value that specifies whether **fillUseRect** will be ignored and the default value used instead. The value 0x0 specifies that **fillUseRect** will be ignored and the default value used instead.

**fUsefNoFillHitTest:** A value that specifies whether the **fNoFillHitTest** bit is set. The value 0x1 specifies that the **fNoFillHitTest** bit is set.

**fRecolorFillAsPicture:** A value that specifies whether the **fillCrMod** property, as defined in section [2.3.7.6](#), will be used for recoloring. The value 0x0 specifies that the **fillCrMod** property will be used for recoloring.

**fUseShapeAnchor:** A value that specifies whether the fill will be rotated with the shape. The value 0x0 specifies that the fill will not be rotated with the shape.

**fFilled:** A value that specifies whether the fill of this shape will be rendered. The value 0x0 specifies that the fill of this shape will not be rendered.

**fHitTestFill:** A value that specifies whether this fill is to be hit tested. The value 0x0 specifies that this fill is not to be hit tested.

**fillShape:** A value that specifies whether the fill is aligned with the origin of the view. The value 0x0 specifies the fill is aligned with the origin of the view.

**fillUseRect:** A value that specifies whether to use the bounding rectangle of the shape as the filled area. The value 0x0 specifies using the bounding rectangle of the shape as the filled area.

**fNoFillHitTest:** A value that specifies whether this shape is to be hit tested as though it were filled. The value 0x1 specifies that this shape is to be hit tested as though it were filled.

The following table shows the child-record hierarchy of **Line Style Boolean Properties** record **P**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000EF1 | 0006    | <b>P: Line Style Boolean Properties - Line Style Boolean Properties</b> |        |
| 00000EF1 | 0002    | OfficeArtFOPTePID - <b>opid</b>   |        |
| 00000EF1 | 14 bits | bit - <b>opid</b>   | 0x01FF |
| 00000EF1 | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 00000EF1 | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 00000EF3 | 6 bits  | bit - <b>unused4</b>  | 0x00   |
| 00000EF3 | 1 bit   | bit - <b>fUsefLineOpaqueBackColor</b>                                   | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>unused3</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>unused2</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fUsefInsetPen</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fUsefInsetPenOK</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fUsefArrowheadsOK</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fUsefLine</b>  | 0x1    |
| 00000EF3 | 1 bit   | bit - <b>fUsefHitTestLine</b>   | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fUsefLineFillShape</b>   | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fUsefNoLineDrawDash</b>  | 0x0    |
| 00000EF3 | 6 bits  | bit - <b>unused1</b>  | 0x00   |
| 00000EF3 | 1 bit   | bit - <b>fLineOpaqueBackColor</b>                                       | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>reserved2</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>reserved1</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fInsetPen</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fInsetPenOK</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fArrowheadsOK</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fLine</b>  | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fHitTestLine</b>   | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fLineFillShape</b>   | 0x0    |
| 00000EF3 | 1 bit   | bit - <b>fNoLineDrawDash</b>  | 0x0    |

**Figure 25: Child-Record Hierarchy of Line Style Boolean Properties Record P**

The record types within **Line Style Boolean Properties** record **P** that have not been explained in previous structure examples are specified as follows:

**fUsefLineOpaqueBackColor:** A value that specifies whether **fLineOpaqueBackColor** will be ignored and the default value used instead. The value 0x0 specifies that **fLineOpaqueBackColor** will be ignored and the default value used instead.

**fUsefInsetPen:** A value that specifies whether the **fInsetPen** will be ignored and the default value used instead. The value 0x0 specifies that **fInsetPen** will be ignored and the default value used instead.

**fUsefInsetPenOK:** A value that specifies whether **fInsetPenOK** will be ignored and the default value used instead. The value 0x0 specifies that **fInsetPenOK** will be ignored and the default value used instead.

**fUsefArrowheadsOK:** A value that specifies whether **fArrowheadsOK** will be ignored and the default value used instead. The value 0x0 specifies that **fArrowheadsOK** will be ignored and the default value used instead.

**fUsefLine:** A value that specifies whether **fLine** will be ignored and the default value used instead. The value 0x1 specifies that the value for **fLine** will be used.

**fUsefHitTestLine:** A value that specifies whether **fHitTestLine** will be ignored and the default value used instead. The value 0x0 specifies that **fHitTestLine** will be ignored and the default value used instead.

**fUsefLineFillShape:** A value that specifies whether **fLineFillShape** will be ignored and the default value used instead. The value 0x0 specifies that **fLineFillShape** will be ignored and the default value used instead.

**fUsefNoLineDrawDash:** A value that specifies whether **fNoLineDrawDash** will be ignored and the default value used instead. The value 0x0 specifies that **fNoLineDrawDash** will be ignored and the default value used instead.

**fLineOpaqueBackColor:** A value that specifies whether an extra line is to be rendered underneath the line that is specified by this property set. The value 0x0 specifies that an extra line is not to be rendered underneath the line that is specified by this property set.

**fInsetPen:** A value that specifies whether the pen is inset. The value 0x0 specifies that the pen is not inset.

**fInsetPenOK:** A value that specifies whether insetting the pen is allowed. The value 0x0 specifies that insetting the pen is not allowed.

**fArrowheadsOK:** A value that specifies whether the arrowhead properties are to be editable. The value 0x0 specifies that the arrowhead properties are not to be editable.

**fLine:** A value that specifies whether the lines of this shape will be drawn. The value 0x0 specifies that the lines of this shape will not be drawn.

**fHitTestLine:** A value that specifies whether this line is to be hit tested. The value 0x0 specifies that this line is not to be hit tested.

**fLineFillShape:** A value that specifies whether the pattern or texture fill is to be aligned with the origin of the view. The value 0x0 specifies that the pattern or texture fill is to be aligned with the origin of the view.

**fNoLineDrawDash:** A value that specifies whether a dashed line is to be drawn. The value 0x0 specifies that a dashed line is not to be drawn.

The following table shows the child-record hierarchy of **Shape Boolean Properties** record **Q**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000EF7 | 0006    | <b>Q: Shape Boolean Properties - Shape Boolean Properties</b> |        |
| 00000EF7 | 0002    | OfficeArtFOPTEOPID - <b>opid</b>                              |        |
| 00000EF7 | 14 bits | bit - <b>opid</b>   | 0x033F |
| 00000EF7 | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 00000EF7 | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 00000EF9 | 6 bits  | bit - <b>unused3</b>  | 0x00   |
| 00000EF9 | 1 bit   | bit - <b>fUsefPolicyLabel</b>                                 | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefPolicyBarcode</b>                               | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefFlipHOverride</b>                               | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefFlipVOverride</b>                               | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefOleIcon</b>                                     | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefPreferRelativeResize</b>                        | 0x1    |
| 00000EF9 | 1 bit   | bit - <b>fUsefLockShapeType</b>                               | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefInitiator</b>                                   | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>unused2</b>  | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fUsefBackground</b>                                  | 0x0    |
| 00000EF9 | 6 bits  | bit - <b>unused1</b>  | 0x00   |
| 00000EF9 | 1 bit   | bit - <b>fPolicyLabel</b>                                     | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fPolicyBarcode</b>                                   | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fFlipHOverride</b>                                   | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fFlipVOverride</b>                                   | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fOleIcon</b>   | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fPreferRelativeResize</b>                            | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fLockShapeType</b>                                   | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fInitiator</b>                                       | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>reserved1</b>  | 0x0    |
| 00000EF9 | 1 bit   | bit - <b>fBackground</b>                                      | 0x0    |

**Figure 26: Child-Record Hierarchy of Shape Boolean Properties Record Q**

The record types within **Shape Boolean Properties** record **Q** that have not been explained in previous structure examples are specified as follows:

**fUsefPolicyLabel:** A value that specifies whether **fPolicyLabel** will be ignored and the default value used instead. The value 0x0 specifies that **fPolicyLabel** will be ignored and the default value used instead.



**fUsefPolicyBarcode:** A value that specifies whether **fPolicyBarcode** will be ignored and the default value used instead. The value 0x0 specifies that **fPolicyBarcode** will be ignored and the default value used instead.

**fUsefFlipHOverride:** A value that specifies whether **fFlipHOverride** will be ignored and the default value used instead. The value 0x0 specifies that **fFlipHOverride** will be ignored and the default value used instead.

**fUsefFlipVOverride:** A value that specifies whether **fFlipVOverride** will be ignored and the default value used instead. The value 0x0 specifies that **fFlipVOverride** will be ignored and the default value used instead.

**fUsefOleIcon:** A value that specifies whether **fOleIcon** will be ignored and the default value used instead. The value 0x0 specifies that **fOleIcon** will be ignored and the default value used instead.

**fUsefPreferRelativeResize:** A value that specifies whether the **fPreferRelativeResize** bit has been set. The value 0x1 specifies that the **fPreferRelativeResize** bit has been set.

**fUsefLockShapeType:** A value that specifies whether **fLockShapeType** will be ignored and the default value used instead. The value 0x0 specifies that **fLockShapeType** will be ignored and the default value used instead.

**fUsefInitiator:** A value that specifies whether **fInitiator** will be ignored and the default value used instead. The value 0x0 specifies that **fInitiator** will be ignored and the default value used instead.

**fUsefBackground:** A value that specifies whether **fBackground** will be ignored and the default value used instead. The value 0x0 specifies that **fBackground** will be ignored and the default value used instead.

**fPolicyLabel:** A value that specifies whether this object is a label image and will be used to identify the containing document as part of a **content management system**. The value 0x0 specifies that this object is not a label image and will not be used to identify the containing document as part of a content management system.

**fPolicyBarcode:** A value that specifies whether this object is a barcode image and will be used to identify the containing document as part of a content management system. The value 0x0 specifies that this object is not a barcode image and will not be used to identify the containing document as part of a content management system.

**fFlipHOverride:** A value that specifies whether the **fFlipH** flag in the **OfficeArtFSP** record, as defined in section 2.2.40, of the containing **OfficeArtSpContainer** record, as defined in section 2.2.14, is to be used. The value 0x0 specifies that the **fFlipH** flag in the **OfficeArtFSP** of the containing **OfficeArtSpContainer** is to be used.

**fFlipVOverride:** A value that specifies whether the **fFlipV** flag in the **OfficeArtFSP** record, as defined in section 2.2.40, of the containing **OfficeArtSpContainer** record, as defined in section 2.2.14, is to be used. The value 0x0 specifies that the **fFlipV** flag in the **OfficeArtFSP** of the containing **OfficeArtSpContainer** is to be used.

**fOleIcon:** A value that specifies whether this OLE object will be displayed as an icon. The value 0x0 specifies that this OLE object will not be displayed as an icon.

**fPreferRelativeResize:** A value that specifies whether the application's user interface for resizing this shape is to express its size relative to the current size. The value 0x0 specifies that the application's user interface for resizing this shape is not to express its size relative to the current size.

**fLockShapeType:** A value that specifies whether the shape type is locked and can be changed by the end user. The value 0x0 specifies that the shape type is not locked and can be changed by the end user.

**fInitiator:** A value that specifies whether this shape is to be processed by a **rules** engine. The value 0x0 specifies that this shape is not to be processed by a rules engine.

**fBackground:** A value that specifies whether this shape is the background shape of a drawing. The value 0x0 specifies that this shape is not the background shape of a drawing.

The following table shows the child-record hierarchy of **OfficeArtChildAnchor** record, as defined in section 2.2.39, **R**.

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 00000EFD | 0018 | <b>R: OfficeArtChildAnchor - case_of_msofbtChildAnchor</b> |            |
| 00000EFD | 0008 | OfficeArtRecordHeader - <b>rh</b>                          |            |
| 00000F05 | 0010 | OfficeArtFRC - <b>frc</b>                                  |            |
| 00000F05 | 0004 | LONG - <b>xLeft</b>  | 0x00000480 |
| 00000F09 | 0004 | LONG - <b>yTop</b>   | 0x00000510 |
| 00000F0D | 0004 | LONG - <b>xRight</b>                                       | 0x00000FC0 |
| 00000F11 | 0004 | LONG - <b>yBottom</b>                                      | 0x00000B40 |

**Figure 27: Child-Record Hierarchy of OfficeArtChildAnchor Record R**

**OfficeArtChildAnchor** record **R** specifies the coordinate system of the group shape that the anchors of the child shape are expressed in.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock**, as defined in section 2.2.17, record **D**.

| Offset   | Size | Structure  | Value       |
|----------|------|--|-------------|
| 00000F15 | 007C | <b>D: OfficeArtSpgrContainerFileBlock - OfficeArtSpgrContainerFB</b> |             |
| 00000F15 | 007C | OfficeArtSpContainer - <b>case_of_msofbtSpContainer</b>              |             |
| 00000F15 | 0008 | OfficeArtRecordHeader - <b>rh</b>                                    |             |
| 00000F1D | 0010 | OfficeArtFSP - <b>shapeProp</b>                                      |             |
| 00000F2D | 004C | OfficeArtFOPT - <b>shapePrimaryOptions</b>                           |             |
| 00000F2D | 0008 | OfficeArtRecordHeader - <b>rh</b>                                    |             |
| 00000F35 | 0044 | OfficeArtRGFOPT - <b>fopt</b>  |             |
| 00000F35 | 0006 | <a href="#">rotation</a> - <b>rotation</b>                           |             |
| 00000F35 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                     |             |
| 00000F37 | 0004 | FixedPoint - <b>rotation</b>   | 0x010E0000  |
| 00000F3B | 0006 | <a href="#">adjustValue</a> - <b>adjustValue</b>                     |             |
| 00000F3B | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                     |             |
| 00000F3D | 0004 | LONG - <b>adjustValue</b>  | 0xFFFF769F3 |
| 00000F41 | 0006 | <a href="#">adjust2Value</a> - <b>adjust2Value</b>                   |             |

| Offset   | Size | Structure   | Value      |
|----------|------|---|------------|
| 00000F41 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                    |            |
| 00000F43 | 0004 | LONG - <b>adjust2Value</b>  | 0xFFFFFFFF |
| 00000F47 | 0006 | <a href="#">adjust3Value</a> - <b>adjust3Value</b>                  |            |
| 00000F47 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                    |            |
| 00000F49 | 0004 | LONG - <b>adjust3Value</b>  | 0xFFF769F3 |
| 00000F4D | 0006 | <b>S:</b> <a href="#">lineColor</a> - <b>lineColor</b>              |            |
| 00000F4D | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                    |            |
| 00000F4F | 0004 | <a href="#">OfficeArtCOLORREF</a> - <b>lineColor</b>                |            |
| 00000F53 | 0006 | <a href="#">lineWidth</a> - <b>lineWidth</b>                        |            |
| 00000F53 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                    |            |
| 00000F55 | 0004 | LONG - <b>lineWidth</b>   | 0x00006F9F |
| 00000F59 | 0006 | <b>T:</b> Line Style Boolean Properties - <b>Line Style Boolean</b> |            |
| 00000F5F | 0006 | <a href="#">cxstyle</a> - <b>cxstyle</b>                            |            |
| 00000F5F | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                    |            |
| 00000F61 | 0004 | <a href="#">MSOXCSTYLE</a> - <b>cxstyle</b>                         | 0x00000001 |
| 00000F65 | 0006 | <a href="#">wzName</a> - <b>wzName</b>                              |            |
| 00000F65 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                    |            |
| 00000F67 | 0004 | ULONG - <b>wzName</b>   | 0x0000000E |
| 00000F6B | 000E | <a href="#">wzName_complex</a> - <b>wzName_complex</b>              |            |
| 00000F6B | 000E | WideString - <b>wzName</b>  | _s2072     |
| 00000F79 | 0018 | OfficeArtChildAnchor - <b>childAnchor</b>                           |            |

**Figure 28: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record D**

The record types within **OfficeArtSpgrContainerFileBlock** record **D** that have not been explained in previous structure examples are specified as follows:

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.rotation:** A property that specifies the rotation on a shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.rotation.rotation:** The rotation (0x010E0000) on the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.adjustValue:** A property that specifies a value that a user can change to adjust the geometry of the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.adjustValue.adjustValue:** A value (0xFFF769F3) that is used to adjust the geometry of this shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.adjust2Value:** A property that specifies a value that a user can change to adjust the geometry of the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.adjust2Value.adjust2Value:** A value (0xFFFFFFFF) that is used to adjust the geometry of this shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.adjust3Value:** A property that specifies a value that a user can change to adjust the geometry of the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.adjust3Value.adjust3Value:** A value (0xFFF769F3) that is used to adjust the geometry of this shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.lineColor:** A property that specifies the foreground color of the line.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.lineColor.lineColor:** An **OfficeArtCOLORREF** record, as defined in section 2.2.2, that specifies the color to use while drawing.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.lineWidth:** A property that specifies the width of the line.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.lineWidth.lineWidth:** The width (0x00006F9F) of the line.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.cxstyle:** A property that specifies the connector style.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.cxstyle.cxstyle:** A value (0x00000001) that specifies that this shape is an elbow-shaped connector.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.wzName:** A property that specifies the name of the shape.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.wzName.wzName:** The number (0x0000000E) of bytes of data that is contained in the **wzName\_complex** property, as defined in section 2.3.4.2.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.wzName\_complex:** A property that specifies additional data for the **wzName** property, as defined in section 2.3.4.1.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.wzName\_complex.wzName:** The name (\_s2072) of the shape.

The following two example structures show the records labeled **S** and **T** from **OfficeArtSpgrContainerFileBlock** record **D** in more detail.

The following table shows the child-record hierarchy of **lineColor** record **S**.

| Offset   | Size    | Structure                              | Value  |
|----------|---------|--|--------|
| 00000F4D | 0006    | <b>S:</b> lineColor - <b>lineColor</b> |        |
| 00000F4D | 0002    | OfficeArtFOPTEOPID - <b>opid</b>       |        |
| 00000F4D | 14 bits | bit - <b>opid</b>                      | 0x01C0 |
| 00000F4D | 1 bit   | bit - <b>fBid</b>                      | 0x0    |
| 00000F4D | 1 bit   | bit - <b>fComplex</b>                  | 0x0    |
| 00000F4F | 0004    | OfficeArtCOLORREF - <b>lineColor</b>   |        |
| 00000F52 | 1 bit   | bit - <b>unused3</b>                   | 0x0    |

| Offset   | Size  | Structure                  | Value |
|----------|-------|----------------------------|-------|
| 00000F52 | 1 bit | bit - <b>unused2</b>       | 0x0   |
| 00000F52 | 1 bit | bit - <b>unused1</b>       | 0x0   |
| 00000F52 | 1 bit | bit - <b>fSysIndex</b>     | 0x0   |
| 00000F52 | 1 bit | bit - <b>fSchemeIndex</b>  | 0x1   |
| 00000F52 | 1 bit | bit - <b>fSystemRGB</b>    | 0x0   |
| 00000F52 | 1 bit | bit - <b>fPaletteRGB</b>   | 0x0   |
| 00000F52 | 1 bit | bit - <b>fPaletteIndex</b> | 0x0   |
| 00000F51 | 0001  | BYTE - <b>blue</b>         | 0x00  |
| 00000F50 | 0001  | BYTE - <b>green</b>        | 0x00  |
| 00000F4F | 0001  | BYTE - <b>red</b>          | 0x01  |

**Figure 29: Child-Record Hierarchy of lineColor Record S**

The record types within **lineColor** record **S** that have not been explained in previous structure examples are specified as follows:

**opid:** An **OfficeArtFOPTEOPID** record, as defined in section 2.2.8, that specifies the header for an entry in a property table.

**lineColor:** An **OfficeArtCOLORREF** structure, as defined in section 2.2.2, that specifies the foreground color of the line.

**lineColor.unused3:** A value that is undefined and needs to be ignored.

**lineColor.unused2:** A value that is undefined and needs to be ignored.

**lineColor.unused1:** A value that is undefined and needs to be ignored.

**lineColor.fSysIndex:** A value (0x0) specifying that the system color scheme will not be used to determine the color.

**lineColor.fSchemeIndex:** A value (0x1) specifying that the current color scheme will be used to determine the color. The value 0x1 indicates that **red** provides an index into the current scheme color table. When the value of **fSchemeIndex** is 0x1, the values of **green** and **blue** need to be 0x00.

**lineColor.fSystemRGB:** A value (0x0) that specifies whether the color is a standard RGB color. The value 0x0 indicates that the RGB color might use half-tone dithering to display.

**lineColor.fPaletteRGB:** A value (0x0) specifying that the current palette will not be used to determine the color.

**lineColor.fPaletteIndex:** A value (0x0) specifying that the current palette will not be used to determine the color.

**lineColor.blue:** A property that will be ignored when **fSchemeIndex** is set to 0x1.

**lineColor.green:** A property that will be ignored when **fSchemeIndex** is set to 0x1.

**lineColor.red:** The index (0x01) into the current scheme color table when **fSchemeIndex** is set to 0x1.

The following table shows the child-record hierarchy of **Line Style Boolean Properties** record **T**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000F59 | 0006    | <b>T: Line Style Boolean Properties - Line Style Boolean Properties</b> |        |
| 00000F59 | 0002    | OfficeArtFOPTePID - <b>opid</b>   |        |
| 00000F59 | 14 bits | bit - <b>opid</b>   | 0x01FF |
| 00000F59 | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 00000F59 | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 00000F5B | 6 bits  | bit - <b>unused4</b>  | 0x00   |
| 00000F5B | 1 bit   | bit - <b>fUsefLineOpaqueBackColor</b>                                   | 0x0    |
| 00000F5B | 1 bit   | bit - <b>unused3</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>unused2</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fUsefInsetPen</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fUsefInsetPenOK</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fUsefArrowheadsOK</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fUsefLine</b>  | 0x1    |
| 00000F5B | 1 bit   | bit - <b>fUsefHitTestLine</b>   | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fUselineFillShape</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fUsefNoLineDrawDash</b>  | 0x0    |
| 00000F5B | 6 bits  | bit - <b>unused1</b>  | 0x00   |
| 00000F5B | 1 bit   | bit - <b>fLineOpaqueBackColor</b>                                       | 0x0    |
| 00000F5B | 1 bit   | bit - <b>reserved2</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>reserved1</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fInsetPen</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fInsetPenOK</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fArrowheadsOK</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fLine</b>  | 0x1    |
| 00000F5B | 1 bit   | bit - <b>fHitTestLine</b>   | 0x0    |
| 00000F5B | 1 bit   | bit - <b>lineFillShape</b>  | 0x0    |
| 00000F5B | 1 bit   | bit - <b>fNoLineDrawDash</b>  | 0x0    |

**Figure 30: Child-Record Hierarchy of Line Style Boolean Properties Record T**

**Line Style Boolean Properties** record **T** is similar to **Line Style Boolean Properties** record **P**, except that the **fLine** property in record **T** is set to 0x1, which specifies displaying other line properties in the line style when handling a 2-D shape. The **fLine** property in record **P** is set to 0x0, so the other line properties in that line style will not be displayed.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock**, as defined in section 2.2.17, record **E**.

| Offset   | Size | Structure   | Value      |
|----------|------|---|------------|
| 0000117B | 00EB | <b>E: OfficeArtSpgrContainerFileBlock - OfficeArtSpgrContainerFB</b>    |            |
| 0000117B | 00EB | OfficeArtSpContainer - <b>case_of_msofbspContainer</b>                  |            |
| 0000117B | 0008 | OfficeArtRecordHeader - <b>rh</b>                                       |            |
| 00001183 | 0010 | OfficeArtFSP - <b>shapeProp</b>   |            |
| 00001193 | 005E | OfficeArtFOPT - <b>shapePrimaryOptions</b>                              |            |
| 00001193 | 0008 | OfficeArtRecordHeader - <b>rh</b>                                       |            |
| 0000119B | 0056 | OfficeArtRGFOPT - <b>fopt</b>   |            |
| 0000119B | 0006 | <a href="#">ITxid</a> - <b>ITxid</b>                                    |            |
| 0000119B | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 0000119D | 0004 | LONG - <b>ITxid</b>   | 0x00AEDC04 |
| 000011A1 | 0006 | <a href="#">dxTextLeft</a> - <b>dxTextLeft</b>                          |            |
| 000011A1 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 000011A3 | 0004 | LONG - <b>dxTextLeft</b>  | 0x00000000 |
| 000011A7 | 0006 | <a href="#">dyTextTop</a> - <b>dyTextTop</b>                            |            |
| 000011A7 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 000011A9 | 0004 | LONG - <b>dyTextTop</b>   | 0x00000000 |
| 000011AD | 0006 | <a href="#">dxTextRight</a> - <b>dxTextRight</b>                        |            |
| 000011AD | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 000011AF | 0004 | LONG - <b>dxTextRight</b>   | 0x00000000 |
| 000011B3 | 0006 | <a href="#">dyTextBottom</a> - <b>dyTextBottom</b>                      |            |
| 000011B3 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 000011B5 | 0004 | LONG - <b>dyTextBottom</b>  | 0x00000000 |
| 000011B9 | 0006 | <a href="#">WrapText</a> - <b>WrapText</b>                              |            |
| 000011B9 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 000011BB | 0004 | <a href="#">MSOWRAPMODE</a> - <b>WrapText</b>                           | 0x00000002 |
| 000011BF | 0006 | <a href="#">anchorText</a> - <b>anchorText</b>                          |            |
| 000011BF | 0002 | OfficeArtFOPTEOPID - <b>opid</b>  |            |
| 000011C1 | 0004 | <a href="#">MSOANCHOR</a> - <b>anchorText</b>                           | 0x00000001 |
| 000011C5 | 0006 | <b>U: fillColor</b> - <b>fillColor</b>                                  |            |
| 000011CB | 0006 | <b>V: Fill Style Boolean Properties - Fill Style Boolean Properties</b> |            |

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 000011D1 | 0006 | lineColor - <b>lineColor</b>   |            |
| 000011D1 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                     |            |
| 000011D3 | 0004 | OfficeArtCOLORREF - <b>lineColor</b>                                 |            |
| 000011D7 | 0006 | Line Style Boolean Properties - <b>Line Style Boolean Properties</b> |            |
| 000011DD | 0006 | wzName - <b>wzName</b>   |            |
| 000011DD | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                                     |            |
| 000011DF | 0004 | ULONG - <b>wzName</b>  | 0x0000000E |
| 000011E3 | 000E | wzName_complex - <b>wzName_complex</b>                               |            |
| 000011E3 | 000E | WideString - <b>wzName</b>   | _s2054     |
| 000011F1 | 001A | OfficeArtTertiaryFOPT - <b>shapeTertiaryOptions</b>                  |            |
| 0000120B | 0018 | OfficeArtChildAnchor - <b>childAnchor</b>                            |            |
| 00001223 | 0043 | OfficeArtClientTextbox - <b>clientTextbox</b>                        |            |

**Figure 31: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record E**

The record types within **OfficeArtSpgrContainerFileBlock** record **E** that have not been explained in previous structure examples are specified as follows:

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.ITxid:** A property that specifies an identifier for the text.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.ITxid.ITxid:** An identifier (0x00AEDC04) for the text. The value is determined by the host application.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dxTextLeft:** A property that specifies the size of the margin to the left of the text.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dxTextLeft.dxTextLeft:** The size (0x00000000) of the margin that exists inside the containing shape to the left of the text. The unit of measurement is an **EMU**.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dyTextTop:** A property that specifies the size of the margin above the text.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dyTextTop.dyTextTop:** The size (0x00000000) of the margin that exists inside the containing shape above the text. The unit of measurement is an EMU.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dxTextRight:** A property that specifies the size of the margin to the right of the text.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dxTextRight.dxTextRight:** The size (0x00000000) of the margin that exists inside the containing shape to the right of the text. The unit of measurement is an EMU.

**case\_of\_msofbtSpContainer.shapePrimaryOptions.fopt.dyTextBottom:** A property that specifies the size of the margin below the text.



**case\_of\_msofبتSpContainer.shapePrimaryOptions.fopt.dyTextBottom.dyTextBottom:** The size (0x00000000) of the margin that exists inside the containing shape below the text. The unit of measurement is an EMU.

**case\_of\_msofبتSpContainer.shapePrimaryOptions.fopt.WrapText:** A property that specifies the type of wrapping applied to the text.

**case\_of\_msofبتSpContainer.shapePrimaryOptions.fopt.WrapText.WrapText:** A value (0x00000002) specifying that a line of text will extend into or beyond a margin instead of continuing on subsequent lines.

**case\_of\_msofبتSpContainer.shapePrimaryOptions.fopt.anchorText:** A property that specifies the type of anchor applied to the text.

**case\_of\_msofبتSpContainer.shapePrimaryOptions.fopt.anchorText.anchorText:** A value that specifies the primary determinant for the placement of the text. The value 0x00000001 specifies that the vertical center of the text will coincide with the vertical midpoint of the internal margins of the text box area.

**case\_of\_msofبتSpContainer.shapePrimaryOptions.fopt.fillColor:** A property that specifies the foreground color of the fill.

The following two example structures show the records labeled **U** and **V** from **OfficeArtSpgrContainerFileBlock** record **E** in more detail.

The following table shows the child-record hierarchy of **fillColor** record **U**.

| Offset   | Size    | Structure                              | Value  |
|----------|---------|--|--------|
| 000011C5 | 0006    | <b>U:</b> fillColor - <b>fillColor</b> |        |
| 000011C5 | 0002    | OfficeArtFOPTEOPID - <b>opid</b>       |        |
| 000011C5 | 14 bits | bit - <b>opid</b>                      | 0x0181 |
| 000011C5 | 1 bit   | bit - <b>fBid</b>                      | 0x0    |
| 000011C5 | 1 bit   | bit - <b>fComplex</b>                  | 0x0    |
| 000011C7 | 0004    | OfficeArtCOLORREF - <b>fillColor</b>   |        |
| 000011CA | 1 bit   | bit - <b>unused3</b>                   | 0x0    |
| 000011CA | 1 bit   | bit - <b>unused2</b>                   | 0x0    |
| 000011CA | 1 bit   | bit - <b>unused1</b>                   | 0x0    |
| 000011CA | 1 bit   | bit - <b>fSysIndex</b>                 | 0x0    |
| 000011CA | 1 bit   | bit - <b>fSchemeIndex</b>              | 0x1    |
| 000011CA | 1 bit   | bit - <b>fSystemRGB</b>                | 0x0    |
| 000011CA | 1 bit   | bit - <b>fPaletteRGB</b>               | 0x0    |
| 000011CA | 1 bit   | bit - <b>fPaletteIndex</b>             | 0x0    |
| 000011C9 | 0001    | BYTE - <b>blue</b>                     | 0x00   |
| 000011C8 | 0001    | BYTE - <b>green</b>                    | 0x00   |
| 000011C7 | 0001    | BYTE - <b>red</b>                      | 0x04   |

**Figure 32: Child-Record Hierarchy of fillColor Record U**

The properties in **fillColor** record **U** are similar to the color properties in **lineColor** record **S**. Record **S** outlines color properties applied to a line. Record **U** outlines color properties applied to a shape fill. For more details about the property values that are listed in record **U**, see the property value definitions for record **S** earlier in this section.

The following table shows the child-record hierarchy of **Fill Style Boolean Properties** record **V**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 000011CB | 0006    | <b>V: Fill Style Boolean Properties - Fill Style Boolean Properties</b> |        |
| 000011CB | 0002    | OfficeArtFOPTePID - <b>opid</b>   |        |
| 000011CB | 14 bits | bit - <b>opid</b>   | 0x01BF |
| 000011CB | 1 bit   | bit - <b>fBid</b>   | 0x0    |
| 000011CB | 1 bit   | bit - <b>fComplex</b>   | 0x0    |
| 000011CD | 9 bits  | bit - <b>unused1</b>  | 0x000  |
| 000011CD | 1 bit   | bit - <b>fUseRecolorFillAsPicture</b>                                   | 0x0    |
| 000011CD | 1 bit   | bit - <b>fUseUseShapeAnchor</b>   | 0x0    |
| 000011CD | 1 bit   | bit - <b>fUseFilled</b>   | 0x1    |
| 000011CD | 1 bit   | bit - <b>fUseHitTestFill</b>  | 0x0    |
| 000011CD | 1 bit   | bit - <b>fUsefillShape</b>  | 0x0    |
| 000011CD | 1 bit   | bit - <b>fUsefillUseRect</b>  | 0x0    |
| 000011CD | 1 bit   | bit - <b>fUseNoFillHitTest</b>  | 0x0    |
| 000011CD | 9 bits  | bit - <b>unused2</b>  | 0x000  |
| 000011CD | 1 bit   | bit - <b>fRecolorFillAsPicture</b>                                      | 0x0    |
| 000011CD | 1 bit   | bit - <b>fUseShapeAnchor</b>  | 0x0    |
| 000011CD | 1 bit   | bit - <b>fFilled</b>  | 0x1    |
| 000011CD | 1 bit   | bit - <b>fHitTestFill</b>   | 0x0    |
| 000011CD | 1 bit   | bit - <b>fillShape</b>  | 0x0    |
| 000011CD | 1 bit   | bit - <b>fillUseRect</b>  | 0x0    |
| 000011CD | 1 bit   | bit - <b>fNoFillHitTest</b>   | 0x0    |

**Figure 33: Child-Record Hierarchy of Fill Style Boolean Properties Record V**

**Fill Style Boolean Properties** record **V** is similar to **Fill Style Boolean Properties** record **O**. Record **O** outlines property settings that will not render the shape fill. Record **V** outlines values that will render the shape fill. For more details about the property values that are listed in record **V**, see the property value definitions that are listed for record **O** earlier in this section.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock**, as defined in section 2.2.17, record **F**.

| Offset   | Size | Structure   | Value      |
|----------|------|---|------------|
| 00001266 | 00E5 | <b>F:</b> OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b> |            |
| 00001266 | 00E5 | OfficeArtSpContainer - <b>case_of_msofbtSpContainer</b>                     |            |
| 00001266 | 0008 | OfficeArtRecordHeader - <b>rh</b>   |            |
| 0000126E | 0010 | OfficeArtFSP - <b>shapeProp</b>   |            |
| 0000127E | 005E | OfficeArtFOPT - <b>shapePrimaryOptions</b>                                  |            |
| 000012DC | 0014 | <b>W:</b> OfficeArtTertiaryFOPT - <b>shapeTertiaryOptions</b>               |            |
| 000012F0 | 0018 | OfficeArtChildAnchor - <b>childAnchor</b>                                   |            |
| 00001308 | 0043 | OfficeArtClientTextbox - <b>clientTextbox</b>                               |            |
| 00001308 | 0008 | OfficeArtRecordHeader - <b>rh</b>   |            |
| 00001310 | 003B | TextClientDataRecordArray - <b>rgChildRec</b>                               |            |
| 00001310 | 000C | TextClientDataSubContainerOrAtom - <b>rec</b>                               |            |
| 00001310 | 000C | TextHeaderAtom - <b>case_of_RT_TextHeaderAtom</b>                           |            |
| 00001310 | 0008 | RecordHeader - <b>rh</b>  |            |
| 00001318 | 0004 | TextTypeEnum - <b>textType</b>  | 0x00000004 |
| 0000131C | 0011 | TextClientDataSubContainerOrAtom - <b>rec1</b>                              |            |
| 0000131C | 0011 | TextBytesAtom - <b>case_of_RT_TextBytesAtom</b>                             |            |
| 0000131C | 0008 | RecordHeader - <b>rh</b>  |            |
| 00001324 | 0009 | NarrowStringBufferEx - <b>textBytes</b>                                     | Shape 2.0  |
| 0000132D | 001E | TextClientDataSubContainerOrAtom - <b>rec2</b>                              |            |
| 0000132D | 001E | StyleTextPropAtom - <b>case_of_RT_StyleTextPropAtom</b>                     |            |
| 0000132D | 0008 | RecordHeader - <b>rh</b>  |            |
| 00001335 | 000C | <b>X:</b> TextPFRunArray - <b>rgTextPFRun</b>                               |            |
| 00001341 | 000A | <b>Y:</b> TextCFRunArray - <b>rgTextCFRun</b>                               |            |

**Figure 34: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record F**

The record types within **OfficeArtSpgrContainerFileBlock** record **F** that have not been explained in previous structure examples are specified by the following definitions. The host application defines these fields and records. For more information, see [\[MS-PPT\]](#) section 2.9.76.

**case\_of\_msofbtSpContainer.clientTextbox.rgChildRec:** An array of **TextClientDataSubContainerOrAtom** records.

**case\_of\_msofbtSpContainer.clientTextbox.rgChildRec.rec:** A **TextClientDataSubContainerOrAtom** record, which is a variable-type record. The type and meaning of this record is dictated by the value of **rh.recType** (not shown in this example).

**case\_of\_msofbtSpContainer.clientTextbox.rgChildRec.rec.case\_of\_RT\_TextHeaderAtom:** An **atom** record that specifies the type of a text body.

**case\_of\_msofibtSpContainer.clientTextbox.rgChildRec.rec.case\_of\_RT\_TextHeaderAtom.textType:** A value (0x00000004) specifying that the text is of type "Any other text".

**case\_of\_msofibtSpContainer.clientTextbox.rgChildRec.rec1.case\_of\_RT\_TextBytesAtom:** An atom record that specifies Unicode characters.

**case\_of\_msofibtSpContainer.clientTextbox.rgChildRec.rec1.case\_of\_RT\_TextBytesAtom.textBytes:** A value ("Shape 2.0") specifying that the text string within **shape.textBytes** is an array of bytes containing the characters of the corresponding text.

**case\_of\_msofibtSpContainer.clientTextbox.rgChildRec.rec2.case\_of\_RT\_StyleTextPropAtom:** An atom record that specifies character-level and paragraph-level formatting.

**case\_of\_msofibtSpContainer.clientTextbox.rgChildRec.rec2.case\_of\_RT\_StyleTextPropAtom.rgTextPFRun:** An array of **TextPFRun** container records that each specify paragraph-level formatting for a length of the corresponding text.

**case\_of\_msofibtSpContainer.clientTextbox.rgChildRec.rec2.case\_of\_RT\_StyleTextPropAtom.rgTextCFRun:** An array of **TextCFRun** container records that each specify character-level formatting for a length of the corresponding text.

The following three example structures show the records labeled **W**, **X**, and **Y** from **OfficeArtSpgrContainerFileBlock** record **F** in more detail.

The following table shows the child-record hierarchy of the **OfficeArtTertiaryFOPT** record, as defined in section 2.2.11, **W**.

| Offset   | Size    | Structure   | Value      |
|----------|---------|---|------------|
| 000012DC | 0014    | <b>W:</b> OfficeArtTertiaryFOPT - <b>shapeTertiaryOptions</b> |            |
| 000012DC | 0008    | OfficeArtRecordHeader - <b>rh</b>                             |            |
| 000012E4 | 000C    | OfficeArtRGFOFTE - <b>foft</b>                                |            |
| 000012E4 | 0006    | <a href="#">dgmLayout</a> - <b>dgmLayout</b>                  |            |
| 000012E4 | 0002    | OfficeArtFOFTEPID - <b>opid</b>                               |            |
| 000012E4 | 14 bits | bit - <b>opid</b>   | 0x0309     |
| 000012E4 | 1 bit   | bit - <b>fBid</b>   | 0x0        |
| 000012E4 | 1 bit   | bit - <b>fComplex</b>   | 0x0        |
| 000012E6 | 0004    | <a href="#">MSODGMLO</a> - <b>dgmLayout</b>                   | 0x00000000 |
| 000012EA | 0006    | <a href="#">dgmNodeKind</a> - <b>dgmNodeKind</b>              |            |
| 000012EA | 0002    | OfficeArtFOFTEPID - <b>opid</b>                               |            |
| 000012EA | 14 bits | bit - <b>opid</b>   | 0x030A     |
| 000012EA | 1 bit   | bit - <b>fBid</b>   | 0x0        |
| 000012EA | 1 bit   | bit - <b>fComplex</b>   | 0x0        |
| 000012EC | 0004    | LONG - <b>dgmNodeKind</b>                                     | 0x00000000 |

**Figure 35: Child-Record Hierarchy of OfficeArtTertiaryFOPT Record W**

The record types within **OfficeArtTertiaryFOPT** record **W** that have not been explained in previous structure examples are specified as follows:

**fopt.dgmLayout:** A property that specifies the diagram node layout for a shape.

**fopt.dgmLayout.dgmLayout:** A value (0x00000000) specifying that this **MSODGMLO** layout is an organizational chart.

**fopt.dgmNodeKind:** A property that specifies a diagram node type.

**fopt.dgmNodeKind.dgmNodeKind:** A value (0x00000000) specifying that this node is a regular diagram node of no particular type.

The following table shows the child-record hierarchy of **TextPFRunArray** record **X**.

| Offset   | Size | Structure                                     | Value      |
|----------|------|---|------------|
| 00001335 | 000C | <b>X:</b> TextPFRunArray - <b>rgTextPFRun</b> |            |
| 00001335 | 000C | TextPFRun - <b>textPFRun</b>                  |            |
| 00001335 | 0004 | ULONG - <b>runCount</b>                       | 0x0000000A |
| 00001339 | 0002 | USHORT - <b>indentLevel</b>                   | 0x0000     |
| 0000133B | 0006 | TextPFException - <b>pf</b>                   |            |
| 0000133B | 0004 | PFMasks - <b>masks</b>                        |            |
| 0000133F | 0002 | TextAlignmentEnum - <b>textAlignment</b>      | 0x0001     |

**Figure 36: Child-Record Hierarchy of TextPFRunArray Record X**

The fields and records for text in **TextPFRunArray** record **X** are defined by the host application. For more information, see [MS-PPT] section 2.9.45. Record **X** might appear differently for each host application. Some text, font, and paragraph properties might be located in other containers, depending on the structure requirements for each host application.

The following table shows the child-record hierarchy of **TextCFRunArray** record **Y**.

| Offset   | Size | Structure                                     | Value      |
|----------|------|---|------------|
| 00001341 | 000A | <b>Y:</b> TextCFRunArray - <b>rgTextCFRun</b> |            |
| 00001341 | 000A | TextCFRun - <b>textCFRun</b>                  |            |
| 00001341 | 0004 | ULONG - <b>runCount</b>                       | 0x0000000A |
| 00001345 | 0006 | TextCFException - <b>cf</b>                   |            |
| 00001345 | 0004 | CFMasks - <b>masks</b>                        |            |
| 00001349 | 0002 | SHORT - <b>fontSize</b>                       | 0x000D     |

**Figure 37: Child-Record Hierarchy of TextCFRunArray Record Y**

The fields and records for text in **TextCFRunArray** record **Y** are defined by the host application. For more information, see [MS-PPT] section 2.9.46. Record **Y** might appear differently for each host application. Some text, font, and paragraph properties might be located in other containers, depending on the structure requirements for each host application.

The following table shows the child-record hierarchy of **OfficeArtSpgrContainerFileBlock**, as defined in section 2.2.17, record **G**.

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 00001430 | 00E5 | <b>G</b> : OfficeArtSpgrContainerFileBlock - <b>OfficeArtSpgrContainerFB</b> |            |
| 00001430 | 00E5 | OfficeArtSpContainer - <b>case_of_msofbtSpContainer</b>                      |            |
| 00001430 | 0008 | OfficeArtRecordHeader - <b>rh</b>  |            |
| 00001438 | 0010 | OfficeArtFSP - <b>shapeProp</b>  |            |
| 00001448 | 005E | OfficeArtFOPT - <b>shapePrimaryOptions</b>                                   |            |
| 000014A6 | 0014 | OfficeArtTertiaryFOPT - <b>shapeTertiaryOptions</b>                          |            |
| 000014A6 | 0008 | OfficeArtRecordHeader - <b>rh</b>  |            |
| 000014AE | 000C | OfficeArtRGFOPT - <b>fopt</b>  |            |
| 000014AE | 0006 | dgmLayout - <b>dgmLayout</b>   |            |
| 000014AE | 0002 | OfficeArtFOPT - <b>opid</b>  |            |
| 000014B0 | 0004 | MSODGMLO - <b>dgmLayout</b>  | 0x00000000 |
| 000014B4 | 0006 | dgmNodeKind - <b>dgmNodeKind</b>   |            |
| 000014B4 | 0002 | OfficeArtFOPT - <b>opid</b>  |            |
| 000014B6 | 0004 | LONG - <b>dgmNodeKind</b>  | 0x00000000 |
| 000014BA | 0018 | OfficeArtChildAnchor - <b>childAnchor</b>                                    |            |
| 000014D2 | 0043 | OfficeArtClientTextbox - <b>clientTextbox</b>                                |            |

**Figure 38: Child-Record Hierarchy of OfficeArtSpgrContainerFileBlock Record G**

### 3.1.4 OfficeArtSpContainer

The following table shows the child-record hierarchy of **OfficeArtSpContainer**, as defined in section [2.2.14](#), container **3**.

| Offset   | Size | Structure  | Value |
|----------|------|--|-------|
| 000016F5 | 0050 | <b>3</b> : OfficeArtSpContainer - <b>shape</b>             |       |
| 000016F5 | 0008 | <a href="#">OfficeArtRecordHeader</a> - <b>rh</b>          |       |
| 000016FD | 0010 | <a href="#">OfficeArtFSP</a> - <b>shapeProp</b>            |       |
| 0000170D | 0038 | <a href="#">OfficeArtFOPT</a> - <b>shapePrimaryOptions</b> |       |
| 0000170D | 0008 | OfficeArtRecordHeader - <b>rh</b>                          |       |
| 00001715 | 0030 | <a href="#">OfficeArtRGFOPT</a> - <b>fopt</b>              |       |
| 00001715 | 0006 | <a href="#">fillColor</a> - <b>fillColor</b>               |       |
| 00001715 | 0002 | <a href="#">OfficeArtFOPT - opid</a> - <b>opid</b>         |       |
| 00001717 | 0004 | <a href="#">OfficeArtCOLORREF</a> - <b>fillColor</b>       |       |
| 0000171B | 0006 | <a href="#">fillBackColor</a> - <b>fillBackColor</b>       |       |

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 0000171B | 0002 | OfficeArtFOPTEOPID - <b>opid</b>   |            |
| 0000171D | 0004 | <b>A</b> : OfficeArtCOLORREF - <b>fillBackColor</b>                                  |            |
| 00001721 | 0006 | <a href="#">fillRectRight</a> - <b>fillRectRight</b>                                 |            |
| 00001721 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>   |            |
| 00001723 | 0004 | LONG - <b>fillRectRight</b>  | 0x008B9F8E |
| 00001727 | 0006 | <a href="#">fillRectBottom</a> - <b>fillRectBottom</b>                               |            |
| 00001727 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>   |            |
| 00001729 | 0004 | LONG - <b>fillRectBottom</b>   | 0x0068BDDE |
| 0000172D | 0006 | <a href="#">Fill Style Boolean Properties</a> - <b>Fill Style Boolean Properties</b> |            |
| 00001733 | 0006 | <a href="#">Line Style Boolean Properties</a> - <b>Line Style Boolean</b>            |            |
| 00001739 | 0006 | <a href="#">bWMode</a> - <b>bWMode</b>   |            |
| 00001739 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>   |            |
| 0000173B | 0004 | <a href="#">MSOBWMODE</a> - <b>bWMode</b>  | 0x00000009 |
| 0000173F | 0006 | <a href="#">Shape Boolean Properties</a> - <b>Shape Boolean Properties</b>           |            |

**Figure 39: Child-Record Hierarchy of OfficeArtSpContainer Container 3**

The record types within **OfficeArtSpContainer** container **3** that have not been explained in previous structure examples are specified as follows:

**shapePrimaryOptions.fopt.fillBackColor:** A property that specifies the background color of the fill.

**shapePrimaryOptions.fopt.fillRectRight:** A property that specifies the rectangle right bound, in **EMUs**, of the shaded fill.

**shapePrimaryOptions.fopt.fillRectRight.fillRectRight:** A value (0x008B9F8E) that specifies the rectangle right bound of the shaded fill.

**shapePrimaryOptions.fopt.fillRectBottom:** A property that specifies the rectangle bottom bound, in EMUs, of the shaded fill.

**shapePrimaryOptions.fopt.fillRectBottom.fillRectBottom:** A value (0x0068BDDE) that specifies the rectangle bottom bound of the shaded fill.

**shapePrimaryOptions.fopt.bWMode:** A property that specifies how a **shape** will render in black-and-white display mode.

**shapePrimaryOptions.fopt.bWMode.bWMode:** A value (0x00000009) specifying that the shape will render with white coloring.

The following table shows the child-record hierarchy of **OfficeArtCOLORREF**, as defined in section 2.2.2, record **A**.

| Offset   | Size | Structure   | Value |
|----------|------|---|-------|
| 0000171D | 0004 | <b>A</b> : OfficeArtCOLORREF - <b>fillBackColor</b> |       |

| Offset   | Size  | Structure                  | Value |
|----------|-------|----------------------------|-------|
| 00001720 | 1 bit | bit - <b>unused3</b>       | 0x0   |
| 00001720 | 1 bit | bit - <b>unused2</b>       | 0x0   |
| 00001720 | 1 bit | bit - <b>unused1</b>       | 0x0   |
| 00001720 | 1 bit | bit - <b>fSysIndex</b>     | 0x0   |
| 00001720 | 1 bit | bit - <b>fSchemeIndex</b>  | 0x1   |
| 00001720 | 1 bit | bit - <b>fSystemRGB</b>    | 0x0   |
| 00001720 | 1 bit | bit - <b>fPaletteRGB</b>   | 0x0   |
| 00001720 | 1 bit | bit - <b>fPaletteIndex</b> | 0x0   |
| 0000171F | 0001  | BYTE - <b>blue</b>         | 0x00  |
| 0000171E | 0001  | BYTE - <b>green</b>        | 0x00  |
| 0000171D | 0001  | BYTE - <b>red</b>          | 0x05  |

**Figure 40: Child-Record Hierarchy of OfficeArtCOLORREF Record A**

### 3.1.5 OfficeArtSolverContainer

The following table shows the child-record hierarchy of **OfficeArtSolverContainer**, as defined in section [2.2.18](#), container **4**.

| Offset   | Size | Structure   | Value      |
|----------|------|---|------------|
| 00001745 | 00A8 | <b>4: OfficeArtSolverContainer - solvers</b>  |            |
| 00001745 | 0008 | <a href="#">OfficeArtRecordHeader</a> - <b>rh</b>                                     |            |
| 0000174D | 00A0 | OfficeArtSolverContainerFileBlockArray - <b>rgfb</b>                                  |            |
| 0000174D | 0020 | <a href="#">OfficeArtSolverContainerFileBlock</a> - <b>OfficeArtSolverContainerFB</b> |            |
| 0000174D | 0020 | <a href="#">OfficeArtFConnectorRule</a> - <b>case_of_msofbtConnectorRule</b>          |            |
| 0000174D | 0008 | OfficeArtRecordHeader - <b>rh</b>   |            |
| 00001755 | 0004 | ULONG - <b>ruid</b>   | 0x00000001 |
| 00001759 | 0004 | ULONG - <b>spidA</b>  | 0x00000807 |
| 0000175D | 0004 | ULONG - <b>spidB</b>  | 0x00000806 |
| 00001761 | 0004 | ULONG - <b>spidC</b>  | 0x0000080A |
| 00001765 | 0004 | ULONG - <b>cptiA</b>  | 0x00000000 |
| 00001769 | 0004 | ULONG - <b>cptiB</b>  | 0x00000002 |
| 0000176D | 0020 | OfficeArtSolverContainerFileBlock - <b>OfficeArtSolverContainerFB</b>                 |            |
| 0000178D | 0020 | OfficeArtSolverContainerFileBlock - <b>OfficeArtSolverContainerFB</b>                 |            |
| 000017AD | 0020 | OfficeArtSolverContainerFileBlock - <b>OfficeArtSolverContainerFB</b>                 |            |



| Offset   | Size | Structure  | Value |
|----------|------|--|-------|
| 000017CD | 0020 | OfficeArtSolverContainerFileBlock -<br><b>OfficeArtSolverContainerFB</b> |       |

**Figure 41: Child-Record Hierarchy of OfficeArtSolverContainer Container 4**

The record types within **OfficeArtSolverContainer** container **4** that have not been explained in previous structure examples are specified as follows:

**rgfb:** A record that specifies a file block containing a record that specifies **rule** data.

**rgfb.OfficeArtSolverContainerFB:** A record that specifies a file block containing a record that specifies overall **drawing** data.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule:** A record that specifies the connection between two **shapes** via a **connector** shape.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule.ruid:** The identifier (0x00000001) of this rule.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule.spidA:** The identifier (0x00000807) of the shape where the connector shape starts.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule.spidB:** The identifier (0x00000806) of the shape where the connector shape ends.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule.spidC:** The identifier (0x0000080A) of the connector shape.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule.cptiA:** The **connection site** index (0x00000000) of the shape where the connector shape starts.

**rgfb.OfficeArtSolverContainerFB.case\_of\_msofbtConnectorRule.cptiB:** The connection site index (0x00000002) of the shape where the connector shape ends.

### 3.2 Shape Properties

This section provides an example of a **shape** with effects. The following figure shows a rounded rectangle that contains text and that has a gradient background fill, double-line outline, and shadow properties applied.



**Figure 42: Shape with effects**

The remainder of this section provides example structures that outline properties specific to similar [126](#) shapes. For a detailed specification of each record that is mentioned, see section [2](#).

### 3.2.1 Shape Type Properties

The **OfficeArtFSP** record, as defined in section 2.2.40, specifies an instance of a **shape**. The **OfficeArtRecordHeader** structure, as defined in section 2.2.1, contains the shape type, and the record contains the shape identifier and a set of bits that further define the shape.

The following table shows the child-record hierarchy of the **OfficeArtFSP** container for the shape.

| Offset   | Size    | Structure                         | Value      |
|----------|---------|-----------------------------------|------------|
| 00000DBB | 0010    | OfficeArtFSP - <b>shapeProp</b>   |            |
| 00000DBB | 0008    | OfficeArtRecordHeader - <b>rh</b> |            |
| 00000DBB | 4 bits  | bit - <b>recVer</b>               | 0x2        |
| 00000DBB | 12 bits | bit - <b>recInstance</b>          | 0x002      |
| 00000DBD | 0002    | USHORT - <b>recType</b>           | 0xF00A     |
| 00000DBF | 0004    | DWORD - <b>recLen</b>             | 0x00000008 |
| 00000DC3 | 0004    | ULONG - <b>spid</b>               | 0x00000804 |
| 00000DC7 | 1 bit   | bit - <b>fGroup</b>               | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fChild</b>               | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fPatriarch</b>           | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fDeleted</b>             | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fOleShape</b>            | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fHaveMaster</b>          | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fFlipH</b>               | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fFlipV</b>               | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fConnector</b>           | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fHaveAnchor</b>          | 0x1        |
| 00000DC7 | 1 bit   | bit - <b>fBackground</b>          | 0x0        |
| 00000DC7 | 1 bit   | bit - <b>fHaveSpt</b>             | 0x1        |
| 00000DC7 | 20 bits | bit - <b>unused1</b>              | 0x00000    |

**Figure 43: OfficeArtFSP Shape Properties**

The records that are contained within the **OfficeArtFSP** container, as defined in section 2.2.40, are specified as follows:

**shapeProp:** An **OfficeArtFSP** record that specifies an instance of the shape.

**rh:** An **OfficeArtRecordHeader** structure, as defined in section 2.2.1, that contains the record type, the record length, and if the record is an **atom**, a version identifier.

**rh.recVer:** The record version (0x2).

**rh.recInstance:** The shape type, which in this case is a rectangle shape with rounded corners (0x002).

**rh.recType:** The type (0xF00A) of this record.

**rh.recLen:** The length (0x00000008), in bytes, of the record.

**spid:** The identifier (0x00000804) of this shape.

**fGroup:** A value that specifies whether this shape is a **group shape**. The value 0x0 specifies that this shape is not a group shape.

**fChild:** A value that specifies whether this shape is a **child** shape. The value 0x0 specifies that this shape is not a child shape.

**fPatriarch:** A value that specifies whether this shape is the topmost group shape. The value 0x0 specifies that this shape is not the topmost group shape.

**fDeleted:** A value that specifies whether this shape has been deleted. The value 0x0 specifies that this shape has not been deleted.

**fOleShape:** A value that specifies whether this shape is an **OLE object**. The value 0x0 specifies that this shape is not an OLE object.

**fHaveMaster:** A value that specifies whether this shape has a **master** in the **hspMaster** property, as defined in section 2.3.2.1. The value 0x0 specifies that this shape does not have a master in the **hspMaster** property.

**fFlipH:** A value that specifies whether this shape is flipped horizontally. The value 0x0 specifies that this shape is not flipped horizontally.

**fFlipV:** A value that specifies whether this shape is flipped vertically. The value 0x0 specifies that this shape is not flipped vertically.

**fConnector:** A value that specifies whether this shape is a **connector** shape. The value 0x0 specifies that this shape is not a connector shape.

**fHaveAnchor:** A value that specifies whether this shape has an **anchor**. The value 0x1 specifies that this shape has an anchor.

**fBackground:** A value that specifies whether this shape is a **background shape**. The value 0x0 specifies that this shape is not a background shape.

**fHaveSpt:** A value that specifies whether this shape has a shape type property, as specified by the **recInstance** property in the **OfficeArtRecordHeader** structure, as defined in section 2.2.1. The value 0x1 specifies that this shape has such a shape type property.

**unused1:** A value that is undefined and needs to be ignored.

### 3.2.2 Shape Primary Options

This section outlines the primary property options for the **shape** with effects that is specified in Shape Properties Example in section 3.2.

The following table shows the child-record hierarchy of the **OfficeArtFOPT** record, as defined in section 2.2.9, container for the shape.

| Offset  | Size | Structure                                  |
|---------|------|--|
| 0000DCB | 0074 | OfficeArtFOPT - <b>shapePrimaryOptions</b> |
| 0000DCB | 0008 | <a href="#">OfficeArtRecordHeader</a> - rh |

| Offset   | Size | Structure  |
|----------|------|--|
| 00000DD3 | 006C | <a href="#">OfficeArtRGFOPT</a> - <b>fopt</b>  |
| 00000DD3 | 0006 | <a href="#">Protection Boolean Properties</a> - <b>Protection Boolean Properties</b>               |
| 00000DD9 | 0006 | <b>A:</b> <a href="#">ITxid</a> - <b>Text ID</b>   |
| 00000DDF | 0006 | <b>B:</b> <a href="#">WrapText</a> - <b>Wrap Text</b>  |
| 00000DE5 | 0006 | <b>C:</b> <a href="#">anchorText</a> - <b>Anchor Text</b>  |
| 00000DEB | 0006 | <b>D:</b> <a href="#">fillType</a> - <b>Fill Type</b>  |
| 00000DF1 | 0006 | <a href="#">fillColor</a> - <b>Fill Color</b>  |
| 00000DF7 | 0006 | <a href="#">fillBackColor</a> - <b>Fill Back Color</b>   |
| 00000DFD | 0006 | <b>E:</b> <a href="#">fillFocus</a> - <b>Fill Focus</b>  |
| 00000E03 | 0006 | <b>F:</b> <a href="#">fillShadeType</a> - <b>Shade Type</b>  |
| 00000E09 | 0006 | <a href="#">Fill Style Boolean Properties</a> - <b>Fill Style Boolean Properties</b>               |
| 00000E0F | 0006 | <a href="#">lineColor</a> - <b>Line Color</b>  |
| 00000E15 | 0006 | <b>G:</b> <a href="#">lineWidth</a> - <b>Line Width</b>  |
| 00000E1B | 0006 | <b>H:</b> <a href="#">lineStyle</a> - <b>Line Style</b>  |
| 00000E21 | 0006 | <a href="#">Line Style Boolean Properties</a> - <b>Line Style Boolean Properties</b>               |
| 00000E27 | 0006 | <a href="#">shadowColor</a> - <b>Shadow Color</b>  |
| 00000E2D | 0006 | <b>I:</b> <a href="#">shadowOpacity</a> - <b>Shadow Opacity</b>                                    |
| 00000E33 | 0006 | <b>J:</b> <a href="#">Shadow Style Boolean Properties</a> - <b>Shadow Style Boolean Properties</b> |
| 00000E39 | 0006 | <a href="#">3D-Object Boolean Properties</a> - <b>3D Object Boolean Properties</b>                 |

**Figure 44: Child-Record Hierarchy of the OfficeArtFOPT Shape Primary Options**

The record types within the **OfficeArtFOPT** container that have not been explained in previous structure examples are specified as follows:

**shapePrimaryOptions:** An **OfficeArtFOPT** record that specifies a table of **OfficeArtRGFOPT** properties, as defined in section 2.3.1.

**fopt:** An **OfficeArtRGFOPT** record, as defined in section 2.3.1, specifying a table of properties that contains an array of fixed-size property table entries followed by a variable-length field of complex data.

**fopt.Protection Boolean Properties:** A property specifying a 32-bit field of Boolean properties for the protection of the shape.

**fopt.Text ID:** A property specifying an identifier for the text.

**fopt.Wrap Text:** An **MSOWRAPMODE** enumeration value, as defined in section 2.4.3, that specifies the type of wrapping applied to the text. The default value for this property is **msowrapSquare**.

**fopt.Anchor Text:** A property that specifies the type of **anchor** applied to the text.

**fopt.Fill Type:** A property that specifies either the fill attributes of the shape or the background of the **slide**.

**fopt.Fill Color:** A property that specifies the foreground color of the fill.

**fopt.Fill Back Color:** A property that specifies the background color of the fill.

**fopt.Fill Focus:** A property that specifies the relative position of the last color in the shaded fill.

**fopt.Shade Type:** A property that specifies how the shaded fill is to be computed.

**fopt.Fill Style Boolean Properties:** A property that specifies a 32-bit field of Boolean properties for the fill style.

**fopt.Line Color:** A property that specifies the foreground color of the line.

**fopt.Line Width:** A property that specifies the width of the line.

**fopt.Line Style:** A property that specifies the style of the line.

**fopt.Line Style Boolean Properties:** A property that specifies a 32-bit field of Boolean properties for the line style.

**fopt.Shadow Color:** A property that specifies the primary color of the shadow.

**fopt.Shadow Opacity:** A property that specifies the opacity level of the shadow.

**fopt.Shadow Style Boolean Properties:** A property that specifies a 32-bit field of Boolean properties for the state of the shadow.

**fopt.3D Object Boolean Properties:** A property that specifies a 32-bit field of Boolean properties for a 3-D object.

The following 10 example structures show the records labeled **A, B, C, D, E, F, G, H, I,** and **J** from the **OfficeArtFOPT** container in more detail.

The following table shows **ITxid** property **A**.

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 00000DD9 | 0006 | <b>A:</b> ITxid - <b>Text ID</b>                 |            |
| 00000DD9 | 0002 | <a href="#">OfficeArtFOPTEOPID</a> - <b>opid</b> |            |
| 00000DDB | 0004 | LONG - <b>ITxid</b>                              | 0x01D82D38 |

**Figure 45: ITxid Shape Property Options**

**ITxid:** An identifier (0x01D82D38) for the text inside the shape.

The following table shows **WrapText** property **B**.

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 00000DDF | 0006 | <b>B:</b> WrapText - <b>Wrap Text</b>            |            |
| 00000DDF | 0002 | <a href="#">OfficeArtFOPTEOPID</a> - <b>opid</b> |            |
| 00000DE1 | 0004 | MSOWRAPMODE - <b>WrapText</b>                    | 0x00000002 |

**Figure 46: WrapText Shape Property Options**

**WrapText:** An **MSOWRAPMODE** enumeration value, as defined in section 2.4.3, (0x00000002) specifying that a line of text will extend into or beyond a margin instead of continuing on subsequent lines.

The following table shows **anchorText** property **C**.

| Offset   | Size | Structure                                     | Value      |
|----------|------|---|------------|
| 00000DE5 | 0006 | <b>C: anchorText - Anchor Text</b>            |            |
| 00000DE5 | 0002 | OfficeArtFOPTEOPID - <b>opid</b>              |            |
| 00000DE7 | 0004 | <a href="#">MSOANCHOR</a> - <b>anchorText</b> | 0x00000001 |

**Figure 47: anchorText Shape Property Options**

**anchorText:** An **MSOANCHOR** enumeration value, as defined in section 2.4.4, (0x00000001) specifying that the vertical center of the text will coincide with the vertical midpoint of the internal margins of the text box area.

The following table shows **fillType** property **D**.

| Offset   | Size | Structure                                     | Value      |
|----------|------|---|------------|
| 00000DEB | 0006 | <b>D: fillType - Fill Type</b>                |            |
| 00000DEB | 0002 | OfficeArtFOPTEOPID - <b>opid</b>              |            |
| 00000DED | 0004 | <a href="#">MSOFILLTYPE</a> - <b>fillType</b> | 0x00000007 |

**Figure 48: fillType Shape Property Options**

**fillType:** An **MSOFILLTYPE** enumeration value, as defined in section 2.4.11, (0x00000007) specifying that the shape is filled with a gradient that starts on the outline and ends at a point defined within the shape. The fill angle is scaled by the aspect ratio of the shape.

The following table shows **fillFocus** property **E**.

| Offset   | Size | Structure                        | Value        |
|----------|------|----------------------------------|--------------|
| 00000DFD | 0006 | <b>E: fillFocus - Fill Focus</b> |              |
| 00000DFD | 0002 | OfficeArtFOPTEOPID - <b>opid</b> |              |
| 00000DFF | 0004 | LONG - <b>fillFocus</b>          | 0xFFFFFFFFCE |

**Figure 49: fillFocus Shape Property Options**

**fillFocus:** The relative position (0xFFFFFFFFCE) of the last color in the shaded fill.

The following table shows **fillShadeType** property **F**.

| Offset   | Size  | Structure   | Value |
|----------|-------|---|-------|
| 00000E03 | 0006  | <b>F: fillShadeType - Fill Shade Type</b>           |       |
| 00000E03 | 0002  | OfficeArtFOPTEOPID - <b>opid</b>                    |       |
| 00000E05 | 0004  | <a href="#">MSOSHADETYPE</a> - <b>fillShadeType</b> |       |
| 00000E05 | 1 bit | bit - <b>msoshadeNone</b>                           | 0x1   |
| 00000E05 | 1 bit | bit - <b>msoshadeGamma</b>                          | 0x1   |
| 00000E05 | 1 bit | bit - <b>msoshadeSigma</b>                          | 0x0   |
| 00000E05 | 1 bit | bit - <b>msoshadeBand</b>                           | 0x1   |

| Offset   | Size    | Structure                     | Value     |
|----------|---------|-------------------------------|-----------|
| 00000E05 | 1 bit   | bit - <b>msoshadeOneColor</b> | 0x0       |
| 00000E05 | 27 bits | bit - <b>unused1</b>          | 0x0200000 |

**Figure 50: fillShadeType Shape Property Options**

The **fillShadeType** properties that have not been explained in previous structure examples are specified as follows:

**fillShadeType:** An **MSOSHADETYPE** record, as defined in section 2.2.50, that specifies the interpolation of colors between the color/position values that are stated for the fill. Values can be combined to produce compounded effects.

**fillShadeType.msoshadeNone:** A value that specifies whether color correction will be performed after interpolation. The value 0x1 specifies that no color correction will be performed after interpolation.

**fillShadeType.msoshadeGamma:** A value that specifies whether **gamma correction** will be applied after interpolation. The value 0x1 specifies that gamma correction will be applied after interpolation.

**fillShadeType.msoshadeSigma:** A value that specifies whether a **sigma transfer function** will be applied after interpolation. The value 0x0 specifies that no sigma transfer function will be applied after interpolation.

**fillShadeType.msoshadeBand:** A value that specifies whether a flat band will be added at the start of the interpolation. The value 0x1 specifies that a flat band will be added at the start of the interpolation.

**fillShadeType.msoshadeOneColor:** A value that specifies whether more than one color can be used to determine the fill. The value 0x0 specifies that more than one color can be used to determine the fill.

**fillShadeType.unused1:** A value that is undefined and needs to be ignored.

The following table shows **lineWidth** property **G**.

| Offset   | Size | Structure                        | Value      |
|----------|------|----------------------------------|------------|
| 00000E15 | 0006 | <b>G: lineWidth - Line Width</b> |            |
| 00000E15 | 0002 | OfficeArtFOPTEOPID - <b>opid</b> |            |
| 00000E17 | 0004 | LONG - <b>lineWidth</b>          | 0x000094D4 |

**Figure 51: lineWidth Shape Property Options**

**lineWidth:** The width (0x000094D4), in **EMUs**, of the line.

The following table shows **lineStyle** property **H**.

| Offset   | Size | Structure                                       | Value      |
|----------|------|---|------------|
| 00000E1B | 0006 | <b>H: lineStyle - Line Style</b>                |            |
| 00000E1B | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                |            |
| 00000E1D | 0004 | <a href="#">MSOLINESTYLE</a> - <b>lineStyle</b> | 0x00000001 |

**Figure 52: lineStyle Shape Property Options**

**lineStyle:** An **MSLINESTYLE** enumeration value, as defined in section 2.4.14, (0x00000001) specifying that the line style for the shape outline is two lines of equal width.

The following table shows **shadowOpacity** property **I**.

| Offset   | Size | Structure  | Value      |
|----------|------|--|------------|
| 00000E2D | 0006 | <b>I</b> : shadowOpacity - <b>Shadow Opacity</b> |            |
| 00000E2D | 0002 | OfficeArtFOPTEOPID - <b>opid</b>                 |            |
| 00000E2F | 0004 | FixedPoint - <b>shadowOpacity</b>                | 0x00008000 |

**Figure 53: shadowOpacity Shape Property Options**

**shadowOpacity:** The opacity (0x00008000) of the shadow applied to the shape.

The following table shows **Shadow Style Boolean Properties** record **J**.

| Offset   | Size    | Structure   | Value  |
|----------|---------|---|--------|
| 00000E33 | 0006    | <b>J</b> : Shadow Style Boolean Properties - <b>Shadow Style Boolean Properties</b> |        |
| 00000E35 | 14 bits | bit - <b>unused2</b>  | 0x0000 |
| 00000E35 | 1 bit   | bit - <b>fUsefShadow</b>  | 0x1    |
| 00000E35 | 1 bit   | bit - <b>fUsefshadowObscured</b>  | 0x0    |
| 00000E35 | 14 bits | bit - <b>unused1</b>  | 0x0000 |
| 00000E35 | 1 bit   | bit - <b>fShadow</b>  | 0x1    |
| 00000E35 | 1 bit   | bit - <b>fshadowObscured</b>  | 0x0    |
| 00000E33 | 0002    | OfficeArtFOPTEOPID - <b>opid</b>  |        |

**Figure 54: Shadow Style Boolean Properties Options**

**unused2:** A value that is undefined and needs to be ignored.

**fUsefShadow:** A value that specifies whether the **fShadow** bit is set. The value 0x1 specifies that the **fShadow** bit is set.

**fUsefshadowObscured:** A value that specifies whether the **fshadowObscured** bit is set. The value 0x0 specifies the **fshadowObscured** bit is not set.

**unused1:** A value that is undefined and needs to be ignored.

**fShadow:** A value that specifies whether the shape has a shadow. The value 0x1 specifies that the shape has a shadow.

**fshadowObscured:** A value that specifies whether the shadow is fully obscured by the shape. The value 0x0 specifies that the shadow is not fully obscured by the shape.

### 3.2.3 Shape Text Properties

The text in a **shape** is host-dependent, and not all the text properties are supported by each host application.

The text-related fields and records in this section are defined by the host application. For more information, see [\[MS-PPT\]](#) section 2.9.76.



The following table shows the **OfficeArtClientTextbox** record.

| Offset   | Size | Structure   | Value           |
|----------|------|---|-----------------|
| 00000E5D | 0049 | OfficeArtClientTextbox - <b>clientTextbox</b>           |                 |
| 00000E5D | 0008 | <a href="#">OfficeArtRecordHeader</a> - <b>rh</b>       |                 |
| 00000E65 | 0041 | TextClientDataRecordArray - <b>rgChildRec</b>           |                 |
| 00000E65 | 000C | TextClientDataSubContainerOrAtom - <b>rec</b>           |                 |
| 00000E65 | 000C | TextHeaderAtom - <b>case_of_RT_TextHeaderAtom</b>       |                 |
| 00000E65 | 0008 | RecordHeader - <b>rh</b>                                |                 |
| 00000E6D | 0004 | TextTypeEnum - <b>textType</b>                          | 0x00000004      |
| 00000E71 | 0017 | TextClientDataSubContainerOrAtom - <b>rec</b>           |                 |
| 00000E71 | 0017 | TextBytesAtom - <b>case_of_RT_TextBytesAtom</b>         |                 |
| 00000E71 | 0008 | RecordHeader - <b>rh</b>                                |                 |
| 00000E79 | 000F | NarrowStringBufferEx - <b>textBytes</b>                 | Shape with text |
| 00000E88 | 001E | TextClientDataSubContainerOrAtom - <b>rec</b>           |                 |
| 00000E88 | 001E | StyleTextPropAtom - <b>case_of_RT_StyleTextPropAtom</b> |                 |
| 00000E88 | 0008 | RecordHeader - <b>rh</b>                                |                 |
| 00000E90 | 000C | TextPFRunArray - <b>rgTextPFRun</b>                     |                 |
| 00000E9C | 000A | TextCFRunArray - <b>rgTextCFRun</b>                     |                 |

**Figure 55: OfficeArtClientTextbox Shape Text Properties**

The records contained within the **OfficeArtClientTextbox** container that have not been explained in previous structure examples are specified as follows:

**clientTextbox:** A container that specifies text-related data for a shape.

**rgChildRec:** An array of **TextClientDataSubContainerOrAtom** records that specifies text-related data.

**rgChildRec.rec:** A variable-type record for which the type and meaning are dictated by the value of **rh.recType**.

**rgChildRec.rec.case\_of\_RT\_TextHeaderAtom:** An **atom** that specifies the type of a text body. The presence of this atom indicates a text body that has properties specified by subsequent atoms and containers.

**rgChildRec.rec.case\_of\_RT\_TextHeaderAtom.textType:** A value that specifies the text type. The value 0x00000004 specifies that the text type is the **TextTypeEnum** enumeration value **Tx\_TYPE\_OTHER**, which means any other text.

**rgChildRec.rec.case\_of\_RT\_TextBytesAtom:** An atom that specifies Unicode characters.

**rgChildRec.rec.case\_of\_RT\_TextBytesAtom.textBytes:** An array of bytes that specifies the characters ("Shape with text") of the corresponding text within the shape.

**rgChildRec.rec.case\_of\_RT\_StyleTextPropAtom:** An atom that specifies both character-level and paragraph-level formatting.

Preliminary

## 4 Security Considerations

This file format allows **HTML** code and associated script to be inserted into a **shape**. When the shape is exported to an HTML format, it is possible that the associated script could be executed. Whether this happens is dependent on the nature of the script and how the HTML document is opened.

The [Signature Line](#) can contain personally identifiable information, such as the user's name or e-mail address. This information is not mandatory and can be replaced by defaults or omitted entirely. For privacy reasons, applications ought to provide users with a way to remove this information from files. Personally identifiable information in this file format is not backed by any kind of authentication system. For example, the signer's name does not need to be tied to the author's logon credentials nor to any other form of identity verification. Therefore, it is not advisable for applications to make security decisions based on this information.

Preliminary

## 5 Appendix A: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

- Microsoft Office 97
- Microsoft Office 2000
- Microsoft Office XP
- Microsoft Office 2003
- the 2007 Microsoft Office system
- Microsoft Office 2010 suites
- Microsoft Office 2013
- Microsoft Office 2016
- Microsoft Office 2019 Preview

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

[<1> Section 2.2.2](#): This color can be dithered if the rendering system supports dithering or halftone dithering.

[<2> Section 2.2.12](#): The z-order of shapes in a diagram are determined by their order in the file.

[<3> Section 2.2.13](#): This array is supported only by Microsoft Word 97, Microsoft Word 2000, Microsoft Word 2002, and Microsoft Office Word 2003.

[<4> Section 2.2.15](#): Word 97, Word 2000, Word 2002, Office Word 2003, Microsoft Office Word 2007, and Microsoft Word 2010 do not ignore this record.

[<5> Section 2.2.23](#): 0xF02A is treated as 0xF01D.

[<6> Section 2.2.33](#): Microsoft Excel 97, Microsoft Excel 2000, Microsoft Excel 2002, and Microsoft Office Excel 2003 do not ignore this record.

[<7> Section 2.2.35](#): This record is not persisted in Microsoft Office Excel 2007, Microsoft Excel 2010, Microsoft Office PowerPoint 2007, or Microsoft PowerPoint 2010. This record is supported by Office Excel 2007 and Excel 2010 only if the **shape** is contained by a **dialog sheet**, as specified in [\[MS-XLS\]](#) section 2.1.7.20.2.

[<8> Section 2.2.36](#): Word 97 and Word 2000 ignore this record.

[<9> Section 2.2.37](#): Word 97, Word 2000, Word 2002, and Office Word 2003 use this record.

[<10> Section 2.3](#): Microsoft PowerPoint 97, Word 97 and Excel 97 do not support these properties.

[<11> Section 2.3](#): PowerPoint 97, Word 97, Excel 97, Microsoft PowerPoint 2000, Excel 2000 and Word 2000 do not support this property..

[<12> Section 2.3](#): PowerPoint 97, Word 97, Excel 97, PowerPoint 2000, Excel 2000, Word 2000, Microsoft PowerPoint 2002, Word 2002 and Excel 2002 do not support these properties.

[<13> Section 2.3](#): PowerPoint 97, Word 97, Excel 97, PowerPoint 2000, Excel 2000, Word 2000, PowerPoint 2002, Word 2002, Excel 2002, Microsoft Office PowerPoint 2003, Office Word 2003 and Office Excel 2003 do not support these properties.

[<14> Section 2.3](#): PowerPoint 97, Word 97, Excel 97, PowerPoint 2000, Excel 2000, Word 2000, PowerPoint 2002, Word 2002, Excel 2002, Office PowerPoint 2003, Office Word 2003, Office Excel 2003, Office PowerPoint 2007, Office Word 2007 and Office Excel 2007 do not support this property.

[<15> Section 2.3.2.6](#): Office 2000, Office XP, and Office 2003 use this field.

[<16> Section 2.3.2.11](#): Office Word 2007 and Word 2010 use this field.

[<17> Section 2.3.2.12](#): Office Excel 2007, Office PowerPoint 2007, Office Word 2007, Excel 2010, PowerPoint 2010, and Word 2010 use this bit.

[<18> Section 2.3.2.12](#): Office Excel 2007, Office PowerPoint 2007, Office Word 2007, Excel 2010, PowerPoint 2010, and Word 2010 use this bit.

[<19> Section 2.3.2.12](#): Excel 97, PowerPoint 97, Word 97, Excel 2000, PowerPoint 2000, and Word 2000 do not use this bit.

[<20> Section 2.3.2.12](#): Excel 97, PowerPoint 97, Word 97, Excel 2000, PowerPoint 2000, and Word 2000 do not use this bit.

[<21> Section 2.3.4.19](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 use this field.

[<22> Section 2.3.4.20](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 use this field.

[<23> Section 2.3.4.21](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 use this field.

[<24> Section 2.3.4.22](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 use this field.

[<25> Section 2.3.4.23](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 do not ignore this property.

[<26> Section 2.3.4.24](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 do not ignore this property.

[<27> Section 2.3.4.25](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 do not ignore this property.

[<28> Section 2.3.4.26](#): Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 do not ignore this property.

[<29> Section 2.3.4.36](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, Office PowerPoint 2003, Office PowerPoint 2007, and PowerPoint 2010 do not ignore this property.

[<30> Section 2.3.4.37](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, Office PowerPoint 2003, Office PowerPoint 2007, and PowerPoint 2010 do not ignore this property.

[<31> Section 2.3.4.41](#): The 2007 Microsoft Office system and Office 2010 do not ignore this property.

[<32> Section 2.3.4.43](#): Office Word 2007 and Word 2010 do not ignore this property.

[<33> Section 2.3.5.1](#): Office Word 2007 and Word 2010 do not ignore this property.

[<34> Section 2.3.5.2](#): Office Word 2007 and Word 2010 do not ignore this property.

[<35> Section 2.3.5.3](#): Office Word 2007 and Word 2010 do not ignore this property.

[<36> Section 2.3.5.4](#): Office Word 2007 and Word 2010 do not ignore this property.

[<37> Section 2.3.5.5](#): Office Word 2007 and Word 2010 do not ignore this property.

[<38> Section 2.3.5.6](#): Office Word 2007 and Word 2010 do not ignore this property.

[<39> Section 2.3.6.25](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 do not show the adjust handles that are specified in the [pAdjustHandles](#) property.

[<40> Section 2.3.6.31](#): Microsoft Office 95 does not ignore this bit.

[<41> Section 2.3.7.8](#): Excel 97, Excel 2000, Excel 2002, Office Excel 2003, Office Excel 2007, and Excel 2010 do not ignore this property.

[<42> Section 2.3.8.38](#): Office 97 and Office 2000 do not render the **line end decorations** if the line end decoration properties are specified and this bit is set to 0x0.

[<43> Section 2.3.13.22](#): Microsoft Office 2010 suites does not ignore this property.

[<44> Section 2.3.13.22](#): In Office 2010, the default value is 0x0000F80C.

[<45> Section 2.3.16.23](#): Values that are less than 0.0 will invert the lighting effect. Values that are greater than 1.0 can be used for brighter lighting effects.

[<46> Section 2.3.16.27](#): Values that are less than 0.0 will invert the lighting effect. Values that are greater than 1.0 can be used for brighter lighting effects.

[<47> Section 2.3.17.10](#): Office 97, Office 2000, and Office XP ignore this property.

[<48> Section 2.3.18.6](#): Word 97, Word 2000, Word 2002, Office Word 2003, Office Word 2007, and Word 2010 do not ignore this property.

[<49> Section 2.3.19.6](#): Word 97, Word 2000, Word 2002, Office Word 2003, Office Word 2007, Word 2010 do not ignore this property.

[<50> Section 2.3.20.1](#): Office 97 ignores this bit.

[<51> Section 2.3.21.8](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, Office PowerPoint 2003, Office PowerPoint 2007, and PowerPoint 2010 use this field. The [MSOANCHOR](#) enumeration specifies exceptions for some individual values.

[<52> Section 2.3.21.10](#): This property is supported only by Office Excel 2007, Excel 2010, PowerPoint 97, PowerPoint 2000, PowerPoint 2002, Office PowerPoint 2003, Office PowerPoint 2007, and PowerPoint 2010.

[<53> Section 2.3.21.11](#): Word 97, Word 2000, Word 2002, Office Word 2003, Office Word 2007, and Word 2010 use this property.

[<54> Section 2.3.21.12](#): Excel 2000, Excel 2002, Office Excel 2003, Office Excel 2007, and Excel 2010 use this property.

[<55> Section 2.3.21.15](#): Excel 97, PowerPoint 97, Excel 2000, PowerPoint 2000, Excel 2002, PowerPoint 2002, Office Excel 2003, and Office PowerPoint 2003 use this bit.

[<56> Section 2.3.21.15](#): Excel 97, Excel 2000, Excel 2002, and Office Excel 2003 use this bit. Office Excel 2007 and Excel 2010 properly read and use the value of 0x1 but do not write it.

[<57> Section 2.3.21.15](#): Word 97 and Word 2000 do not use this bit.

[<58> Section 2.3.22.3](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 treat **msoalignTextStretch** as **msoalignTextCenter**.

[<59> Section 2.3.22.3](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007 and PowerPoint 2010 do not use **msoalignTextLetterJust**.

[<60> Section 2.3.22.3](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007 and PowerPoint 2010 do not use **msoalignTextWordJust**.

[<61> Section 2.3.22.8](#): Office 97 does not use this property.

[<62> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 do not use this bit.

[<63> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 ignore this bit.

[<64> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 ignore this bit and always apply scaling to the character advance width.

[<65> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 ignore this bit.

[<66> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 ignore this bit.

[<67> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 ignore this bit.

[<68> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007 and PowerPoint 2010 ignore this bit.

[<69> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007 and PowerPoint 2010 do not ignore this bit.

[<70> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007 and PowerPoint 2010 do not ignore this bit.

[<71> Section 2.3.22.10](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, and PowerPoint 2010 do not ignore this bit.

[<72> Section 2.3.24.1](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<73> Section 2.3.24.3](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<74> Section 2.3.24.5](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<75> Section 2.3.24.7](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<76> Section 2.3.24.9](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<77> Section 2.3.24.11](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<78> Section 2.3.24.13](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<79> Section 2.3.24.15](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<80> Section 2.3.24.17](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<81> Section 2.3.24.19](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<82> Section 2.3.24.21](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<83> Section 2.3.24.23](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<84> Section 2.3.24.25](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<85> Section 2.3.24.27](#): Excel 97, PowerPoint 97, and Word 97 ignore this property.

[<86> Section 2.3.25.1](#): Office 97 and Office 2000 ignore this property.

[<87> Section 2.3.25.3](#): Office 97 and Office 2000 ignore this property.

[<88> Section 2.3.25.5](#): Office 97 and Office 2000 ignore this property.

[<89> Section 2.3.25.7](#): Office 97 and Office 2000 ignore this property.

[<90> Section 2.3.27.1](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, and Word 2010 do not ignore this property.

[<91> Section 2.3.27.3](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, and Word 2010 do not ignore this property.

[<92> Section 2.3.27.5](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<93> Section 2.3.27.7](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<94> Section 2.3.27.9](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<95> Section 2.3.27.11](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<96> Section 2.3.27.13](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<97> Section 2.3.27.15](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<98> Section 2.3.27.17](#): Office Excel 2007, Excel 2010, Office PowerPoint 2007, PowerPoint 2010, and Office Word 2007 do not ignore this property.

[<99> Section 2.4.3](#): Office Excel 2007, Excel 2010, PowerPoint 97, and PowerPoint 2010 read and use this value properly but do not write it.

[<100> Section 2.4.3](#): Excel 97, Excel 2000, Excel 2002, and Office Excel 2003 use this value.

[<101> Section 2.4.3](#): Excel 97, Word 97, Excel 2000, Word 2000, Excel 2002, and Office Excel 2003 do not use this value.

[<102> Section 2.4.4](#): PowerPoint 97 and PowerPoint 2010 use these values. Exceptions are specified for some individual values.

[<103> Section 2.4.4](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, and Office PowerPoint 2003 use this value.



[<104> Section 2.4.4](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, and Office PowerPoint 2003 use this value.

[<105> Section 2.4.4](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, and Office PowerPoint 2003 use this value.

[<106> Section 2.4.4](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, and Office PowerPoint 2003 use this value.

[<107> Section 2.4.5](#): PowerPoint 97, PowerPoint 2000, PowerPoint 2002, Office PowerPoint 2003, Office PowerPoint 2007, PowerPoint 2010, Word 97, Word 2000, Word 2002, Office Word 2003, Office Word 2007, and Word 2010 read and use this value properly but do not write it. Excel 97, Excel 2000, Excel 2002 and Office Excel 2003 convert this value to **msotxfIVertN** when reading it.

[<108> Section 2.4.5](#): Excel 97, Excel 2000, Excel 2002, Office Excel 2003, Office Excel 2007, and Excel 2010 convert this value to **msotxfIVertN** when reading it.

[<109> Section 2.4.5](#): Office PowerPoint 2007 and PowerPoint 2010 do not use this value. PowerPoint 97, PowerPoint 2000, PowerPoint 2002 and Office PowerPoint 2003 interpret this value as **msotxfIHorzN**.

[<110> Section 2.4.5](#): Office PowerPoint 2007 and PowerPoint 2010 do not use this value. PowerPoint 97, PowerPoint 2000, PowerPoint 2002 and Office PowerPoint 2003 interpret this value as **msotxfIHorzN**.

[<111> Section 2.4.5](#): Office PowerPoint 2007 and PowerPoint 2010 do not use this value. PowerPoint 97, PowerPoint 2000, PowerPoint 2002, and Office PowerPoint 2003 interpret this value as **msotxfITtoBA**. Excel 97, Excel 2000, Excel 2002, Office Excel 2003, Office Excel 2007, and Excel 2010 remove this value upon reading it.

[<112> Section 2.4.5](#): Office PowerPoint 2007 and PowerPoint 2010 do not use this value. PowerPoint 97, PowerPoint 2000, PowerPoint 2002, and Office PowerPoint 2003 interpret this value as **msotxfIHorzN**. Office Word 2007 and Word 2010 instead place subsequent lines of text to the right of antecedent lines of text. Excel 97, Excel 2000, Excel 2002, Office Excel 2003, Office Excel 2007, and Excel 2010 instead orient character glyphs such that their ascenders are closest to the top of the text body container, subsequent character glyphs are placed below antecedent character glyphs, and subsequent lines of text are placed to the right of antecedent lines of text.

[<113> Section 2.4.7](#): Office Excel 2007 and Excel 2010 use this value but do not save it.

[<114> Section 2.4.7](#): Office Excel 2007 and Excel 2010 use this value but do not save it.

[<115> Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextSimple** into text boxes that contain unstyled text.

[<116> Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextOctagon** into text boxes that contain unstyled text.

[<117> Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextHexagon** into text boxes that contain unstyled text.

[<118> Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextCurve** into text boxes that contain unstyled text.

<119> [Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextWave** into text boxes that contain unstyled text.

<120> [Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextRing** into text boxes that contain unstyled text.

<121> [Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextOnCurve** into text boxes that contain unstyled text.

<122> [Section 2.4.24](#): Office PowerPoint 2007, PowerPoint 2010, Office Word 2007, Word 2010, Office Excel 2007 and Excel 2010 convert shapes of type **msosptTextOnRing** into text boxes that contain unstyled text.

<123> [Section 3](#): Sample files were created by using Office PowerPoint 2003.

<124> [Section 3](#): Similar structures are created by using Office 97, Office 2000, Office XP, and Office 2003.

<125> [Section 3.1](#): This section pertains to Office 97, Office 2000, Office XP, and Office 2003 **drawing objects**.

<126> [Section 3.2](#): The properties are specific to Office 97, Office 2000, Office XP, and Office 2003 shapes.

## 6 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements.
- A document revision that captures changes to protocol functionality.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

The changes made to this document are listed in the following table. For more information, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com).

| Section  | Description                         | Revision class |
|--|-------------------------------------|----------------|
| <a href="#">5</a> Appendix A: Product Behavior | Updated list of supported products. | major          |

## 7 Index

### 3

3D Object Style property  
[c3DCrMod](#) 349  
[c3DDiffuseAmt](#) 345  
[c3DEdgeThickness](#) 346  
[c3DExtrudeBackward](#) 347  
[c3DExtrudeForward](#) 347  
[c3DExtrusionColor](#) 348  
[c3DExtrusionColorExt](#) 350  
[c3DExtrusionColorExtMod](#) 351  
[c3DShininess](#) 346  
[c3DSpecularAmt](#) 345  
[reserved646](#) 348  
[reserved650](#) 350  
[reserved652](#) 351  
[reserved653](#) 352

3D Style property  
[c3DAmbientIntensity](#) 364  
[c3DFillIntensity](#) 369  
[c3DFillX](#) 367  
[c3DFillY](#) 367  
[c3DFillZ](#) 368  
[c3DKeyIntensity](#) 366  
[c3DKeyX](#) 365  
[c3DKeyY](#) 365  
[c3DKeyZ](#) 366  
[c3DOriginX](#) 362  
[c3DOriginY](#) 362  
[c3DRenderMode](#) 359  
[c3DRotationAngle](#) 357  
[c3DRotationAxisX](#) 355  
[c3DRotationAxisY](#) 356  
[c3DRotationAxisZ](#) 356  
[c3DRotationCenterX](#) 357  
[c3DRotationCenterY](#) 358  
[c3DRotationCenterZ](#) 358  
[c3DSkewAmount](#) 364  
[c3DSkewAngle](#) 363  
[c3DTolerance](#) 360  
[c3DXRotationAngle](#) 354  
[c3DXViewpoint](#) 360  
[c3DYRotationAngle](#) 354  
[c3DYViewpoint](#) 361  
[c3DZViewpoint](#) 361

[3D-Object Style Boolean properties](#) 352

3D-Object Style property  
[3D-Object Style Boolean properties](#) 352

[3D-Style Boolean properties](#) 369

3D-Style property  
[3D-Style Boolean properties](#) 369  
[Diagram Boolean properties](#) 390

### A

[ADJH OfficeArtRecord type](#) 86  
[adjust2Value geometry property](#) 171  
[adjust3Value geometry property](#) 171  
[adjust4Value geometry property](#) 172  
[adjust5Value geometry property](#) 173  
[adjust6Value geometry property](#) 173

[adjust7Value geometry property](#) 174  
[adjust8Value geometry property](#) 175  
[adjustValue geometry property](#) 170

Algorithm  
[DataforVtHyperlink](#) 544  
[alignHR\\_group shape property](#) 147  
[anchorText Text property](#) 405  
[Applicability](#) 26

### B

[Bit format overview](#) 25  
[Blip Boolean properties](#) 438

Blip property  
[Blip Boolean properties](#) 438  
[cropFromBottom](#) 420  
[cropFromLeft](#) 421  
[cropFromRight](#) 421  
[cropFromTop](#) 420  
[movie](#) 431  
[movie\\_complex](#) 431  
[pib](#) 422  
[pib\\_complex](#) 423  
[pibFlags](#) 424  
[pibName](#) 423  
[pibName\\_complex](#) 424  
[pibPrint](#) 428  
[pibPrint\\_complex](#) 429  
[pibPrintFlags](#) 430  
[pibPrintName](#) 429  
[pibPrintName\\_complex](#) 430  
[pictureBrightness](#) 425  
[pictureContrast](#) 425  
[pictureDbiCrMod](#) 427  
[pictureFillCrMod](#) 427  
[pictureId](#) 426  
[pictureLineCrMod](#) 428  
[pictureRecolor](#) 434  
[pictureRecolorExt](#) 435  
[pictureRecolorExtMod](#) 436  
[pictureTransparent](#) 424  
[pictureTransparentExt](#) 432  
[pictureTransparentExtMod](#) 433  
[reserved278](#) 432  
[reserved280](#) 433  
[reserved281](#) 434  
[reserved284](#) 435  
[reserved286](#) 436  
[reserved287](#) 437

[borderBottomColor\\_group shape property](#) 153  
[borderLeftColor\\_group shape property](#) 153  
[borderRightColor\\_group shape property](#) 154  
[borderTopColor\\_group shape property](#) 152  
[Bottom Line Style Boolean properties](#) 321

Bottom Line Style property  
[Bottom Line Style Boolean properties](#) 321  
[lineBottomBackColor](#) 302  
[lineBottomBackColorExt](#) 318  
[lineBottomBackColorExtMod](#) 319  
[lineBottomColor](#) 301  
[lineBottomColorExt](#) 316

[lineBottomColorExtMod](#) 317  
[lineBottomCrMod](#) 303  
[lineBottomDashing](#) 310  
[lineBottomDashStyle](#) 310  
[lineBottomDashStyle\\_complex](#) 311  
[lineBottomEndArrowhead](#) 312  
[lineBottomEndArrowLength](#) 314  
[lineBottomEndArrowWidth](#) 314  
[lineBottomEndCapStyle](#) 315  
[lineBottomFillBlip](#) 304  
[lineBottomFillBlip\\_complex](#) 305  
[lineBottomFillBlipFlags](#) 306  
[lineBottomFillBlipName](#) 305  
[lineBottomFillBlipName\\_complex](#) 306  
[lineBottomFillDzType](#) 308  
[lineBottomFillHeight](#) 307  
[lineBottomFillWidth](#) 306  
[lineBottomJoinStyle](#) 315  
[lineBottomMiterLimit](#) 309  
[lineBottomOpacity](#) 302  
[lineBottomStartArrowhead](#) 311  
[lineBottomStartArrowLength](#) 313  
[lineBottomStartArrowWidth](#) 312  
[lineBottomStyle](#) 309  
[lineBottomType](#) 303  
[lineBottomWidth](#) 308  
[reserved1562](#) 316  
[reserved1564](#) 317  
[reserved1566](#) 318  
[reserved1568](#) 319  
[reserved1569](#) 320  
[reserved1570](#) 321  
[bottom Transform property](#) 392  
[bWMode shape property](#) 98  
[bWModeBW shape property](#) 99  
[bwModePureBW shape property](#) 98

## C

[c3DAmbientIntensity 3D Style property](#) 364  
[c3DCrMod Perspective Style property](#) 349  
[c3DDiffuseAmt Perspective Style property](#) 345  
[c3DEdgeThickness Perspective Style property](#) 346  
[c3DExtrudeBackward Perspective Style property](#) 347  
[c3DExtrudeForward Perspective Style property](#) 347  
[c3DExtrusionColor Perspective Style property](#) 348  
[c3DExtrusionColorExt Perspective Style property](#) 350  
[c3DExtrusionColorExtMod Perspective Style property](#) 351  
[c3DFillIntensity 3D Style property](#) 369  
[c3DFillX 3D Style property](#) 367  
[c3DFillY 3D Style property](#) 367  
[c3DFillZ 3D Style property](#) 368  
[c3DKeyIntensity 3D Style property](#) 366  
[c3DKeyX 3D Style property](#) 365  
[c3DKeyY 3D Style property](#) 365  
[c3DKeyZ 3D Style property](#) 366  
[c3DOriginX 3D Style property](#) 362  
[c3DOriginY 3D Style property](#) 362  
[c3DRenderMode 3D Style property](#) 359  
[c3DRotationAngle 3D Style property](#) 357  
[c3DRotationAxisX 3D Style property](#) 355  
[c3DRotationAxisY 3D Style property](#) 356  
[c3DRotationAxisZ 3D Style property](#) 356  
[c3DRotationCenterX 3D Style property](#) 357

## D

[c3DRotationCenterY 3D Style property](#) 358  
[c3DRotationCenterZ 3D Style property](#) 358  
[c3DShininess Perspective Style property](#) 346  
[c3DSkewAmount 3D Style property](#) 364  
[c3DSkewAngle 3D Style property](#) 363  
[c3DSpecularAmt Perspective Style property](#) 345  
[c3DTolerance 3D Style property](#) 360  
[c3DXRotationAngle 3D Style property](#) 354  
[c3DXViewpoint 3D Style property](#) 360  
[c3DYRotationAngle 3D Style property](#) 354  
[c3DYViewpoint 3D Style property](#) 361  
[c3DZViewpoint 3D Style property](#) 361  
[Callout Boolean properties](#) 110  
 Callout property  
   [Callout Boolean properties](#) 110  
   [dxyCalloutDropSpecified](#) 109  
   [dxyCalloutGap](#) 106  
   [dxyCalloutLengthSpecified](#) 110  
   [spcoa](#) 107  
   [spcod](#) 108  
   [unused832](#) 106  
[cdirFont Text property](#) 406  
 Change tracking 600  
[Container overview](#) 25  
[cropFromBottom Blip property](#) 420  
[cropFromLeft Blip property](#) 421  
[cropFromRight Blip property](#) 421  
[cropFromTop Blip property](#) 420  
 CustomOfficeArt types  
   [FRID](#) 28  
   [MSODGID](#) 28  
   [MSOFO](#) 28  
   [MSOSPID](#) 28  
 cxx geometry property ([section 2.3.6.30](#) 183, [section 3.1.3](#) 547)  
[cxstyle shape property](#) 97

[Data for VtHyperlink algorithm](#) 544

### Details

[3D Object property](#) 345  
[3D Style property](#) 353  
[Blip property](#) 419  
[Bottom Line Style property](#) 301  
[callout property](#) 106  
[CustomOfficeArt types](#) 28  
[Diagram property](#) 371  
[Fill Style property](#) 185  
[Geometry property](#) 165  
[Geometry Text property](#) 410  
[group shape 2 property](#) 161  
[group shape property](#) 112  
[Ink property](#) 455  
[Left Line Style property](#) 234  
[Line Style property](#) 211  
[OfficeArtRecord type](#) 28  
[Perspective Style property](#) 337  
[Properties](#) 93  
[Protection property](#) 399  
[Relative Transform property](#) 395  
[Right Line Style property](#) 279  
[Shadow Style property](#) 323  
[shape property](#) 97  
[Signature Line property](#) 457

[Text property](#) 401  
[Top Line Style property](#) 256  
[Transform property](#) 391  
[Unknown HTML property](#) 439  
[Web Component property](#) 451  
[dgmBaseTextScale Diagram property](#) 389  
[dgmConstrainBounds Diagram property](#) 388  
[dgmConstrainBounds\\_complex Diagram property](#) 389  
[dgmDefaultFontSize Diagram property](#) 388  
[dgmLayout shape property](#) 100  
[dgmLayoutMRU shape property](#) 102  
[dgmNodeKind shape property](#) 100  
[dgmScaleX Diagram property](#) 386  
[dgmScaleY Diagram property](#) 387  
[dgmStyle Diagram property](#) 371  
[dgmt Diagram property](#) 371  
[dhgt\\_group shape property](#) 157  
[Diagram Boolean properties](#) 390  
[Diagram example](#) 545  
[DrawingContainer](#) 546  
[OfficeArtFDG](#) 546  
[OfficeArtSolverContainer](#) 581  
[OfficeArtSpContainer](#) 579  
[OfficeArtSpgrContainer](#) 547  
[overview](#) 545  
 Diagram property  
[dgmBaseTextScale](#) 389  
[dgmConstrainBounds](#) 388  
[dgmConstrainBounds\\_complex](#) 389  
[dgmDefaultFontSize](#) 388  
[dgmScaleX](#) 386  
[dgmScaleY](#) 387  
[dgmStyle](#) 371  
[dqmt](#) 371  
[pRelationTbl](#) 386  
[pRelationTbl\\_complex](#) 386  
[DrawingContainer diagram example](#) 546  
[dxHeightHR\\_group shape property](#) 149  
[dxTextBottom\\_Text property](#) 403  
[dxTextLeft\\_Text property](#) 402  
[dxTextRight\\_Text property](#) 403  
[dxWidthHR\\_group shape property](#) 149  
[dxWrapDistBottom\\_group shape property](#) 117  
[dxWrapDistLeft\\_group shape property](#) 115  
[dxWrapDistRight\\_group shape property](#) 117  
[dxyCalloutDropSpecified\\_callout property](#) 109  
[dxyCalloutGap callout property](#) 106  
[dxyCalloutLengthSpecified callout property](#) 110  
[dyTextTop\\_Text property](#) 402  
[dyWrapDistTop\\_group shape property](#) 116

## E

Enumeration  
[MSO3DRENDERMODE](#) 503  
[MSOANCHOR](#) 488  
[MSOBLIPFLAGS](#) 493  
[MSOBLIPTYPE](#) 466  
[MSOBLWMODE](#) 537  
[MSOCDIR](#) 492  
[MSOCTXK](#) 493  
[MSOCTXSTYLE](#) 536  
[MSODGCID](#) 466  
[MSODGMLQ](#) 539

[MSODGMT](#) 537  
[MSODGSLK](#) 539  
[MSODZTYPE](#) 496  
[MSOFILLTYPE](#) 494  
[MSOLINECAP](#) 501  
[MSOLINEDASHING](#) 498  
[MSOLINEEND](#) 499  
[MSOLINEENDLENGTH](#) 500  
[MSOLINEENDWIDTH](#) 499  
[MSOLINEJOIN](#) 500  
[MSOLINESTYLE](#) 497  
[MSOLINETYPE](#) 497  
[MSOPATHESCAPE](#) 542  
[MSOPATHTYPE](#) 541  
[MSOSHADOWTYPE](#) 501  
[MSOSHAPEPATH](#) 493  
[MSOSPT](#) 503  
[MSOTXDIR](#) 492  
[MSOTXFL](#) 491  
[MSOWRAPMODE](#) 488  
[MSOXFORMTYPE](#) 503  
[equationXML shape property](#) 103  
[equationXML\\_complex shape property](#) 103  
 Examples 545  
[Diagram](#) 545  
[overview](#) 545  
[Shape Properties](#) 582  
[overview](#) 582  
[Extended colors overview](#) 25

## F

[Fields - vendor-extensible](#) 27  
[Fill Style Boolean properties](#) 210  
 Fill Style property  
[Fill Style Boolean properties](#) 210  
[fillAngle](#) 193  
[fillBackColor](#) 188  
[fillBackColorExt](#) 207  
[fillBackColorExtMod](#) 208  
[fillBackOpacity](#) 188  
[fillBlip](#) 189  
[fillBlip\\_complex](#) 190  
[fillBlipFlags](#) 191  
[fillBlipName](#) 190  
[fillBlipName\\_complex](#) 191  
[fillColor](#) 186  
[fillColorExt](#) 205  
[fillColorExtMod](#) 206  
[fillCrMod](#) 189  
[fillDzType](#) 200  
[fillFocus](#) 194  
[fillHeight](#) 192  
[fillOpacity](#) 187  
[fillOriginX](#) 202  
[fillOriginY](#) 202  
[fillRectBottom](#) 199  
[fillRectLeft](#) 197  
[fillRectRight](#) 199  
[fillRectTop](#) 198  
[fillShadeColors](#) 201  
[fillShadeColors\\_complex](#) 201  
[fillShadePreset](#) 200  
[fillShadeType](#) 204  
[fillShapeOriginX](#) 203

[fillShapeOriginY](#) 204  
[fillToBottom](#) 197  
[fillToLeft](#) 195  
[fillToRight](#) 196  
[fillToTop](#) 196  
[fillType](#) 185  
[fillWidth](#) 192  
[reserved415](#) 205  
[reserved417](#) 206  
[reserved419](#) 207  
[reserved421](#) 208  
[reserved422](#) 209  
[reserved423](#) 209  
[fillAngle Fill Style property](#) 193  
[fillBackColor Fill Style property](#) 188  
[fillBackColorExt Fill Style property](#) 207  
[fillBackColorExtMod Fill Style property](#) 208  
[fillBackOpacity Fill Style property](#) 188  
[fillBlip Fill Style property](#) 189  
[fillBlip\\_complex Fill Style property](#) 190  
[fillBlipFlags Fill Style property](#) 191  
[fillBlipName Fill Style property](#) 190  
[fillBlipName\\_complex Fill Style property](#) 191  
[fillColor Fill Style property](#) 186  
[fillColorExt Fill Style property](#) 205  
[fillColorExtMod Fill Style property](#) 206  
[fillCrMod Fill Style property](#) 189  
[fillDzType Fill Style property](#) 200  
[fillFocus Fill Style property](#) 194  
[fillHeight Fill Style property](#) 192  
[fillOpacity Fill Style property](#) 187  
[fillOriginX Fill Style property](#) 202  
[fillOriginY Fill Style property](#) 202  
[fillRectBottom Fill Style property](#) 199  
[fillRectLeft Fill Style property](#) 197  
[fillRectRight Fill Style property](#) 199  
[fillRectTop Fill Style property](#) 198  
[fillShadeColors Fill Style property](#) 201  
[fillShadeColors\\_complex Fill Style property](#) 201  
[fillShadePreset Fill Style property](#) 200  
[fillShadeType Fill Style property](#) 204  
[fillShapeOriginX Fill Style property](#) 203  
[fillShapeOriginY Fill Style property](#) 204  
[fillToBottom Fill Style property](#) 197  
[fillToLeft Fill Style property](#) 195  
[fillToRight Fill Style property](#) 196  
[fillToTop Fill Style property](#) 196  
[fillType Fill Style property](#) 185  
[fillWidth Fill Style property](#) 192  
[FRID CustomOfficeArt type](#) 28

**G**

[geoBottom geometry property](#) 167  
[geoLeft geometry property](#) 165  
[Geometry Boolean properties](#) 184  
 Geometry property  
   [adjust2Value](#) 171  
   [adjust3Value](#) 171  
   [adjust4Value](#) 172  
   [adjust5Value](#) 173  
   [adjust6Value](#) 173  
   [adjust7Value](#) 174  
   [adjust8Value](#) 175  
   [adjustValue](#) 170

[cxk \(section 2.3.6.30 183, section 3.1.3 547\)](#)  
[geoBottom](#) 167  
[geoLeft](#) 165  
[Geometry Boolean properties](#) 184  
[geoRight](#) 166  
[geoTop](#) 165  
[pAdjustHandles](#) 180  
[pAdjustHandles\\_complex](#) 181  
[pConnectionSites](#) 175  
[pConnectionSites\\_complex](#) 176  
[pConnectionSitesDir](#) 176  
[pConnectionSitesDir\\_complex](#) 177  
[pGuides](#) 181  
[pGuides\\_complex](#) 181  
[pInscribe](#) 182  
[pInscribe\\_complex](#) 182  
[pSegmentInfo](#) 169  
[pSegmentInfo\\_complex](#) 170  
[pVertices](#) 168  
[pVertices\\_complex](#) 169  
[shapePath](#) 167  
[xLimo](#) 177  
[yLimo](#) 178  
[Geometry Text Boolean properties](#) 415  
 Geometry Text property  
   [Geometry Text Boolean properties](#) 415  
   [qtextAlign](#) 411  
   [qtextCSSFont](#) 414  
   [qtextCSSFont\\_complex](#) 415  
   [qtextFont](#) 414  
   [qtextFont\\_complex](#) 414  
   [qtextSize](#) 412  
   [qtextSpacing](#) 413  
   [qtextUNICODE](#) 410  
   [qtextUNICODE\\_complex](#) 410  
   [geoRight geometry property](#) 166  
   [geoTop geometry property](#) 165  
   [Glossary](#) 18  
   Group Shape 2 property  
     [pctHoriz](#) 161  
     [pctHorizPos](#) 162  
     [pctVert](#) 161  
     [pctVertPos](#) 163  
     [sizerelh](#) 163  
     [sizerelv](#) 164  
   [Group Shape Boolean properties](#) 158  
   Group Shape property  
     [alignHR](#) 147  
     [borderBottomColor](#) 153  
     [borderLeftColor](#) 153  
     [borderRightColor](#) 154  
     [borderTopColor](#) 152  
     [dght](#) 157  
     [dxHeightHR](#) 149  
     [dxWidthHR](#) 149  
     [dxWrapDistBottom](#) 117  
     [dxWrapDistLeft](#) 115  
     [dxWrapDistRight](#) 117  
     [dyWrapDistTop](#) 116  
     [lidRegroup](#) 118  
     [metroBlob](#) 157  
     [metroBlob\\_complex](#) 157  
     [pctHR](#) 146  
     [pihlShape](#) 114  
     [pihlShape\\_complex](#) 114



[posh](#) 120  
[posrelh](#) 121  
[posrelv](#) 134  
[posv](#) 133  
[pWrapPolygonVertices](#) 115  
[pWrapPolygonVertices\\_complex](#) 115  
[scriptLang](#) 151  
[tableProperties](#) 154  
[tableRowProperties](#) 155  
[tableRowProperties\\_complex](#) 155  
[unused906](#) 118  
[wzDescription](#) 113  
[wzDescription\\_complex](#) 113  
[wzName](#) 112  
[wzName\\_complex](#) 113  
[wzScript](#) 120  
[wzScript\\_complex](#) 120  
[wzScriptExtAttr](#) 150  
[wzScriptExtAttr\\_complex](#) 150  
[wzScriptLangAttr](#) 151  
[wzScriptLangAttr\\_complex](#) 152  
[wzTooltip](#) 119  
[wzTooltip\\_complex](#) 119  
[wzWebBot](#) 156  
[wzWebBot\\_complex](#) 156  
[gtextAlign Geometry Text property](#) 411  
[gtextCSSFont Geometry Text property](#) 414  
[gtextCSSFont\\_complex Geometry Text property](#) 415  
[gtextFont Geometry Text property](#) 414  
[gtextFont\\_complex Geometry Text property](#) 414  
[gtextSize Geometry Text property](#) 412  
[gtextSpacing Geometry Text property](#) 413  
[gtextUNICODE Geometry Text property](#) 410  
[gtextUNICODE\\_complex Geometry Text property](#) 410  
[qvPage Transform property](#) 393  
[qvRelPage Relative Transform property](#) 398  
**H**  
[hspMaster\\_shape property](#) 97  
[hspNext Text property](#) 406  
**I**  
[idDiscussAnchor\\_shape property](#) 99  
[IHlink OfficeArtRecord type](#) 92  
[Implementer - security considerations](#) 592  
[IMsoArray OfficeArtRecord type](#) 83  
[IMsoInkData OfficeArtRecord type](#) 84  
[Informative references](#) 23  
[Ink Boolean properties](#) 456  
 Ink property  
   [Ink Boolean properties](#) 456  
   [pInkData](#) 455  
   [pInkData\\_complex](#) 456  
[Introduction](#) 18  
**L**  
[Left Line Style Boolean properties](#) 254  
 Left Line Style property  
   [Left Line Style Boolean properties](#) 254  
   [lineLeftBackColor](#) 235  
   [lineLeftBackColorExt](#) 251  
   [lineLeftBackColorExtMod](#) 252  
   [lineLeftColor](#) 234  
   [lineLeftColorExt](#) 249  
   [lineLeftColorExtMod](#) 250  
   [lineLeftCrMod](#) 235  
   [lineLeftDashing](#) 243  
   [lineLeftDashStyle](#) 243  
   [lineLeftDashStyle\\_complex](#) 244  
   [lineLeftEndArrowhead](#) 245  
   [lineLeftEndArrowLength](#) 247  
   [lineLeftEndArrowWidth](#) 246  
   [lineLeftEndCapStyle](#) 248  
   [lineLeftFillBlip](#) 237  
   [lineLeftFillBlip\\_complex](#) 237  
   [lineLeftFillBlipFlags](#) 239  
   [lineLeftFillBlipName](#) 238  
   [lineLeftFillBlipName\\_complex](#) 238  
   [lineLeftFillDzType](#) 240  
   [lineLeftFillHeight](#) 240  
   [lineLeftFillWidth](#) 239  
   [lineLeftJoinStyle](#) 247  
   [lineLeftMiterLimit](#) 242  
   [lineLeftOpacity](#) 234  
   [lineLeftStartArrowhead](#) 244  
   [lineLeftStartArrowLength](#) 246  
   [lineLeftStartArrowWidth](#) 245  
   [lineLeftStyle](#) 242  
   [lineLeftType](#) 236  
   [lineLeftWidth](#) 241  
[left Transform property](#) 391  
[lidRegroup\\_group shape property](#) 118  
[Line Style Boolean properties](#) 232  
 Line Style property  
   [Line Style Boolean properties](#) 232  
   [lineBackColor](#) 213  
   [lineBackColorExt](#) 229  
   [lineBackColorExtMod](#) 230  
   [lineColor](#) 211  
   [lineColorExt](#) 227  
   [lineColorExtMod](#) 228  
   [lineCrMod](#) 213  
   [lineDashing](#) 221  
   [lineDashStyle](#) 221  
   [lineDashStyle\\_complex](#) 222  
   [lineEndArrowhead](#) 223  
   [lineEndArrowLength](#) 225  
   [lineEndArrowWidth](#) 224  
   [lineEndCapStyle](#) 226  
   [lineFillBlip](#) 214  
   [lineFillBlip\\_complex](#) 215  
   [lineFillBlipFlags](#) 216  
   [lineFillBlipName](#) 215  
   [lineFillBlipName\\_complex](#) 216  
   [lineFillDzType](#) 218  
   [lineFillHeight](#) 217  
   [lineFillWidth](#) 217  
   [lineJoinStyle](#) 226  
   [lineMiterLimit](#) 219  
   [lineOpacity](#) 212  
   [lineStartArrowhead](#) 222  
   [lineStartArrowLength](#) 224  
   [lineStartArrowWidth](#) 223  
   [lineStyle](#) 220  
   [lineType](#) 214  
   [lineWidth](#) 218  
   [reserved1370](#) 249



[reserved1372](#) 250  
[reserved1374](#) 251  
[reserved1376](#) 252  
[reserved1377](#) 253  
[reserved1378](#) 253  
[reserved474](#) 227  
[reserved476](#) ([section 2.3.8.31](#) 228, [section 2.3.10.31](#) 273)  
[reserved478](#) 229  
[reserved480](#) 230  
[reserved481](#) 231  
[reserved482](#) 231  
[lineBackColor](#) [Line Style property](#) 213  
[lineBackColorExt](#) [Line Style property](#) 229  
[lineBackColorExtMod](#) [Line Style property](#) 230  
[lineBottomBackColor](#) [Bottom Line Style property](#) 302  
[lineBottomBackColorExt](#) [Bottom Line Style property](#) 318  
[lineBottomBackColorExtMod](#) [Bottom Line Style property](#) 319  
[lineBottomColor](#) [Bottom Line Style property](#) 301  
[lineBottomColorExt](#) [Bottom Line Style property](#) 316  
[lineBottomColorExtMod](#) [Bottom Line Style property](#) 317  
[lineBottomCrMod](#) [Bottom Line Style property](#) 303  
[lineBottomDashing](#) [Bottom Line Style property](#) 310  
[lineBottomDashStyle](#) [Bottom Line Style property](#) 310  
[lineBottomDashStyle](#) [complex Bottom Line Style property](#) 311  
[lineBottomEndArrowhead](#) [Bottom Line Style property](#) 312  
[lineBottomEndArrowLength](#) [Bottom Line Style property](#) 314  
[lineBottomEndArrowWidth](#) [Bottom Line Style property](#) 314  
[lineBottomEndCapStyle](#) [Bottom Line Style property](#) 315  
[lineBottomFillBlip](#) [Bottom Line Style property](#) 304  
[lineBottomFillBlip](#) [complex Bottom Line Style property](#) 305  
[lineBottomFillBlipFlags](#) [Bottom Line Style property](#) 306  
[lineBottomFillBlipName](#) [Bottom Line Style property](#) 305  
[lineBottomFillBlipName](#) [complex Bottom Line Style property](#) 306  
[lineBottomFillDzType](#) [Bottom Line Style property](#) 308  
[lineBottomFillHeight](#) [Bottom Line Style property](#) 307  
[lineBottomFillWidth](#) [Bottom Line Style property](#) 306  
[lineBottomJoinStyle](#) [Bottom Line Style property](#) 315  
[lineBottomMiterLimit](#) [Bottom Line Style property](#) 309  
[lineBottomOpacity](#) [Bottom Line Style property](#) 302  
[lineBottomStartArrowhead](#) [Bottom Line Style property](#) 311  
[lineBottomStartArrowLength](#) [Bottom Line Style property](#) 313  
[lineBottomStartArrowWidth](#) [Bottom Line Style property](#) 312  
[lineBottomStyle](#) [Bottom Line Style property](#) 309  
[lineBottomType](#) [Bottom Line Style property](#) 303  
[lineBottomWidth](#) [Bottom Line Style property](#) 308  
[lineColor](#) [Line Style property](#) 211  
[lineColorExt](#) [Line Style property](#) 227  
[lineColorExtMod](#) [Line Style property](#) 228  
[lineCrMod](#) [Line Style property](#) 213  
[lineDashing](#) [Line Style property](#) 221  
[lineDashStyle](#) [Line Style property](#) 221  
[lineDashStyle](#) [complex Line Style property](#) 222  
[lineEndArrowhead](#) [Line Style property](#) 223  
[lineEndArrowLength](#) [Line Style property](#) 225  
[lineEndArrowWidth](#) [Line Style property](#) 224  
[lineEndCapStyle](#) [Line Style property](#) 226  
[lineFillBlip](#) [Line Style property](#) 214  
[lineFillBlip](#) [complex Line Style property](#) 215  
[lineFillBlipFlags](#) [Line Style property](#) 216  
[lineFillBlipName](#) [Line Style property](#) 215  
[lineFillBlipName](#) [complex Line Style property](#) 216  
[lineFillDzType](#) [Line Style property](#) 218  
[lineFillHeight](#) [Line Style property](#) 217  
[lineFillWidth](#) [Line Style property](#) 217  
[lineJoinStyle](#) [Line Style property](#) 226  
[lineLeftBackColor](#) [Left Line Style property](#) 235  
[lineLeftBackColorExt](#) [Left Line Style property](#) 251  
[lineLeftBackColorExtMod](#) [Left Line Style property](#) 252  
[lineLeftColor](#) [Left Line Style property](#) 234  
[lineLeftColorExt](#) [Left Line Style property](#) 249  
[lineLeftColorExtMod](#) [Left Line Style property](#) 250  
[lineLeftCrMod](#) [Left Line Style property](#) 235  
[lineLeftDashing](#) [Left Line Style property](#) 243  
[lineLeftDashStyle](#) [Left Line Style property](#) 243  
[lineLeftDashStyle](#) [complex Left Line Style property](#) 244  
[lineLeftEndArrowhead](#) [Left Line Style property](#) 245  
[lineLeftEndArrowLength](#) [Left Line Style property](#) 247  
[lineLeftEndArrowWidth](#) [Left Line Style property](#) 246  
[lineLeftEndCapStyle](#) [Left Line Style property](#) 248  
[lineLeftFillBlip](#) [Left Line Style property](#) 237  
[lineLeftFillBlip](#) [complex Left Line Style property](#) 237  
[lineLeftFillBlipFlags](#) [Left Line Style property](#) 239  
[lineLeftFillBlipName](#) [Left Line Style property](#) 238  
[lineLeftFillBlipName](#) [complex Left Line Style property](#) 238  
[lineLeftFillDzType](#) [Left Line Style property](#) 240  
[lineLeftFillHeight](#) [Left Line Style property](#) 240  
[lineLeftFillWidth](#) [Left Line Style property](#) 239  
[lineLeftJoinStyle](#) [Left Line Style property](#) 247  
[lineLeftMiterLimit](#) [Left Line Style property](#) 242  
[lineLeftOpacity](#) [Left Line Style property](#) 234  
[lineLeftStartArrowhead](#) [Left Line Style property](#) 244  
[lineLeftStartArrowLength](#) [Left Line Style property](#) 246  
[lineLeftStartArrowWidth](#) [Left Line Style property](#) 245  
[lineLeftStyle](#) [Left Line Style property](#) 242  
[lineLeftType](#) [Left Line Style property](#) 236  
[lineLeftWidth](#) [Left Line Style property](#) 241  
[lineMiterLimit](#) [Line Style property](#) 219  
[lineOpacity](#) [Line Style property](#) 212  
[lineRightBackColor](#) [Right Line Style property](#) 280  
[lineRightBackColorExt](#) [Right Line Style property](#) 295  
[lineRightBackColorExtMod](#) [Right Line Style property](#) 296  
[lineRightColor](#) [Right Line Style property](#) 279  
[lineRightColorExt](#) [Right Line Style property](#) 293  
[lineRightColorExtMod](#) [Right Line Style property](#) 294  
[lineRightCrMod](#) [Right Line Style property](#) 280  
[lineRightDashing](#) [Right Line Style property](#) 287  
[lineRightDashStyle](#) [Right Line Style property](#) 288  
[lineRightDashStyle](#) [complex Right Line Style property](#) 289  
[lineRightEndArrowhead](#) [Right Line Style property](#) 289

[lineRightEndArrowLength Right Line Style property](#) 292  
[lineRightEndArrowWidth Right Line Style property](#) 291  
[lineRightEndCapStyle Right Line Style property](#) 293  
[lineRightFillBlip Right Line Style property](#) 281  
[lineRightFillBlip complex Right Line Style property](#) 282  
[lineRightFillBlipFlags Right Line Style property](#) 283  
[lineRightFillBlipName Right Line Style property](#) 283  
[lineRightFillBlipName complex Right Line Style property](#) 283  
[lineRightFillDzType Right Line Style property](#) 285  
[lineRightFillHeight Right Line Style property](#) 285  
[lineRightFillWidth Right Line Style property](#) 284  
[lineRightJoinStyle Right Line Style property](#) 292  
[lineRightMiterLimit Right Line Style property](#) 286  
[lineRightOpacity Right Line Style property](#) 279  
[lineRightStartArrowhead Right Line Style property](#) 289  
[lineRightStartArrowLength Right Line Style property](#) 291  
[lineRightStartArrowWidth Right Line Style property](#) 290  
[lineRightStyle Right Line Style property](#) 287  
[lineRightType Right Line Style property](#) 281  
[lineRightWidth Right Line Style property](#) 286  
[lineStartArrowhead Line Style property](#) 222  
[lineStartArrowLength Line Style property](#) 224  
[lineStartArrowWidth Line Style property](#) 223  
[lineStyle Line Style property](#) 220  
[lineTopBackColor Top Line Style property](#) 257  
[lineTopBackColorExt Top Line Style property](#) 273  
[lineTopBackColorExtMod Top Line Style property](#) 274  
[lineTopColor Top Line Style property](#) 256  
[lineTopColorExt Top Line Style property](#) 271  
[lineTopColorExtMod Top Line Style property](#) 272  
[lineTopCrMod Top Line Style property](#) 258  
[lineTopDashing Top Line Style property](#) 265  
[lineTopDashStyle Top Line Style property](#) 266  
[lineTopDashStyle complex Top Line Style property](#) 266  
[lineTopEndArrowhead Top Line Style property](#) 267  
[lineTopEndArrowLength Top Line Style property](#) 269  
[lineTopEndArrowWidth Top Line Style property](#) 269  
[lineTopEndCapStyle Top Line Style property](#) 270  
[lineTopFillBlip Top Line Style property](#) 259  
[lineTopFillBlip complex Top Line Style property](#) 260  
[lineTopFillBlipFlags Top Line Style property](#) 261  
[lineTopFillBlipName Top Line Style property](#) 260  
[lineTopFillBlipName complex Top Line Style property](#) 261  
[lineTopFillDzType Top Line Style property](#) 263  
[lineTopFillHeight Top Line Style property](#) 262  
[lineTopFillWidth Top Line Style property](#) 262  
[lineTopJoinStyle Top Line Style property](#) 270  
[lineTopMiterLimit Top Line Style property](#) 264  
[lineTopOpacity Top Line Style property](#) 257  
[lineTopStartArrowhead Top Line Style property](#) 267  
[lineTopStartArrowLength Top Line Style property](#) 268  
[lineTopStartArrowWidth Top Line Style property](#) 268  
[lineTopStyle Top Line Style property](#) 264  
[lineTopType Top Line Style property](#) 258  
[lineTopWidth Top Line Style property](#) 263  
[lineType Line Style property](#) 214

[lineWidth Line Style property](#) 218  
[Localization](#) 26  
[ITxid Text property](#) 401

## M

[metroBlob group shape property](#) 157  
[metroBlob complex group shape property](#) 157  
[movie Blip property](#) 431  
[movie complex Blip property](#) 431  
[MSO3DRENDERTYPE enumeration](#) 503  
[MSOANCHOR enumeration](#) 488  
[MSOBLIPFLAGS enumeration](#) 493  
[MSOBLIPTYPE enumeration](#) 466  
[MSOBWMODE enumeration](#) 537  
[MSOC DIR enumeration](#) 492  
[MSOCOLORMODUNDEFINED OfficeArtRecord type](#) 32  
[MSOCR OfficeArtRecord type](#) 79  
[MSOCXK enumeration](#) 493  
[MSOCXSTYLE enumeration](#) 536  
[MSODGCID enumeration](#) 466  
[MSODGID CustomOfficeArt type](#) 28  
[MSODGMLO enumeration](#) 539  
[MSODGMT enumeration](#) 537  
[MSODGSLK enumeration](#) 539  
[MSODZTYPE enumeration](#) 496  
[MSOFILLTYPE enumeration](#) 494  
[MSOFO CustomOfficeArt type](#) 28  
[MSOLINECAP enumeration](#) 501  
[MSOLINEDASHING enumeration](#) 498  
[MSOLINEEND enumeration](#) 499  
[MSOLINEENDLENGTH enumeration](#) 500  
[MSOLINEENDWIDTH enumeration](#) 499  
[MSOLINEJOIN enumeration](#) 500  
[MSOLINESTYLE enumeration](#) 497  
[MSOLINETYPE enumeration](#) 497  
[MSOPATHESCAPE enumeration](#) 542  
[MSOPATHESCAPEINFO OfficeArtRecord type](#) 84  
[MSOPATHINFO OfficeArtRecord type](#) 84  
[MSOPATHTYPE enumeration](#) 541  
[MSOSHADE OfficeArtRecord type](#) 32  
[MSOSHADECOLOR OfficeArtRecord type](#) 93  
[MSOSHADETYPE OfficeArtRecord type](#) 82  
[MSOSHADOWTYPE enumeration](#) 501  
[MSOSHAPEPATH enumeration](#) 493  
[MSOSPID CustomOfficeArt type](#) 28  
[MSOSPT enumeration](#) 503  
[MSOTINT OfficeArtRecord type](#) 32  
[MSOTINTSHADE OfficeArtRecord type](#) 32  
[MSOTXDIR enumeration](#) 492  
[MSOTXFL enumeration](#) 491  
[MSOWRAPMODE enumeration](#) 488  
[MSOXFORMTYPE enumeration](#) 503

## N

[Normative references](#) 22

## O

[OfficeArtBlip OfficeArtRecord type](#) 59  
[OfficeArtBlipDIB OfficeArtRecord type](#) 66  
[OfficeArtBlipEMF OfficeArtRecord type](#) 60  
[OfficeArtBlipJPEG OfficeArtRecord type](#) 63  
[OfficeArtBlipPCT OfficeArtRecord type](#) 62

[OfficeArtBlipPNG OfficeArtRecord type](#) 65  
[OfficeArtBlipTIFF OfficeArtRecord type](#) 67  
[OfficeArtBlipWMF OfficeArtRecord type](#) 61  
[OfficeArtBStoreContainer OfficeArtRecord type](#) 58  
[OfficeArtBStoreContainerFileBlock OfficeArtRecord type](#) 59  
[OfficeArtBStoreDelay OfficeArtRecord type](#) 59  
[OfficeArtChildAnchor OfficeArtRecord type](#) 75  
[OfficeArtColorMRUContainer OfficeArtRecord type](#) 78  
[OfficeArtCOLORREF OfficeArtRecord type](#) 29  
[OfficeArtDgContainer OfficeArtRecord type](#) 52  
[OfficeArtDggContainer OfficeArtRecord type](#) 51  
[OfficeArtFArcRule OfficeArtRecord type](#) 72  
[OfficeArtFBSE OfficeArtRecord type](#) 69  
[OfficeArtFCalloutRule OfficeArtRecord type](#) 71  
[OfficeArtFConnectorRule OfficeArtRecord type](#) 73  
[OfficeArtFDG diagram example](#) 546  
[OfficeArtFDG OfficeArtRecord type](#) 82  
[OfficeArtFDGG OfficeArtRecord type](#) 80  
[OfficeArtFDGGBlock OfficeArtRecord type](#) 81  
[OfficeArtFDGSL OfficeArtRecord type](#) 70  
[OfficeArtFOPT OfficeArtRecord type](#) 35  
[OfficeArtFOPTE OfficeArtRecord type](#) 33  
[OfficeArtFOPTEOPID OfficeArtRecord type](#) 33  
[OfficeArtFPSPL OfficeArtRecord type](#) 74  
[OfficeArtFRIT OfficeArtRecord type](#) 78  
[OfficeArtFRITContainer OfficeArtRecord type](#) 77  
[OfficeArtFSP OfficeArtRecord type](#) 76  
[OfficeArtFSPGR OfficeArtRecord type](#) 74  
[OfficeArtIDCL OfficeArtRecord type](#) 80  
[OfficeArtInlineSpContainer OfficeArtRecord type](#) 56  
[OfficeArtMetafileHeader OfficeArtRecord type](#) 68  
[OfficeArtRecord type](#)  
[ADJH](#) 86  
[IHlink](#) 92  
[IMsoArray](#) 83  
[IMsoInkData](#) 84  
[MSOCOLORMODUNDEFINED](#) 32  
[MSOCR](#) 79  
[MSOPATHESCAPEINFO](#) 84  
[MSOPATHINFO](#) 84  
[MSOSHADE](#) 32  
[MSOSHADECOLOR](#) 93  
[MSOSHADETYPE](#) 82  
[MSOTINT](#) 32  
[MSOTINTSHADE](#) 32  
[OfficeArtBlip](#) 59  
[OfficeArtBlipDIB](#) 66  
[OfficeArtBlipEMF](#) 60  
[OfficeArtBlipJPEG](#) 63  
[OfficeArtBlipPICT](#) 62  
[OfficeArtBlipPNG](#) 65  
[OfficeArtBlipTIFF](#) 67  
[OfficeArtBlipWMF](#) 61  
[OfficeArtBStoreContainer](#) 58  
[OfficeArtBStoreContainerFileBlock](#) 59  
[OfficeArtBStoreDelay](#) 59  
[OfficeArtChildAnchor](#) 75  
[OfficeArtColorMRUContainer](#) 78  
[OfficeArtCOLORREF](#) 29  
[OfficeArtDgContainer](#) 52  
[OfficeArtDggContainer](#) 51  
[OfficeArtFArcRule](#) 72  
[OfficeArtFBSE](#) 69  
[OfficeArtFCalloutRule](#) 71  
[OfficeArtFConnectorRule](#) 73  
[OfficeArtFDG](#) 82  
[OfficeArtFDGG](#) 80  
[OfficeArtFDGGBlock](#) 81  
[OfficeArtFDGSL](#) 70  
[OfficeArtFOPT](#) 35  
[OfficeArtFOPTE](#) 33  
[OfficeArtFOPTEOPID](#) 33  
[OfficeArtFPSPL](#) 74  
[OfficeArtFRIT](#) 78  
[OfficeArtFRITContainer](#) 77  
[OfficeArtFSP](#) 76  
[OfficeArtFSPGR](#) 74  
[OfficeArtIDCL](#) 80  
[OfficeArtInlineSpContainer](#) 56  
[OfficeArtMetafileHeader](#) 68  
[OfficeArtRecordHeader OfficeArtRecord type](#) 28  
[OfficeArtRGFOPT properties](#) 96  
[OfficeArtSecondaryFOPT OfficeArtRecord type](#) 42  
[OfficeArtSolverContainer diagram example](#) 581  
[OfficeArtSolverContainer OfficeArtRecord type](#) 57  
[OfficeArtSolverContainerFileBlock OfficeArtRecord type](#) 58  
[OfficeArtSpContainer diagram example](#) 579  
[OfficeArtSpContainer OfficeArtRecord type](#) 53  
[OfficeArtSpqrContainer diagram example](#) 547  
[OfficeArtSpqrContainer OfficeArtRecord type](#) 56  
[OfficeArtSpqrContainerFileBlock OfficeArtRecord type](#) 57  
[OfficeArtSplitMenuColorContainer OfficeArtRecord type](#) 79  
[OfficeArtTertiaryFOPT OfficeArtRecord type](#) 43  
[Overview](#)  
[bit format](#) 25  
[container](#) 25  
[extended colors](#) 25  
[properties](#) 25  
[record header](#) 25  
[records](#) 24  
[Overview \(synopsis\)](#) 23  
**P**  
[pAdjustHandles geometry property](#) 180  
[pAdjustHandles\\_complex geometry property](#) 181  
[pConnectionSites geometry property](#) 175  
[pConnectionSites\\_complex geometry property](#) 176  
[pConnectionSitesDir geometry property](#) 176  
[pConnectionSitesDir\\_complex geometry property](#) 177  
[pctHoriz\\_group shape 2 property](#) 161  
[pctHorizPos\\_group shape 2 property](#) 162

[pctHR\\_group\\_shape\\_property](#) 146  
[pctVert\\_group\\_shape\\_2\\_property](#) 161  
[pctVertPos\\_group\\_shape\\_2\\_property](#) 163  
[Perspective Style Boolean properties](#) 344  
 Perspective Style property  
   [Perspective Style Boolean properties](#) 344  
   [perspectiveOffsetX](#) 338  
   [perspectiveOffsetY](#) 338  
   [perspectiveOriginX](#) 343  
   [perspectiveOriginY](#) 343  
   [perspectivePerspectiveX](#) 341  
   [perspectivePerspectiveY](#) 342  
   [perspectiveScaleXToX](#) 339  
   [perspectiveScaleXToY](#) 340  
   [perspectiveScaleYToX](#) 339  
   [perspectiveScaleYToY](#) 341  
   [perspectiveType](#) 337  
   [perspectiveWeight](#) 342  
[perspectiveOffsetX\\_Perspective\\_Style\\_property](#) 338  
[perspectiveOffsetY\\_Perspective\\_Style\\_property](#) 338  
[perspectiveOriginX\\_Perspective\\_Style\\_property](#) 343  
[perspectiveOriginY\\_Perspective\\_Style\\_property](#) 343  
[perspectivePerspectiveX\\_Perspective\\_Style\\_property](#) 341  
[perspectivePerspectiveY\\_Perspective\\_Style\\_property](#) 342  
[perspectiveScaleXToX\\_Perspective\\_Style\\_property](#) 339  
[perspectiveScaleXToY\\_Perspective\\_Style\\_property](#) 340  
[perspectiveScaleYToX\\_Perspective\\_Style\\_property](#) 339  
[perspectiveScaleYToY\\_Perspective\\_Style\\_property](#) 341  
[perspectiveType\\_Perspective\\_Style\\_property](#) 337  
[perspectiveWeight\\_Perspective\\_Style\\_property](#) 342  
[pGuides\\_geometry\\_property](#) 181  
[pGuides\\_complex\\_geometry\\_property](#) 181  
[pib\\_Blip\\_property](#) 422  
[pib\\_complex\\_Blip\\_property](#) 423  
[pibFlags\\_Blip\\_property](#) 424  
[pibName\\_Blip\\_property](#) 423  
[pibName\\_complex\\_Blip\\_property](#) 424  
[pibPrint\\_Blip\\_property](#) 428  
[pibPrint\\_complex\\_Blip\\_property](#) 429  
[pibPrintFlags\\_Blip\\_property](#) 430  
[pibPrintName\\_Blip\\_property](#) 429  
[pibPrintName\\_complex\\_Blip\\_property](#) 430  
[pictureBrightness\\_Blip\\_property](#) 425  
[pictureContrast\\_Blip\\_property](#) 425  
[pictureDbiCrMod\\_Blip\\_property](#) 427  
[pictureFillCrMod\\_Blip\\_property](#) 427  
[pictureId\\_Blip\\_property](#) 426  
[pictureLineCrMod\\_Blip\\_property](#) 428  
[pictureRecolor\\_Blip\\_property](#) 434  
[pictureRecolorExt\\_Blip\\_property](#) 435  
[pictureRecolorExtMod\\_Blip\\_property](#) 436  
[pictureTransparent\\_Blip\\_property](#) 424  
[pictureTransparentExt\\_Blip\\_property](#) 432  
[pictureTransparentExtMod\\_Blip\\_property](#) 433  
[pihShape\\_group\\_shape\\_property](#) 114  
[pihShape\\_complex\\_group\\_shape\\_property](#) 114  
[pInkData\\_Ink\\_property](#) 455  
[pInkData\\_complex\\_Ink\\_property](#) 456  
[pInscribe\\_geometry\\_property](#) 182  
[pInscribe\\_complex\\_geometry\\_property](#) 182  
[POINT\\_OfficeArtRecord\\_type](#) 85  
[posh\\_group\\_shape\\_property](#) 120  
[posrelh\\_group\\_shape\\_property](#) 121  
[posrelv\\_group\\_shape\\_property](#) 134  
[posv\\_group\\_shape\\_property](#) 133  
[pRelationTbl\\_Diagram\\_property](#) 386  
[pRelationTbl\\_complex\\_Diagram\\_property](#) 386  
[Product behavior](#) 593  
 Properties  
   [OfficeArtRGFOPTe](#) 96  
   [Properties overview](#) 25  
   [Protection Boolean properties](#) 399  
   [pSegmentInfo\\_geometry\\_property](#) 169  
   [pSegmentInfo\\_complex\\_geometry\\_property](#) 170  
   [pVertices\\_geometry\\_property](#) 168  
   [pVertices\\_complex\\_geometry\\_property](#) 169  
   [pWrapPolygonVertices\\_group\\_shape\\_property](#) 115  
   [pWrapPolygonVertices\\_complex\\_group\\_shape\\_property](#) 115  
**R**  
[Record header overview](#) 25  
[Records overview](#) 24  
[RECT\\_OfficeArtRecord\\_type](#) 85  
 References 22  
   [informative](#) 23  
   [normative](#) 22  
[Relationship to protocols and other structures](#) 26  
[Relative Transform Boolean properties](#) 398  
 Relative Transform property  
   [qvRelPage](#) 398  
   [Relative Transform Boolean properties](#) 398  
   [relBottom](#) 397  
   [relLeft](#) 395  
   [relRight](#) 396  
   [relRotation](#) 397  
   [relTop](#) 395  
   [relBottom\\_Relative\\_Transform\\_property](#) 397  
   [relLeft\\_Relative\\_Transform\\_property](#) 395  
   [relRight\\_Relative\\_Transform\\_property](#) 396  
   [relRotation\\_Relative\\_Transform\\_property](#) 397  
   [relTop\\_Relative\\_Transform\\_property](#) 395  
[reserved1370\\_Line\\_Style\\_property](#) 249  
[reserved1372\\_Line\\_Style\\_property](#) 250  
[reserved1374\\_Line\\_Style\\_property](#) 251  
[reserved1376\\_Line\\_Style\\_property](#) 252  
[reserved1377\\_Line\\_Style\\_property](#) 253  
[reserved1378\\_Line\\_Style\\_property](#) 253  
[reserved1434\\_Top\\_Line\\_Style\\_property](#) 271  
[reserved1436\\_Top\\_Line\\_Style\\_property](#) 273  
[reserved1438\\_Top\\_Line\\_Style\\_property](#) 274  
[reserved1440\\_Top\\_Line\\_Style\\_property](#) 275  
[reserved1441\\_Top\\_Line\\_Style\\_property](#) 275  
[reserved1442\\_Top\\_Line\\_Style\\_property](#) 276  
[reserved1498\\_Right\\_Line\\_Style\\_property](#) 294  
[reserved1500\\_Right\\_Line\\_Style\\_property](#) ([section 2.3.7.36](#) 206, [section 2.3.7.40](#) 208, [section 2.3.8.31](#) 228, [section 2.3.10.31](#) 273, [section 2.3.11.31](#) 295, [section 2.3.11.35](#) 297)  
[reserved1502\\_Right\\_Line\\_Style\\_property](#) 296  
[reserved1504\\_Right\\_Line\\_Style\\_property](#) ([section 2.3.7.36](#) 206, [section 2.3.7.40](#) 208, [section 2.3.8.31](#) 228, [section 2.3.10.31](#) 273, [section 2.3.11.35](#) 297)  
[reserved1505\\_Right\\_Line\\_Style\\_property](#) 298  
[reserved1506\\_Right\\_Line\\_Style\\_property](#) 298  
[reserved1562\\_Bottom\\_Line\\_Style\\_property](#) 316

[reserved1564 Bottom Line Style property](#) 317  
[reserved1566 Bottom Line Style property](#) 318  
[reserved1568 Bottom Line Style property](#) 319  
[reserved1569 Bottom Line Style property](#) 320  
[reserved1570 Bottom Line Style property](#) 321  
[reserved278 Blip property](#) 432  
[reserved280 Blip property](#) 433  
[reserved281 Blip property](#) 434  
[reserved284 Blip property](#) 435  
[reserved286 Blip property](#) 436  
[reserved287 Blip property](#) 437  
[reserved415 Fill Style property](#) 205  
[reserved417 Fill Style property](#) 206  
[reserved419 Fill Style property](#) 207  
[reserved421 Fill Style property](#) 208  
[reserved422 Fill Style property](#) 209  
[reserved423 Fill Style property](#) 209  
[reserved474 Line Style property](#) 227  
[reserved476 Line Style property](#) ([section 2.3.8.31](#)  
228, [section 2.3.10.31](#) 273)  
[reserved478 Line Style property](#) 229  
[reserved480 Line Style property](#) 230  
[reserved481 Line Style property](#) 231  
[reserved482 Line Style property](#) 231  
[reserved531 Shadow Style property](#) 330  
[reserved533 Shadow Style property](#) ([section](#)  
[2.3.7.36](#) 206, [section 2.3.7.40](#) 208, [section](#)  
[2.3.8.31](#) 228, [section 2.3.10.31](#) 273, [section](#)  
[2.3.13.15](#) 331)  
[reserved535 Shadow Style property](#) 333  
[reserved537 Shadow Style property](#) 334  
[reserved538 Shadow Style property](#) 334  
[reserved539 Shadow Style property](#) 335  
[reserved646 3D Object Style property](#) 348  
[reserved650 3D Object Style property](#) 350  
[reserved652 3D Object Style property](#) 351  
[reserved653 3D Object Style property](#) 352  
[Right Line Style Boolean properties](#) 299  
[Right Line Style property](#)  
[lineRightBackColor](#) 280  
[lineRightBackColorExt](#) 295  
[lineRightBackColorExtMod](#) 296  
[lineRightColor](#) 279  
[lineRightColorExt](#) 293  
[lineRightColorExtMod](#) 294  
[lineRightCrMod](#) 280  
[lineRightDashing](#) 287  
[lineRightDashStyle](#) 288  
[lineRightDashStyle\\_complex](#) 289  
[lineRightEndArrowhead](#) 289  
[lineRightEndArrowLength](#) 292  
[lineRightEndArrowWidth](#) 291  
[lineRightEndCapStyle](#) 293  
[lineRightFillBlip](#) 281  
[lineRightFillBlip\\_complex](#) 282  
[lineRightFillBlipFlags](#) 283  
[lineRightFillBlipName](#) 283  
[lineRightFillBlipName\\_complex](#) 283  
[lineRightFillDzType](#) 285  
[lineRightFillHeight](#) 285  
[lineRightFillWidth](#) 284  
[lineRightJoinStyle](#) 292  
[lineRightMiterLimit](#) 286  
[lineRightOpacity](#) 279  
[lineRightStartArrowhead](#) 289

[lineRightStartArrowLength](#) 291  
[lineRightStartArrowWidth](#) 290  
[lineRightStyle](#) 287  
[lineRightType](#) 281  
[lineRightWidth](#) 286  
[reserved1498](#) 294  
[reserved1500](#) ([section 2.3.7.36](#) 206, [section](#)  
[2.3.7.40](#) 208, [section 2.3.8.31](#) 228, [section](#)  
[2.3.10.31](#) 273, [section 2.3.11.31](#) 295, [section](#)  
[2.3.11.35](#) 297)  
[reserved1502](#) 296  
[reserved1504](#) ([section 2.3.7.36](#) 206, [section](#)  
[2.3.7.40](#) 208, [section 2.3.8.31](#) 228, [section](#)  
[2.3.10.31](#) 273, [section 2.3.11.35](#) 297)  
[reserved1505](#) 298  
[reserved1506](#) 298  
[Right Line Style Boolean properties](#) 299  
[right Transform property](#) 392  
[rotation Transform property](#) 393

## S

[scriptLang group shape property](#) 151  
[Security - implementer considerations](#) 592  
[SG OfficeArtRecord type](#) 89  
[Shadow Style Boolean properties](#) 336  
[Shadow Style property](#)  
[reserved531](#) 330  
[reserved533](#) ([section 2.3.7.36](#) 206, [section](#)  
[2.3.7.40](#) 208, [section 2.3.8.31](#) 228, [section](#)  
[2.3.10.31](#) 273, [section 2.3.13.15](#) 331)  
[reserved535](#) 333  
[reserved537](#) 334  
[reserved538](#) 334  
[reserved539](#) 335  
[Shadow Style Boolean properties](#) 336  
[shadowColor](#) 324  
[shadowColorExt](#) 330  
[shadowColorExtMod](#) 331  
[shadowCrMod](#) 325  
[shadowHighlight](#) 325  
[shadowHighlightExt](#) 332  
[shadowHighlightExtMod](#) 333  
[shadowOffsetX](#) 326  
[shadowOffsetY](#) 327  
[shadowOpacity](#) 326  
[shadowOriginX](#) 329  
[shadowOriginY](#) 329  
[shadowSecondOffsetX](#) 327  
[shadowSecondOffsetY](#) 328  
[shadowSoftness](#) 335  
[shadowType](#) 324  
[shadowColor Shadow Style property](#) 324  
[shadowColorExt Shadow Style property](#) 330  
[shadowColorExtMod Shadow Style property](#) 331  
[shadowCrMod Shadow Style property](#) 325  
[shadowHighlight Shadow Style property](#) 325  
[shadowHighlightExt Shadow Style property](#) 332  
[shadowHighlightExtMod Shadow Style property](#) 333  
[shadowOffsetX Shadow Style property](#) 326  
[shadowOffsetY Shadow Style property](#) 327  
[shadowOpacity Shadow Style property](#) 326  
[shadowOriginX Shadow Style property](#) 329  
[shadowOriginY Shadow Style property](#) 329  
[shadowSecondOffsetX Shadow Style property](#) 327



[shadowSecondOffsetY Shadow Style property](#) 328  
[shadowSoftness Shadow Style property](#) 335  
[shadowType Shadow Style property](#) 324  
[Shape Boolean properties](#) 104  
[Shape Properties example](#) 582  
  [overview](#) 582  
  [shape primary options](#) 584  
  [shape text properties](#) 589  
  [shape type properties](#) 583  
Shape property  
  [bWMode](#) 98  
  [bWModeBW](#) 99  
  [bWModePureBW](#) 98  
  [cxstyle](#) 97  
  [dgmLayout](#) 100  
  [dgmLayoutMRU](#) 102  
  [dgmNodeKind](#) 100  
  [equationXML](#) 103  
  [equationXML complex](#) 103  
  [Group Shape Boolean properties](#) 158  
  [hspMaster](#) 97  
  [idDiscussAnchor](#) 99  
  [Shape Boolean properties](#) 104  
[shapePath geometry property](#) 167  
[Signature Line Boolean properties](#) 465  
Signature Line property  
  [Signature Line Boolean properties](#) 465  
  [wzSigSetupAddlXml](#) 463  
  [wzSigSetupAddlXml complex](#) 463  
  [wzSigSetupId](#) 457  
  [wzSigSetupId complex](#) 458  
  [wzSigSetupProvId](#) 458  
  [wzSigSetupProvId complex](#) 459  
  [wzSigSetupProvUrl](#) 464  
  [wzSigSetupProvUrl complex](#) 464  
  [wzSigSetupSignInst](#) 462  
  [wzSigSetupSignInst complex](#) 462  
  [wzSigSetupSuggSigner](#) 459  
  [wzSigSetupSuggSigner complex](#) 460  
  [wzSigSetupSuggSigner2](#) 460  
  [wzSigSetupSuggSigner2 complex](#) 461  
  [wzSigSetupSuggSignerEmail](#) 461  
  [wzSigSetupSuggSignerEmail complex](#) 462  
[sizereLh group shape 2 property](#) 163  
[sizereLv group shape 2 property](#) 164  
[spcoa callout property](#) 107  
[spcod callout property](#) 108

## T

[TABLEFLAGS OfficeArtRecord type](#) 92  
[tableProperties group shape property](#) 154  
[tableRowProperties group shape property](#) 155  
[tableRowProperties complex group shape property](#)  
  155  
[Text Boolean properties](#) 409  
Text property  
  [anchorText](#) 405  
  [cdirFont](#) 406  
  [dxTextBottom](#) 403  
  [dxTextLeft](#) 402  
  [dxTextRight](#) 403  
  [dyTextTop](#) 402  
  [hspNext](#) 406  
  [ITxid](#) 401

[Text Boolean properties](#) 409  
[txdir](#) 407  
[txflTextFlow](#) 405  
[unused134](#) 404  
[unused140](#) 408  
[unused141](#) 408  
[WrapText](#) 404  
[Top Line Style Boolean properties](#) 276  
Top Line Style property  
  [lineTopBackColor](#) 257  
  [lineTopBackColorExt](#) 273  
  [lineTopBackColorExtMod](#) 274  
  [lineTopColor](#) 256  
  [lineTopColorExt](#) 271  
  [lineTopColorExtMod](#) 272  
  [lineTopCrMod](#) 258  
  [lineTopDashing](#) 265  
  [lineTopDashStyle](#) 266  
  [lineTopDashStyle complex](#) 266  
  [lineTopEndArrowhead](#) 267  
  [lineTopEndArrowLength](#) 269  
  [lineTopEndArrowWidth](#) 269  
  [lineTopEndCapStyle](#) 270  
  [lineTopFillBlip](#) 259  
  [lineTopFillBlip complex](#) 260  
  [lineTopFillBlipFlags](#) 261  
  [lineTopFillBlipName](#) 260  
  [lineTopFillBlipName complex](#) 261  
  [lineTopFillDzType](#) 263  
  [lineTopFillHeight](#) 262  
  [lineTopFillWidth](#) 262  
  [lineTopJoinStyle](#) 270  
  [lineTopMiterLimit](#) 264  
  [lineTopOpacity](#) 257  
  [lineTopStartArrowhead](#) 267  
  [lineTopStartArrowLength](#) 268  
  [lineTopStartArrowWidth](#) 268  
  [lineTopStyle](#) 264  
  [lineTopType](#) 258  
  [lineTopWidth](#) 263  
  [reserved1434](#) 271  
  [reserved1436](#) 273  
  [reserved1438](#) 274  
  [reserved1440](#) 275  
  [reserved1441](#) 275  
  [reserved1442](#) 276  
  [Top Line Style Boolean properties](#) 276  
[top Transform property](#) 391  
[Tracking changes](#) 600  
[Transform Boolean properties](#) 394  
Transform property  
  [bottom](#) 392  
  [qvPage](#) 393  
  [left](#) 391  
  [right](#) 392  
  [rotation](#) 393  
  [top](#) 391  
  [Transform Boolean properties](#) 394  
[txdir Text property](#) 407  
[txflTextFlow Text property](#) 405

## U

[Unknown HTML Boolean properties](#) 451  
Unknown HTML property

[Unknown HTML Boolean properties](#) 451  
[wzCalloutId](#) 447  
[wzCalloutId\\_complex](#) 448  
[wzFillId](#) 440  
[wzFillId\\_complex](#) 441  
[wzFormulaeId](#) 445  
[wzFormulaeId\\_complex](#) 446  
[wzGTextId](#) 444  
[wzGTextId\\_complex](#) 445  
[wzHandlesId](#) 446  
[wzHandlesId\\_complex](#) 447  
[wzLineId](#) 439  
[wzLineId\\_complex](#) 440  
[wzLockId](#) 448  
[wzLockId\\_complex](#) 448  
[wzPathId](#) 442  
[wzPathId\\_complex](#) 442  
[wzPerspectiveId](#) 443  
[wzPerspectiveId\\_complex](#) 444  
[wzPictureId](#) 441  
[wzPictureId\\_complex](#) 441  
[wzShadowId](#) 443  
[wzShadowId\\_complex](#) 443  
[wzTextId](#) 449  
[wzTextId\\_complex](#) 449  
[wzThreeDId](#) 450  
[wzThreeDId\\_complex](#) 450  
[unused134 Text property](#) 404  
[unused140 Text property](#) 408  
[unused141 Text property](#) 408  
[unused832 callout property](#) 106  
[unused906 group shape property](#) 118

**V**

[Vendor-extensible fields](#) 27  
[Versioning](#) 26

**W**

[Web Component Boolean properties](#) 454  
 Web Component property  
[Web Component Boolean properties](#) 454  
[wzHtml](#) 452  
[wzHtml\\_complex](#) 452  
[wzName](#) 452  
[wzName\\_complex](#) 453  
[wzUrl](#) 453  
[wzUrl\\_complex](#) 454  
[WrapText Text property](#) 404  
[wzCalloutId Unknown HTML property](#) 447  
[wzCalloutId\\_complex Unknown HTML property](#) 448  
[wzDescription group shape property](#) 113  
[wzDescription\\_complex group shape property](#) 113  
[wzFillId Unknown HTML property](#) 440  
[wzFillId\\_complex Unknown HTML property](#) 441  
[wzFormulaeId Unknown HTML property](#) 445  
[wzFormulaeId\\_complex Unknown HTML property](#) 446  
[wzGTextId Unknown HTML property](#) 444  
[wzGTextId\\_complex Unknown HTML property](#) 445  
[wzHandlesId Unknown HTML property](#) 446  
[wzHandlesId\\_complex Unknown HTML property](#) 447  
[wzHtml Web Component property](#) 452  
[wzHtml\\_complex Web Component property](#) 452  
[wzLineId Unknown HTML property](#) 439  
[wzLineId\\_complex Unknown HTML property](#) 440  
[wzLockId Unknown HTML property](#) 448  
[wzLockId\\_complex Unknown HTML property](#) 448  
[wzName group shape property](#) 112  
[wzName Web Component property](#) 452  
[wzName\\_complex group shape property](#) 113  
[wzName\\_complex Web Component property](#) 453  
[wzPathId Unknown HTML property](#) 442  
[wzPathId\\_complex Unknown HTML property](#) 442  
[wzPerspectiveId Unknown HTML property](#) 443  
[wzPerspectiveId\\_complex Unknown HTML property](#) 444  
[wzPictureId Unknown HTML property](#) 441  
[wzPictureId\\_complex Unknown HTML property](#) 441  
[wzScript group shape property](#) 120  
[wzScript\\_complex group shape property](#) 120  
[wzScriptExtAttr group shape property](#) 150  
[wzScriptExtAttr\\_complex group shape property](#) 150  
[wzScriptLangAttr group shape property](#) 151  
[wzScriptLangAttr\\_complex group shape property](#) 152  
[wzShadowId Unknown HTML property](#) 443  
[wzShadowId\\_complex Unknown HTML property](#) 443  
[wzSigSetupAddlXml Signature Line property](#) 463  
[wzSigSetupAddlXml\\_complex Signature Line property](#) 463  
[wzSigSetupId Signature Line property](#) 457  
[wzSigSetupId\\_complex Signature Line property](#) 458  
[wzSigSetupProvId Signature Line property](#) 458  
[wzSigSetupProvId\\_complex Signature Line property](#) 459  
[wzSigSetupProvUrl Signature Line property](#) 464  
[wzSigSetupProvUrl\\_complex Signature Line property](#) 464  
[wzSigSetupSignInst Signature Line property](#) 462  
[wzSigSetupSignInst\\_complex Signature Line property](#) 462  
[wzSigSetupSuggSigner Signature Line property](#) 459  
[wzSigSetupSuggSigner\\_complex Signature Line property](#) 460  
[wzSigSetupSuggSigner2 Signature Line property](#) 460  
[wzSigSetupSuggSigner2\\_complex Signature Line property](#) 461  
[wzSigSetupSuggSignerEmail Signature Line property](#) 461  
[wzSigSetupSuggSignerEmail\\_complex Signature Line property](#) 462  
[wzTextId Unknown HTML property](#) 449  
[wzTextId\\_complex Unknown HTML property](#) 449  
[wzThreeDId Unknown HTML property](#) 450  
[wzThreeDId\\_complex Unknown HTML property](#) 450  
[wzTooltip group shape property](#) 119  
[wzTooltip\\_complex group shape property](#) 119  
[wzUrl Web Component property](#) 453  
[wzUrl\\_complex Web Component property](#) 454  
[wzWebBot group shape property](#) 156  
[wzWebBot\\_complex group shape property](#) 156

**X**

[xLimo geometry property](#) 177

**Y**

[yLimo geometry property](#) 178

Preliminary