[MS-CTXLS]:

Excel Custom Toolbar Binary File Format

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Revision Summary

| Date | Revision History | Revision Class | Comments |
|------------|---------------------|-------------------|--|
| 6/27/2008 | 1.0 | New | Initial Availability |
| 1/16/2009 | 1.01 | Editorial | Revised and edited the technical content |
| 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 | Editorial | Revised and edited 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 | 2.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 11/15/2010 | 2.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 12/17/2010 | 2.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 3/18/2011 | 2.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 6/10/2011 | 2.04 | None | No changes to the meaning, language, or formatting of the technical content. |
| 1/20/2012 | 2.5 | Minor | Clarified the meaning of the technical content. |
| 4/11/2012 | 2.5 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/16/2012 | 2.6 | Minor | Clarified the meaning of the technical content. |
| 10/8/2012 | 2.6 | None | No changes to the meaning, language, or formatting of the technical content. |
| 2/11/2013 | 2.6 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/30/2013 | 2.6 | None | No changes to the meaning, language, or formatting of the technical content. |
| 11/18/2013 | 2.6 | None | No changes to the meaning, language, or formatting of the technical content. |
| 2/10/2014 | 2.6 | None | No changes to the meaning, language, or formatting of the technical content. |

| Date | Revision History | Revision Class | Comments |
|------------|---------------------|-------------------|--|
| 4/30/2014 | 2.7 | Minor | Clarified the meaning of the technical content. |
| 7/31/2014 | 2.8 | Minor | Clarified the meaning of the technical content. |
| 10/30/2014 | 2.9 | Minor | Clarified the meaning of the technical content. |
| 3/16/2015 | 3.0 | Major | Significantly changed the technical content. |
| 9/4/2015 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 7/15/2016 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 9/14/2016 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 10/30/2017 | 3.0 | None | No changes to the meaning, language, or formatting of the technical content. |
| 4/27/2018 | 4.0 | Major | Significantly changed the technical content. |
| 8/28/2018 | 5.0 | Major | Significantly changed the technical content. |

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1 Introduction

This document specifies the Excel Custom Toolbar Binary File Format Structure data used by Office Toolbars Stream structure described in [MS-XLS], and used by the toolbar customization structures described in [MS-OSHARED]. Toolbar customization structures provide a run-time solution for the creation and deployment of toolbar customizations that are specific to the content of a file.

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:

- **basic toolbar**: A toolbar that consists of a row, column, or block of buttons, each of which perform an action when activated. Unlike a **menu toolbar**, which displays only text labels, a basic toolbar can display both text and icons.
- **custom toolbar**: A type of toolbar that contains a user-defined set of controls and is not included in an application by default. A custom toolbar has a toolbar identifier value of "1".
- custom toolbar control: A user-defined control that can be added to a toolbar. A custom toolbar control has a toolbar control identifier (TCID) value of "1" and can be one of the following types of controls: ActiveX, Button, ComboBox, DropDown, Edit, or Popup.
- **menu toolbar**: A type of toolbar that is displayed in an application window, typically at the top, and provides a set of menu controls from which the user can select. Activating a control on the toolbar displays a list of commands in that menu, and the menu remains open until the user closes it or chooses a menu command.
- **toolbar**: A row, column, or block of controls that represent tasks or commands within an application. A toolbar can be either a menu toolbar, which provides access to menu commands, or a **basic toolbar**, which contains buttons that provide shortcuts to tasks that are frequently accessed from menus.
- **toolbar control**: An object that appears on a toolbar and enables user interaction or input, typically to initiate an action, display information, or set values.
- toolbar control identifier (TCID): An integer that identifies a specific control on a toolbar.
- **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. We will assist you in finding the relevant information.

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

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

[MSDN-GCID/Excel] Microsoft Corporation, "Excel General Command IDs Table", Excerpted from MS-CTXLS, ExcelGCIDTable.txt

[MSDN-MTBCID/Excel] Microsoft Corporation, "Excel Menu Toolbar Command IDs Table", Excerpted from MS-CTXLS, ExcelMTBCIDTable.txt

[MSDN-MTCCID/Excel] Microsoft Corporation, "Excel Menu Toolbar Control Command IDs Table", Excerpted from MS-CTXLS, ExcelMTCCIDTable.txt

[MSDN-TBCID/Excel] Microsoft Corporation, "Excel Toolbar Command IDs Table", Excerpted from MS-CTXLS, ExcelTBCIDTable.txt

[MSDN-TBID/Excel] Microsoft Corporation, "Excel Toolbar IDs Table", Excerpted from MS-CTXLS, ExcelTBIDTable.txt

[MSDN-TCCID/Excel] Microsoft Corporation, "Excel Toolbar Control Command IDs Table", Excerpted from MS-CTXLS, ExcelTCCIDTable.txt

[MSDN-TCID/Excel] Microsoft Corporation, "Excel Toolbar Control IDs Table", Excerpted from MS-CTXLS, ExcelTCIDTable.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

None.

1.3 Overview

This file format specifies structures of Toolbar Data, Toolbar Control Data, General Command Identifier Data, Toolbar Control Command Identifier Data, Menu Toolbar Control Command Identifier Data, Menu Toolbar Command Identifier Data, Toolbar Command Identifier Data, and Toolbar Control Grid Command Identifier Data. These structures are used by the XCB Structures specified in [MS-XLS] section 2.6, and the Toolbar Customization structures specified in [MS-OSHARED] section 2.3.1.

1.4 Relationship to Protocols and Other Structures

The toolbar data presented in section $\underline{2.1}$ of this document is used by the **TBCMenuSpecific** structure described in [MS-OSHARED] section 2.3.1.21.

The toolbar control data presented in section 2.2 of this document is used by the **TBCHeader** and **TBCSFlags** structures described in [MS-OSHARED] section 2.3.1.

The toolbar control command identifier data presented in sections 2.3, 2.4, 2.5, 2.6, 2.7 and 2.8 of this document is used by the **TBCCmd** structure described in [MS-XLS] section 2.6.5.

1.5 Applicability Statement

The **toolbar** information presented in section <u>2.1</u> of this document is intended to be used in conjunction with the toolbar customization structures described in <u>[MS-OSHARED]</u>. It provides the association between a built-in toolbar, a **toolbar control**, and a **custom toolbar**.

The toolbar control information presented in section $\underline{2.2}$ of this document is intended to be used in conjunction with the toolbar customization structures described in [MS-OSHARED]. It provides the

values for the **tcid** field of the **TBCHeader** structure described in [MS-OSHARED] section 2.3.1.10 and the values for several fields of the **TBCSFlags** structure, described in [MS-OSHARED] section 2.3.1.12, which are used by built-in toolbar controls with a specific **toolbar control identifier (TCID)**.

The toolbar control command information presented in sections <u>2.3</u>, <u>2.4</u>, <u>2.5</u>, <u>2.6</u>, <u>2.7</u> and <u>2.8</u> of this document is intended to be used in conjunction with the **TBCCmd** structure described in [MS-XLS] section 2.6.5. It provides all the values that the **cmdID** field of the **TBCCmd** structure can have.

1.6 Versioning and Localization

None.

1.7 Vendor-Extensible Fields

None.

2 Structures

2.1 Toolbar Data

The Toolbar Data table in [MSDN-TBID/Excel] contains toolbar data used by the **TBCMenuSpecific** structure specified in [MS-OSHARED] section 2.3.1.21.

The tbid column of the Toolbar Data table contains a list of values for the **tbid** field of the **TBCMenuSpecific** structure. The Meaning column of the Toolbar Data table contains a short description of the **toolbar** associated with a specific toolbar identifier.

2.2 Toolbar Control Data

The Toolbar Control Data table in [MSDN-TCID/Excel] contains toolbar control data used by the **TBCHeader** and **TBCSFlags** structures specified in [MS-OSHARED] section 2.3.1.

The tcid column of the Toolbar Control Data table specifies the list of values that the **tcid** field of the **TBCHeader** structure, specified in [MS-OSHARED] section 2.3.1.10, MUST have if the **toolbar control** is not a **custom toolbar control**. The tct column specifies the toolbar control type as specified by the **tct** field of the **TBCHeader** structure specified in [MS-OSHARED] section 2.3.1.10 for the tcid. The Meaning column of the Toolbar Data table contains a short description for the tcid.

The value of the **tcid** field of the **TBCHeader** structure specified in [MS-OSHARED] section 2.3.1.10 MAY also equal 5684.

2.3 General Command Identifier Data

The General Command Identifier Data table in [MSDN-GCID/Excel] contains a list of values for the **cmdID** field of the **TBCCmd** structure specified in [MS-XLS] section 2.6.5 for built-in **toolbar controls** that were originally located in a **menu toolbar** and added to a **custom toolbar**. All entries in this table MUST use a **cmdType** value of "0x02". The Meaning column of the General Command Identifier Data table contains a short description for the **cmdID**, which can be used to cross reference the **tcid** values from the Toolbar Control Data table referenced in section 2.2.

2.4 Toolbar Control Command Identifier Data

The Toolbar Control Command Identifier Data table in [MSDN-TCCID/Excel] contains a list of values for the **cmdID** field of the **TBCCmd** structure specified in [MS-XLS] section 2.6.5 for built-in **toolbar controls** that were originally located in a **basic toolbar** and added to a **custom toolbar**. All entries in this table MUST use a **cmdType** value of "0x01". The Meaning column of the Toolbar Control Command Identifier Data table contains a short description for the **cmdID**, which can be used to cross reference the **tcid** values from the Toolbar Control Data table referenced in section 2.2.

2.5 Menu Toolbar Control Command Identifier Data

The Menu Toolbar Control Command Identifier Data table [MSDN-MTCCID/Excel] contains a list of values for the **cmdID** field of the **TBCCmd** structure specified in [MS-XLS] section 2.6.5 for built-in **toolbar controls** that were originally located in a **menu toolbar** and added to a **custom toolbar**. All entries in this table MUST use a **cmdType** value of "0x03". The Meaning column of the Menu Toolbar Control Command Identifier Data table contains a short description for the **cmdID**, which can be used to cross reference the **tcid** values from the Toolbar Control Data table referenced in section 2.2.

2.6 Menu Toolbar Command Identifier Data

The Menu Toolbar Command Identifier Data table in [MSDN-MTBCID/Excel] contains a list of values for the **cmdID** field of the **TBCCmd** structure specified in [MS-XLS] section 2.6.5 for built-in **toolbar controls** of type "Popup", "ButtonPopup", "SplitButtonMRUPopup", or "SplitButtonPopup" that were originally located in a **menu toolbar** and added to a **custom toolbar**. All entries in this table MUST use a **cmdType** value of "0x07". The Meaning column of the Menu Toolbar Command Identifier Data table contains a short description for the **cmdID**, which can be used to cross reference the **tbid** values from the Toolbar Data table referenced in section 2.1.

2.7 Toolbar Command Identifier Data

The Toolbar Command Identifier Data table in [MSDN-TBCID/Excel] contains a list of values for the **cmdID** field of the **TBCCmd** structure specified in [MS-XLS] section 2.6.5 for built-in **toolbar controls** of type "Popup", "ButtonPopup", "SplitButtonMRUPopup", or "SplitButtonPopup" that were originally located in a **basic toolbar** and added to a **custom toolbar**. All entries in this table MUST use a **cmdType** value of "0x05". The Meaning column of the Toolbar Command Identifier Data table contains a short description for the **cmdID**, which can be used to cross reference the **tbid** values from the Toolbar Data table referenced in section 2.1.

2.8 Toolbar Control Grid Command Identifier Data

The following Toolbar Control Grid Command Identifier Data table contains a list of values for the **cmdID** field of the **TBCCmd** structure specified in [MS-XLS] section 2.6.5 for built-in **toolbar controls** of type "Grid". All entries in this table MUST use a **cmdType** value of "0x00". The tcid column of this table contains a list of the values that the **tbch.tcid** field of the **TBC** structure specified in [MS-XLS] section 2.6.4 that contains the **TBCCmd** structure referenced here MUST have when using the **cmdID** values listed in the cmdID column.

| tcid | cmdID |
|------|--------|
| 1459 | 0x00A5 |
| 1460 | 0x00A5 |
| 1461 | 0x00A5 |
| 1465 | 0x00A8 |
| 1466 | 0x00A8 |
| 1470 | 0x00AC |
| 1471 | 0x00AC |

| 3 | Structure | Examp | les |
|---|------------------|-------|-----|
| _ | ot. actai c | -Aump | - |

None.

| 4 Security Consideration |
|--------------------------|
| 4 Security Consideration |

None.

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 Excel 97
- Microsoft Excel 2000
- Microsoft Excel 2002
- Microsoft Office Excel 2003
- Microsoft Office Excel 2007
- Microsoft Excel 2010
- Microsoft Excel 2013
- Microsoft Excel 2016
- Microsoft Excel 2019

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.

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.

| Section | Description | Revision class |
|--------------------------------|-------------------------------------|----------------|
| 5 Appendix A: Product Behavior | Updated list of supported products. | major |

Product behavior 12 Applicability 6 R C References 5 informative 6 Change tracking 13 normative 5 Relationship to protocols and other structures 6 D S Details General Command Identifier Data table 8 Security - implementer considerations 11 Menu Toolbar Command Identifier Data table 8 Structure examples 10 Menu Toolbar Control Command Identifier Data table 8 Structures General Command Identifier Data table 8 Toolbar Command Identifier Data table 9 Menu Toolbar Command Identifier Data table 8 Toolbar Control Command Identifier Data table 8 Menu Toolbar Control Command Identifier Data Toolbar Control Data table 8 table 8 Toolbar Control Grid Command Identifier Data Toolbar Command Identifier Data table 9 table 9 Toolbar Control Command Identifier Data table 8 Toolbar Data table 8 Toolbar Control Data table 8 Toolbar Control Grid Command Identifier Data Ε table 9 Toolbar Data table 8 Examples 10 Т Toolbar Command Identifier Data table 9 Fields - vendor-extensible 7 Toolbar Control Command Identifier Data table 8 Toolbar Control Data table 8 G Toolbar Control Grid Command Identifier Data table **General Command Identifier Data table 8** Toolbar Data table 8 Glossary 5 Tracking changes 13 Ι V **Implementer - security considerations 11** Vendor-extensible fields 7 Informative references 6 Versioning 7 Introduction 5 Localization 7 Menu Toolbar Command Identifier Data table 8 Menu Toolbar Control Command Identifier Data table 8 N Normative references 5 0 Overview (synopsis) 6 Ρ

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