[MS-DMCSOM]:
Document Management Client-Side Object Model Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
01/20/2012	0.1	New	Released new document.
04/11/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.
07/16/2012	0.1	No change	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1 Introduction

The Document Management Client-Side Object Model Protocol provides types, methods, and properties to enable a protocol client to upload videos and update video display properties on a collaboration server.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

The following terms are defined in [MS-GLOS]:

authentication

The following terms are defined in [MS-OFCGLOS]:

absolute URL
CSOM Boolean
CSOM String
CSOM UInt32
embed code
folder
link
list
root folder
server-relative URL
site
Uniform Resource Locator (URL)
video container

The following terms are specific to this document:

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

1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

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. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

[MS-CSOM] Microsoft Corporation, "SharePoint Client Query Protocol Specification".

[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

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, http://www.ietf.org/rfc/rfc2616.txt

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, http://www.ietf.org/rfc/rfc2818.txt

[RFC4627] Crockford, D., "The application/json Media Type for Javascript Object Notation (JSON)", RFC 4627, July 2006, http://www.ietf.org/rfc/rfc4627.txt

1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary".

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary".

1.3 Overview

This protocol defines types, methods, and properties that protocol clients use to access video data on a **site (2)** on a protocol server. The set of types, properties, and methods provide the ability for remote clients to upload video, and view and update the **embed code** for a **video container**.

1.4 Relationship to Other Protocols

The Document Management Client Side Object Model Protocol is a set of types, properties, and methods that can be accessed by using the SharePoint Client Query protocol as described in [MS-CSOM]. This protocol uses JSON as described in [RFC4627] to format data returned to a protocol client. This protocol also uses HTTP, as described in [RFC2616], and HTTPS, as described in [RFC2818]. The dependencies for this protocol are shown in the following layering diagram.
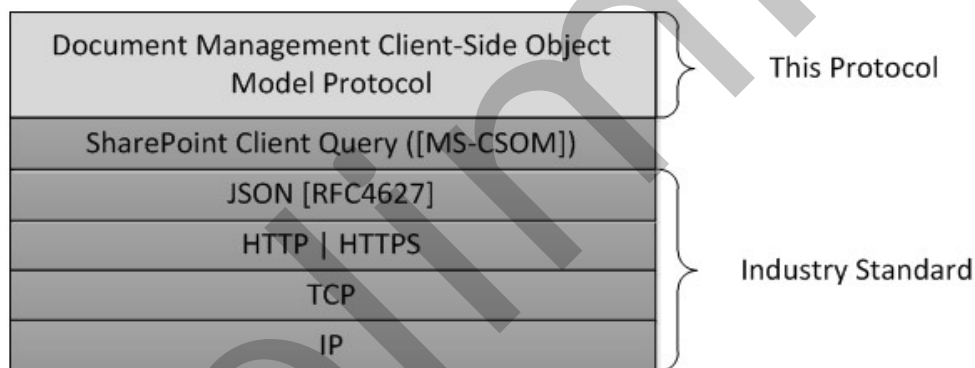

Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against video loaded on a site (2) that is identified by a **Uniform Resource Locator (URL)** that is recognized by protocol clients. This protocol assumes that **authentication (2)** has been performed by underlying protocols.

1.6 Applicability Statement

This protocol can be used by a protocol client to manage video data on a protocol server. This protocol is optimized to enable a protocol client to specify the exact set of data and operations to perform in a single batch, making it a suitable solution when the connection speed between the protocol client and the protocol server is slow. This protocol is not suitable and is inefficient if both the protocol client and protocol server are on the same computer. In this case, the protocol client can use an API that does not require communication over a network.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2   Messages

2.1   Transport

Messages are transported by using the SharePoint Client Query Protocol Specification, as specified in [MS-CSOM].

2.2   **Message Syntax**

None.

3 Protocol Details

3.1 Server Details

3.1.1 Abstract Data Model

This protocol provides two parent types:

- **Microsoft.SharePoint.Client.Video.EmbedCodeConfiguration** (section 3.1.5.1)

- **Microsoft.SharePoint.Client.Video.VideoSet** (section 3.1.5.2)

3.1.2 Timers

None.

3.1.3 Initialization

3.1.4 Higher-Layer Triggered Events

None.

3.1.5 Message Processing Events and Sequencing Rules

3.1.5.1 Microsoft.SharePoint.Client.Video.EmbedCodeConfiguration

TypeId: {294CF1EB-CEF4-49E0-B114-648ABB3916AF}

ShortName: SP.Video.EmbedCodeConfiguration

Specifies the set of properties used in configuring the embed code for a video.

3.1.5.1.1 Properties

3.1.5.1.1.1 Scalar Properties

####### 3.1.5.1.1.1.1 AutoPlay

Type: CSOM Boolean

Accessibility: Read/Write

Specifies whether to start playing the video automatically. If not specified, defaults to false.

####### 3.1.5.1.1.1.2 DisplayTitle

Type: CSOM Boolean

Accessibility: Read/Write

Specifies whether to display title of the video in the video container. If not specified, defaults to false.

3.1.5.1.1.1.3 LinkToOwnerProfilePage

Type: CSOM Boolean

Accessibility: Read/Write

Specifies whether to, in the title bar of the video, add a **link (2)** to the profile page of the video owner. If not specified, defaults to false.

3.1.5.1.1.1.4 LinkToVideoHomePage

Type: CSOM Boolean

Accessibility: Read/Write

Specifies whether to, in the title bar of the video, add a link (2) to the video player page. If not specified, defaults to false.

3.1.5.1.1.1.5 Loop

Type: CSOM Boolean

Accessibility: Read/Write

Specifies whether to automatically restart the video from the beginning after it finishes. If not specified, defaults to false.

3.1.5.1.1.1.6 PixelHeight

Type: CSOM UInt32

Accessibility: Read/Write

Specifies the video container height in pixels. If not specified, the height will be taken from the video dimensions.

3.1.5.1.1.1.7 PixelWidth

Type: CSOM UInt32

Accessibility: Read/Write

Specifies the video container width in pixels. If not specified, the width will be taken from the video dimensions.

3.1.5.1.1.1.8 PreviewImagePath

Type: CSOM String

Accessibility: Read/Write

Specifies Uniform Resource Locator (URL) for the preview image that displays before the video plays.

3.1.5.1.1.1.9 StartTime

Type: CSOM UInt32

Accessibility: Read/Write

Specifies the offset in seconds from the beginning of the video stream when playback starts. If not specified, defaults to 0.

3.1.5.1.1.2   ObjectPath Properties

None.

3.1.5.2   Microsoft.SharePoint.Client.Video.VideoSet

TypeId: {999F0B44-5022-4C04-A0C3-D0705E44395F}

ShortName: SP.Video.VideoSet

A class that specifies a **folder** that contains all related information about a video, such as different renditions of the video or the thumbnail image.

3.1.5.2.1   Properties

3.1.5.2.1.1   Scalar Properties

None.

3.1.5.2.1.2   ObjectPath Properties

None.

3.1.5.2.2   Methods

3.1.5.2.2.1   Scalar Methods

3.1.5.2.2.1.1   GetEmbedCode

This method is a static CSOM method.

Return Type: CSOM String

Returns the properties, as specified in section 3.1.5.1.1, that are used as parameters to define the embed code for the video at the specified path. The title of the video, the duration of the video, and the description of the video are also returned.

Parameters:

videoPath: **Absolute URL** or relative Uniform Resource Locator (URL) for the video item or player page.

Type: CSOM String

It MUST NOT be NULL. It MUST NOT be empty.

properties: Optional properties to be used to configure the embed code.

Type: Microsoft.SharePoint.Client.Video.EmbedCodeConfiguration

Exceptions:

Error Code	Error Type Name	Condition
-2147024809	System.ArgumentException	Video cannot be found at the specified path.
-2147467261	System.ArgumentNullException	Video cannot be found if the path provided is blank or NULL.

3.1.5.2.2.1.2 UploadVideo

This method is a static CSOM method.

Return Type: CSOM String

Uploads the video file with the specified file name to the specified **list (1)**.

Returns the absolute URL of the uploaded video file.

Parameters:

list: List (1) where the file is uploaded.

Type: Microsoft.SharePoint.Client.List

It MUST NOT be NULL.

fileName: File name of the video, including the extension.

Type: CSOM String

It MUST NOT be NULL. It MUST NOT be empty.

file: File stream to be uploaded.

Type: CSOM Stream

It MUST NOT be NULL.

overwriteIfExists: Overwrites the existing file, if set to **true**. If set to **false**, and the file with this name exists, it will not be modified and this method call will have no effect.

Type: CSOM Boolean

parentFolderPath: Optional **server-relative URL** for the folder within the list where the file can be uploaded. If **NULL**, the file will be uploaded to the **root folder**.

Type: CSOM String

Exceptions:

Error Code	Error Type Name	Condition
-1	System.InvalidOperationException	Cannot upload video because another folder with the same name as specified in *fileName* without the extension already exists.

3.1.5.2.2.2   ObjectPath Methods

None.

3.1.6   Timer Events

None.

3.1.7   Other Local Events

None.

4 Protocol Examples

4.1 Upload a Video

In this example, a video file, with the specified filename (videoname.mp4), is uploaded to the specified list (1).

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <StaticMethod TypeId="{999f0b44-5022-4c04-a0c3-d0705e44395f}" Name="UploadVideo" Id="11">
      <Parameters>
        <Parameter ObjectPathId="7" />
        <Parameter Type="String">videoName.mp4</Parameter>
        <Parameter Type="Binary">
          <Include href="cid:http://sharepoint.microsoft.com/12" />
        </Parameter>
        <Parameter Type="Boolean">true</Parameter>
        <Parameter Type="Null" />
      </Parameters>
    </StaticMethod>
  </Actions>
  <ObjectPaths>
    <Identity Id="7" Name="740c6a0b-85e2-48a0-a494-e0f1759d4aa7:web:5eff230f-43c6-4941-b0d9-
f7de8d2a4bce:list:a3b41eec-5f8a-4450-905f-9166df2dda39" />
  </ObjectPaths>
</Request>
```

Response:

```
[
}
    "SchemaVersion": "15.0.0.0", "LibraryVersion": "15.0.3410.1000", "ErrorInfo": null
}, 11, "http:\u002f\u002fserverName\u002flibraryName\u002fvideoName"
]
```

4.2 Retrieve the Embed Code for a Video

In this example, the embed code for a video with a specified URL is retrieved.

Request:

```
<Request AddExpandoFieldTypeSuffix="true" SchemaVersion="15.0.0.0" LibraryVersion="15.0.0.0"
ApplicationName=".NET Library"
xmlns="http://schemas.microsoft.com/sharepoint/clientquery/2009">
  <Actions>
    <StaticMethod TypeId="{999f0b44-5022-4c04-a0c3-d0705e44395f}" Name="GetEmbedCode" Id="1">
      <Parameters>
        <Parameter Type="String">/libraryName/videoName</Parameter>
        <Parameter TypeId="{294cf1eb-cef4-49e0-b114-648abb3916af}">
          <Property Name="AutoPlay" Type="Boolean">false</Property>
          <Property Name="DisplayTitle" Type="Boolean">true</Property>
```

```
                <Property Name="LinkToOwnerProfilePage" Type="Boolean">true</Property>
                <Property Name="LinkToVideoHomePage" Type="Boolean">true</Property>
                <Property Name="Loop" Type="Boolean">false</Property>
                <Property Name="PixelHeight" Type="UInt32">240</Property>
                <Property Name="PixelWidth" Type="UInt32">320</Property>
                <Property Name="PreviewImagePath"
  Type="String">/libraryName/previewImage.jpg</Property>
                <Property Name="StartTime" Type="UInt32">10</Property>
            </Parameter>
          </Parameters>
        </StaticMethod>
    </Actions>
    </ObjectPaths>
</Request>
```

Response:

```
[
{
    "SchemaVersion": "15.0.0.0", "LibraryVersion": "15.0.3410.1000", "ErrorInfo": null
}, 1, "<iframe type='text\u002fhtml' width='320' height='240'
src='http:\u002f\u002fserverName\u002f_layouts\u002f15\u002fvideoembedplayer.aspx?site=e233b4
fd10cc40f493fa245f49717531&amp;web=44aa6759312640999cd0e372b622c813&amp;folder=ccd17bc6952f41
f9a701df4b52f613cb&amp;img=%2FlibraryName%2FpreviewImage%2Ejpg&amp;t=10&amp;title=1&amp;lHome
=1&amp;lOwner=1' data-title='videoName' data-description='' data-duration='0'><\u002fiframe>"
]
```

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs:

▪ Microsoft® SharePoint® Foundation 2013 Preview

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product 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.

7 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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