

[MS-CTXLS]:

Excel Custom Toolbar Binary File Format

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation (“this documentation”) for protocols, file formats, data portability, computer languages, and standards support. Additionally, overview documents cover inter-protocol relationships and interactions.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you can make copies of it in order to develop implementations of the technologies that are described in this documentation and can distribute portions of it in your implementations that use these technologies or in your documentation as necessary to properly document the implementation. You can also distribute in your implementation, with or without modification, any schemas, IDLs, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications documentation.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that might cover your implementations of the technologies described in the Open Specifications documentation. Neither this notice nor Microsoft's delivery of this documentation grants any licenses under those patents or any other Microsoft patents. However, a given Open Specifications document might be covered by the Microsoft [Open Specifications Promise](#) or the [Microsoft Community Promise](#). If you would prefer a written license, or if the technologies described in this documentation are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplg@microsoft.com.
- **License Programs.** To see all of the protocols in scope under a specific license program and the associated patents, visit the [Patent Map](#).
- **Trademarks.** The names of companies and products contained in this documentation might be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit www.microsoft.com/trademarks.
- **Fictitious Names.** The example companies, organizations, products, domain names, email addresses, logos, people, places, and events that are depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

Reservation of Rights. All other rights are reserved, and this notice does not grant any rights other than as specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications documentation does not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments, you are free to take advantage of them. Certain Open Specifications documents are intended for use in conjunction with publicly available standards specifications and network programming art and, as such, assume that the reader either is familiar with the aforementioned material or has immediate access to it.

Support. For questions and support, please contact dochelp@microsoft.com.

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.
4/22/2021	6.0	Major	Significantly changed the technical content.
8/17/2021	7.0	Major	Significantly changed the technical content.

Table of Contents

1	Introduction	5
1.1	Glossary	5
1.2	References	5
1.2.1	Normative References	5
1.2.2	Informative References	6
1.3	Overview	6
1.4	Relationship to Protocols and Other Structures	6
1.5	Applicability Statement	6
1.6	Versioning and Localization	7
1.7	Vendor-Extensible Fields	7
2	Structures	8
2.1	Toolbar Data	8
2.2	Toolbar Control Data	8
2.3	General Command Identifier Data	8
2.4	Toolbar Control Command Identifier Data	8
2.5	Menu Toolbar Control Command Identifier Data	8
2.6	Menu Toolbar Command Identifier Data	8
2.7	Toolbar Command Identifier Data.....	9
2.8	Toolbar Control Grid Command Identifier Data.....	9
3	Structure Examples	10
4	Security Considerations.....	11
5	Appendix A: Product Behavior	12
6	Change Tracking.....	13
7	Index.....	14

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 [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 [2.1](#) of this document is intended to be used in conjunction with the toolbar customization structures described in [\[MS-OSHARED\]](#). It provides the association between a built-in toolbar, a **toolbar control**, and a **custom toolbar**.

The toolbar control information presented in section [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 [2.3](#), [2.4](#), [2.5](#), [2.6](#), [2.7](#) and [2.8](#) 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 Examples

None.

4 Security Considerations

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
- Microsoft Excel 2021

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

7 Index

A

[Applicability](#) 6

C

[Change tracking](#) 13

D

Details

[General Command Identifier Data table](#) 8

[Menu Toolbar Command Identifier Data table](#) 8

[Menu Toolbar Control Command Identifier Data table](#) 8

[Toolbar Command Identifier Data table](#) 9

[Toolbar Control Command Identifier Data table](#) 8

[Toolbar Control Data table](#) 8

[Toolbar Control Grid Command Identifier Data table](#) 9

[Toolbar Data table](#) 8

E

[Examples](#) 10

F

[Fields - vendor-extensible](#) 7

G

[General Command Identifier Data table](#) 8

[Glossary](#) 5

I

[Implementer - security considerations](#) 11

[Informative references](#) 6

[Introduction](#) 5

L

[Localization](#) 7

M

[Menu Toolbar Command Identifier Data table](#) 8

[Menu Toolbar Control Command Identifier Data table](#) 8

N

[Normative references](#) 5

O

[Overview \(synopsis\)](#) 6

P

[Product behavior](#) 12

R

[References](#) 5

[informative](#) 6

[normative](#) 5

[Relationship to protocols and other structures](#) 6

S

[Security - implementer considerations](#) 11

[Structure examples](#) 10

Structures

[General Command Identifier Data table](#) 8

[Menu Toolbar Command Identifier Data table](#) 8

[Menu Toolbar Control Command Identifier Data table](#) 8

[Toolbar Command Identifier Data table](#) 9

[Toolbar Control Command Identifier Data table](#) 8

[Toolbar Control Data table](#) 8

[Toolbar Control Grid Command Identifier Data table](#) 9

[Toolbar Data table](#) 8

T

[Toolbar Command Identifier Data table](#) 9

[Toolbar Control Command Identifier Data table](#) 8

[Toolbar Control Data table](#) 8

[Toolbar Control Grid Command Identifier Data table](#) 9

[Toolbar Data table](#) 8

[Tracking changes](#) 13

V

[Vendor-extensible fields](#) 7

[Versioning](#) 7