Office URI Schemes

Office 2013 and later

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Applies to: Office 2010 SP2 | Office 2013 | Office for iPad | Office for iPhone | Office for Mac 2011 | SharePoint 2013

1.1 ABSTRACT

This document defines the format of Uniform Resource Identifiers (URIs) for office productivity applications. The scheme is supported in Microsoft Office 2010 Service Pac 2013 for Windows and the Microsoft SharePoint 2013 products. It is also supported in Office for iPhone, Office for iPad, and Office for Mac 2011.

1.2 INTRODUCTION

These URI schemes allow for office productivity applications to be invoked with various commands. Each application is given a different named scheme but all schemes f (URI Schema).

1.3 URI SCHEMA

Full schema

<scheme-name>:<command-name>"|"*<command-argument-descriptor>* "|"*<command-argument>*

A URI as defined in this document may have one or more command arguments, each of which must include both the *<command-argument-descriptor>* and the *<comma* vertical bar ("|") character. When more than one command argument is included in a URI there must be a vertical bar ("|") character separating each command argument

These schemes do not include an authority component as defined in section 3.2 of RFC 3986. Invocation of the commands specified in this document takes place in the c example, when the URI "ms-excel:ofv|u|http://contoso/Q4/budget.xls" is invoked from a personal computer running Microsoft Windows with Microsoft Office 2013 instal installation of Microsoft Excel will be launched and passed arguments to open the file at http://contoso/Q4/budget.xls in read-only mode. Note that the vertical bar used those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delimiters. This is done intentionally to maximize the set of characters the URI comm percent-encode those characters.

The scheme syntax includes the following:

1. *<scheme-name>*: This refers to the type of application that should be invoked. For instance, the ms-word: scheme name is registered by Microsoft Word.

2. ":" separator

3. *<command-name>*: This describes the actions that the application should perform. For instance, opening a document for viewing. The list of command names is de

4. "|" (vertical bar) separator

5. *<command-argument-descriptor>*: This element gives more information about what the command argument is about.

6. "|" (vertical bar) separator

7. *<command-argument>*: The arguments vary depending on the command. One common argument is the URI to a document, typically using the http or https scher segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescaped.

Abbreviated schema

An abbreviated form of the office URI schemes allows for a more compact request to launch a specified Office application to open the resource located at a given URI. Th *name>* "ofv" and the *<command-argument-descriptor>* "u". No further commands or command arguments are allowed in this schema.

<scheme-name>:<command-argument>

1. *<scheme-name>*: the type of application that should be invoked. For instance ms-word: for Microsoft Word.

2. *<command-argument>*: URI for the resource the application should open. Currently only URIs based on the http or https scheme are supported.

1.4 SCHEME NAMES AND OFFICE APPLICATION REGISTRATIONS

The following is the list of scheme names implemented in Microsoft Office applications. When Microsoft Office is installed, each scheme name is registered with Windows same name. Note that "ms-spd" is an abbreviation for SharePoint Designer.

   - ms-word:

   - ms-powerpoint:

   - ms-excel:

   - ms-visio:

   - ms-access:

- *ms-access:*

- *ms-project:*

- *ms-publisher:*

- *ms-spd:*

- *ms-infopath:*

1.5 COMMANDS AND REQUIRED COMMAND ARGUMENTS

View Document

The following command will cause the application to open the document referenced by the URI in a read-only or view mode.

Command Name: ofv

Command argument descriptor: u

Command argument: a URI to the document, based on the http or https scheme

Example: ms-excel:ofv|u|http://contoso/Q4/budget.xls

Edit Document

The following command will cause the application to open the document referenced by the URI in editing mode.

Command Name: ofe

Command argument descriptor: u

Command argument: a URI to the document, based on the http or https scheme

Example: ms-powerpoint:ofe|u|http://www.fourthcoffee.com/AllHandsDeck.ppt

New Document from Template

The following command will cause the application to create and open a new document based on the template stored at the specified URI. The template file is not modifi
argument may be supplied to specify the default path offered as a save location when the file is first saved. It is possible for the user to choose a different location.

Command Name: nft

Command argument descriptor 1: u

Command argument 1: a URI to the template, based on the http or https scheme

Optional Command argument descriptor 2: s

Optional Command argument 2: URI to specify the default save folder

Example: ms-word:nft|u|http://cohowinery/templates/elegance.pot|s|http://cohowinery/presentations

As a note, if the optional default save location is supplied, it must be pointing to the same host name as the template.

Additionally, the SharePoint Designer and InfoPath applications (which implement the ms-spd: scheme and ms-infopath: schemes, respectively) do not support the "new

1.6 BACKWARDS COMPATIBILITY

When parsing a URI to extract the appropriate command arguments for a given command, the Office URI handler will only use the command arguments that have the ex
are additional pairs of arguments and argument descriptors that have unexpected argument descriptors, they will be removed from the URI. This mechanism allows futur
command arguments without breaking backward compatibility with legacy implementations of this scheme.

1.7 IMPLEMENTATION RESTRICTIONS ON COMMAND ARGUMENTS

The below restrictions are placed on command arguments in its current implementation in Office 2013.

Length limitations on URI command arguments

For URI command arguments, the maximum path length is 256 characters for all apps except Excel, where the limit is 216. Path lengths greater than these may be suppor
recommended before deploying any solutions that rely on this.

Allowed characters in URI command arguments

Allowed URIs must conform to the standards proposed in RFC 3987 – Internationalized Resource Identifiers (IRIs) . Characters identified as reserved in RFC 3986 should n
contain any of the following characters: \ / : ? < > | " or *.

APPENDIX A – URI SCHEME REGISTRATION TEMPLATE FOR MS-WORD SCHEME

A-3. URI Scheme Syntax

Word Scheme = "ms-word:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

document-uri = URI location of document to open

template-uri = URI location of template file upon which new file will be based

save-location = URI location of folder in which new document should be created

A-4. URI Scheme Semantics

The ms-word scheme defines a URI syntax for opening or creating a word processing document. The scheme defines three commands that serve as instructions regarding document. The commands are 1) open-for-edit-cmd (ofe), which instructs a word processing application to open the document at the specified URI for editing; 2) open-f processing application to open the document at the specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs a word processing applicatio document template located at the specified template-uri URI and save the new document either in the location specified in the optional save-location URI or, in the abse library location.

A-5. Applications/Protocols that use the ms-word URI Scheme

The ms-word URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Word 2013 or Microsoft Word 2010 with Service Pack 2. Microsoft SharePoint 2013 uses m documents stored in SharePoint document libraries.

A-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters.

Within <*command-argument*> segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescape

A-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-word URIs, clicking on a link to an ms-word URI will cause the registered word processing applicati processing application to attempt to open a document at the specified URI. Word processing applications registering to process ms-word URIs should implement protect untrusted remote systems that may include malicious code.

A-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX B – URI SCHEME REGISTRATION TEMPLATE FOR MS-POWERPOINT SCHEME

B-3. URI Scheme Syntax

- PowerPoint Scheme = "ms-powerpoint:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

- open-for-edit-cmd = "ofe|u|" document-uri

- open-for-view-cmd = "ofv|u|" document-uri

- new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

- document-uri = URI location of document to open

- template-uri = URI location of template file upon which new file will be based

- save-location* = URI location of folder in which new document should be created

- *save-location is an optional parameter

B-4. URI Scheme Semantics

The ms-powerpoint scheme defines a URI syntax for opening or creating a presentation document. The scheme defines three commands that serve as instructions regard document. The commands are 1) open-for-edit-cmd (ofe), which instructs a presentation application to open the document at the specified URI for editing; 2) open-for-v application to open the document at the specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs a presentation application to create a n located at the specified template-uri URI and save the new document either in the location specified in the optional save-location URI or, in the absence of that optional

B-5. Applications/Protocols that use the ms-powerpoint URI Scheme

The ms-powerpoint URI Scheme is used by Microsoft Office 2013 to invoke Microsoft PowerPoint 2013 or Microsoft PowerPoint 2010 with Service Pack 2. Microsoft Share presentation documents stored in SharePoint document libraries.

B-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters.

Within *<command-argument>* segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescaped

B-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-powerpoint URIs, clicking on a link to an ms-powerpoint URI will cause the registered presentation the application to attempt to open a document at the specified URI. Applications registering to process ms-powerpoint URIs should implement protections to guard agai systems that may include malicious code.

B-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX C – URI SCHEME REGISTRATION TEMPLATE FOR MS-EXCEL SCHEME

C-3. URI Scheme Syntax

Excel Scheme = "ms-excel:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

document-uri = URI location of document to open

template-uri = URI location of template file upon which new file will be based

save-location* = URI location of folder in which new document should be created

*save-location is an optional parameter

C-4. URI Scheme Semantics

The ms-excel scheme defines a URI syntax for opening or creating a spreadsheet document. The scheme defines three commands that serve as instructions regarding wh document. The commands are 1) open-for-edit-cmd (ofe), which instructs a spreadsheet application to open the document at the specified URI for editing; 2) open-for-v application to open the document at the specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs a spreadsheet application to create a ne located at the specified template-uri URI and save the new document either in the location specified in the optional save-location URI or, in the absence of that optional

C-5. Applications/Protocols that use the ms-excel URI Scheme

The ms-excel URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Excel 2013 or Microsoft Excel 2010 with Service Pack 2. Microsoft SharePoint 2013 uses ms stored in SharePoint document libraries.

C-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters.

Within *<command-argument>* segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescape

C-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-excel URIs, clicking on a link to an ms-excel URI will cause the registered spreadsheet application to to attempt to open a document at the specified URI. Applications registering to process ms-excel URIs should implement protections to guard against opening documen include malicious code.

C-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX D – URI SCHEME REGISTRATION TEMPLATE FOR MS-VISIO SCHEME

D-3. URI Scheme Syntax

Visio Scheme = "ms-visio:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

document-uri = URI location of document to open

template-uri = URI location of template file upon which new file will be based

save-location* = URI location of folder in which new document should be created

*save-location is an optional parameter

D-4. URI Scheme Semantics

The ms-visio scheme defines a URI syntax for opening or creating a Microsoft Visio document. The scheme defines three commands that serve as instructions regarding document. The commands are 1) open-for-edit-cmd (ofe), which instructs Visio to open the document at the specified URI for editing; 2) open-for-view-cmd (ofv), which specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs Visio to create a new document based on the document template located at the document either in the location specified in the optional save-location URI or, in the absence of that optional URI, in the default document library location.

D-5. Applications/Protocols that use the ms-visio URI Scheme

The ms-visio URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Visio 2013 or Microsoft Visio 2010 with Service Pack 2. Microsoft SharePoint 2013 uses ms- SharePoint document libraries.

D-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters.

Within *<command-argument>* segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescape

D-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-visio URIs, clicking on a link to an ms-visio URI will cause the registered application to be launched, to open a document at the specified URI. Applications registering to process ms-visio URIs should implement protections to guard against opening documents from untr malicious code.

D-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX E – URI SCHEME REGISTRATION TEMPLATE FOR MS-ACCESS SCHEME

E-3. URI Scheme Syntax

Access Scheme = "ms-access:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

document-uri = URI location of document to open

template-uri = URI location of template file upon which new file will be based

save-location* = URI location of folder in which new document should be created

*save-location is an optional parameter

E-4. URI Scheme Semantics

The ms-access scheme defines a URI syntax for opening or creating a database. The scheme defines three commands that serve as instructions regarding what should be commands are 1) open-for-edit-cmd (ofe), which instructs the database application to open the database at the specified URI for editing; 2) open-for-view-cmd (ofv), wh the database at the specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs the database application to create a new database based on uri URI and save the new database either in the location specified in the optional save-location URI or, in the absence of that optional URI, in the default document library

E-5. Applications/Protocols that use the ms-access URI Scheme

The ms-access URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Access 2013 or Microsoft Access 2010 with Service Pack 2 from web pages. Microsoft Sh Access databases stored in SharePoint document libraries.

E-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters. Within <command-argument> segments the RFC 3986 re argument data, not delimiters, and are therefore included unescaped.

E-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-access URIs, clicking on a link to an ms-access URI will cause the registered application to be launch attempt to open a database at the specified URI. Applications registering to process ms-access URIs should implement protections to guard against opening databases fr malicious code.

E-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX F – URI SCHEME REGISTRATION TEMPLATE FOR MS-PROJECT SCHEME

F-3. URI Scheme Syntax

Project Scheme = "ms-project:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

Project Scheme = "ms-project:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

document-uri = URI location of document to open

template-uri = URI location of template file upon which new file will be based

save-location* = URI location of folder in which new document should be created

*save-location is an optional parameter

F-4. URI Scheme Semantics

The ms-project scheme defines a URI syntax for opening or creating a Microsoft Project document. The scheme defines three commands that serve as instructions regard document. The commands are 1) open-for-edit-cmd (ofe), which instructs Project to open the document at the specified URI for editing; 2) open-for-view-cmd (ofv), whic specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs Project to create a new document based on the document template located at th document either in the location specified in the optional save-location URI or, in the absence of that optional URI, in the default document library location.

F-5. Applications/Protocols that use the ms-project URI Scheme

The ms-project URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Project 2013 from web pages. Microsoft SharePoint 2013 uses ms-project URIs as links t document libraries.

F-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters.

Within <*command-argument*> segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescape

F-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-project URIs, clicking on a link to an ms-project URI will cause the registered application to be laun attempt to open a document at the specified URI. Applications registering to process ms-project URIs should implement protections to guard against opening document include malicious code.

F-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX G – URI SCHEME REGISTRATION TEMPLATE FOR MS-PUBLISHER SCHEME

G-3. URI Scheme

Syntax Publisher Scheme = "ms-publisher:" open-for-edit-cmd | open-for-view-cmd | new-from-template-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

new-from-template-cmd = "nft|u|" template-uri ["|s|" save-location]

document-uri = URI location of document to open

template-uri = URI location of template file upon which new file will be based

save-location* = URI location of folder in which new document should be created

*save-location is an optional parameter

G-4. URI Scheme Semantics

The ms-publisher scheme defines a URI syntax for opening or creating a Microsoft Publisher document. The scheme defines three commands that serve as instructions re referenced document. The commands are 1) open-for-edit-cmd (ofe), which instructs Publisher to open the document at the specified URI for editing; 2) open-for-view-c document at the specified URI in a read-only mode; and 3) new-from-template-cmd (nft), which instructs Publisher to create a new document based on the document te and save the new document either in the location specified in the optional save-location URI or, in the absence of that optional URI, in the default document library locat

G-5. Applications/Protocols that use the ms-publisher URI Scheme

The ms-publisher URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Publisher 2013 or Microsoft Publisher 2010 with Service Pack 2 from web pages. Micr links to Publisher documents stored in SharePoint document libraries.

G-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delim set of characters the URI command argument can support without a need to percent-encode those characters. Within <command-argument> segments the RFC 3986 re argument data, not delimiters, and are therefore included unescaped.

G-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-publisher URIs, clicking on a link to an ms-publisher URI will cause the registered application to be

attempt to open a document at the specified URI. Applications registering to process ms-publisher URIs should implement protections to guard against opening docume include malicious code.

G-9. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX H – URI SCHEME REGISTRATION TEMPLATE FOR MS-SPD SCHEME

H-3. URI Scheme Syntax

SharePoint Designer Scheme = "ms-spd:" open-for-edit-cmd

open-for-edit-cmd = "ofe|u|" document-uri

document-uri = URI location of document to open

H-4. URI Scheme Semantics

The ms-spd scheme defines a URI syntax for opening a Microsoft SharePoint Designer document. The scheme defines two commands that serve as instructions regarding document. The commands are 1) open-for-edit-cmd (ofe), which instructs SharePoint Designer to open the document at the specified URI for editing; and 2) open-for-vie Designer to open the document at the specified URI in a read-only mode.

H-5. Applications/Protocols that use the ms-spd URI Scheme

The ms-spd URI Scheme is used by Microsoft Office 2013 to invoke Microsoft SharePoint Designer 2013 from web pages. Microsoft SharePoint 2013 uses ms-spd URIs as in SharePoint document libraries.

H-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delin set of characters the URI command argument can support without a need to percent-encode those characters.

Within *command-argument* segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescape

H-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-spd URIs, clicking on a link to an ms-spd URI will cause the registered application to be launched, v open a document at the specified URI. Applications registering to process ms-spd URIs should implement protections to guard against opening documents from untrust code.

H-8. References

RFC 3987 – International Resource Identifiers (IRIs)

APPENDIX I – URI SCHEME REGISTRATION TEMPLATE FOR MS-INFOPATH SCHEME

I-3. URI Scheme Syntax

Infopath Scheme = "ms-infopath:" open-for-edit-cmd | open-for-view-cmd

open-for-edit-cmd = "ofe|u|" document-uri

open-for-view-cmd = "ofv|u|" document-uri

document-uri = URI location of document to open

I-4. URI Scheme Semantics

The ms-infopath scheme defines a URI syntax for opening or creating a Microsoft Infopath document. The scheme defines two commands that serve as instructions rega document. The commands are 1) open-for-edit-cmd (ofe), which instructs Visio to open the document at the specified URI for editing; and 2) open-for-view-cmd (ofv), w specified URI in a read-only mode.

I-5. Applications/Protocols that use the ms-infopath URI Scheme

The ms-infopath URI Scheme is used by Microsoft Office 2013 to invoke Microsoft Infopath 2013 from web pages. Microsoft SharePoint 2013 uses ms-infopath URIs as li document libraries.

I-6. Interoperability Considerations

Note that the vertical bar used as a delimiter in this specification is not among those characters identified in section 2.2 of RFC 3986 as reserved for potential use as delin set of characters the URI command argument can support without a need to percent-encode those characters.

Within *command-argument* segments the RFC 3986 reserved characters ":" and "/" are part of the argument data, not delimiters, and are therefore included unescape

I-7. Security Considerations

On systems that have registered handlers to recognize and act on ms-infopath URIs, clicking on a link to an ms-infopath URI will cause the registered application to be la attempt to open a document at the specified URI. Applications registering to process ms-infopath URIs should implement protections to guard against opening docume include malicious code.

I-8. References

RFC 3987 – International Resource Identifiers (IRIs)