[MS-TMPLDISC]: Template Discovery Web Service Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
07/13/2009	0.1	Major	Initial Availability
08/28/2009	0.2	Editorial	Revised and edited the technical content
11/06/2009	0.3	Editorial	Revised and edited the technical content
02/19/2010	1.0	Minor	Updated the technical content
03/31/2010	1.01	Editorial	Revised and edited the technical content
04/30/2010	1.02	Minor	Updated the technical content
06/07/2010	1.03	Editorial	Revised and edited the technical content
06/29/2010	1.04	Editorial	Changed language and formatting in the technical content.
07/23/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
09/27/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
12/17/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
03/18/2011	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
06/10/2011	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
01/20/2012	1.5	Minor	Clarified the meaning of the technical content.

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1 Introduction

This document specifies the Template Discovery Web Service Protocol. It enables a protocol client to retrieve links to the **document templates** associated with a **document library** on a protocol server.

Sections 1.8, 2, and 3 of this specification are normative and contain RFC 2119 language. Sections 1.5 and 1.9 are also normative but cannot contain RFC 2119 language. All other sections and examples in this specification are informative.

1.1 Glossary

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

Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
language code identifier (LCID)

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

absolute URL document library document template root folder site-relative URL XML namespace

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 Specification documents do not include a publishing year because links are to the latest version of the 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.

[RFC1123] Braden, R., "Requirements for Internet Hosts - Application and Support", STD 3, RFC 1123, October 1989, http://www.ietf.org/rfc/rfc1123.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

[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

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, http://www.w3.org/TR/2009/REC-xml-names-20091208/

[XMLSCHEMA1] Thompson, H.S., Ed., Beech, D., Ed., Maloney, M., Ed., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/

1.2.2 Informative References

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

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

[MS-PLSP] Microsoft Corporation, "Published Links Web Service Protocol Specification".

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

1.3 Protocol Overview (Synopsis)

This protocol enables a protocol client to retrieve links to the document templates associated with a document library on the protocol server. Once retrieved, these links may be used by the client to offer the document templates to the user as the basis for new documents suitable for storage in the document library.

1.4 Relationship to Other Protocols

This protocol uses **Hypertext Transfer Protocol (HTTP)**, as described in [RFC2616], or **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as described in [RFC2818].

The following diagram shows the underlying messaging and transport stack used by the protocol:



Figure 1: This protocol in relation to other protocols

The Template Discovery Web Service can be used after the Published Links Web Service Protocol [MS-PLSP] has finished. A protocol client may use the Published Links Web Service Protocol to acquire URLs to document libraries that offer document templates. The client may then use the Template Discovery Web Service protocol to retrieve links to the templates from these document libraries.

1.5 Prerequisites/Preconditions

This protocol operates against a site that is identified by a URL that is known by the protocol client. The protocol server endpoint is formed by appending "/_layouts/GetSpotlight.ashx" to the URL of the site. For example, given the following site URL:

http://www.contoso.com/Repository

The server endpoint would be:

http://www.contoso.com/Repository/_layouts/GetSpotlight.ashx

In addition, to use this web service, the protocol client must know the name of a document library on the site. The Published Links Web Service Protocol [MS-PLSP] can be used to obtain this information.

1.6 Applicability Statement

This protocol is applicable for retrieving links to the document templates associated with a document library.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.



2 Messages

2.1 Transport

This protocol uses HTTP version 1.1 (as specified in [RFC2616]) as transport for the GET methods. Protocol servers SHOULD additionally support HTTPS for securing communication with clients.

2.2 Common Message Syntax

This section contains common definitions used by this protocol. The syntax of the definitions uses **XML Schema** as defined in [XMLSCHEMA1] and [XMLSCHEMA2].

2.2.1 Namespaces

This specification defines and references various **XML** namespaces using the mechanisms specified in [XMLNS]. Although this specification associates a specific prefix for each XML namespace that is used, the choice of any particular prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
0	urn:schemas-microsoft-com:office:office	
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
		[XMLSCHEMA2]

2.2.2 Messages

None.

2.2.3 Elements

This specification does not define any common XML Schema element definitions.

2.2.4 Complex Types

The following table summarizes the XML Schema complex types defined by this specification. XML Schema complex type definitions that are specific to a particular operation are described with the operation.

Complex Type	Description	
ApplicationType	A set of templates of a particular class.	
FeaturedContentType	A set of ApplicationType elements whose described templates are designed for a common LCID .	
FeaturedTemplatesType	A set of FeaturedTemplateType elements.	
FeaturedTemplateType	A specification of the properties and location of a single template.	

2.2.4.1 ApplicationType

Specifies a set of templates of a particular class.

featuredtemplates: A set of one or more templates belonging to the same class.

id: The class of the templates.<1>

2.2.4.2 FeaturedContentType

Specifies a set of **ApplicationType** elements whose described templates are designed for a common LCID.

application: A single ApplicationType element.

Icid: The LCID of the set.

2.2.4.3 FeaturedTemplatesType

Specifies a set of templates.

featuredtemplate: A single template.

startdate: Date when this set of templates takes effect. Value MUST be set to the string "1901-01-01".

enddate: Date when this set of templates expires. Value MUST be set to the string "2201-01-01".

2.2.4.4 FeaturedTemplateType

Specifies the properties and location of a single template.

```
<xs:complexType name="FeaturedTemplateType">
 <xs:attribute name="source" type="xs:string" use="required"/>
 <xs:attribute name="lmod" type="xs:string" use="required"/>
  <xs:attribute name="savelocation" type="xs:string" use="required"/>
  <xs:attribute name="title" use="required">
   <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="255"/>
      </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="filename" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
       <xs:minLength value="1"/>
       <xs:maxLength value="128"/>
     </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

source: The absolute URL of the template on the server.

Imod: Last modification date and time of the template (GMT), in the format defined by <a>[RFC1123] section 5.2.14.

savelocation: The absolute URL of the document library on the server into which the server recommends that new documents created from this template be saved.

title: The title of the template.

filename: The file name of the template, including the file extension.

2.2.5 Simple Types

This specification does not define any common XML Schema simple type definitions.

2.2.6 Attributes

This specification does not define any common XML Schema attribute definitions.

2.2.7 Groups

This specification does not define any common XML Schema group definitions.

2.2.8 Attribute Groups

This specification does not define any common XML Schema attribute group definitions.

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3 Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

3.1 Server Details

All operations consist of a basic HTTP request-response pair and the protocol server treats each request as an independent transaction, unrelated to any previous request.

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

The protocol server MUST maintain a mapping from document libraries to templates such that, for any document library, the server can retrieve the properties of all templates associated with the document library.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This protocol includes a single operation:

Operation	Description
GetSpotlight.ashx	Gets an XML document describing document templates that can be used by client applications for creating new documents in the specified document library.

3.1.4.1 GetSpotlight.ashx

The methods in this section are supported by GetSpotlight.ashx.

3.1.4.1.1 GetSpotlight

This method gets an XML document describing document templates that can be used by client applications for creating new documents in the specified document library.

URL query parameters sent through the GET request:

Parameter	Value	
ListName	Site-relative URL of the root folder of the document library.	
арр	The class of templates being requested. This parameter is optional. If specified, the protoco server MUST return information about all templates of the matching class and MUST NOT return information about templates belonging to other classes. When not specified, the protocol server SHOULD return information about all templates regardless of class. <2> If app is specified by an invalid class name that the server does not support, the server SHOULD return the status code 200 with an empty featuredContentType element in the XMI document returned.	
lidhelp	The LCID of the requested template language as a four-character hexadecimal string. The protocol server MUST return information only about templates designed for the specified LCID. When not specified the server SHOULD use the current culture LCID instead. If lidhelp is specified by an invalid LCID, the server SHOULD return status code 200 with an HTML web page reporting error, instead of the XML document.	
liduser	The LCID of the client operating system as a four-character hexadecimal string. The protocol client MAY choose to specify this parameter but the protocol server MUST ignore it.	
lidui	The LCID of the client application as a four-character hexadecimal string. The protocol client MAY choose to specify this parameter but the protocol server MUST ignore it.	

3.1.4.1.1.1 Return Values

On success, an XML document described by the following schema is returned:

featuredcontent: A **FeaturedContentType** element describing templates that are designed for the language specified by the **lidhelp** parameter in the request.

The returned HTTP status code MUST be one of the following:

Value	Description	
200	Success.	
400	Invalid or missing parameters.	
401	Security not validated. The credentials supplied by the user are not valid.	
500	Any other error.	

3.1.5 Timer Events

None.

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3.1.6 Other Local Events

None.



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4 Protocol Examples

4.1 GetSpotlight.ashx

A protocol client could issue the following command to request a list of all templates from the "Routing Target" document library that were designed for LCID 0x0409 (en-US) and that were classed as "WD" templates:

http://site/dc/_layouts/GetSpotlight.ashx?lidhelp=0409&ListName=Routing%20Target&app=WD

The following example is sample XML that might be returned for this request. This XML specifies a single template located at "http://site/dc/Routing Target/Forms/template.dotx" whose preferred save location for new documents is "http://site/dc/Routing Target".



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® Office 97
- Microsoft® Office 2000
- Microsoft® Office XP
- Microsoft® Office 2003
- The 2007 Microsoft® Office system
- Microsoft® Office 2010 suites
- Microsoft® Office 15 Technical Preview
- Microsoft® SharePoint® Server 2010
- Microsoft® SharePoint® Server 15 Technical Preview
- Microsoft® Visio® 2010
- Microsoft® Visio® 15 Technical 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.

<1> Section 2.2.4.1: The SharePoint Server 2010 classifies all Word 97, Word 2000, Word 2002, Office Word 2003, Office Word 2007 and Word 2010 templates as "WD", all Excel 97, Excel 2000, Excel 2002, Office Excel 2003, Office Excel 2007 and Excel 2010 templates as "XL", all PowerPoint 97, PowerPoint 2000, PowerPoint 2002, Office PowerPoint 2003, Office PowerPoint 2007 and PowerPoint 2010 templates as "PP", and all Visio 2010 templates as "VO". It does not return any information about templates that do not belong to one of these four classes.

<2> Section 3.1.4.1.1: The SharePoint Server 2010 only returns information about templates classed as "WD", "XL", "PP", or "VO".



7 Change Tracking

This section identifies changes that were made to the [MS-TMPLDISC] protocol document between the June 2011 and January 2012 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

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 or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- The removal of a document from the documentation set.
- Changes made for template compliance.

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 **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

Major and minor changes can be described further using the following change types:

- New content added.
- Content updated.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.
- Content removed for template compliance.
- Obsolete document removed.

Editorial changes are always classified with the change type Editorially updated.

Some important terms used in the change type descriptions are defined as follows:

- Protocol syntax refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.
- Protocol revision refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
1.1 Glossary	Added content for Office 15 Technical Preview.	N	Content updated.
6 Appendix A: Product Behavior	Updated the list of applicable product versions.	N	Content updated.

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