

# [MS-IMESYN]: IMESync Syntax Structure

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## Revision Summary

| Date       | Revision History | Revision Class | Comments   |
|------------|------------------|----------------|--|
| 04/04/2008 | 0.1              |                | Initial Availability   |
| 06/27/2008 | 1.0              | Major          | Revised and edited the technical content                                     |
| 12/12/2008 | 1.01             | Editorial      | Revised and edited the technical content                                     |
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| 08/28/2009 | 1.03             | Editorial      | Revised and edited the technical content                                     |
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| 02/11/2013 | 2.6              | No change      | No changes to the meaning, language, or formatting of the technical content. |



# Table of Contents

|  |           |
|--|-----------|
| <b>1 Introduction</b> .....                              | <b>5</b>  |
| 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 .....                    | 6         |
| 1.7 Vendor-Extensible Fields .....                       | 6         |
| <b>2 Structures</b> .....                                | <b>7</b>  |
| 2.1 IMESync .....  | 7         |
| 2.2 Remote List Item Scheme .....                        | 7         |
| <b>3 Structure Examples</b> .....                        | <b>9</b>  |
| <b>4 Security</b> .....                                  | <b>10</b> |
| 4.1 Security Considerations for Implementers .....       | 10        |
| 4.2 Index of Security Parameters .....                   | 10        |
| <b>5 Appendix A: Product Behavior</b> .....              | <b>11</b> |
| <b>6 Change Tracking</b> .....                           | <b>12</b> |
| <b>7 Index</b> .....                                     | <b>13</b> |

# 1 Introduction

This document specifies the IMESync Syntax Structure that specifies a compact string format, and the scheme of a list item. The string format is used to locate a remote list using [\[MS-LISTSWS\]](#). The remote list is used to define a custom word list used by an on-screen editor. The string format extends [\[RFC3986\]](#).

Sections 1.7 and 2 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in RFC 2119. All other sections and examples in this specification are informative.

## 1.1 Glossary

The following terms are defined in [\[MS-GLOS\]](#):

**ASCII  
GUID**

The following terms are defined in [\[MS-OFCGLOS\]](#):

**IME  
Input Method Editor (IME)  
SOAP message  
Uniform Resource Identifier (URI)  
Uniform Resource Locator (URL)**

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](mailto: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-LISTSWS] Microsoft Corporation, "[Lists Web Service Protocol](#)".

[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>

[RFC3986] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifier (URI): Generic Syntax", STD 66, RFC 3986, January 2005, <http://www.ietf.org/rfc/rfc3986.txt>

[RFC5234] Crocker, D., Ed., and Overell, P., "Augmented BNF for Syntax Specifications: ABNF", STD 68, RFC 5234, January 2008, <http://www.rfc-editor.org/rfc/rfc5234.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

The IMESync syntax structure provides a syntax for the "imesync" scheme of **URIs**. This structure encapsulates the parameters required to use the [\[MS-LISTSWS\]](#) protocol to access data from a remote list residing on a server. The server produces an IMESync syntax structure URI for a list and transmits this URI to the clients. When a client processes the URI it has all the information required to communicate with the server using the [\[MS-LISTSWS\]](#) protocol.

## 1.4 Relationship to Protocols and Other Structures

This structure provides a means to encapsulate the parameters necessary to access a remote list using the [\[MS-LISTSWS\]](#) protocol.

## 1.5 Applicability Statement

This structure is implemented by servers and clients that implement the [\[MS-LISTSWS\]](#) protocol. This structure is used when a remote list using the [\[MS-LISTSWS\]](#) protocol specifies a custom word list used by the **Input Method Editor (IME)**.

## 1.6 Versioning and Localization

None.

## 1.7 Vendor-Extensible Fields

None.

## 2 Structures

### 2.1 IMESync

This structure specifies the syntax of the "imesync" URI scheme. This structure MUST be able to be represented as an **ASCII** string.

The string MUST begin with imesync: followed by a string enclosed with the tags <IME> and </IME>. The <IME> string range MUST contain two sub string ranges enclosed with the tags <URL> and </URL>, and <List> and </List>.

<URL> string range and <List> string range specify properties about a remote list accessible via the [\[MS-LISTSWS\]](#) protocol. Valid fields are as follows:

- **URL:** A **URL** to the site that contains the remote list.
- **List:** A **GUID** that uniquely identifies the remote list. MUST be of the format "{XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}", where X represents a hexadecimal character.

Encoding of characters in this structure MUST be represented consistent with the URI specification ([\[RFC3986\]](#) section 2). Any characters that do not belong to the limited set of unreserved characters MUST be encoded using the percent-encoding mechanism, as specified in [\[RFC3986\]](#) section 2.1.

An "imesync" URI is specified by the following Augmented Backus-Naur form (ABNF) ([\[RFC5234\]](#)):

```
imesyncuri = scheme ":" schemepart
scheme     = "imesync"
schemepart = "<IME>" (urlpart listpart / listpart urlpart) "</IME>"
urlpart    = "<URL>" urlvalue "</URL>"
listpart   = "<List>" guidvalue "</List>"
urlvalue   = *uchar
uchar      = escape / ALPHA / DIGIT / punctuation
escape     = "%" 2HEXDIG
punctuation = "*" / "(" / ")" / "_" / "+" / ":" / "/" / "#" / "[" / "]" /
             "@" / "!" / "$" / "\" / "."
guidvalue  = "{" 8HEXDIG "-" 4HEXDIG "-" 4HEXDIG "-" 4HEXDIG "-" 12HEXDIG
             "}"
```

ALPHA, DIGIT, and HEXDIG are used as specified in [\[RFC5234\]](#) Appendix B.1.

### 2.2 Remote List Item Scheme

To form a custom word list used by an **IME**, a remote list item MUST have the scheme that is described in the following table. The table identifies each field in the list item by its name and type.

| Field Name  | Field type | Field Description  |
|-------------|------------|--|
| Title       | Text       | A string that specifies the pronunciation of the word. In Japanese, the pronunciation is represented by Hiragana. In other languages, the representation is undefined. |
| IMEDisplay  | Text       | A string that represents the word.   |
| IMEComment1 | Text       | (optional) A string that describes the word.   |

| <b>Field Name</b> | <b>Field type</b> | <b>Field Description</b>                           |
|-------------------|-------------------|--|
| IMEComment2       | Text              | (optional) A string that describes the word.       |
| IMEComment3       | Text              | (optional) A string that describes the word.       |
| IMEUrl            | URL               | (optional) A URL that will be shown with the word. |



### 3 Structure Examples

#### Example 1

This URI represents the remote list located at <http://contoso.com/lists/example/> with a list GUID of "{891e5acc-c099-4777-93f8-5aaf53240c8b}".

```
imesync:<IME><URL>http://contoso.com/lists/example</URL><List>{891e5acc-c099-4777-93f8-5aaf53240c8b}</List></IME>
```

#### Example 2

The following **SOAP messages** create a remote list as specified in [\[MS-LISTSWS\]](#), and then create required fields in the remote list to form a custom word list used by an IME.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"> <soap:Body> <AddList
xmlns="http://schemas.microsoft.com/sharepoint/soap/"> <listName>IME Dictionary
Sample</listName> <templateID>100</templateID> </AddList>
</soap:Body></soap:Envelope>
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <UpdateList xmlns="http://schemas.microsoft.com/sharepoint/soap/">
      <listName>IME Dictionary Sample</listName>
      <newFields>
        <Fields>
          <Method ID="1"><Field Type="Text" Name="IMEDisplay" DisplayName="IMEDisplay"
Required="TRUE"></Field></Method>
          <Method ID="2"><Field Type="Text" Name="IMEComment1"
DisplayName="IMEComment1"></Field></Method>
          <Method ID="3"><Field Type="Text" Name="IMEComment2"
DisplayName="IMEComment2"></Field></Method>
          <Method ID="4"><Field Type="Text" Name="IMEComment3"
DisplayName="IMEComment3"></Field></Method>
          <Method ID="5"><Field Type="URL" Name="IMEUrl"
DisplayName="IMEUrl"></Field></Method>
        </Fields>
      </newFields>
    </UpdateList>
  </soap:Body>
</soap:Envelope>
```

## **4 Security**

### **4.1 Security Considerations for Implementers**

Protocol URIs can be contained in mediums that are not trusted, for example, in the body of an e-mail message or on a Web page. Clients invoked when the user activates a protocol URI could be presented with malicious data intended to initiate unwanted actions when the client processes the URI.

### **4.2 Index of Security Parameters**

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 released service packs:

- The 2007 Microsoft Office system JPN LANGPAK
- Microsoft Office 2010 JPN LANGPAK
- Microsoft Office SharePoint Server 2007 CHT, CHS, KOR, JPN LANGPAK
- Microsoft SharePoint Server 2010 JPN, KOR, CHT, CHS LANGPAK
- Microsoft Office 2013 JPN LANGPAK
- Microsoft SharePoint Server 2013 JPN, KOR, CHT, CHS LANGPAK

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.

## 6 Change Tracking

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

## 7 Index

### A

[Applicability](#) 6

### C

[Change tracking](#) 12

### E

[Examples](#) 9  
[overview](#) 9

### F

[Fields - vendor-extensible](#) 6

### G

[Glossary](#) 5

### I

[IMESync structure](#) 7  
[Implementer - security considerations](#) 10  
[Index of security parameters](#) 10  
[Informative references](#) 6  
[Introduction](#) 5

### L

[Localization](#) 6

### N

[Normative references](#) 5

### O

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

### P

[Parameters - security index](#) 10  
[Product behavior](#) 11

### R

[References](#) 5  
[informative](#) 6  
[normative](#) 5  
[Relationship to protocols and other structures](#) 6  
[Remote list item scheme](#) 7

### S

Security  
[implementer considerations](#) 10  
[parameter index](#) 10

Structures

[IMESync](#) 7  
[Remote list item scheme](#) 7

### T

[Tracking changes](#) 12

### V

[Vendor-extensible fields](#) 6  
[Versioning](#) 6