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| XLIFF 2.0 SUPPORT IN CAT TOOLS |
| **Statements of Use of XLIFF 2.0 – June 2014** |

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# Executive Summary

This report gathers all the Statements of Use (SOU) that were collected during the approval process of the new version OASIS XLIFF 2.0. The SOU were collected during between the 2nd and 14th April 2014. Having at least three SOU is one of the prerequisites that OASIS specifies in order to submit a candidate OASIS standard (OASIS, 2014). Seven SOU were collected during the aforementioned dates and on the OASIS XLIFF Technical Committee (TC) meeting of the 15th of April 2014 the SOU were approved and the TC moved forward with the standard acceptance process, the Chair requested that TC Administration hold a Special Majority Vote to approve submitting XLIFF 2.0, Committee Specification –XLIFF Version 2.0, Committee Specification 01, 31 March 2014 as a candidate OASIS standard. The seven tools that have implemented XLIFF 2.0 have been developed by tool makers and researchers, and their answers give us a good overview of the early implementations of the new XLIFF version.

The seven tools support XLIFF 2.0 core and some of the optional modules are also attracting support from the tools (Translation Candidates is supported by 4 tools, followed by Glossary and Metadata (4 tools each) and Format Style (2 tools). One of the tools supports already the eight optional modules.

The results obtained indicate that the new version of the XLIFF standard (2.0) is getting early support and that the committee specification was robust enough to be implemented successfully among the tools included in this study.

## Rationale

The objective of this report is to gather and analyse all the information obtained on the SOU process and present it in a more comprehensive manner, as well as to provide the general public with this valuable information. This study serves as state of the art of the early implementations of the new version OASIS XLIFF 2.0 in CAT tools (in a broad sense, i.e. not just translation editors). The underlying survey was based on a previous version specifically design to gather information of XLIFF support in CAT tools. However, that survey had to be extensively modified to collect XLIFF 2.0 data and to serve as a valid mechanism for presenting valid SOU following the current OASIS regulations. The design of the survey was discussed publicly on the XLIFF TC mailing list and its final design was open for submission on the second of April.

# Methodology

## How to read this report

This report has four main sections: 1) Executive Summary; 2) Methodology, where we explain the creation, data collection, usefulness and limitations of the collected data; 3) Analysis of results, where we present the collected data in a sliced, diced, and commented shape; and finally 4) Appendix “Raw Data”, where the complete answers of the respondents are presented one by one. And Appendix “The Survey Form”, which contains the actual questionnaire that was fulfilled by the respondents.

## Disclaimer

The XLIFF TC is not responsible for the accuracy of the data provided by the tool providers that participated in the survey; the analysis assumes that the tool makers’ self-assessment was provided *bona fide*.

## Survey Design

This study is built on the previous surveys that were conducted to obtain information about the XLIFF support in CAT tools carried out by the OASIS XLIFF Promotion and Liaison subcommittee. The previous surveys did not include the version 2.0. This survey was initially based on the survey used to gather information about XLIFF Support in CAT tools that was carried out in 201X and 2013. ~~Several members of the XLIFF TC, as well as interested experts contributed to the design of first edition of the survey. A draft was later presented in the XLIFF Promotion and Liaison for discussion and approval. This work aims to continue with the initiative that Micah Bly presented in the first XLIFF symposium in 2010, where he presented his comprehensive study of XLIFF support in CAT tools. Our approach is completely based on tool makers’ self-assessment.~~

Having in mind the information that was aimed at obtaining on this subject, the survey was divided into three main sections: *General Information*, where we obtained information about the type of tool and version; *Advanced Information*, where we obtained information about the type of XLIFF files produced and/or supported and the relation with XLIFF files created by other tools; and *Core and Modules Support,* where we obtained information of support on specific XLIFF elements and attributes from the core and the modules.

## Implementation

The survey was open for answers between the 2nd and 14th April 2014. We used the online survey system “Survey Monkey” to obtain the data from the participants through Internet. The URL of the survey was: <https://www.surveymonkey.com/s/XLIFF2-0>. The administrator of the survey sent a pdf containing the answers to the respondents and they posted on the XLIFF TC mailing list (if they were XLIFF TC members) or on the XLIFF TC comments lists (if they were not members). The collected responses were archived on the official OASIS XLIFF web site and they can be publicly consulted at <https://tools.oasis-open.org/version-control/browse/wsvn/xliff/trunk/StatementsOfUse/Submitted/?rev=0&sc=0>

## Acknowledgments

We would like to acknowledge Chet Ensign, ~~Arle Lommel, Bryan Schnabel, Joachim Schurig, Rodolfo Raya, Micah Bly, Daniel Benito, and the XLIFF TC members for their valuable help and support of this initiative.~~

~~Last but not least, we must thank to all the participants of the survey for their time and the valuable information they have provided; without them creation of this report would be utterly impossible.~~

# Analysis of results

The data obtained can be divided into three main blocks: **GENERAL** **INFORMATION**,

ADVANCED INFORMATION and **Erreur ! Source du renvoi introuvable.**.

## GENERAL INFORMATION

The first question asked was the respondents’ affiliation in relation with OASIS: two of them were non-OASIS members and three of them were OASIS members (one OASIS members made three different SOU for three different tools that he developed). Secondly, we gather information about the type of tool, the tool definitions used on the current specification were proposed (enricher, extractor, merger, modifier and writer), the majority of tools were classified as more than one tool type and all the tool types were represented, each of them with four tools each (see “ Table 1. General Information”). The third question of this section refers to the use of customised XLIFF extensions. Six out of the seven tools use their own custom extensions.

|  |  |  |
| --- | --- | --- |
| Tool Name | Toot Type | Own custom extension |
| Enricher | Extractor | Merger | Modifier | Writer |
| SOLAS | Yes | Yes | Yes | No | Yes | No |
| CMS-L10N | Yes | Yes | Yes | Yes | Yes | Yes |
| ITS2.0 XLIFF/MT Round-tripping Web Service | No | No | No | Yes | No | Yes |
| Okapi Tools | Yes | Yes | Yes | Yes | Yes | Yes |
| XMarker FragID Decorator v.0.2 | Yes | No | No | Yes | Yes | Yes |
| xliffRoundTrip4X2 | No | Yes | Yes | No | No | Yes |
| DITA-XLIFF-RT-4X2 | No | Yes | Yes | No | No | Yes |

 Table 1. General Information

## ADVANCED INFORMATION

In this section we gather more advanced information about the support of other formats and third-party customized extensions.

The tools that were classified as enricher declared in this question that they could create XLIFF files from other formats (see table 2). Five of the tools also declared that they can modify their own created files.

|  |  |  |  |
| --- | --- | --- | --- |
| Tool Name | Creation of XLIFF files from other formats | If yes, which formats? | Modification of its created files |
| SOLAS | Yes | This capability is only available through wrapping ENLASO's OKAPI XLIFF 2.0 Toolkit and hence it supports the same source formats | Yes |
| CMS-L10N | Yes | Text, XML, html5 and html+its | Yes |
| ITS2.0 XLIFF/MT Round-tripping Web Service | No | N/A | Yes |
| Okapi Tools | Yes | Many. See http://w w w .opentag.com/okapi/w iki/index.php?title=Filters#Supported\_File\_Formats for a list. | Yes |
| XMarker FragID Decorator v.0.2 | Yes | The error file is written as .txt | Yes |
| xliffRoundTrip4X2 | No | N/A | No |
| DITA-XLIFF-RT-4X2 | No | N/A | No |

Table 2. XLIFF Creation from other formats

In “Table 3. Relation with other tools”, we organised the information about how tools deal with XLIFF files created by other tools. Five tools claimed to support XLIFF files created by other third-party tools.

In order to have a more accurate vision of the support of other third-party XLIFF files we included another question and ask specifically if they had successfully tested roundtrips[[1]](#footnote-1) with other XLIFF capable tools. Four respondents said that they had tested roundtrips, you can see in the table below which third-party tools they are referring to. A second question aiming to gather information about third-party extensions support was also included, and three of the respondents stated that they support also tools with specific proprietary XLIFF extensions. Finally all the respondents stated that they preserve any XLIFF elements or attributes of XLIFF extensions that they do not support/understand (table 4).

|  |  |  |
| --- | --- | --- |
| Tool Name | Modification of files created by other tools | Tested roundtrip support with other tools |
| Yes/No | Tools | Tools with customised extensions |
| SOLAS | Yes | Yes | ENLASO'S OKAPI XLIFF 2 Toolkit Trinity College Dublin CMS L10n Moravia MT Services | all of the above including ITS 2.0 mapping |
| CMS-L10N | Yes | Yes | CMS L10n, SOLAS and Moravia MT services | XLIFF+ITS moslty plain xliff files with ITS 2.0 |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes | Yes | SOLAS-based localisation workflow | n/a |
| Okapi Tools | Yes | Yes | Bryan Schnabel's XLIFF Tools. | Bryan Schnabel's XLIFF Tools. |
| XMarker FragID Decorator v.0.2 | Yes | No | n/a | n/a |
| xliffRoundTrip4X2 | No | n/a | n/a | n/a |
| DITA-XLIFF-RT-4X2 | No | n/a | n/a | n/a |

Table 3. Relation with other tools

|  |  |
| --- | --- |
| Tool Name | Roundtrip of unknown elements |
| Yes/No |
| SOLAS | Yes |
| CMS-L10N | Yes |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes |
| Okapi Tools | Yes |
| XMarker FragID Decorator v.0.2 | Yes |
| xliffRoundTrip4X2 | Yes |
| DITA-XLIFF-RT-4X2 | Yes |

Table 4. Preservation of unknown XLIFF elements or attributes

## XLIFF 2.0 CORE AND MODULES SUPPORT

We started this section by asking whether they support XLIFF 2.0 core and XLIFF 2.0 approved modules, see table 5. All the tools support XLIFF core, and only one tool (XMarker) supports all the eight modules, the most supported module is Translation candidates (5 tools), followed by Glossary and Metadata (4 tools each) and Format Style (2 tools).

|  |  |  |
| --- | --- | --- |
| Tool Name | Core | Modules |
| Translation Candidates | Glossary | Format Style | Metadata | Resource Data | Change Tracking | Size and Length Restriction | Validation |
| SOLAS | Yes | Yes | Yes | No | Yes | No | No | No | No |
| CMS-L10N | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes | Yes | Yes | No | Yes | No | No | No | No |
| Okapi Tools | Yes | Yes | No | No | No | No | No | No | No |
| XMarker FragID Decorator v.0.2 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| xliffRoundTrip4X2 | Yes | No | No | No | No | No | No | No | No |
| DITA-XLIFF-RT-4X2 | Yes | No | No | No | No | No | No | No | No |

Table 5. Core and Modules Support

Secondly, we asked the tool providers about specific support on XLIFF elements and attributes in the Core and in the Modules. Instead of having all the items together in a single question we decided to first present the minimal XLIFF core elements and attributes (the necessary elements and attributes required to obtain a valid XLIFF 2.0 document), Structural XLIFF core elements Inline Elements, and Attributes. And secondly we present the support of each of the modules.

### Minimal XLIFF elements and attributes

In the minimal XLIFF elements we found the elements that a XLIFF document should contain to be considered as valid. Along with the elements, we decided also to include in this analysis the compulsory attributes of this set of elements, which, following the same criteria, would be needed to have a valid XLIFF document.

It should be noted that all the tools support all the minimal elements and attributes (see table 6).

|  |  |  |
| --- | --- | --- |
| Tool Name | Elements | Attributes |
| xliff | file | unit | segment | source | version | srcLang | Id |
| SOLAS | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| CMS-L10N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Okapi Tools | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| XMarker FragID Decorator v.0.2 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| xliffRoundTrip4X2 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| DITA-XLIFF-RT-4X2 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Table 6. Required XLIFF 2.0 core elements and attributes support

We also asked two questions regarding two specific aspects of XLIFF support: the possibility of handling more than one file element (answered positively by all tools) and whether the tool prevents or not the creation of duplicated trans-unit IDs (answered positively again by all tools), see the table below for a complete description of the results.

|  |  |  |
| --- | --- | --- |
| Tool Name | It handles more than one file element | It prevents the creation of duplicated trans-units IDs |
| SOLAS | Yes | Yes |
| CMS-L10N | Yes | Yes |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes | Yes |
| Okapi Tools | Yes | Yes |
| XMarker FragID Decorator v.0.2 | Yes | Yes |
| xliffRoundTrip4X2 | Yes | Yes |
| DITA-XLIFF-RT-4X2 | Yes | Yes |

Table 7. Multiplicity of file element and duplicated trans-unit IDs

### XLIFF 2.0 core elements

In “Table 8. XLIFF 2.0 elements support” we could see the support for the whole set of XLIFF 2.0 elements. The majority of elements are supported by all the tools, however there are some elements that are less supported: skeleton (supported by six of the seven tools), ignorable, notes and note (supported by four tools) and originalData and data which are supported by three tools each.

|  |  |
| --- | --- |
| Tool Name | Elements |
| xliff | file | skeleton | group | unit | segment | ignorable | notes | note | originalData | data | source | target |
| SOLAS | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| CMS-L10N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes | Yes | No | Yes | Yes | Yes | No | No | No | No | No | Yes | Yes |
| Okapi Tools | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| XMarker FragID Decorator v.0.2 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| xliffRoundTrip4X2 | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | Yes | Yes |
| DITA-XLIFF-RT-4X2 | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | Yes | Yes |

Table 8. XLIFF 2.0 elements support

### XLIFF 2.0 core attributes

In the following table we present the support of XLIFF 2.0 core attributes. Only two tools support all the attributes that are defined in the specification. The most supported attributes are the required ones: id, srcLang and Version[[2]](#footnote-2). Without taking into account the required attributes, the best supported attribute is “translate” (supported by five tools) which defines whether the text that is within the element that it modifies should be translated or not, followed by “ref”,”trgLang” and “type” (supported by four tools) and “canResegment”, “dir”, “href”, “order”, “original”, “srcDir” and “trgDir” (supported by three tools).

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| appliesTo |  |  |  | Yes | Yes |  |  |
| canCopy |  |  |  | Yes | Yes |  |  |
| canDelete |  |  |  | Yes | Yes |  |  |
| canOverlap |  |  |  | Yes | Yes |  |  |
| canReorder |  |  |  | Yes | Yes |  |  |
| canResegment | Yes |  |  | Yes | Yes |  |  |
| category |  |  |  | Yes | Yes |  |  |
| copyOf |  |  |  | Yes | Yes |  |  |
| dataRef |  |  |  | Yes | Yes |  |  |
| dataRefEnd |  |  |  | Yes | Yes |  |  |
| dataRefStart |  |  |  | Yes | Yes |  |  |
| dir | Yes |  |  | Yes | Yes |  |  |
| disp |  |  |  | Yes | Yes |  |  |
| dispEnd |  |  |  | Yes | Yes |  |  |
| dispStart |  |  |  | Yes | Yes |  |  |
| equiv |  |  |  | Yes | Yes |  |  |
| equivEnd |  |  |  | Yes | Yes |  |  |
| equivStart |  |  |  | Yes | Yes |  |  |
| hex |  |  |  | Yes | Yes |  |  |
| href |  | Yes |  | Yes | Yes |  |  |
| id | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| isolated |  |  |  | Yes | Yes |  |  |
| name |  |  |  | Yes | Yes |  |  |
| order |  | Yes |  | Yes | Yes |  |  |
| original |  | Yes |  | Yes | Yes |  |  |
| priority |  |  |  | Yes | Yes |  |  |
| ref | Yes |  | Yes | Yes | Yes |  |  |
| startRef |  |  |  | Yes | Yes |  |  |
| srcDir | Yes |  |  | Yes | Yes |  |  |
| srcLang | Yes | Yes | Yes | Yes | Yes |  |  |
| subFlows |  |  |  | Yes | Yes |  |  |
| subFlowsEnd |  |  |  | Yes | Yes |  |  |
| subFlowsStart |  |  |  | Yes | Yes |  |  |
| subType |  |  |  | Yes | Yes |  |  |
| subState |  |  |  | Yes | Yes |  |  |
| state |  |  |  | Yes | Yes |  |  |
| trgLang | Yes | Yes |  | Yes | Yes |  |  |
| translate | Yes | Yes | Yes | Yes | Yes |  |  |
| trgDir | Yes |  |  | Yes | Yes |  |  |
| type |  | Yes | Yes | Yes | Yes |  | Yes |
| value |  |  |  | Yes | Yes |  |  |
| version | Yes | Yes | Yes | Yes | Yes |  |  |

Table 9. XLIFF 2.0 attributes support

### Inline elements

Inline elements are generally well supported between the tools. “Pc” (which represents a well- formed spanning original code) is supported by six of the seven tools. “Ph” (which represents a standalone code of the original format) and “mrk” (which represents an annotation pertaining to the marked span) are supported by five tools. All the other inline elements are supported by four of the seven tools. Those four tools support all the inline elements that are defined in the specification.

|  |  |
| --- | --- |
| Tool Name | Elements |
| cp | ph | pc | sc | ec | mrk | sm | em |
| SOLAS | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| CMS-L10N | No | Yes | No | No | No | Yes | No | No |
| ITS2.0 XLIFF/MT Round-tripping Web Service | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Okapi Tools | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| XMarker FragID Decorator v.0.2 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| xliffRoundTrip4X2 | No | No | Yes | No | No | No | No | No |
| DITA-XLIFF-RT-4X2 | No | No | Yes | No | No | No | No | No |

 Table 10. Inline elements support

### Translation Candidates Elements and Attributes

The Translation Candidates module allows the capability to store lists of possible translation and their related information. Five out of the seven tools support this module.

**Elements:**

All the elements are supported by the five tools except from “mda:metadata” which is supported by four and “originalData” which is supported by three.

|  |  |
| --- | --- |
| Elements | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| matches | Yes | Yes | Yes | Yes | Yes |  |  |
| match | Yes | Yes | Yes | Yes | Yes |  |  |
| source | Yes | Yes | Yes | Yes | Yes |  |  |
| target | Yes | Yes | Yes | Yes | Yes |  |  |
| originalData | No | Yes | No | Yes | Yes |  |  |
| mda:metadata | Yes | Yes | No | Yes | Yes |  |  |

**Attributes:**

The specific attributes of this module are also well supported. Two of the tools (CMS-L10N and IT2.0 XLIFF/MT Round-tripping Web Service) only support five and four of the nine attributes respectively.

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| id | Yes | Yes | Yes | Yes | Yes |  |  |
| origin | Yes | Yes | Yes | Yes | Yes |  |  |
| similarity | Yes | No | No | Yes | Yes |  |  |
| matchQuality | Yes | Yes | Yes | Yes | Yes |  |  |
| matchSuitability | Yes | No | No | Yes | Yes |  |  |
| type | Yes | Yes | Yes | Yes | Yes |  |  |
| subType | Yes | No | No | Yes | Yes |  |  |
| ref | Yes | No | No | Yes | Yes |  |  |
| reference | Yes | Yes | No | Yes | Yes |  |  |

### Glossary Module

The glossary module allows the introduction of simple glossaries. This module is supported by four of the tools.

**Elements**

The five elements of this module are well supported. The element “definition” is not supported by one of the tools.

|  |  |
| --- | --- |
| Elements | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| glossary | Yes | Yes | Yes |  | Yes |  |  |
| glossaryEntry | Yes | Yes | Yes |  | Yes |  |  |
| term | Yes | Yes | Yes |  | Yes |  |  |
| translation | Yes | Yes | Yes |  | Yes |  |  |
| definition | Yes | Yes | No |  | Yes |  |  |

**Attributes**

The three attributes are also well supported, and only the element “source” is not supported by one of the four tools.

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| id | Yes | Yes | Yes |  | Yes |  |  |
| ref | Yes | Yes | Yes |  | Yes |  |  |
| source | Yes | Yes | No |  | Yes |  |  |

### Format Style Module

The format style attribute could contain information to generate a HTML preview of the XLIFF document. This module is only supported by one of the tools and does not contain any defined elements, but just two attributes “fs” and “subFs” that are supported by the tool.

 **Attributes**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| fs |  |  |  |  | Yes |  |  |
| subFs |  |  |  |  | Yes |  |  |

### Metadata Module

The Metadata module allows the capability to store custom metadata. It is supported by three of the tools. Two of the tools provide a full support of the defined elements and attributes.

**Elements**

|  |  |
| --- | --- |
| Elements | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| metadata | Yes | Yes |  |  | Yes |  |  |
| metaGroup | Yes | Yes |  |  | Yes |  |  |
| meta | Yes | No |  |  | Yes |  |  |

**Attributes**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| appliesTo | Yes | No |  |  | Yes |  |  |
| category | Yes | No |  |  | Yes |  |  |
| id | Yes | Yes |  |  | Yes |  |  |
| type | Yes | Yes |  |  | Yes |  |  |

### Resource Data Module

The Resource Data module allows the capability to refer to external resource data that may need to be modified or used as contextual reference during translation. Two tools support this module (CMS-L10N and XLMarker FragID Decorator v.0.2). The latter provides support for all the defined elements and attributes.

**Elements**

|  |  |
| --- | --- |
| Elements | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| resourceData |  | Yes |  |  | Yes |  |  |
| resourceItemRef |  | Yes |  |  | Yes |  |  |
| resourceItem |  | Yes |  |  | Yes |  |  |
| source |  | Yes |  |  | Yes |  |  |
| target |  | Yes |  |  | Yes |  |  |
| reference |  | No |  |  | Yes |  |  |

**Attributes**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| id |  | Yes |  |  | Yes |  |  |
| xml:lang |  | Yes |  |  | Yes |  |  |
| mimeType |  | No |  |  | Yes |  |  |
| context |  | No |  |  | Yes |  |  |
| href |  | Yes |  |  | Yes |  |  |
| ref |  | Yes |  |  | Yes |  |  |

### Change Tracking Module

The Change Tracking module can store revision information for XLIFF elements and attributes. It is supported only by XMarker FragID Decorator v.0.2 which supports all its defined elements and attributes.

**Elements**

|  |  |
| --- | --- |
| Elements | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| changeTrack |  |  |  |  | Yes |  |  |
| revisions |  |  |  |  | Yes |  |  |
| revision |  |  |  |  | Yes |  |  |
| item |  |  |  |  | Yes |  |  |

**Attributes**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| appliesTo |  |  |  |  | Yes |  |  |
| author |  |  |  |  | Yes |  |  |
| currentVersion |  |  |  |  | Yes |  |  |
| dateTime |  |  |  |  | Yes |  |  |
| ref |  |  |  |  | Yes |  |  |
| property |  |  |  |  | Yes |  |  |
| version |  |  |  |  | Yes |  |  |

### Size and Length Restriction Module

The Change Tracking module allows the capability to annotate the XLIFF content with information on storage and size restrictions. It is supported only by XMarker FragID Decorator v.0.2 which supports all its defined elements and attributes.

**Elements**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| profiles |  |  |  |  | Yes |  |  |
| normalization |  |  |  |  | Yes |  |  |
| data |  |  |  |  | Yes |  |  |

**Attributes**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| storageProfile |  |  |  |  | Yes |  |  |
| generalProfile |  |  |  |  | Yes |  |  |
| storage |  |  |  |  | Yes |  |  |
| general |  |  |  |  | Yes |  |  |
| profile |  |  |  |  | Yes |  |  |
| storageRestriction |  |  |  |  | Yes |  |  |
| sizeRestriction |  |  |  |  | Yes |  |  |
| equivStorage |  |  |  |  | Yes |  |  |
| sizeInfo |  |  |  |  | Yes |  |  |
| sizeInfoRef |  |  |  |  | Yes |  |  |

### Validation Module

The Validation module “defines a specific set of validation rules that can be applied to target text globally and locally”. It is supported only by XMarker FragID Decorator v.0.2 which supports all its defined elements and attributes.

**Elements**

|  |  |
| --- | --- |
| Elements | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| validation |  |  |  |  | Yes |  |  |
| rule |  |  |  |  | Yes |  |  |

**Attributes**

|  |  |
| --- | --- |
| Attributes | Tool  |
| SOLAS | CMS-L10N | ITS2.0 XLIFF/MT Round-tripping Web Service | Okapi Tools | XMarker FragID Decorator v.0.2 | xliffRoundTrip4X2 | DITA-XLIFF-RT-4X2 |
| isPresent |  |  |  |  | Yes |  |  |
| occurs |  |  |  |  | Yes |  |  |
| isNotPresent |  |  |  |  | Yes |  |  |
| startsWith |  |  |  |  | Yes |  |  |
| endsWith |  |  |  |  | Yes |  |  |
| existsInSource |  |  |  |  | Yes |  |  |
| caseSensitive |  |  |  |  | Yes |  |  |
| normalization |  |  |  |  | Yes |  |  |
| disabled |  |  |  |  | Yes |  |  |

# Appendices

## Raw Data

In this section we present all the collected data in the raw form, ordered with the chronological order as we received the answers.

### SOLAS

### CMS-L10N

### ITS2.0 XLIFF/MT Round-tripping Web Service

### Okapi Tools

### XMarker FragID Decorator v.0.2

### xliffRoundTrip4X2

### DITA-XLIFF-RT-4X2

## The Survey Form

# XLIFF Support in CAT tools

**//survey to be added**

# REFERENCES

OASIS, 2014. Technical Committee (TC) Process | OASIS [WWW Document]. URL https://www.oasis-open.org/policies-guidelines/tc-process (accessed 6.26.14).

1. We clarify in the questionnaire that by “roundtrip” we meant “read, understand, modify if needed, and return to the originating environment without breaking the cycle”. [↑](#footnote-ref-1)
2. xliffRoundTrip4X2 and DITA-XLIFF-RT-4X2 have not indicated in this question that they support “version” and “srcLang”, but they had indicated it on a previous question (see Table 6). [↑](#footnote-ref-2)