



## **D1.2.2: LT-WEB – W3C COORDINATION YEARLY REPORT (M24)**

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## 1. EXECUTIVE SUMMARY

This report summarizes how the LT-Web project goals have been achieved within the W3C structures set up for the W3C MultilingualWeb-LT Working Group. Like the M12 version of this report, this document (M24 version) should be read in context of the deliverables D1.1[: Detailed Overall Management and Bodies Management, including the Quality Assurance Plan] and D1.2.1[: Report on Internal and External Communication Tools], which provide more detail in some important aspects. D2.3[:Metadata Test Suite] is relevant as well.

This M24 version of the D.1.2.2 focuses on the finalization of Internationalization Tag Set (ITS) ITS 2.0. In the reporting period M12-M24, the W3C process played a crucial role in assuring broad consensus about ITS 2.0, including stakeholders beyond the MLW-LT-Web partners. Specific coordination tasks were undertaken with the W3C HTML Working Group, the W3C RDF Working Group and the W3C director.

The task documented in this deliverable, that is the W3C coordination, was successful: in October 2013, ITS 2.0 was published as a final W3C standard (“W3C Recommendation”):

<http://www.w3.org/TR/2013/REC-its20-20131029/>

In numbers, the standardization process can be summarized as follows. It took 16 months from the first public Working Draft of ITS 2.0 to its finalization. This is an extremely short period of time for developing a new technology. 53 people from 24 organizations participated in the MultilingualWeb-LT Working Group. From June 2012 to October 2013, there have been more than 4800 posts to the three Working Group mailing lists<sup>1</sup>. The Working Group conducted 75 virtual meetings and seven face-to-face meetings, resolved 132 issues (“discussion points” about ITS 2.0) and closed more than 550 action items. 13 organizations implemented ITS 2.0 during the specification development and participated in conformance testing. 225 conformance tests were created and the implementers provided 1016 successful test runs.

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<sup>1</sup> The lists are [public-multilingualweb-lt@w3.org](mailto:public-multilingualweb-lt@w3.org), [public-multilingualweb-lt-comments@w3.org](mailto:public-multilingualweb-lt-comments@w3.org) and [public-multilingualweb-lt-tests@w3.org](mailto:public-multilingualweb-lt-tests@w3.org).

## 2. INTRODUCTION

As mentioned in the M12 version of this report, “the overall goal of the Coordination and Support Action LT-Web is to mobilize language and localization industries, SMEs and corporations alike, content producers and language service providers, along a trusted normative deliverable that brings multilingualism, internationalisation, language and localisation technology issues onto the centre stage of the Open Web Platform technology”. The publication of ITS 2.0 as a W3C Recommendation in October 2013 means that the technical foundation for this goal has been achieved. The W3C process requires the development of reference implementations and to assure broad consensus with Web community stakeholders. This report reflects how that consensus has been achieved.

## 3. REVIEW OF THE W3C WORKING GROUP CHARTER AND THE STANDARDIZATION PROGRESS

The MultilingualWeb-LT Working Group has been chartered to produce a W3C Recommendation on language and localisation related metadata integration into core Web technologies, prominently HTML5 and XML based formats. The Recommendation to be produced is a successor standard to the W3C ITS 1.0 specification: ITS 2.0.

### 3.1. The W3C Timeline

The following high-level milestones have been set out in the Working Group Charter:

- First Public Working Draft [A first draft is published on the W3C site in the directory for technical reports <http://www.w3.org/TR/>] – May 2012
- Last Call [the Working Group assumes that the technology is stable and asks for final review from the public] – November 2012
- Candidate Recommendation [The W3C director has approved the technical stability of the draft and implementations are tested with regards to interoperability] – March 2013
- Proposed Recommendation [At least two implementations have passed the interoperability tests and the W3C membership is asked for final approval] – October 2013
- W3C Recommendation [The final specification is published, with endorsement from the W3C team, the W3C membership and the Web community at large] – December 2013

Overall, the Working Group worked faster than expected: the pre-final Proposed Recommendation was published in September 2013; the final ITS 2.0 Recommendation was published in October 2013.

Two loops had to be taken during the standardization process: the Working Group published three Last Call Drafts: December 2012, May 2013, and August 2013:

- The Last Call Draft December 2012 was published because the Working Group internally was convinced that ITS 2.0 is stable.
- The Last Call Draft May 2013 was published because the Working Group decided to implement Working Group internal and external comments that resulted in “substantive changes” to ITS 2.0. Changes are classified as “substantive” if they influence implementations of the technology. After introducing substantive changes the W3C process requires publication of a new Last Call Draft.
- The Last Call Draft August 2013 was published because the W3C management asked the Working Group to make further substantive changes that required another Last Call.

Despite these unforeseen loops, the Working Group was able to achieve the finalization of ITS 2.0 in time. This is mostly due to the implementation driven standardization approach. Implementation development, conformance testing and the standardization discussion itself were conducted in parallel. As a result, the Working Group was able to skip the testing phase (“Candidate Recommendation”) that was planned between March and October 2013.

In total, the three last call review periods resulted in 75 comments. It proved to be extremely helpful that the most relevant technology in the localization realm (XLIFF – XML Localisation Interchange File Format) was well represented in the MultilingualWeb-LT project and the Working Group, e.g. with David Filip (University of Limerick) as co-chair in MLW-LT and as co-editor for XLIFF 2.0, and Yves Savourel (ENLASO) as a key implementer for both XLIFF and ITS. This helped to align the technologies and to avoid a huge number of Last Call comments.

The three Last Call loops had an effect on other work items: the M12 version of the D1.1.2 deliverable mentioned the idea to write best practice notes, accompanying the ITS 2.0 Recommendation and illustrating its usability in varied industry contexts. This item was not achieved due to the time needed for the three loops. Nevertheless, it was assured that there is a forum for that kind of tasks after the end of the project: the best practice work, description of application scenarios for ITS 2.0, and gathering of usage and implementation experience will now take place in the ITS Interest Group<sup>2</sup>.

## 4. THE W3C SPECIFICATION PROGRESS

### 4.1. Final document and mailing list

The final ITS 2.0 specification was published 29<sup>th</sup> October 2013

<http://www.w3.org/TR/2013/REC-its20-20131029/>

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#### RELEVANT MAILING LISTS

[public-multilingualweb-lt-comments@w3.org](mailto:public-multilingualweb-lt-comments@w3.org)

This list is being publicly and persistently archived at:

<http://lists.w3.org/Archives/Public/public-multilingualweb-lt-comments/>

It was used to gather comments from outside the Working Group. All Last Call comments have been assigned Issue Numbers in the Working Group Tracker (that has been made public since the publication of the D1.2.1).

Related Issues and Action Items are being worked on at:

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#### WG PUBLIC MAILING LIST

[public-multilingualweb-lt@w3.org](mailto:public-multilingualweb-lt@w3.org)

This list is being used for all standardization related technical communication. This is the only list being tracked by the IRC [Trackbot](#), so that it is important and convenient to communicate all Issues and Action Items (including the ones connected to implementations) via this list rather than other eventually restricted mailing lists.

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<sup>2</sup> See [http://www.w3.org/International/its/wiki/Main\\_Page](http://www.w3.org/International/its/wiki/Main_Page)

This list is being publicly and persistently archived at:

<http://lists.w3.org/Archives/Public/public-multilingualweb-lt/>

## 4.2. Action Item and Issue Tracking to reach the final W3C Recommendation Stage

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### MULTILINGUALWEB-LT WORKING GROUP ISSUE/ACTION SUMMARY

<https://www.w3.org/International/multilingualweb/lt/track/>

The Working Group has resolved all 132 issues, including the issues for the three Last Call Drafts.

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### ITS 2.0 DISPOSITION OF LAST CALL COMMENTS

Three “Disposition of Last Call Comments” have been created. These documents summarize the comments received during a Last Call period. They provide an overview of changes made and about their nature (substantive or only editorial), and the response from the reviewer (whether she is satisfied with the resolution of the comments).

- After the first last call draft (published December 2012):

<http://www.w3.org/International/multilingualweb/lt/drafts/its20/disposition-of-comments-1st-last-call.html>

- After the second last call (published May 2013):

<http://www.w3.org/International/multilingualweb/lt/drafts/its20/disposition-of-comments-2nd-last-call.html>

- After the third last call (published August 2013):

<http://www.w3.org/International/multilingualweb/lt/drafts/its20/disposition-of-comments-3rd-last-call.html>

Naturally, the first Last Call generated the highest number of comments. The comments during the second and the third Last Call period were rather focused and related to coordination with specific groups.

## 4.3. Coordination with specific groups during the Last Call periods

Three entities within W3C were crucial for finalizing ITS 2.0.

The usage of ITS 2.0 for HTML5 content has a dependency on the HTML5 specification: The data categories “Translate” and “Elements within Text” are defined based on definitions that are available in that specification. The MultilingualWeb-LT Working Group worked closely with the [W3C HTML Working Group](#) to assure that ITS 2.0 could be finalized without relying on unstable parts of the HTML5 draft.

The W3C Process requires coordination with the [W3C director](#) to pass the Last Call phase. The coordination led to the third Last Call phase, triggered by the beforehand mentioned dependency on HTML5 and by the categorization of non-normative versus normative features. That categorization is important to assure that ITS 2.0 can be implemented on a royalty-free basis, that is, as a truly open standard without any licensing requirements.

The third entity is the [W3C RDF Working Group](#). The representation of ITS 2.0 in RDF is the basis for Linked Data applications of ITS 2.0. The RDF Working Group asked for a change to that representation. This assured conformance with linked data principles and helped to future-proof ITS 2.0.

In summary, the W3C process required that beforehand described coordination efforts had to be taken before finalizing ITS 2.0. The benefit is that awareness about ITS 2.0 was raised among a broad range of stakeholders, including Web developers / browser vendors assembled in the HTML Working Group and the linked data community engaging in the RDF Working Group.

#### 4.4. Test Suite Conformance as a pre-requisite to finalize ITS 2.0

The conformance testing described in the M12 version of this report was successfully concluded.

The progress of internal reference implementations was publicly monitored in the test suite dashboard. The mailing lists [public-multilingualweb-lt-tests@w3.org](mailto:public-multilingualweb-lt-tests@w3.org) served as the forum to discuss the test suite development.

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#### ITS 2.0 TEST SUITE DASHBOARD

<http://tinyurl.com/mgylvvu>

As required by the W3C process, all normative categories are warranted with at least two reference implementations. The dashboard shows that now all implementers have finalized the tests that they had planned to do. The following section explains that this did not influence the standardization process.

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#### ITS 2.0 IMPLEMENTATION REPORT

Out of the test suite, in addition to the test suite dashboard, an implementation report was generated

<http://www.w3.org/International/multilingualweb/lt/drafts/its20/its20-implementation-report.html>

The underlying data is the same like for the dashboard, that is: input files for data categories (total 225) and for each file a gold standard output file (see D2.3 for details on the test suite design). Different to the dashboard, the implementation report does not contain all output files. The report is organized around conformance requirements and provides only the output files that are relevant for a complete implementation of a given “conformance feature”. For example, the following link

<http://www.w3.org/International/multilingualweb/lt/drafts/its20/its20-implementation-report.html#Translateconformance-overview>

summarizes the conformant implementations for the “Translate” data category. There are four approaches, that is conformance features, to implement that data category. Two of the features (“XML Global” and “XML Local”) fully have been implemented five times; two of the features (“HTML Global” and “HTML local”) fully have been implemented six times.

#### 4.5. Conclusion

The coordination between W3C, the various standardization groups, the Web community at large and the MultilingualWeb-LT project has proven to be successful: as planned, ITS 2.0 has been published as a W3C Recommendation within the duration of the project, with input from language and localization industries, SMEs and corporations alike, content producers and language service providers. ITS 2.0 helped to raise



awareness for multilingualism, internationalisation, language and localisation technology issues among the large community around the Open Web Platform technologies.

The MultilingualWeb-LT project encourages funding agencies to support similar, standardization related efforts in other areas, as a means to demonstrate success of Research and Development efforts in Europe.