Excel as an XLIFF editor: YOU CANNOT BE SERIOUS!

A.Zydroń 13 November 2013

1 Andrzej Zydroń – biography

CTO @ XTM International, Andrzej Zydroń is one of the leading IT experts on Localization and related Open Standards. Zydroń sits/has sat on, the following Open Standard Technical Committees:

- 1. LISA OSCAR GMX
- 2. LISA OSCAR xml:tm
- 3. LISA OSCAR TBX
- 4. W3C ITS
- 5. OASIS XLIFF
- 6. OASIS Translation Web Services
- 7. OASIS DITA Translation
- 8. OASIS OAXAL
- 9. ETSI LIS

Zydroń has been responsible for the architecture of the essential word and character count GMX-V (Global Information Management Metrics eXchange) standard, as well as the revolutionary xml:tm (XML based text memory) standard which will change the way in which we view and use translation memory. Zydroń is also chair of the OASIS OAXAL (Open Architecture for XML Authoring and Localization) reference architecture technical committee which provides an automated environment for authoring and localization based on Open Standards.

Zydroń has worked in IT since 1976 and has been responsible for major successful projects at Xerox, SDL, Oxford University Press, Ford of Europe, DocZone and Lingo24 in the fields of document imaging, dictionary systems and localization. Zydroń is currently working on new advances in localization technology based on XML and linguistic methodology. Highlights of his career include:

- 1. The design and architecture of the European Patent Office patent data capture system for Xerox Business Services.
- 2. Writing a system for the automated optimal typographical formatting of generically encoded tables (1989).
- 3. The design and architecture of the Xerox Language Services XTM translation memory system.
- 4. Writing the XML and SGML filters for SDL International's SDLX Translation Suite.
- 5. Assisting the Oxford University Press, the British Council and Oxford University in work on the New Dictionary of the National Biography.
- 6. Design and architecture of Ford's revolutionary CMS Localization system and workflow.
- 7. Technical Architect of XTM International's revolutionary Cloud based CAT and translation workflow system: XTM.

Specific areas of specialization:

- 1. Advanced automated localization workflow
- 2. Author memory
- 3. Controlled authoring
- 4. Advanced Translation memory systems
- 5. Terminology extraction
- 6. Terminology management

- 8. Translation Related Web Services
- 9. XML based systems
- 10. Web 2.0 Translation related technology

2 Excel as an XLIFF Editor

As CTO of XTM International I had a brief in 2012 to provide for XTM Cloud an offline translator workbench, or CAT (Computer Assisted Translation) tool for translators with poor Internet connections or who wanted to work offline when travelling etc. XTM is totally based on Open Standards and is an implementation of the OASIS OAXAL (Open Architecture for XML Authoring and Localization) reference architecture standard. It therefore has at its core XLIFF (XML Localization Interchange File Format) support. The whole of the XTM Cloud browser based translator workbench is driven via XLIFF, so any offline application would be an XLIFF editor.

We contemplated various ways of implementing this from the architectural point of view, namely a Java based desktop program for maximum portability and OS (Operating System) independence, as well as writing a .Net application for Windows. The key problem with all of these was the need to install and maintain desktop software.

Desktop software maintenance is a very time consuming and expensive task to do properly. In a Windows environment you are installing onto a system that you have no control over. Potential conflicts with existing software as well as the possible presence of trojans and viruses can cause stability issues which are difficult to diagnose remotely. Added to this you have the problem of installing updates and patches. These all impose a significant burden on both the user and the support engineers.

Looking at the nature of CAT tools it is easy to see that they are tabular in nature: you have a row for each segment with a segment ID, the source text, the target text and some additional status cells.

The solution we came up with was quite radical and imaginative: we chose to wrap the XLIFF file data in a Microsoft Excel application. Excel comes with a very powerful and capable programing environment: VBA, which most users are unaware of. It is also the ultimate tool for columnar data. Excel provides the facility to define a basic macro enabled template file. These have the 'xltm' extension. You can then read in a template file and add all of the required data to produce a macro enabled Excel file with an 'xlsm' extension which the user activates when opening the file.

Developing an Excel application for XLIFF file translation had the following advantages:

- 1. Assuming that all translators would have Microsoft Office installed on their PC, there is no software to install. This was a big plus.
- 2. Any new updates or fixes to the Excel application would always be installed in the Excel template file on the XTM Cloud server, so the user would always get the latest and best version with each file downloaded.
- 3. Excel 2011 for the Mac could also be supported which meant that both Windows and Mac platforms would be covered.
- 4. There are no licensing issues to worry about or manage from the XTM Cloud point of view.

I was not initially sure that we could achieve all of the functionality required from Excel, but the Visual Basic for Applications programing environment proved to be extremely powerful allowing us to develop a fully featured and functional offline application. It also allowed complete protection of the segments so that the user cannot accidently delete any segments or segment data.

There is nothing missing: the Excel application has the following features:

1. Segment expansion to reveal all relevant details

- 2. Inline element identification
- 3. Terminology details
- 4. Translation memory matching details
- 5. Cascade/forward matching
- 6. Automated status updates
- 7. Automatic spell checking
- 8. Concordance
- 9. Automatic comment creation when a change to a segment translation is made, including highlighting of differences.
- 10. Printing of the complete Excel spreadsheet
- 11. Comprehensive Help document is also included as part of the application
- 12. Find and replace

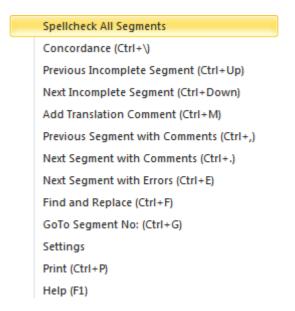
A row of icons is included to provide easy access to most actions. The icons are the same in operation as for the online XTM Editor:



The floating icon bar provides quick access to key functions:

Icon	Function
ABC	Spell check all target language segments
	Go to previous incomplete segment
•	Go to next incomplete segment
8	Add a comment (this function is also available from the right button click menu list)
\$	Go to previous segment with comments
3	Go to next segment with comments
	Go to next segment with errors
~	Invoke the Find and Replace dialog box
See.	Invoke the Setup dialog box to switch on or off auto spell checking of target segments and to show all terminology and matching comments
	Show the help documentation

All of these facilities are also available from the right button mouse click:



These menu items are the same as for the icon bar with the addition of the 'GoTo Segment No:', Concordance and Print options.

Here is an example of the Excel XLIFF Editor in action:

