

# Excel as an XLIFF editor: YOU CANNOT BE SERIOUS!

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## 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 programming 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 'xltn' 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 programming 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 accidentally 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
	Spell check all target language segments
	Go to previous incomplete segment
	Go to next incomplete segment
	Add a comment (this function is also available from the right button click menu list)
	Go to previous segment with comments
	Go to next segment with comments
	Go to next segment with errors
	Invoke the Find and Replace dialog box
	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:

**Spellcheck All Segments**

- Concordance (Ctrl+\)
- Previous Incomplete Segment (Ctrl+Up)
- Next Incomplete Segment (Ctrl+Down)
- Add Translation Comment (Ctrl+M)
- Previous Segment with Comments (Ctrl+.)
- Next Segment with Comments (Ctrl+.)
- Next Segment with Errors (Ctrl+E)
- Find and Replace (Ctrl+F)
- GoTo Segment No: (Ctrl+G)
- Settings
- Print (Ctrl+P)
- Help (F1)

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:

The screenshot shows the XTM Excel XLIFF Editor interface. At the top, there is a menu bar with options like 'Requires Microsoft Excel 2007, 2010 or 2013', 'Go To:', and various icons. Below the menu bar, the spreadsheet is displayed with two columns: 'Spanish' and 'English (UK)'. A 'Status' column is on the right. The spreadsheet contains various entries, including a detailed entry for 'El modelo Dell Vostro(1)1510' which includes a 'Fuzzy repetition (85%)' warning and a 'Terminology' section. The status column shows 'U' for Untranslated, 'M' for Matched, and 'I' for Incomplete. The bottom of the spreadsheet shows a list of 'Repetir' (Repeat) actions for rows 28, 29, 30, and 31.

ID	Spanish	English (UK)	Status
8	Con los ordenadores portátiles de Dell se eliminan más puntos sin cobertura en casa o en la oficina que con los productos de la competencia(1)(1).	Con los ordenadores portátiles de Dell se eliminan más puntos sin cobertura en casa o en la oficina que con los productos de la competencia(1)(1).	U
9	Un 93% de los usuarios consiguieron conectarse con éxito a una red utilizando el	93% success rate of users using Dell Network Assistant to connect to a network	I
10	El porcentaje de éxito fue del 66% entre los usuarios que no lo utilizan(1)(2)(1).	The percentage was 66% for those who did not(1)(2)(1).	M
11	Los ordenadores portátiles de Dell son los más avanzados en el mercado.	Los ordenadores portátiles de Dell son los más avanzados en el mercado.	M
12	Vostro: diseñados para la movilidad de la pequeña empresa	Vostro – Built for Small Business	I
13	Vostro ofrece una gama completa de productos, asistencia de ventas y las funciones de	Vostro delivers the full range of product, sales support, and service features that small	I
14	Vostro está respaldado por los servicios estándar más completos de Dell para pequeñas	Vostro is backed by Dell's most comprehensive standard services for small business.	I
15	Sin programas de demostración.	No trial ware.	M
16	Combine 32 operaciones de mantenimiento y rendimiento en una única aplicación muy fácil de utilizar, el asistente Automated PC Tune-Up de Dell.	Combine 32 maintenance and performance operations into one easy-to-use application. Dell Automated PC Tune Up.	M
17	La exclusiva pantalla TrueLife de Dell potencia la claridad de imagen, da mayor viveza a los colores y ofrece una relación de contraste hasta un 10% superior a la de pantallas	A Dell exclusive TrueLife screen boosts image clarity, makes colors seem more vivid and offers a contrast ratio up to 10% higher than comparable displays with anti-glare	M
18	El modelo Dell Vostro(1)1310 ofrece más opciones de seguridad por hardware para proteger su portátil que los equipos equivalentes de Toshiba y	El modelo Dell Vostro(1)1310 ofrece más opciones de seguridad por hardware para proteger su portátil que los equipos equivalentes de Toshiba y	U
19	El modelo Dell Vostro(1)1510 ofrece más opciones de seguridad para proteger su portátil que los equipos equivalentes de 15 pulgadas de HP, Toshiba y  <b>Terminology</b> Dell <b>Fuzzy repetition (85%)</b> Source: El modelo Dell Vostro(1)1510 ofrece más opciones de seguridad para proteger su portátil que los equipos equivalentes de 15 pulgadas de HP, Toshiba y Acer(2)(4)(2). Fuzzy Source: El modelo Dell VostroTM(sp) 1310 ofrece más opciones de seguridad por hardware para proteger su portátil que los equipos equivalentes de Toshiba y Acer3.	El modelo Dell Vostro(1)1510 ofrece más opciones de seguridad para proteger su portátil que los equipos equivalentes de 15 pulgadas de HP, Toshiba y  Acer(2)(4)(2). Hyperlink Matched with segment 18	M
20	Latitude: negocio sin límites, capacidad de administración sin renunciar a nada	Latitude – Business without Boundaries, Manageability without Compromise	M
21	Los Dell Latitude D630 y D630 BST superaron a la competencia en las pruebas de	Los Dell Latitude D630 y D630 BST superaron a la competencia en las pruebas de	M
22	Las unidades de disco duro de estado sólido aumentan el rendimiento sin partes	Solid state hard disk drives increase performance without moving parts.	I
23	Están diseñadas para dar un enorme salto en términos de durabilidad y fiabilidad.	They are designed to provide a quantum leap forward in durability and reliability	M
24	Las unidades de disco duro de estado sólido, diseñadas para multiplicar por 5 la fiabilidad, también mejoran el rendimiento hasta en un 23%.	Designed to deliver 5x increased reliability solid state hard drives also provide up to 23% improved performance.	M
25	Único proveedor con autenticación biométrica integrada en todos sus productos	Only Vendor with integrated biometric authentication on all commercial products	M
26	El digitalizador de Dell precisa que se ejerza menos fuerza con el dedo y responde mejor al tacto, lo que redundará en mayor eficacia y, por tanto, dura más.	El digitalizador de Dell precisa que se ejerza menos fuerza con el dedo y responde mejor al tacto, lo que redundará en mayor eficacia y, por tanto, dura más.	M
27	Uno de los Tablets PC convertibles de 12,1 pulgadas más pequeños y ligeros del	One of the thinnest and lightest 12.1" convertible tablets.	M
28	Repetir	Repetir	U
29	Repetir	Repetir	M
30	Repetir	Repetir	M
31	Repetir	Repetir	M