ATA Conference 2005: Session TAC-7

Introduction to Word Macros and Their Applications

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Abstract: Macros can assist with common tasks and are tools for automating repetitive processes. This presentation will provide an introduction to using Word macros for translation tasks, e.g. preparing glossaries or other documents for MultiTerm or TMW import, and repetitive formatting or modifications. We will take first steps with Visual Basic for Applications (VBA), the programming language for Word macros, and see examples of recording and adapting macros. Participants will also receive a WWW listing of downloadable macros and a bibliography of relevant printed and on-line publications.
Overview

- Purpose of Macros
- VBA Concept and Terminology
- Introduction to VBA for MS Word
- VBA applications for translators
- Online learning and community
- Bibliography
1. Purpose of Macros

en.wikipedia.org/wiki/Macro:
“The purpose of macros is to either automate frequently-used sequences or enable a more powerful abstraction — but these are often the same thing. … In most situations, the use of the word "macro" implies expanding a small command or action into a larger set of instructions.”
In other words: ... work more efficiently

Sub Macro1()
    ' Macro1 Macro
    ' Macro recorded 11/10/2005 by Karl Pfeiffer
    Selection.HomeKey Unit:=wdStory
    Selection.WholeStory
    Selection.Font.Bold = wdToggle
    Selection.Copy
    Selection.EndKey Unit:=wdStory
End Sub
1.1 Case Study 1

Working with glossaries …

Example:

*tab-delimited bilingual glossary*

*Trados MTW file structure*
### Case Study 1

What we have: Tab-delimited glossary

<table>
<thead>
<tr>
<th>Source 1</th>
<th>Target 1</th>
<th>Comments 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source 2</td>
<td>Target 2</td>
<td>Comments 2</td>
</tr>
<tr>
<td>Source 3</td>
<td>Target 3</td>
<td>Comments 3</td>
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<tr>
<td>Source 4</td>
<td>Target 4</td>
<td>Comments 4</td>
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<tr>
<td>Source 5</td>
<td>Target 5</td>
<td>Comments 5</td>
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<tr>
<td>Source 6</td>
<td>Target 6</td>
<td>Comments 6</td>
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<tr>
<td>Source 7</td>
<td>Target 7</td>
<td>Comments 7</td>
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<tr>
<td>Source 8</td>
<td>Target 8</td>
<td>Comments 8</td>
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<tr>
<td>Source 9</td>
<td>Target 9</td>
<td>Comments 9</td>
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<tr>
<td>Source 10</td>
<td>Target 10</td>
<td>Comments 10</td>
</tr>
<tr>
<td>Source 11</td>
<td>Target 11</td>
<td>Comments 11</td>
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<tr>
<td>Source 12</td>
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<td>Source 13</td>
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<td>Comments 13</td>
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<tr>
<td>Source 14</td>
<td>Target 14</td>
<td>Comments 14</td>
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<tr>
<td>Source 15</td>
<td>Target 15</td>
<td>Comments 15</td>
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<td>Source 16</td>
<td>Target 16</td>
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<tr>
<td>Source 18</td>
<td>Target 18</td>
<td>Comments 18</td>
</tr>
<tr>
<td>Source 19</td>
<td>Target 19</td>
<td>Comments 19</td>
</tr>
<tr>
<td>Source 20</td>
<td>Target 20</td>
<td>Comments 20</td>
</tr>
</tbody>
</table>
What we want to get:
Layout of MTW5 import/export file
1.1 Case Study 1

Working with glossaries ...

Example: convert with macro
1.1 Case Study 1

Solution: a conversion macro that performs repetitive tasks
2. VBA Concept and Terminology

VBA = Visual Basic for Applications
2.1. History

http://en.wikipedia.org/wiki/BASIC_programming_language:

“BASIC's name stands for *Beginner's All-purpose Symbolic Instruction Code*. …

**BASIC** is a family of high-level *programming languages*. Originally devised as an easy-to-use programming language. …

2.1. History (continued)

http://en.wikipedia.org/wiki/Visual_Basic:

“Visual Basic (VB) is an event driven programming language and associated development environment created by Microsoft. In business programming, it has one of the largest user bases.

It is derived heavily from BASIC...

...derivatives of Visual Basic for use in scripting ... applications:

Visual Basic for Applications (VBA) is included in many Microsoft applications (like Microsoft Office). There are small inconsistencies in the way VBA is implemented in different applications, but it is largely the same language as VB6.”
2.1. History (continued)

http://en.wikipedia.org/wiki/Visual_Basic_for_Applications:

“It supersedes and expands on the capabilities of earlier application-specific macro programming languages such as Word's WordBasic, and can be used to control almost all aspects of the host application, including manipulating user interface features such as menus and toolbars and working with custom user forms or dialog boxes.

As its name suggests, VBA is closely related to Visual Basic, but can normally only run code from within a host application rather than as a standalone application. It can however be used to control one application from another (for example automatically creating a Word report from Excel data).”
2.2. Interface

... is included in many Microsoft applications

So, where do we find it?
2.2. Interface (continued)

- Tools > Macro > Visual Basic Editor

- Current version: 6.3

- Features:

- FAQ:
2.2. **Interface** *(continued)*

Main VBE window

3 sub-windows:

* Project Explorer
* Properties Window
* Code Window
2.3. Terminology

- **Project**: A set of modules
- **Module**: file containing codes for macros and procedures
- **Procedure**: sequence of instructions that performs a specific task
2.3. Terminology (continued)

- **Object-oriented programming (OOP):**
  - **Object:** specific characteristics and behavior, e.g. documents and tables
  - **Property:** named attribute of an object, e.g. column width or row height of a table
  - **Method:** action performed by an object, e.g. Sorting a table column
3. Introduction to VBA for MS Word

Example:

*tab-delimited bilingual glossary*

Settings:

- fresh normal.dot

in:  C:\Documents and Settings\<user name>\Application Data\Microsoft\Templates

- Visual Basic Toolbar
- Security
- clear Require Variable Declaration
Error message possibly due to corrupted normal.dot
show Visual Basic toolbar
Set security level

- High: Only signed macros from trusted sources will be allowed to run. Unsigned macros are automatically disabled.
- Medium: You can choose whether or not to run potentially unsafe macros.
- Low (not recommended): You are not protected from potentially unsafe macros. Use this setting only if you have virus scanning software installed, or you are sure all documents you open are safe.

No virus scanner installed.
Uncheck
Require
Variable
Declaration
3. Introduction (continued)

Example:

*tab-delimited bilingual glossary*

use Macro Recorder to get a head start
Karl Pfeiffer: Introduction to Word Macros

3. Introduction (continued)

| Source 1 → Target 1 → Comments: 1 |
| Source 2 → Target 2 → Comments: 2 |
| Source 3 → Target 3 → |
| Source 4 → Target 4 → |
| Source 5 → Target 5 → |
| Source 6 → Target 6 → |
| Source 7 → Target 7 → |
| Source 8 → Target 8 → |
| Source 9 → Target 9 → |
| Source 10 → Target 10 → |
| Source 11 → Target 11 → |
| Source 12 → Target 12 → |
| Source 13 → Target 13 → |
| Source 14 → Target 14 → |
| Source 15 → Target 15 → |
| Source 16 → Target 16 → Comments: 16 |
| Source 17 → Target 17 → Comments: 17 |
| Source 18 → Target 18 → Comments: 18 |
| Source 19 → Target 19 → Comments: 19 |
| Source 20 → Target 20 → Comments: 20 |

Record Macro

Macro name: Convert1

Assign macro to:
- Toolbars
- Keyboard

Store macro in:
Source 1Target 1Comments 1c.doc (document)

Description:
Macro recorded 11/11/2005
Sub Convert1()
' GlossaryConvert1 Macro
' Macro recorded 11/11/2005
Selection.TypeText Text:="<English>"
Selection.Find.ClearFormatting
With Selection.Find
 .Text = "^t"
 .Replacement.Text = ""
 .Forward = True
 .Wrap = wdFindContinue
 .Format = False
 .MatchCase = False
 .MatchWholeWord = False
 .MatchWildcards = False
 .MatchSoundsLike = False
 .MatchAllWordForms = False
End With
Selection.Find.Execute
Selection.TypeParagraph
Selection.TypeText Text:="<German>"
Selection.Find.ClearFormatting
With Selection.Find
 .Text = "^t"
 .Replacement.Text = ""
 .Forward = True
 .Wrap = wdFindContinue
 .Format = False
 .MatchCase = False
 .MatchWholeWord = False
End With
"
Run macro from toolbar
Run macro step by step with F8
Sub Glossaryconvert()

' Glossaryconvert Macro
' converts 3 column tab-delimited word list to MTW format - Macro recorded 11

Do ' Start of Loop.

Selection.TypeText Text:="<English>"
Selection.Find.ClearFormatting
With Selection.Find
  .Text = "^t"
  .Replacement.Text = ""
  .Forward = True
  .Wrap = wdFindContinue
  .Format = False

Sub End()
Edit code:

Event-handling at end of document to stop the loop

```vba
Selection.TypeText Text:="<Notes>"
Selection.EndKey Unit:=wdLine
Selection.MoveRight Unit:=wdCharacter, Count:=1
Selection.TypeText Text:="***"
Selection.TypeParagraph

Dim InsertionPointFlashimgAtEndOfDoc As Boolean

If Selection.Type = wdSelectionIP And Selection.End = ActiveDocument.Content then
    InsertionPointFlashimgAtEndOfDoc = True
End If

If InsertionPointFlashimgAtEndOfDoc = True Then
    Exit Do
End If
```

End Sub
Sub Glossaryconvert()
' Glossaryconvert Macro
' converts 3 column tab-delimited word list to MTW format - Macro recorded 11

Dim Counter As Integer
Counter = 0

Do ' Start of Loop.

Selection.TypeText Text:="<English>"
Selection.Find.ClearFormatting
With Selection.Find
 .Text = "^t"
 .Replacement.Text = ""
 .Forward = True
 .Wrap = wdFindContinue
 .Format = False
 .MatchCase = False
 .MatchWholeWord = False
 .MatchWildcards = False
 .MatchSoundsLike = False
 .MatchAllWordForms = False
End With
Selection.Find.Execute
Selection.TypeParagraph
Increment counter with each loop

Counter = Counter + 1

Dim InsertionPointFlashingAtEndOfDoc As Boolean

If Selection.Type = wdSelectionIP And Selection.End = ActiveDocument.Content.

    InsertionPointFlashingAtEndOfDoc = True

End If

If InsertionPointFlashingAtEndOfDoc = True Then

    Exit Do

End If

Loop

MsgBox ("Total number of glossary entries converted: " & Counter)

End Sub
Send counter value to Message Box
** Display Message Box **

Note: MultiTerm Convert (shipped with Trados 6) can convert tab-delimited files, as well.
3. Introduction (continued)

Case Study 2

Prepare TMW export for selective edit
Structure of TMW export
Objective:
Distinguish between source and target segments to selectively spell-check target for new German spelling
Solution: set all text to “no proofing” except red German segments
3. Introduction (continued)

Language

Mark selected text as:

- German (Germany)
- English (US)
- Afrikaans
- Albanian
- Arabic (Algeria)
- Arabic (Bahrain)

The spell and other proofing tools automatically use dictionaries of the selected language, if available.

- Do not check spelling or grammar
- Detect language automatically

Default... OK Cancel
3. Introduction (continued)
3. Introduction (continued)

Case Study 3

clean up list with multiple identical entries (e.g. after extracting captions, legends, part names from a technical manual)
What we have:

Extraneous identical lines
<table>
<thead>
<tr>
<th>Source 1</th>
<th>Target 1</th>
<th>Comments 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source 1</td>
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<td>Comments 1</td>
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<td>Comments 3</td>
</tr>
<tr>
<td>Source 3</td>
<td>Target 3</td>
<td>Comments 3</td>
</tr>
</tbody>
</table>

**Step 1:** sort list
Step 2: Eliminate extraneous entries
3. Introduction (continued)

Step 2: Eliminate extraneous entries

Result: list with unique entries
4. Other VBA applications for translators

Jost Zetzsche’s Toolkit:
http://www.internationalwriters.com/toolkit

regularly quotes sources for macros, e.g. ...
4. Other VBA applications for translators (continued)

http://www.apluscounts.com

little macros for Excel, Word, and PowerPoint that deliver more accurate word counts (including Word text boxes) and automatically calculate a customizable price that you would charge for these texts
4. Other VBA applications for translators (continued)

- utility that automatically converts metric data to imperial data and vice versa right in your Word document
- macro that performs 10 find & replace runs simultaneously, with one-click convenience
4. Other VBA applications for translators (continued)

http://www.openlingua.de/ol/software/tmexports.html

- a script used for finding all Translation Memories (TM) in a given directory and exporting them using Trados Translators Workbench (TW), while at the same time creating a list of the files with more data about the TMs
4. Other VBA applications for translators (continued)

- macros that Change English typographic quotes to German ones, German ones to English ones and English and German typographic ones to straight ones

www.trans-k.co.uk/macros.html
4. Other VBA applications for translators (continued)

- macro collection for Déjà Vu and Trados users, e.g. paint, hide and change codes

http://www.necco.ca/dv/word_macros.htm
4. Other VBA applications for translators (continued)

... and many more, e.g.

- www.passolo.com/support/downloadmacros.stm
- www.proz.com/translation-articles/articles/468/1/How-to-spell-check-your-TRADOS-translation-memories
- web.ticino.com/multilingual/tools_for_translators.htm
- atools.dotsrc.org/index.php
4. Other VBA applications for translators (continued)

- Plus comprehensive TM Tools that are macro-based:
  - www.wordfast.org/
  - www.wordfisher.com/
  - www.metatexis.com/

- ... and Trados
4. Other VBA applications for translators (continued)
5. Online learning and community

- **MS VBA Home:**
  msdn.microsoft.com/isv/technology/vba/default.aspx

- **Online Courses:**
  - visualbasic.about.com
  - www.vbtutor.net
5. Online learning and community

Newsgroups and User groups:

- msdn.microsoft.com/newsgroups/default.aspx?dg=microsoft.public.word.vba.general
- groups.yahoo.com/group/Word_VBA (775 members)
- groups.yahoo.com/group/VBA_Developer (559 members)
- groups.yahoo.com/group/VBA-Developer (809 members)
- groups.google.com/group/VisualBasic4Applications (168 members)
- groups.google.com/group/alt.comp.lang.vba (53 members)

(all data as of 11-12-2005)
6. Bibliography

6.1. Additional useful websites

- word.mvps.org/FAQs/MacrosVBA/index.htm
- wordtips.vitalnews.com/W182_Macros.html
- www.jojo-zawawi.com/code-samples-pages/code-samples.htm
- www.ginstrom.com/software/wordmacros/
  (especially for English <-> Japanese translators)

Download this complete presentation:

(Note: created with PowerPoint 2002 (XP); may be incompatible with versions older than PowerPoint 2000 or Acrobat 5)
Hungry for more?

- NCTA-Workshop in San Francisco
  January 28, 2006:
  VBA macros for Word & Excel
- More info: www.ncta.org