A Guide to BibType

# Introduction

One of the new features of Microsoft Word 2007 is the ‘Citations & Bibliography’ feature. It presents an easy way for users to enter and display bibliographic data in a uniform way. And since the entire tool chain is xml based, it can be highly customized by developers. Unfortunately, the documentation on how to do so is limited to non-existent.

BibType is a tool to help with the customization of the forms for entering bibliographic data. By default, it produces output in English, but giving a localized *bibform.xml* file, it can generate localized output.

# The bibliography xml schema

The structure of bibliographic sources in a Word document is defined by the schema with the following namespace:

http://schemas.openxmlformats.org/officeDocument/2006/bibliography[[1]](#footnote-2)

The ST\_SourceType type definition of the schema indicates that currently 17 types of sources are supported:

|  |  |  |
| --- | --- | --- |
| Art | DocumentFromInternetSite | Misc |
| ArticleInAPeriodical | ElectronicSource | Patent |
| Book | Film | Performance |
| BookSection | InternetSite | Report |
| Case | Interview | SoundRecording |
| ConferenceProceedings | JournalArticle |  |

It is interesting to note that without a schema extension, it is not possible to add new types. This is logical as the type is used to decide on how the formatting should happen. If anybody would define a new type, the different output styles would not know how to handle it.

On top of the 17 different types of sources, the schema indicates that each type can contain up to 67 different information elements, including 16 different types of authors. The schema does not define a relationship between the different types of sources and the elements. It is up to developers to decide for which element the end-user can provide information and for which he or she cannot. The name of the element often limits its use though. For example, the PatentNumber element seems to be only useful for a Patent source.

# BibForm.xml

A BibForm.xml file is processed by Word to decide which elements a user can enter for every type of source. The file is cultural dependant, as it contains labels defining each of the fields, and is located in a subdirectory of the Word directory:

<Word 2007 directory>\<LCID>\bibliography\BibForm.xml

with LCID being the locale id. A full list of possible values can be found at:

<http://www.microsoft.com/globaldev/reference/lcid-all.mspx>

|  |
| --- |
| <?xml version="1.0" encoding="UTF-16"?>  <Forms xmlns="http://schemas.openxmlformats.org/officeDocument/2006/bibliography">  <Source type="Book" display="Book">  <Tag>  <Label>Author</Label>  <DataTag>b:Author/b:Author/b:NameList</DataTag>  <Sample>Example: Kramer, James D; Chen, Jacky</Sample>  <ToString>Author2String.XSL</ToString>  <ToXML>Author2XML.XSL</ToXML>  <Author>Yes</Author>  <OrgAuthor>Yes</OrgAuthor>  </Tag>  <Tag>  <Label>Title</Label>  <DataTag>b:Title</DataTag>  <TitlePriority>1</TitlePriority>  <Sample>Example: How to Write Bibliographies</Sample>  </Tag>  </Source>  </Forms> |

XML Fragment : Example BibForm.xml

XML Fragment 1 shows an example for a part of such an xml file. For each type of source, there is a Source element which you can populate with Tag elements specifying the fields to show to the end-user.

If there is no Source element for one of the 17 currently defined types, Word will generate one itself. Hence, it is not possible to block out certain types. Also, since Word does not validate the BibForm.xml file in any way, new types of source can be added here. However, as mentioned in section 2 such types will invalidate the xml containing all the sources and most likely result in strange output.

Note that the xml is actually invalid as a Forms element is not defined by the bibliography schema.

# BibType

In section 3 it was shown how BibForm.xml files can be customized to change the fields an end-user can use to input his or her data. However, passing around customized BibForm.xml files might cause language issues. For example, if someone holding a Dutch copy of BibForm.xml would adapt it and give it to someone with an English copy of Word, the form for entering the source would show up in Dutch in the English version.

BibType is a tool to solve the above issue. Rather than specifying every element, one only specifies the datatags. Then given the original BibForm.xml on the end-user’s machine, BibType generates a localized version for the end-user by extracting the necessary information from the BibForm.xml file. XML Fragment 2 gives an example on the input for books. For the complete definition of the xml, a schema is available.

|  |
| --- |
| <?xml version="1.0" encoding="utf-8"?>  <Types xmlns="http://BibWord.org/BibType">  <Type Name="Book">  <DataTag>b:Author/b:Author/b:NameList</DataTag>  <DataTag>b:Title</DataTag>  <DataTag>b:Year</DataTag>  <DataTag>b:City</DataTag>  <DataTag>b:StateProvince</DataTag>  <DataTag>b:CountryRegion</DataTag>  <DataTag>b:Publisher</DataTag>  <DataTag>b:Author/b:Editor/b:NameList</DataTag>  <DataTag>b:Volume</DataTag>  <DataTag>b:NumberVolumes</DataTag>  <DataTag>b:Author/b:Translator/b:NameList</DataTag>  <DataTag>b:ShortTitle</DataTag>  <DataTag>b:StandardNumber</DataTag>  <DataTag>b:Pages</DataTag>  <DataTag>b:Edition</DataTag>  <DataTag>b:Comments</DataTag>  </Type>  </Types> |

XML Fragment : Example of BibType input xml for books.

1. The schema can be found in the OfficeOpenXML-XMLSchema schema set, more specifically in the shared-bibliography.xsd file. [↑](#footnote-ref-2)