

Why Learn to Use **XLingPaper**

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1 Introduction

XLingPaper is a computer tool designed to make writing, reading, and publishing linguistic papers, grammars, and books better and more consistent. The official website for **XLingPaper** is <http://software.sil.org/xlingpaper/>.

Unlike most editing programs authors use, **XLingPaper** (which depends on the **XMLmind XML Editor**¹) is a structured editor. Rather than making the document look the way it is to be formatted, the author “marks up” the items in the document according to their kind. It follows a “Third Wave” approach to writing and publishing (Simons and Black 2009, Black 2009). That is, the author inserts sections, paragraphs, examples, etc., and tags text material as being language data, a gloss, an abbreviation, a citation to a work in the references, etc. Because of this, **XLingPaper** definitely has a steep learning curve. Nonetheless, many users have found climbing that curve to be more than worthwhile. This document details reasons why an author, a reader and a publisher would be interested in **XLingPaper**.²

2 Benefits for the author

XLingPaper helps the author in at least the following ways:

1. Automatic numbering of examples and references to them.
2. Automatic numbering of figures and references to them.
3. Automatic numbering of tables and references to them.
4. Automatic numbering of endnotes/footnotes and references to them.
5. Automatic numbering of sections, chapters, appendices, and parts and references to them.³
6. Automatic generation of contents, list of figures, and list of tables.
7. Automatic generation of references (every work cited in the document is automatically included in the references and the references contain only those works which have been cited).⁴

¹See <http://www.xmlmind.com/xmleditor/>.

²I thank Stephen Marlett for his input and comments on this document.

³Appendix “numbering” consists of a capital letter starting with A, B, C, etc.

⁴The author does have to be careful to use a `citation` element for each citation for this to happen. If s/he merely types the citation as plain text, then that citation could be missing.

8. As a corollary, the author can maintain one master list of references for all of her/his **XLingPaper** documents. Only those works cited in a given document will appear in the references portion of the output.
9. Automatic generation of abbreviations used (every abbreviation used in the document is automatically included in the list (or table) of abbreviations and the list (or table) contains only those abbreviations which have been used).⁵
10. As a corollary, the author can maintain one master list of abbreviations for all of her/his **XLingPaper** documents. Only those abbreviations used in a given document will appear in the list (or table) of abbreviations in the output.
11. Automatic formatting of interlinear examples, including long interlinears which need to “wrap” onto new “lines.”
12. Can have an interlinear text included in the document and then create an example which refers to a line in that text. In the output, **XLingPaper** will automatically copy in the line from the text into the example and also include a link to the line in the text. The interlinear text can actually be in a different **XLingPaper** document. In such a case, the author can set things up so that in the output of the document which has the example, **XLingPaper** will create a link to that line in the other document.
13. Automatic generation of a list of ISO 639-3 codes used.
14. Automatic generation of glossary terms used (every glossary term used in the document is automatically included in the glossary and the glossary contains only those terms which have been used). Terms in the glossary can be linked from one term to another term.
15. Creation of indexes (up to three: language, author, subject). The index(es) is(are) automatically generated, including the page number. An index entry can refer to another index entry. The index entries can be nested. An index reference can be a range of material so that in the output it might indicate the item can be found from page 31-33, for example.
16. Since with **XLingPaper**, the author “marks up” the content according to its kind of item (rather than how it is supposed to look), the formatting of the output can be controlled by a publisher style sheet. One can get quite different formatting this way. This means the author has much less “busy work” to do with respect to formatting. See the demo movie called “Overview demonstration: The Power of Actionable Data” at <http://software.sil.org/xlingpaper/resources/demo-movies/>. The formatting of the output via a publisher style sheet includes the order of front matter items and back matter items.
17. The author can use “content control” to have one document with multiple outputs. Some examples include:
 - a. A textbook with material for the student only and/or the instructor. By choosing an single option, the output can be the student's edition or the instructor's edition.
 - b. A grammar which is aimed at native speakers or bi-lingual teachers. By choosing a single option, the output can be for one or the other version. (The version for bi-lingual teachers would have more introductory material comparing the language the grammar is written in to the language the grammar is about.)

⁵The author does have to be careful to use an `abbrRef` element for each abbreviation for this to happen. If s/he merely types the abbreviation in plain text, then that abbreviation could be missing. Having said that, there are ways for a author to quickly convert a typed abbreviation into an `abbrRef` element.

- c. A document in multiple languages. The author creates each title, paragraph, etc., for a given language. The output can then be selected to be in, say, French, Spanish, or English.
- 18. Can use "framed units" to offset and display sample material such as in textbooks or documentation.
- 19. Can gloss a text in [FLEx](#) and then export that text in [XLingPaper](#) format to be included as a text in an [XLingPaper](#) document. One can output the glossed text in three ways:
 - a. An interlinear text in an appendix. (One can easily move the text to some other section or chapter, if so needed.)
 - b. A set of individual interlinear examples.
 - c. A single "list interlinear" example.
- 20. The document is archive-ready (it is plain text XML).
- 21. The document and all its constituent files (e.g., embedded portions, graphic files, sound files) can be put into a zip file via a simple command.
- 22. The author can use free tools to keep track of revisions of the document.⁶ In addition, [the XMLmind XML Editor](#) version 7+ comes with a way to enable distributed authors to work on the same document at the same time and then merge the results.

When marking up a text (i.e., keying an [XLingPaper](#) document), the following help the author:

1. There is a "grammar" of what constitutes a well-formed linguistic document. [XLingPaper](#) prevents the author from creating an ill-formed document: when inserting a new "element," only the licit options are shown.
2. These options include a set of pre-canned groups of elements that linguists often use. This makes it much faster and easier to add a unit such as an interlinear example or an example of a list of words and their respective glosses.
3. Items which can be referred to and their referring elements are color-coded. Both the item and its referring element usually have the same background color.
4. When setting a referring element to the item it needs to refer to, there is a command which brings up a dialog box showing all the possible items it could refer to. Whenever possible, this shows the pertinent information about the item (e.g., section/chapter title; appendix title, reference work information, etc.)
5. There are the usual search possibilities and one can even do specialized searches for things like images or figures, etc.
6. Spelling checking can be applied as the author types. Spelling checking is not done for text which has been demarcated as being language data.
7. Producing a formatted output is via a menu command or by a simple key-stroke.
8. It is easy for an author to rearrange entire sections and their structure.
9. There are commands for promoting and demoting sections and parts of sections. For example, when one needs to split a subsection into several sub-subsections, there is an easy way to do this.

⁶These are often referred to as a DVCS ("Distributed Revision Control System"). Examples include [Mercurial](#) and [git](#). [XLingPaper](#) users have used both systems successfully.

10. There is extensive user documentation (which some users have described as being of high quality).
11. The author can create custom text items which will consistently output canned text material. If the author needs to change this material, s/he does it in one place and all instances of it in the document immediately change. (The [XLingPaper](#) text in this document was done this way.)
12. If the author is an editor of a collection of papers done by various other authors and if those authors used [XLingPaper](#) for their submissions, there is an command to quickly convert those papers into chapters for the collection volume.
13. If the author is a student working in a master's or Ph.D. program, there are commands to quickly convert a paper written for a class to the appropriate format as a chapter in a thesis or dissertation.
14. Chapters, sections, subsections, and appendices can easily be collapsed or opened, thus making it easier to see the structure of the document.

3 Benefits for the reader

The output [XLingPaper](#) produces contains many hyperlinks. While reading an [XLingPaper](#)-generated PDF, say, a reader can come across one of these links, click on it, and go to where the material is. By using the back button in their PDF reader, the reader can quickly return to where s/he was. Here are most of the links:

1. Items in the table of contents are links to those items.
2. Items in the PDF Bookmarks are links to those items.
3. Any list of tables or list of figures contain links to the table or figure.
4. Abbreviations are linked to their definition.
5. Cited work is linked to its reference information.
6. Example reference is linked to the example.
7. An example which is from a line in an interlinear text is linked to that line in the text (the text can be included in the document or be in a separate document).
8. A section, chapter, appendix, or part reference is linked to that section, chapter, appendix, or part.
9. A reference to a numbered table is linked to its corresponding numbered table.
10. A reference to a figure is linked to its corresponding figure.
11. Items in the index are a link to the exact spot in the document.
12. The author may have created a “generic” link to enable the reader to quickly jump to some part of a document (e.g., a line in a table or some text material in the prose).

The advantage for the reader is that when s/he wonders what a given abbreviation means, s/he can merely click on it and find its definition. If s/he wants to know more about a given cited work, s/he can merely click on the citation and see the corresponding full reference entry. If s/he wants to see an interlinear example in its wider context, s/he can merely click on the reference link and be taken to that line in the interlinear text.

4 Benefits for the publisher

For a publisher, [XLingPaper](#) offers the following benefits:

1. Consistency:
 - a. Every part, chapter, section, and appendix are numbered automatically, The numbering will be correct.
 - b. Examples will be numbered correctly.
 - c. Numbered tables will be numbered correctly.
 - d. Figure numbers will be correct.
 - e. References to examples, numbered tables, figures, sections, chapters, appendices and parts will be correct.
 - f. Unless the author failed to properly mark a citation or an abbreviation, every cited work will be in the references and every abbreviation will be in the list (or table) of abbreviations.⁷
 - g. Running headers and footers are controlled by the publisher style sheet. Once set up correctly, they should be correct.
 - h. Assuming the author associated the correct publisher style sheet (and that style sheet does not have errors), all formatting of the following will be correct:
 - i. Front matter items and their relative order.
 - ii. Section, chapter, and part numbers and titles.
 - iii. Back matter items and their relative order.
 - iv. Reference entries.
 - v. Example numbers.
 - vi. Language data in examples versus tables versus prose. For example, language data in prose might be bold, in a table it might be italic, and in an example, it might be regular. [XLingPaper](#) figures out the context and applies the correct formatting.
 - vii. Glosses in examples versus tables versus prose. For example, a gloss in prose might be enclosed in single quotes, in a table it might be shown in italic, and in an example, it might be regular. [XLingPaper](#) figures out the context and applies the correct formatting.
 - viii. Free translation lines in interlinear text or examples. For example, the free translation might be enclosed in double quotes.
2. Faster processing: Given the consistency, there should be fewer issues that the editor sees and the author needs to check.
3. Whenever the publisher changes the style requirements, the publisher can give the author of an [XLingPaper](#) document the new publisher style sheet, the author associates the new style sheet to the document and produces the PDF. The changes will now be present.

⁷When reading the PDF, you can tell if a citation is improperly marked by hovering your mouse over the citation. If it changes to the pointing hand, then it was marked correctly. Same for an abbreviation. (Depending on your PDF reader, you may have to make sure that the mouse is in 'hand' mode and not in 'text' mode.)

4. The PDF output of **XLingPaper** should be good to be used as is for the main part of the published document. The publisher will need to create any special front matter pages (such as the cover sheet, ISBN number, series info, etc.) These are probably the first 1-4 pages, so the publisher should be able to use a PDF tool that merges their special front matter PDF file into the **XLingPaper**-produced PDF file. The resulting PDF will retain all of the hyperlinks of the **XLingPaper**-produced PDF.
5. If the publisher so chooses, they can ask the author to submit the **XLingPaper** “source” files and then use **XLingPaper** to insert comments, etc.

References

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- Simons, Gary F. and H. Andrew Black. 2009. Third Wave Writing and Publishing. *SIL Forum for Language Fieldwork* 2009-005. (<https://www.sil.org/resources/publications/entry/7783>) (accessed 12 July 2017).