

Introduction to XSLT

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Extended abstract

We propose a didactic demonstration of XSLT¹ [12], the language of transformations used for XML² texts. We use the `xsltproc` program [10], built out of the `libxml2` library [9]. Both are written using the C programming language and are parts of the GNOME³ project. Both are running on Windows and Linux, but our demonstration is performed on the latter.

First, we show how to check the syntax of an XML text by means of the `xmllint` program, using the `libxml2` library. This program can also be used to check or find out XPath⁴ expressions [11].

Then, we put into action a simple stylesheet and run it by means of the `xsltproc` program. We demonstrate the main features of XSLT by enriching this simple program. In particular, we show that XSLT is suitable for computation, and it can also be used to produce ‘simple texts’ — e.g., source files for L^AT_EX — as well as structured documents w.r.t. XML or HTML⁵.

Last, if we have time and people are interested, we can also demonstrate `xsltproc`’s debugger.

Our show does not require any knowledge about XML and XSLT⁶. We also mention that XSLT may be used to process documents written in DocBook, an XML-based system for writing structured documents [5, 7, 13]. Besides, the `nbst` language [1], used to design *bibliography styles* in MIBIB_TE_X — our multilingual reimplementation of the bibliography processor BIB_TE_X [4], usually associated with the L^AT_EX word processor [2] — can be viewed as an extension of XSLT.

¹ eXtensible Stylesheet Language Transformations.

² eXtensible Markup Language. Readers who would like to read an introductory book to this formalism can refer to [6].

³ GNU Network Object Model Environment.

⁴ XPath is the language used to address parts of an XML document.

⁵ HyperText Markup Language, the language used for Web pages. Details can be found in [3].

⁶ A didactic introduction to XSLT is [8].

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