Demonstration of the ‘mlbibcontext’ Program

Abstract
This short statement aims to sketch the broad outlines of the presentation performed at the 6th ConTEXt meeting.

Introduction

When the bibTEX bibliography processor [17] builds a ‘Reference’ section for a source text typeset by the LATEX word processor [16], it only uses information stored in auxiliary (.aux) files [16, § 12.1.3]. In particular, such an .aux file gives the *bibliography style* to be used, as a .bst file[1]. Such a style is monolithic, in the sense that nothing can be customised when bibTEX is called: for example, the order relation used to sort bibliographical items is hard-wired in any .bst file. The biber program [1]—often used in conjunction with the biblatex package [14]—is more flexible: when it runs, it uses a configuration file (.bcf[2]) file—using XML[3]-like syntax—as explained in [8, § 2.5]: in particular, such a .bcf file allows the sort of bibliographical items to be customised. However, let us recall that biber has a drawback from a point of view related to ConTEXt: it only builds ‘References’ sections suitable for the biblatex package. As explained in [10], the `mlbibcontext` program aims to build ‘References’ sections suitable for the bibliography support for ConTEXt [2,3]. The main point of the demonstration is to show which information is needed by mlbibcontext, in order for this program to be as powerful as possible. In other words, we aim to help design a nice interface between ConTEXt and `mlbibcontext`[4].

Plan

Let us recall that the `mlbibcontext` program—written entirely using the Scheme programming language [13]—builds ‘References’ sections suitable for the commands of Taco Hoekwater’s `bib` module [5], reimplemented within ConTEXt MkIV by Hans Hagen [3]. The demonstration will focus on the following points:

- its installation: the easiest way is to compile the source files by the bigloo [18] Scheme compiler[5]; the installation procedure [9] uses the commands `configure` [19] and `make` [15], well-known within GNU[6] software; the source files are available at the Web page http://lifc.univ-fcomte.fr/home/~jmhufflen/texts/superreport/smlbibtex-1.3.tar.gz;
- the `mlbibcontext` program allows order relations used to sort bibliographies to be customised w.r.t. successive keys given by bibTEX’s fields [10,11]; only ascending orders can be used presently, but this point could be improved by a nicer interface: the kernel of MlbibTEX[7] also provides descending order relations;
- the `mlbibcontext` program allows you to put many basic commands of LATEX inside values of bibTEX’s fields, even if the result is processed by ConTEXt; moreover, some commands specific to ConTEXt may be grouped into a special preamble within .bib files: the `@CONTEXTPREAMBLE` directive instead of the traditional `@PREAMBLE` directive [6].

To end up, let us mention the `mlbibtex2xml` program [10], part of MlbibTEX. This program allows bibliographical items to be given using XML-like syntax. This kind of text can be processed by ConTEXt MkIV (cf. [7, Fig. 8]). However, we think that `mlbibtex2xml`’s outputs could be processed by programs written using Lua [12]—as allowed by ConTEXt MkIV [4]—rather than ConTEXt features related to TEX. When .bib files are processed by `mlbibtex2xml`, no sort operation is performed.

Notes

1. Except if the biblatex package is used [14], in which case the bibliography style applied by bibTEX is implicitly the biblatex bibliography style.
2. **B**iber **C**onfiguration **F**ile.
3. e**X**tensible **M**arkup **L**anguage.
4. Let us mention that `mlbibcontext` could deal with configurations described by XML files—in particular, it could process

bibliographical entries given using XML-like syntax—; it can also process additional definitions written using the Scheme programming language [13].

5. Of course, it is preferable for `mlbibcontext` to be compiled, in order to get more efficiency. The use of other Scheme compilers or interpreters is possible.
6. Recursive acronym: **G**NU is **N**ot **U**NIX.
7. **M**ulti**L**ingual bibTEX.

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