Dual Presentation with Math from One Source

Abstract of Proposed Talk for the TUG Meeting in San Diego, July 2007

William F. Hammond

Department of Mathematics & Statistics University at Albany Albany, New York 12222 (USA) Email: hammond@math.albany.edu Web: http://www.albany.edu/~hammond/

ABSTRACT

A contemporary author writing an article for "dual presentation" has in mind both the classical printed presentation of an article and the modern web form of an article based on HTML.

There are two main approaches for achieving dual presentation that are relevant to the $T_{\rm E} X$ community. 1

- Write a LATEX article, and use a program that translates to HTML.
- Write an article in a suitable XML document type, such as *DocBook* or *TEI*, and use standard software for generating LATEX and HTML.

Both methods present challenges to authors who have been accustomed to using LATEX.

Since mid-2002 the second-generation form of HTML that supports mathematical content has been supported by the two most widely deployed web browsers, but not many articles seem to have appeared on the web in this form so far. The most likely reason is difficulty of production.

This talk will address the use of "generalized $\[mathbb{L}^T\[mathbb{E}\]X$ " to produce dual content from a single $\[mathbb{L}^T\[mathbb{E}\]X$ -like source. This method combines the reliability of XML document transformation with many of the conveniences available when writing $\[mathbb{L}^T\[mathbb{E}\]X$ markup.

REFERENCES

William F. Hammond, "GELLMU: A Bridge for Authors from LATEX to XML", *TUG-Boat: The Communications of the TEX Users Group*, vol. 22 (2001), pp. 204–207; also available online at http://www.tug.org/TUGboat/Contents/contents22-3.html.

GELLMU at CTAN: http://www.tex.ac.uk/tex-archive/help/Catalogue/entries/gellmu.html

 $^{^1\}mathit{Texinfo},$ the language of the GNU Documentation System, also provides a route for dual presentation of articles that do not use mathematical markup.

William F. Hammond, "Introductory User's Guide to Regular GELLMU", http://www. albany.edu/~hammond/gellmu/igl/userdoc.xhtml (PDF²).

William F. Hammond, "The GELLMU Manual", http://www.albany.edu/~hammond/ gellmu/glman/glman.xhtml (PDF³).

"New York Journal of Mathematics Articles in Mathematically-Capable HTML"⁴; demonstration versions of past articles from The New York Journal of Mathematics ported from classical LATEX using GELLMU.

 $^{^2 \}rm URI: http://www.albany.edu/~hammond/gellmu/igl/userdoc.pdf <math display="inline">^3 \rm URI: http://www.albany.edu/~hammond/gellmu/glman/glman.pdf$

⁴URI: http://math.albany.edu/demos/nyj/