Happy New Year

Welcome to the holiday season edition of ‘news of our activities’ for the \LaTeX{}3 team.

Recent developments

The last six months has seen two significant releases in the \LaTeX{}3 code. In the ctan repository for the \xpackages,¹ you’ll find two items of interest:

- A revised version of \xparse; and
- The new package \xtemplate, a re-implementation of \template with a new syntax.

Special thanks to Joseph Wright who handled the implementations above almost single-handedly (with lots of input and feedback from other members of the team and members of the \LaTeX-L mailing list).

These two packages are designed for the \LaTeX{} package author who wishes to define document commands and designer interfaces in a high-level manner.

\xparse This package allows complex document commands to be constructed with all sorts of optional arguments and flags. Think of how \newcommand allows you to create a command with a single optional argument and \xparse is a generalisation of that idea.

\xtemplate This package requires more explanation. \Xtemplate is designed to separate the logical information in a document from its visual representation. ‘Templates’ are constructed to fulfil individual typesetting requirements for each set of arguments; to change the look of a certain part of a document, instantiations of templates can be swapped out for another without (a) having to change the markup of the source document, or (b) having to edit some internal \LaTeX{} macro. \LaTeX{}2ε packages, such as \geometry or \titlesec, already provide parameterized interfaces to specific document elements. For example, one may use \titlesec to change the layout of a \section: one modifies its layout parameters via \titleformat and \titlespacing. In a way, such packages define a template for a specific document element and some manipulation commands to instantiate it. However, the moment the intended lay-

¹http://mirror.ctan.org/tex-archive/macros/latex/contrib/xpackages/
Packages to tackle

xhead  The first work will be to create a new \texttt{xpackage} (probably called \texttt{xhead}), for typesetting section headings and other document divisions. Section headings are one of the more complex areas to work with, so the work should stress \texttt{xtemplate} enough to know if its current design is sufficient for most needs. Nothing has been released yet, but we’ll announce further developments on the \texttt{latex-l} mailing list\footnote{For details, see \url{http://www.latex-project.org/code.html}} in the mean time.

galley  We also need to give \texttt{galley} the same treatment as \texttt{xparse} and \texttt{xtemplate} have already had. That is, we have an older implementation (in fact two) that needs some work before we’re ready to release it to \texttt{CTAN}.

The \texttt{galley} package is used to place material into the vertical list while typesetting but before page breaks occur. Since it works at such a low level, it is important to solidify this package before writing higher level design templates.

An issue we have to face is that to achieve best results, \texttt{galley} cannot be used in concert with \LaTeX\ 2\epsilon code. This could limit its usefulness, and we may decide that it’s better to scale back the features we’re attempting, to allow better interoperability for existing packages and documents. More work remains before we can decide between these options.