LaTeX News

Issue 14, June 2001

Future releases

We are currently exploring how to best support the very large community of individuals, organisations and enterprises that depend on the robustness and availability of the current standard LaTeX distribution. The results of this may lead to some changes in the regular release schedule and the handling of bug reports during the next year.

New release of Babel (required)

Earlier this year a new release of Babel (3.7) became available. You can read about its new features in
```
http://www.ctan.org/tex-archive/macros/
          latex/required/babel/announce.txt
```
One of the bugs that got fixed in this release deals with how labels are handled by LaTeX. Because this part of the kernel is modified by babel, the relevant changes need to be coordinated. Therefore to use Babel with this release of LaTeX you will need to update your version of babel to at least 3.7.

New input encoding latin9

The package inputenc has, thanks to Karsten Tinnefeld, been extended to cover the latin9 input encoding. The ISO-Latin 9 encoding is a useful modern replacement for ISO-Latin 1 that contains a few characters needed for French and Finnish. Of wider interest, it also contains the euro currency sign; this could be the killer argument for many 8-bit texts to use Latin-9 in the future.

According to a Linux manpage, ISO Latin-9 supports Albanian, Basque, Breton, Catalan, Danish, Dutch, English, Estonian, Faroese, Finnish, French, Frisian, Galician, German, Greenlandic, Icelandic, Irish Gaelic, Italian, Latin, Luxemburgish, Norwegian, Portuguese, Rhaeto-Romanic, Scottish Gaelic, Spanish and Swedish. The characters added in latin9 are (in LaTeX notation):
```
\texteuro  \v S  \v s  \v Z  \v z  \OE  \oe  \" Y
```
They displace the following characters from latin1:
```
\textcurrency  \textbrokenbar  \"{}  \'{}  \c{}
\textonequarter  \textonehalf  \textthreequarters
```

New tools

The new package trace provides many commands to control LaTeX's tracing and debugging output, including the excellent new information available with ε-TeX such as the extremely useful tracing of local assignments. You will find it in the tools distribution.

It offers the command \traceon, which is similar to \tracingall but suppresses uninteresting stuff such as font loading by NFSS (which can go on for pages if you are unlucky). It also offers \traceoff to ... guess what! Full details are in the documented source file, trace.dtx.

In the base ifthen package we have added the uppercase synonyms \NOT \AND and \OR.

New experimental code

In LaTeX News 12 we announced some ongoing work towards a 'Designer Interface for LaTeX' and we presented some early results thereof. Since then, at Gutenberg 2000 in Toulouse and TUG 2000 in Oxford, we described a new output routine and an improved method of handling vertical mode material between paragraphs. In combination these support higher quality *automated*[1] page-breaking and page make-up for complex pages—the best yet achieved with TeX!

More recently we have added material to handle the complex front matter requirements of journal articles; this was presented at Gutenberg 2001 in Metz.

A paper describing the new output routine is at
```
http://www.latex-project.org/papers/xo-pfloat.pdf
```
All code examples and documentation are available at
```
http://www.latex-project.org/code/experimental
```
This directory has been extended to contain the following.

galley Prototype implementation of the interface for manipulating vertical material in galleys.

xinitials Prototype implementation of the interface for paragraph initials (needs the `galley` package).

xtheorem Contributed example using the `template` package to provide a designer interface for theorem environments.

xor A prototype implementation of the new output routine as described in the `xo-pfloat.pdf` paper.

xfrontm A prototype version of the new font matter interface.

---

[1] The stress here is on automated!

LaTeX News

Issue 15, December 2003

Anniversary release

Yes, it's now 10 years since the first release in this series and, for Knuthists, this release also contains *Issue 16* !

Meanwhile this *Issue 15* describes the major new features in the current release whilst *Issue 16* looks a little way into the future of LaTeX.

LPPL – new version

Most importantly, there is now a new version, 1.3, of the LaTeX Project Public Licence. Many of you will be thrilled to know that, following the exchange of over 1600 e-mail messages dissecting various aspects of its philosophy such as 'how many angels can appear in the name of a file before it becomes non-free', this version is now officially a DFSG (Debian Free Software Guidelines) approved license. The discussions start at `http://lists.debian.org/debian-legal/2002/debian-legal-200207/threads.html` with high traffic throughout August to October 2002 and further heated discussions starting in April 2003 and concluding around June at `http://lists.debian.org/debian-legal/2003/debian-legal-200306/msg00206.html`.

The important features of the new version are useful clarifications in the wording, and revised procedures for making a change to the Current Maintainer of a package. Special thanks to all those people from Debian Legal who worked constructively with us on this onerous task, especially but not exclusively Jeff Licquia and Branden Robinson.

Small updates to varioref

The English has been corrected in `\reftextbefore` (an incompatible change). There are other extensions such as `\labelformat`, `\Ref`, `\Vref` and `\vpagerefnum`. Some Dutch text has also been changed and two new options added: slovak and slovene.

New and more robust commands

Many of the math mode commands for compound symbols have been made robust and a new robust command has been added: `\nobreakdashes`. This last is a low-level command, borrowed from the amsmath package, for use only before hyphens or dashes. It prevents the line break that is normally allowed after the following sequence of dashes.

Fixing font sizes

The new fix-cm package, by Walter Schmidt, changes the CM font definition (`.fd`) files so that similar design sizes are used in both the OT1 and T1 encodings.

Font encodings

A number of options have been added to the textcomp package, enabling only available glyphs to be used. Also, the 'NFSS font families' are now divided into five different groups according to the subset of glyphs each provides from the full collection of symbols in the TS1 encoding. Given sufficient information about a font family textcomp will use this in order to limit the typesetting to those glyphs that are available.

Use of this mechanism has also enhanced `\oldstylenums` to use the current font if possible.

Displaying font tables

With the nfssfont package you can now specify the font to display by giving its 'NFSS classification', rather than needing to know its external font file's name. It is also now possible to generate large collections of font tables in batch mode by providing a suitable input file.

New input encodings

The inputenc package has been extended as follows: macce input encoding (Apple Central European), thanks to Radek Tryc and Marcin Wolinski; cp1257 for Baltic languages; latin10, thanks to Ionel Ciobîcă. The euro symbol has by now been added to several encodings: ansinew, cp1250 and cp1252 (which also has another addition), whilst cp858 adds it to cp850.

Unicode input

Partial, experimental support for text files that use the Unicode encoding form UTF-8 is now provided by the option utf8 for the inputenc package.

The only Unicode text file characters supported by the current version are those based on the most common inputs for glyphs from the small collection of standard LaTeX Latin encodings.

And finally . . . pict2e

The old, non-functional version of this package has been removed as there is now a fully working version from Hubert Gäßlein and Rolf Niepraschk. It is described in *The LaTeX Manual.*

L^AT_EX News

Issue 16, December 2003

Anniversary news

This anniversary *Issue 16* takes a brief look into the future work of the L^AT_EX3 Project Team, both short and and longer range. Please let us know if you want to get involved with us in any of this work (see below).

An overview of the 10th Anniversary Release, dated 2003/12/01, is can be found in *Issue 15*.

TLC2: The L^AT_EX Companion – 2nd edition!

Since you are reading this newsletter, there is a good chance that you, or a friend, has already bought this encyclopedic volume: the incomparable Second Edition of this work that is every L^AT_EXie's ultimate lucky charm.

If by some chance you have not yet purchased your own copy then get into training, get shopping, and get flexing your muscles (both physical—it's 1100+ pages, and intellectual) by using it to discover masses of invaluable 'insider information' about:

- the latest release of Standard L^AT_EX;
- over 200 extension packages;
- plus related software and systems.

For more information on this all new (??... OK, not *all*, but over 90%!!), all accurate (we hope!) 10th Anniversary Edition, check out `http://www.awprofessional.com/titles/0201362996`.

Future maintenance

We are currently exploring how best to support the very large and rapidly growing community of individuals, organisations and enterprises that depend on the robustness and availability of the current standard L^AT_EX distribution. Although we remain firmly resolved not to make changes in the base distribution (the kernel) of Standard L^AT_EX, there is still much that needs doing to maintain its reliability and utility and to keep up the necessary level of communication with users and supporters. Also, as with all advanced software systems, bugs are still turning up occasionally so some fixes are still essential.

One major impediment to providing adequate service levels in this area is, of course, the difficulties inherent in obtaining the time and commitment of skilled minds—hence the appeal above to anyone interested in getting involved.

LPPL certification

There are still some outstanding diplomatic tasks around the L^AT_EX Project Public Licence: these include e.g., getting it 'OSF certified' and ensuring that it gains more support and wider use, even in the FSF world where it has long been tolerated.

Use of ε-T_EX/pdfT_EX

We expect that within the next two years, releases of L^AT_EX will change modestly in order to run best under an extended T_EX engine that contains the ε-T_EX primitives, e.g., ε-T_EX or pdfT_EX. The details of this possible upgrade need further work so we are not making a definite announcement yet.

Although the current release does not *require* ε-T_EX features, we certainly recommend using an extended T_EX, especially if you need to debug macros.

End of 'autoload' support

As computer systems generally grow in capacity, requirements change and so we believe that the `autoload` variant of L^AT_EX is no longer required. Thus, although the code remains it is no longer supported. We hope this does not cause any problems.

New models, new code

In the period 1999–2001 we published many results of our work over the previous decade on the development of new concepts and models for automated typesetting based on T_EX as the underlying platform. These can be found at `http://www.latex-project.org/papers/` and `http://www.latex-project.org/code/experimental/`.

Since then a very large proportion of the The Team's efforts have been diverted to provide the core author team for TLC2, which provides over 1000 pages of carefully researched and tested documentation of many aspects of the vast world of L^AT_EX related software that was developed over that same time period and that continues to grow and improve prodigiously.

Completion of that task ... until TLC3!! ... presents the possibility of getting back to this more exciting development work, or even to more radical work on non-T_EX-based models and implementations.

Of course, any such ideas are predicated on our ability to organise (with you, we hope) an efficient but responsive maintenance and support system for Standard L^AT_EX.