

# L<sup>A</sup>T<sub>E</sub>X News

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## Welcome to L<sup>A</sup>T<sub>E</sub>X News 5

This issue of *L<sup>A</sup>T<sub>E</sub>X News* accompanies the fifth release of the new standard L<sup>A</sup>T<sub>E</sub>X, L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>.

## Extra possibilities for section headings

Most L<sup>A</sup>T<sub>E</sub>X sectioning commands are defined using `\@startsection`. For example, the `article` class defines:

```
\newcommand\section{\@startsection
  {section}{1}{0pt}{-3.5ex plus-1ex minus-.2ex}%
  {2.3ex plus.2ex}{\normalfont\Large\bfseries}}
```

The last argument specifies the style in which the section heading is to be typeset.

The new feature added at this release is that at the *end* of this argument you may specify a command that *takes an argument*. This command will be applied to the section number and heading. For example, one could use the `\MakeUppercase` command to produce uppercase headings. A package or class file could contain:

```
\renewcommand\section{\@startsection
  {section}{1}{0pt}{-3.5ex plus-1ex minus-.2ex}%
  {2.3ex plus.2ex}{\normalfont\Large\MakeUppercase}}
```

to produce section headings using uppercase medium weight text, rather than the bold text used by `article`. Note that, like the font choice, the uppercasing applies only to the actual heading (including any automatically generated section number), not to the text as it may appear in the running head or table of contents.

## The ‘openany’ option in the ‘book’ class

The `openany` option allows chapter and similar openings to occur on left hand pages. Previously this option only affected `\chapter` and `\backmatter`. It now also affects `\part`, `\frontmatter` and `\mainmatter`.

## More font (output) encodings

The font encoding name T3 has been allocated to the encoding used in the new 256-character IPA fonts (for the phonetic alphabet) produced by Rei Fukui. His package, `tipa`, gives access to these fonts and should soon be available. (The encoding named OT3 is the 128-character encoding used in the IPA fonts produced by Washington State University.)

## More input encodings supported

The `inputenc` package now supports the IBM codepage 852 used in Eastern Europe, with the option `[cp852]` contributed by Petr Sojka.

Also, the `inputenc` package now activates most ‘control codes’ with ASCII values below 32. Currently none of the encodings in the standard distribution makes use of these positions.

## Fixes and improvements

The L<sup>A</sup>T<sub>E</sub>X kernel has only had minor changes, apart from `\@startsection` mentioned above. However, some small fixes have been incorporated removing the following problems:

- In `tabular` and `array`, previous versions of L<sup>A</sup>T<sub>E</sub>X ‘lost’ the inter-column space from an ‘1’-column, when that column was completely empty.
- Previously, the use of the `\nofiles` command could change the *vertical spacing* in a document. A side effect of fixing this is that when `\nofiles` is used, `\label` puts a blank line in the log file.
- L<sup>A</sup>T<sub>E</sub>X often loads fonts ‘on demand’. Previously, this could happen inside the argument of an accent command and this would cause the accent to appear in the wrong place.

## Changes to the ‘tools’ packages

- The `longtable` package now uses a modified algorithm, contributed by David Kastrup, to align the ‘chunks’ of a table. It is now unnecessary to edit the document to add `\setlongtables` before the final run of L<sup>A</sup>T<sub>E</sub>X. In certain cases of overlapping `\multicolumn` entries, the new algorithm will produce better column widths than the old (at the price of extra passes through L<sup>A</sup>T<sub>E</sub>X).
- The `dcolumn` package now has the extra possibility of specifying the number of digits both *before* and *after* the ‘decimal point’. This makes it easy to centre the column of numbers under a wide heading.

## New copy of the L<sup>A</sup>T<sub>E</sub>X bug database

<http://www.tex.ac.uk/ctan/latex/bugs.html> will soon have links to a copy of the searchable L<sup>A</sup>T<sub>E</sub>X bugs database at Mainz (Germany) as well as the original copy at Sussex (England).