



The Treasure Chest

This is a list of selected new packages posted to CTAN (<http://www.ctan.org>) from July 2007–May 2008, with descriptions based on the announcements and edited for brevity.

Entries are listed alphabetically within CTAN directories. A few entries which the editors subjectively believed to be of especially wide interest or otherwise notable are starred; of course, this is not intended to slight the other contributions!

Hopefully this column and its companions will help to make CTAN a more accessible resource to the T_EX community. Comments are welcome, as always.

biblio

- aichej** in `biblio/bibtex/contrib/misc`
 B_IB_TE_X style file for the *American Institute of Chemical Engineers Journal*.
- bib2ml** in `biblio/bibtex/utis`
 Perl script converting B_IB_TE_X databases to HTML, XML, or SQL.
- fbs** in `biblio/bibtex/contrib/misc`
 B_IB_TE_X style file for *Frontiers in Bioscience*.
- text2bib** in `biblio/bibtex/utis`
 PHP script to references to B_IB_TE_X.

fonts

- * **Asana-Math** in `fonts`
 An OpenType math font with almost all mathematical Unicode symbols and the MATH OpenType table supported by X_YL_AT_EX and Word 2007.
- cyklop** in `fonts`
 OpenType, Type 1, and support files for the Cyklop typeface, a very high contrast display design.
- fgf** in `fonts`
 A font for Frege's *Grundgesetze der Arithmetik*.
- gfsbaskerville** in `fonts/greek/GFS`
 The venerable Baskerville design with complete support for Greek (only).
- hwkatakana** in `fonts`
 Half-width Katakana Type 1 fonts in the SJIS encoding, based on the Wadalab fonts.
- * **lxfonts** in `fonts`
 Revived L_AT_EX slide fonts for both text and math.
- umtypewriter** in `fonts`
 Four OpenType fonts supporting Latin, Greek, and Cyrillic scripts.

graphics

- automata** in `graphics/metapost/contrib/macros`
 Draw finite state machines, graphs, trees, etc.
- bpolynomial** in `graphics/metapost/contrib/macros`
 Draw polynomial functions up to degree three.
- dot2tex** in `graphics`
 Convert Graphviz-format graphs to L_AT_EX-friendly formats.
- graphicxsp** in `graphics`
 Embed graphics in PDF output once, and support the Adobe transparency imaging model.
- pgfplots** in `graphics/pgf/contrib`
 Normal and logarithmic plots using TikZ/PGF.
- pgf-soroban** in `graphics/pgf/contrib`
 Draw a Japanese abacus using TikZ/PGF.
- pst-cox** in `graphics/pstricks/contrib`
 Draw two-dimensional projections of complex regular polytopes (after Coxeter).
- pst-diffraction** in `graphics/pstricks/contrib`
 Draw diffraction patterns for different geometric forms of apertures for monochromatic light.
- pst-optexp** in `graphics/pstricks/contrib`
 Facilitate sketching of optical experimental setups.
- pst-pad** in `graphics/pstricks/contrib`
 Draw attachment surfaces for friction and adhesion models.
- pst-solides3d** in `graphics/pstricks/contrib`
 Draw solids in three-dimensional perspective.
- pst-soroban** in `graphics/pstricks/contrib`
 Draw a Japanese abacus using PSTricks.
- tableau-variations** in `graphics/metapost/contrib/macros`
 Create variation tables in MetaPost.

info

- compact** in `info/symbols/compact`
 Beamer-style list of common symbols, including the variations in `txfonts`.
- dtxgallery** in `info`
 Collection of minimal `.dtx` examples.
- l2tabues** in `info/l2tabu/spanish`
 Spanish translation of `l2tabu`.
- * **latex-brochure** in `info`
 Publicity flyer for L_AT_EX; please print and post wherever appropriate.
- lshort-slovenian** in `info/lshort/slovenian`
 Slovenian translation of `lshort`.
- mpman-ru** in `info/metapost/doc/russian`
 Russian translation of the MetaPost user's guide.
- * **texbytopic** in `macros/latex/contrib`
 Victor Eijkhout's excellent T_EX reference book *T_EX by Topic*, now available under the GNU Free Documentation License.
- xetexref** in `info`
 Unofficial reference documentation for X_YL_AT_EX.

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- language**
- mx** in `language/spanish/nonstandard`
Babel support for typesetting Spanish with Mexican conventions.
- ptex** in `language/japanese`
A high-quality Japanese \TeX system by ASCII Co., compatible with $\text{t}\mathcal{E}\mathcal{X}$ -based systems. Released under the modified BSD license.
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- macros/latex/contrib**
- addlines** in `macros/latex/contrib`
Enhancements of `\enlargethispage`.
- ametsoc** in `macros/latex/contrib`
Official American Meteorological Society \LaTeX template files.
- boldtensors** in `macros/latex/contrib`
Provide bold Latin and Greek characters within `\mathversion{normal}`, by using `~` and `"` as prefix characters.
- catechis** in `macros/latex/contrib`
Support for catechisms: question-and-answer, comments on answers, etc.
- changepage** in `macros/latex/contrib/misc`
Locally changing text width or other page layout based on odd/even pages; compatible with `memoir`, unlike `chnpage`.
- chemscheme** in `macros/latex/contrib`
Support for a chemical scheme float type with automatic numbering.
- chemstyle** in `macros/latex/contrib`
Formatting chemistry documents (successor to the `rsc` bundle).
- confproc** in `macros/latex/contrib`
Class for conference proceedings.
- constants** in `macros/latex/contrib`
Label/reference system for (families of) constants, e.g., in a proof.
- *datatool** in `macros/latex/contrib`
Database operations and charts within \LaTeX , possibly created from external CSV, TSV, etc. files.
- dotarrow** in `macros/latex/contrib`
Extendable dotted arrows (like `\xrightarrow`).
- dprogress** in `macros/latex/contrib`
Log \LaTeX 's progress through the document, outputting section headers, equation numbers, etc.
- ecclesiastic** in `macros/latex/contrib`
Typesetting Latin in an ecclesiastical style.
- ed** in `macros/latex/contrib`
Editorial notes for \LaTeX documents.
- edmargin** in `macros/latex/contrib`
Support for endnote sections in critical editions.
- environ** in `macros/latex/contrib`
Collect body text inside an environment.
- epspdfconversion** in `macros/latex/contrib`
Do EPS-to-PDF conversion on the fly from within \LaTeX .
- errata** in `macros/latex/contrib`
Recording errata in \LaTeX documents and then highlighting changes.
- etoolbox** in `macros/latex/contrib`
Programming facilities for \LaTeX class and package authors, including but not limited to support for new $\varepsilon\text{-}\mathcal{E}\mathcal{X}$ primitives.
- euproposal** in `macros/latex/contrib`
Support for FP7 proposals.
- fouridx** in `macros/latex/contrib`
Enable left subscripts and supersets; alternative to `\sideset` and `\leftidx`.
- frletter** in `macros/latex/contrib`
Typeset French-style letters (in any language).
- frontespizio** in `macros/latex/contrib`
Typeset thesis frontispiece in Italian style.
- gaceta** in `macros/latex/contrib`
Support for the journal *La Gaceta de la Real Sociedad Matemática Española*.
- hexgame** in `macros/latex/contrib`
Draw a hexagonal game board.
- ifplatform** in `macros/latex/contrib`
Conditionals for testing the current operating system (using `-shell-escape`).
- ijmart** in `macros/latex/contrib`
 \LaTeX class for the *Israel Journal of Mathematics*.
- image-gallery** in `macros/latex/contrib`
Generate overview page of a photo gallery, possibly adjusting photo sizes.
- isonums** in `macros/latex/contrib`
Display numbers in math mode according to ISO-31-0, regardless of input format.
- jsclasses** in `macros/latex/contrib`
Classes supporting Japanese, including `jsarticle` and `jsbook`.
- lcyw** in `macros/latex/contrib`
 \LaTeX support for the CM Cyrillic fonts.
- mathexam** in `macros/latex/contrib`
 \LaTeX package for typesetting exams, including space for students to show work.
- mciteplus** in `macros/latex/contrib`
Reimplementation of `mcite` with support for physics-style grouping of multiple citations; compatible with $\text{REV}\mathcal{E}\mathcal{X}4$.
- mfpic4ode** in `macros/latex/contrib`
Draw direction fields and other differential equation support.
- newspaper** in `macros/latex/contrib`
Typesetting newsletters to resemble newspapers.
- nostarch** in `macros/latex/contrib`
Official \LaTeX for No Starch Press.
- notes2bib** in `macros/latex/contrib`
Integrate footnotes, endnotes, and other notes in a bibliography.

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- numname** in `macros/latex/contrib`
Convert a numerical number to the English spelled-out name of the number.
- perltex** in `macros/latex/contrib`
Define \LaTeX macros in terms of Perl code.
- philex** in `macros/latex/contrib`
Dynamically cross-reference to names and contents of environments.
- sagetex** in `macros/latex/contrib`
Embed Sage code and plots into \LaTeX .
- sfmath** in `macros/latex/contrib`
Switch all mathematics typesetting to sans serif.
- show2e** in `macros/latex/contrib`
Support for `\show` variants suited to \LaTeX 2 ϵ 's commands and environments, and other debugging help.
- shipunov** in `macros/latex/contrib`
Bundle with support for field biologists, Russian-language authors, and much more.
- siunitx** in `macros/latex/contrib`
Comprehensive package for typesetting values with units.
- stex** in `macros/latex/contrib`
 (\LaTeX) support for mathematical knowledge management, via allowing semantic markup without leaving the document format.
- stringstrings** in `macros/latex/contrib`
Large collection of expandable routines for string processing.
- subdepth** in `macros/latex/contrib`
Unify math subscript height.
- tablort** in `macros/latex/contrib`
Create tables for signs and variations using XCAS for calculus and MetaPost for drawing.
- ted** in `macros/latex/contrib`
Token list editor: substitutions and display of tokens.
- theoremref** in `macros/latex/contrib`
Variants of `\label` and `\ref` for theorem-like environments.
- thinsp** in `macros/latex/contrib`
A stretchable `\thinspace` for \LaTeX .
- *translator** in `macros/latex/contrib`
Open translation platform, compatible with `babel`.
- turnstile** in `macros/latex/contrib`
Support for logicians' turnstile sign.
- upmethodology** in `macros/latex/contrib`
Support for Unified Process methodologies (UP or RUP).
- varsfromjobname** in `macros/latex/contrib`
Select hyphen-separated pieces of `\jobname`.
- vxu** in `macros/latex/contrib`
Classes for Växjö University, Sweden.
- xargs** in `macros/latex/contrib`
Define macros with many optional arguments.
- xskak** in `macros/latex/contrib`
Extensions to `skak` for chess typesetting, including saving information for later use.
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- macros/latex/exptl**
- biblatex-dw** in `macros/latex/exptl/biblatex-contrib`
Support for humanities-style citations and more, for `biblatex`.
- biblatex-mla** in `macros/latex/exptl/biblatex-contrib`
Support for MLA-style parenthetical citations and bibliographies in `biblatex`.
- gcite** in `macros/latex/exptl`
German-style citations, providing a small amount of bibliographic information in a footnote on the page where each citation is made.
- thmtools** in `macros/latex/exptl`
Keyval interface to `\newtheorem`, a `\listoftheorems` command, `hyperref` compatibility, and more theorem extensions.
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- macros/omega**
- tamil-omega** in `macros/omega/latex/contrib`
Typeset the Tamil script using Omega.
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- macros/xetex**
- xecyr** in `macros/xetex/latex`
Support for Cyrillic languages in $X_{\text{q}}\LaTeX$ + `babel`.
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- support**
- acroweb** in `support`
Scripts for creating interactive tests in `AcroTeX` from web databases.
- autolatex** in `support`
Automate generation of large-scale \LaTeX projects.
- ctantools** in `support`
Search \LaTeX packages on CTAN.
- delig** in `support`
Java program to disable misplaced ligatures in \LaTeX documents, for example "Auflage" in German.
- fastpictex** in `support`
Preprocessor for `PiCTEX` to ease creation of line graphs, bar graphs, x - y graphs, etc.
- graphconv** in `support`
Windows program to convert Graph (<http://www.padawan.dk/graph/>) files to `PSTricks`.
- jlm** in `support/jed`
 \LaTeX mode for the JED editor.
- miktex_update** in `support`
Automate updating and installing of new packages of an existing `MiKTeX` installation.
- texcount** in `support`
Count number of words in \LaTeX text, with color output. Also available as a web service: <http://folk.uio.no/einarro/Comp/texwordcount.html>.
- vc** in `support`
Version control for (\LaTeX) , supporting Subversion and Git.