The Treasure Chest

This is a selected list of the packages posted to CTAN from January 2004 through December 2004, with descriptive text pulled from the announcement or researched and edited for brevity. Please inform us of any errors.

This installment, like the last, lists entries alphabetically within CTAN directories, rather than by date. We’ve also omitted some packages which had only minor updates, again for brevity.

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

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biblio

babelbib in biblio/bibtex/contrib
Generates multilingual bibliographies in cooperation with babel.

bib-fr in biblio/bibtex/contrib
French translations of classical \TeX{} styles.

bib2xhtml in biblio/bibtex/utils
Convert \TeX{} files into XHTML.

bibtool in biblio/bibtex/utils
Manipulation of \TeX{} files, including: sorting and merging, pretty-printing, syntax checks with error recovery, semantic checks, generation of uniform reference keys, controlled rewriting with regular expressions, collection of statistics, and more. Includes documentation. C source only (no binary).

ebib in biblio/bibtex/utils
\TeX{} database manager for GNU Emacs.

IEEEannot in biblio/bibtex/contrib
Unofficial style for an annotated bibliography in the IEEE citation format.

spain in biblio/bibtex/contrib
The traditional bibliographic style in Spain.

vancouver in biblio/bibtex/contrib
\TeX{} style to meet the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” (the Vancouver style).

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dviware

dvipng in dviware
Convert \texttt{.dvi} files to \texttt{.png} images.

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fonts

accfonts in fonts/utilities
Programs to generate accented fonts.

annt in fonts/psfonts/polish/antt
Antykw Toruńska is a two-element typeface designed by Zygfryd Gardzielewski, a Polish typographer. A great variety of characters, including many mathematical symbols, in many weights, are included.

aurical in fonts
Calligraphic font resembling handwriting.

bera in fonts
New fonts Bera Serif, Bera Sans, and Bera Mono, based on the Vera fonts made freely available by Bitstream. (Renamed due to the license conditions.)

cirth in fonts
Tolkien’s Cirth font.

cm-lgc in fonts/ps-type1
Type 1 fonts converted from METAFONT sources of the Computer Modern font families.

courier-scaled in fonts/ps-fonts
Sets the default typewriter font to Courier with a possible scale factor.

dictsym in fonts
Symbols commonly used in dictionaries.

esint in fonts/ps-type1
Eddie Saudrais’s font esint10 in Adobe PostScript Type 1 format.

fc in fonts/jknappen
Fonts for African languages.

fourier-GUT in fonts
Fourier-GUTenberg is a math complement for Adobe Utopia.

fpl in fonts
Small caps and oldstyle digits for URW Palladio L.

frcursor in fonts
This is the French Cursive font, a cursive handwriting font family in the style of the French academic running-hand, written with METAFONT.

greektex in fonts/greek
Fonts for processing \LaTeX{} files written in a mixture of Greek and English.

hfoldsty in fonts
Provides virtual fonts for using oldstyle figures with the European Computer Modern fonts.

ibygreek in fonts/greek
A collection of fonts and macros to typeset ancient Greek.

kerkis in fonts/greek
Kerkis font family, based on URW Bookman, with complete Greek support.

lm in fonts/ps-type1
The massive Latin Modern font collection, in Type 1 format.

metatype1 in fonts/utilities
The tool used to build the excellent Latin Modern
fonts, among others. Has example source for an extended version of Knuth’s logo font.

MnSymbol in fonts
Math symbol font for Adobe MinionPro.

nkarta in fonts
A corrected version of karta, containing map symbols.

pandora in fonts/ps-type1
Type 1 versions of the Pandora fonts.

psethiop in fonts/ps-type1
For typesetting Ethiopian languages.

sanskrit in fonts/ps-type1
Type 1 version of Charles Wikner’s skt font series for the Sanskrit language.

sauter in fonts/cm
An update to the Sauter parameter package for Computer Modern fonts.

skaknew in fonts/chess
For typesetting chess games.

tilinfos in fonts/utilities
Two tiny tools for studying Type 1 fonts: tiarea gives information about the black area of a glyph, and tiextremes tells if the “extremes” of Bezier curves are at the right place.

tapir in fonts
A simple geometrical font mostly created from line and circular segments with constant thickness.

tipa in fonts
An update of the TIPA typefaces.

tt2001 in fonts/ps-type1
Type 1 EC fonts generated by \TeXtrace.

3DLDF in graphics
Three-dimensional (batch) drawing program with \METAPOST output.

a2ping in graphics
Unix command line utility written in Perl that converts many raster image and vector graphics formats to EPS, PDF, and other formats.

epix in graphics
Utility for mathematically accurate, camera quality plots and line figures.

expressg in graphics/metapost/contrib/macros
Facilities to assist in drawing diagrams that consist of boxes, lines, and annotations, such as IDEF or UML. Particular support is provided for creating EXPRESS-G diagrams.

featpost in graphics/metapost/macros
Three-dimensional drawing with \METAPOST.

metaplot in graphics
Plot-manipulation macros for \METAPOST.

pset-3dplot in graphics/pstricks/contrib
Plot 3D math functions.

pst-bar in graphics/pstricks/contrib
Produce bar charts.

pst-fr3d in graphics/pstricks/contrib
Draw 3D framed boxes.

pst-func in graphics/pstricks/contrib
Draw some special mathematical functions.

pst-geo in graphics/pstricks/contrib
Draw geographical projections.

pst-infixplot in graphics/pstricks/contrib
Macro commands for converting natural mathematical expressions to PostScript syntax. That is, allows PSTricks plotting with infix expressions rather than RPN.

pst-jftree in graphics/pstricks/contrib
Draw trees.

pst-light3d in graphics/pstricks/contrib
Draw a 3D shadowing effect on characters and PSTricks graphics.

pst-math in graphics/pstricks/contrib
Enhancement of PostScript math operators for use with PSTricks.

pst-poly in graphics/pstricks/contrib
Draw various polygons.

pstricks-add in graphics/pstricks/contrib
A collection of code from the pstricks mailing list.

sparklines in graphics
Sparklines are intense, simple, wordlike graphics. This tool allows drawing sparklines using the \pgf package.

tpic2pdftex in graphics
An \awk bridge from \tpic to \PDF\TeX.

cooridx in indexing
Preprocessor for \MakeIndex to sort chemical names in an index.

beginaltex in info
A thorough manual on getting started with \LaTeX — Formatting Information: A Beginner’s Guide to \LaTeX, by Peter Flynn.

chroma in info/colour
A reference book of \LaTeX colors.
fontinstallationguide.pdf in info/Typelfonts
A comprehensive guide to installing Type 1 PostScript fonts.
guia-atx in info/spanish
A guide to writing \LaTeX{} documents with Emacs and Auc\LaTeX{}.
l2tabu in info
Mark Trettin’s guide to common problems with \LaTeX{}. Originally in German with translations available in English, French and Italian.
short in info
“The Not Short Introduction to \LaTeX{} 2ε”, by Tobias Oetiker. Available in Bulgarian, Dutch, English, Finnish, French, German, Italian, Japanese, Korean, Mongolian, Polish, Portuguese, Russian, Spanish, Slovak, Thai, and Ukrainian.
rgb in info/colour
X11 color swatches.
tex-references in info
Reference information for \TeX{} and friends.
tlc2 in info/examples
Examples from The \LaTeX{} Companion, Second Edition.
ttb in info/biblio
A manual about bibliographies, especially Btol\LaTeX{}.
voss in info/math
Articles on math-related topics by Herbert Voss, originally published in Die \TeX{}nische Komödie.

language

CBcoptic in language/coptic
Typeset Coptic philological text with proper fonts and hyphenation.
cjhebrew in language/hebrew
Hebrew typesetting package including fonts.
eehyph in language/hyphenation
Estonian hyphenation patterns.
eilhyph in language/hyphenation
Greek hyphenation patterns.
gahyph in language/hyphenation
Irish hyphenation patterns.
ibycus-babel in language/greek/package-babel
Allows usage of the Ibycus 4 font for ancient Greek with Babel.
iathyph in language/hyphenation
Italian hyphenation patterns.
MNT in language/mongolian
Mn\LaTeX{} provides tools for typesetting The Secret History of the Mongols.
pecha in language/tibetan
Print Tibetan text in the classic ‘pecha’ layout style.
ushyph in language/hyphenation
Extended US English hyphenation patterns.
velthuis in language/devanagari
Velthuis Devanagari for \TeX{}.
elmeth in macros/latex/contrib
Direct support for Greek characters on Greek keyboards.

emphq in macros/latex/contrib
A visual markup extension to amsmath for emphasizing equations, including extensible symbols, non-delimiter scaling, and column alignments.

engrec in macros/latex/contrib
Enumerate lowercase and uppercase Greek letters, with assorted variants.

eskd in macros/latex/contrib
Producing text documents in accordance with Russian (probably post-USSR) design standards.

europcv in macros/latex/contrib
Class for the standard model for curricula vitae as recommended by the European Commission.

exercise in macros/latex/contrib
Helps in typesetting exercises and lists of exercises.

extract in macros/latex/contrib
Extract arbitrary content, possibly conditionally, from a source document and write it to a target document; for instance, extract exercises from lecture notes, or specific slides from a presentation. Also provides an environment for sharing code, such as a preamble, between the source and target files.

figbib in macros/latex/contrib
Supports organizing figures in BibTEX databases, for general List of Figures formatting, simplifying inclusion of figures, and more.

floatrow in macros/latex/contrib
Support for many float and caption layouts.

fontspec in macros/latex/contrib
Automatic and unified interface to feature-rich AAT and OpenType fonts in XeLaTEX.

funcan in macros/latex/contrib
Macros for functional analysis, notably Sobolev spaces, and PDE theory.

glossary in macros/latex/contrib
Assist in generating a glossary with makeindex.

ha-prosper in macros/latex/contrib
Extends the prosper class for slide presentations with tables of contents, portrait slides, and more.

hepparticles in macros/latex/contrib
Typesetting high energy physics particle names in or out of math, including in section titles and other bold contexts.

IEEEconf in macros/latex/contrib
Format documents according to the IEEE Computer Society Press guidelines; this package replaces latex8.sty and latex8.bst.

juraabrev in macros/latex/contrib
Handling abbreviations in German law, including making a list of those actually used.

juramisc in macros/latex/contrib
Collection of packages and classes for typesetting German juridical documents.

jurarsp in macros/latex/contrib
Based on latex parlors style for citations of judgements and other official documents in German law.

kerntest in macros/latex/contrib
Print tables and generate mtx files to help in adjusting font kerning tables.

koma-script in macros/latex/contrib
A versatile bundle of document classes and packages, aiming to be a replacement for the standard \LaTeX Xe\LaTeX classes.

layauroe in macros/latex/contrib
Support wide page layouts for documents using the A4 paper size, including binding offsets.

ledmac in macros/latex/contrib
Typeset critical editions; a \LaTeX port, and extension, of the plain edmac, tabmac, and edstanza macros.

ledpar in macros/latex/contrib
Extension of ledmac enabling parallel typesetting, in columns or on facing pages.

logpap in macros/latex/contrib
Draws logarithmic/linear graph paper, in all combinations.

ltabptch in macros/latex/contrib
Fixes bugs in longtable.sty.

ltxindex in macros/latex/contrib
Making indices in \LaTeX using GNU texindex instead of makeindex.

makebox in macros/latex/contrib
Defines a \makebox command, same as \makebox but with the width given by a sample text instead of an explicit length.

maybeath in macros/latex/contrib
Provides math commands \maybebm and \maybeit which typeset their arguments in bold or italic, respectively, if the surrounding context is appropriate, such as a section title.

memoir in macros/latex/contrib
Peter Wilson’s flexible \LaTeX class for typesetting general fiction, non-fiction, and mathematical works; support for customized designs, trim marks, various document sizes, and much more.

mentis in macros/latex/contrib
Adjustment for publishing at Mentis Publishers, Paderborn, Germany.

mhchem in macros/latex/contrib
Support for typesetting chemical molecular formulae, and chemical equations with these formulae. Also includes the raphraze package with the text, in English and German, of all official Risk and Safety Phrases used to label chemicals.

microtype in macros/latex/contrib
\LaTeX interface to the pdf\LaTeX micro-typographic features: character protrusion and font expansion.

movie15 in macros/latex/contrib
Package for multimedia inclusion, for use with PDF version 1.5.

msg in macros/latex/contrib
Aims to localize any document class or package, so
that messages may be reported in the end-user's preferred language.

**nature** in `macros/latex/contrib`
Unofficial support for preparing articles and letters to the journal Nature.

**nctools** in `macros/latex/contrib`
Many packages for general \LaTeX{} use, including cropmarks, watermarks, hyphenation of compound words, poor man's blackboard bold, and more.

**ofs** in `macros/latex/contrib`
Olsák's Font System, containing plain and \LaTeX{} macros for managing large font collections, including support for many font encodings.

**osa** in `macros/latex/contrib`
Latest \LaTeX{}, REV\LaTeX{}, and Bn\LaTeX{} tools for journals of the Optical Society of America.

**pagenote** in `macros/latex/contrib`
Supports tagged notes on a separate page, a.k.a. end notes.

**paresse** in `macros/latex/contrib`
Abbreviations for typesetting of Greek letters in math mode, using a new active character.

**pbsheet** in `macros/latex/contrib`
Typesetting of problem sheets including mathematics, programs, and graphics.

**pclnfss** in `macros/latex/contrib`
Support for selecting and using the standard 45 scalable fonts built into most PCL laser printers.

**perltx** in `macros/latex/contrib`
Allows defining \LaTeX{} macros with Perl code, thus combining \LaTeX{}'s typesetting power with Perl's programmability.

**pic2e** in `macros/latex/contrib`
A picture-drawing package, described in the second edition of \LaTeX{}: A Document Preparation System.

**pitted** in `macros/latex/contrib`
A class that formats documents for submission as electronic theses and dissertations (ETD) to the University of Pittsburgh, including bookmarking. It also has some generic features potentially useful for ETD classes at other institutions.

**probsoln** in `macros/latex/contrib`
Generate new problem sheets, and answers, including random selection of problems.

**ptptex** in `macros/latex/contrib`
Official class files for the journal Progress of Theoretical Physics.

**rotfloat** in `macros/latex/contrib`
Bridges the `sidewaysfigure`, `sidewaystable`, and `float` packages to allow floats that are both rotated and (for example) ruled or boxed.

**rgtrees** in `macros/latex/contrib`
Producing linguistic tree diagrams suitable for Role and Reference Grammar (RRG); allows the construction of trees with crossing lines, as required by this theory for many languages.

**sauerj** in `macros/latex/contrib`
Miscellaneous styles by Jonathan Sauer, including: **optparams** supports creating macros with multiple optional parameters; **parcolumns** supports typesetting in two or more columns in parallel; **processkv** supports calling a user-defined macro for each key/value pair in a list; **zahl2string** formats numbers as German words.

**scientificpaper** in `macros/latex/contrib`
A simple, generic scientific paper format.

**sgame** in `macros/latex/contrib`
Formats strategic games, a game theory specification.

**SIstyle** in `macros/latex/contrib`
Typesets physical units following the rules of the International System of Units (SI).

**splitbib** in `macros/latex/contrib`
Split a bibliography into categories and subcategories; does not depend on Bn\LaTeX{}.

**stdpage** in `macros/latex/contrib`
Produce standard pages of \textit{n} lines with at most \textit{m} characters each, for translations, proofreading, etc.

**struktex** in `macros/latex/contrib`
Support for Nassi Shneidermann structure charts in algorithm development.

**subfig** in `macros/latex/contrib`
Almost-compatible replacement for `subfigure`, using the `caption` package and with a keyword/value interface.

**switcheml** in `macros/latex/contrib`
Obfuscates an email address so that it prints correctly but cannot be harvested.

**umich-thesis** in `macros/latex/contrib`
Produce a University of Michigan dissertation according to the Rackham dissertation handbook.

**underbracket** in `macros/latex/contrib`
Draws brackets to underline text, especially but not exclusively with \texttt{musicx} and \texttt{musiclyr}.

**wallpaper** in `macros/latex/contrib`
Easy addition of background images to \LaTeX{} documents, including tiling.

**xarrow** in `macros/latex/contrib`
Extensive arrows: \texttt{xlongequal}, \texttt{xleftrightharpoon}, \texttt{xlongleftrightharpoon}, \texttt{xlongrightarrow}, and \texttt{xLong} variants for all.

**xcolor** in `macros/latex/contrib`
Driver-independent color extensions, including shading, color masking, color separation, and conversion between color models such as RGB and CMYK.

**xkeyval** in `macros/latex/contrib`
A notable extension of the \texttt{keyval} package.

**mem** in `macros/latex/exptl`
An experimental environment for multilingual and
multiscript typesetting with \LaTeX{} in the Aleph.typesetting system.

\texttt{xfrac} in \texttt{macros/latex/exptl}

Produce visually pleasing split level fractions for arbitrary fonts.

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### support

\texttt{autoconf} in \texttt{support}

Autoconf macros to test for the presence of \TeX{}.

\texttt{bibex} in \texttt{support}

Automates the extraction of bibliographic references from \BibTeX{} databases.

\texttt{bmeps} in \texttt{support}

A program to convert from PNG, TIFF, JPEG, and NetPBM to EPS.

\texttt{chktex} in \texttt{support}

Finds typographic errors in \TeX{}.

\texttt{easylatex} in \texttt{support}

Turns "ASCII math" into \LaTeX{} source.

\texttt{eukleides} in \texttt{support}

A Euclidean geometry drawing language.

\texttt{gellmu} in \texttt{support}

GELLMU is an acronym for “Generalized Extensible \LaTeX{}-like MarkUp”, which is the author’s concept for using \LaTeX{}-like markup to write consciously for SGML document types such as HTML, DocBook, TEI, or GELLMU’s own didactic \LaTeX{}-like article format.

\texttt{latexdiff} in \texttt{support}

A Perl script for finding the differences between two \LaTeX{} files as another \LaTeX{} file, with various output format options.

\texttt{latexrender} in \texttt{support}

Use \LaTeX{} in PHP programs.

\texttt{ldiff} in \texttt{support}

A Python script for reporting the differences between two \LaTeX{} files, as a PostScript document.

\texttt{maketable} in \texttt{support}

Convert Word or Excel tables to \TeX{} tabular structures.

\texttt{mimetex} in \texttt{support}

Parses well-formed \LaTeX{} math expressions, emitting either GIF images or MIME xbitmaps.

\texttt{orderrefs} in \texttt{support}

Reorder the bibliography in a \LaTeX{} document by order of citation.

\texttt{pdfcrop} in \texttt{support}

Takes a PDF as input, calculates the BoundingBox for each page with the help of Ghostscript and generates an output PDF without margins.

\texttt{png2pdf} in \texttt{support}

Convert PNG images to PDF.

\texttt{preview-latex} in \texttt{support}

A system for displaying inline images of selected parts of a file in Emacs source buffers. The style file is independently useful for extraction of selected text elements as images.

\texttt{pydocstrip} in \texttt{support}

An alternative to \TeX{} docstrip.

\texttt{references} in \texttt{support}

Bibliographic software for authors of scientific manuscripts and for management of bibliographic data of journal articles, books, book chapters, etc.

\texttt{shortcuttool} in \texttt{support}

Enables file import to the input tool Shortcut and provides a shortcut file.

\texttt{tex4ht} in \texttt{support}

A complete system for translating (\LaTeX) \TeX{} and Con\TeX{} sources into HTML, XML, MathML, etc.

\texttt{texconverter} in \texttt{support}

Windows front-end to various \LaTeX{} to HTML converters.

\texttt{tif2eps} in \texttt{support/pstools}

Convert TIFF images to EPS.

\texttt{vpp} in \texttt{support/viewprintpspdf}

A command line utility to view and print PostScript and PDF documents.

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### systems

\texttt{epmtime} in \texttt{systems/os2}

The “EPM \TeX{} Front End”, a module for the OS/2 “Enhanced Editor” EPM. It turns the EPM into an integrated \TeX{} environment, providing (\LaTeX)Xing, previewing and executing of auxiliary programs from the editor menu.

\texttt{latexpix} in \texttt{systems/win32}

A drawing program for Windows which generates \LaTeX{} pictures.

\texttt{oztex} in \texttt{systems/mac}

Oz\TeX{} is a standalone Mac implementation of \TeX{}; also can be used as a front-end to \TeX{}X on OS X.

\texttt{pdfTeX} in \texttt{systems}

An extension of \TeX{} that can create PDF directly from \TeX{} source files. It also contains many new features and extensions to \TeX{}.

\texttt{TeXmacs} in \texttt{systems/unix}

GNU\TeX{}macs is a free scientific text editor, which was inspired by both \TeX{} and GNU Emacs.

\texttt{WinShell} in \texttt{systems/win32}

A graphical user interface for easily working with \TeX{}. It is not a \TeX{} system itself, so requires a system such as Mik\TeX{} or \TeX{} Live.

\texttt{VTeX} in \texttt{systems}

VT\TeX{} for OS/2 and Linux (x86).