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 BIBTEX styles.

bib2xhtml in `biblio/bibtex/utils`
Convert BIBTEX files into XHTML.

bibtool in `biblio/bibtex/utils`
Manipulation of BIBTEX 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`
BIBTEX 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`
BIBTEX style to meet the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" (the Vancouver style).

dviware

dvipng in `dviware`
Convert `.dvi` files to `.png` images.

fonts

accfonts in `fonts/utilities`
Programs to generate accented fonts.

antt in `fonts/psfonts/polish/antt`
Antykwa 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.

frcursive 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.

ibygrk 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.

t1infos in `fonts/utilities`
> Two tiny tools for studying Type 1 fonts: `t1area` gives information about the black area of a glyph, and `t1extremes` 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.

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graphics

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.

pst-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.

texcad32 in `graphics`
> TEXCad32 is a clone of the DOS program Texcad running under Windows.

tpic2pdftex in `graphics`
> An `awk` bridge from `tpic` to PDFTEX.

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help

uk-tex-faq in `help`
> Major English-language FAQ, with information on virtually all TEX-related topics. Available on the web at `http://www.tex.ac.uk/faq`.

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indexing

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

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info

beginlatex 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/Type1fonts`
> A comprehensive guide to installing Type 1 PostScript fonts.

guia-atx in `info/spanish`
> A guide to writing LATEX documents with Emacs and AucTEX.

l2tabu in `info`
> Mark Trettin's guide to common problems with LATEX. Originally in German with translations available in English, French and Italian.

lshort in `info`
> "The Not Short Introduction to LATEX 2$_\varepsilon$", by Tobias Oettiker. Available in Bulgarian, Dutch, Englsh, 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 BIBTEX.

voss in `info/math`
> Articles on math-related topics by Herbert Voss, originally published in *Die TEXnische 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.

elhyph 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.

ithyph in `language/hyphenation`
> Italian hyphenation patterns.

MNT in `language/mongolian`
> MnTTEX 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.

macros/context

bib in `macros/context/contrib`
> ConTEXt bibliography module.

t-amsl in `macros/context/contrib/maths`
> Provides some environments and commands that AMS-LATEX users expect.

t-nath in `macros/context/contrib/maths`
> Provides for ConTEXt the same functionality as the `nath` package for LATEX.

macros/latex/contrib

12many in `macros/latex/contrib`
> Provides generic way of writing "1, 2, many", as in $\{1, 2, \ldots, m\}$.

anufinalexam in `macros/latex/contrib`
> LATEX document shell to produce the standard formatting of final exams at The Australian National University.

arcs in `macros/latex/contrib`
> Place an arc over or under a short piece of text.

assignment in `macros/latex/contrib`
> Class for writing homework and lab assignments.

beamer in `macros/latex/contrib`
> Create slides and presentations for a projector; now with much-improved support for verbatim code, and many other bug fixes.

bigfoot in `macros/latex/contrib`
> Critical edition work in progress; for now, just the `suffix` package making it easy to define command variations like `\macro*` and `\macro\!`.

caption in `macros/latex/contrib`
> Very general customization of captions in floating environments such as `figure` and `table`; cooperates with many other packages.

clefval in `macros/latex/contrib`
> Defines macros `\TheKey` and `\TheValue` to support (the semblance of) hash tables.

cmap in `macros/latex/contrib`
> Create PDF files with searchable and copyable text; now also works with the `CJK` package.

contour in `macros/latex/contrib`
> Generates a colored contour around a given text, enabling printing text over a background without the need for a color box around the text. Vector outlines are now enabled when supported by the backend driver, such as with `dvips` and `pdftex`.

cvsty in `macros/latex/contrib`
> Another style file for preparation of curricula vitæ.

dramatist in `macros/latex/contrib`
> Typeset dramatic works (plays), either prose or verse, with support for 'dramatis personæ' lists, stage directions, and more.

egameps in `macros/latex/contrib`
> Formatting extensive games, a kind of specification in game theory, using PSTricks.

elmath in `macros/latex/contrib`
Direct support for Greek characters on Greek keyboards.

empheq 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 vitæ 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.

functan 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`.

juraabbrev 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`
BIBTEX 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 2_ε classes.

layaureo 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.

maybemath 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 `rsphrase` 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 pdfTeX 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*.

ncctools 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`
Olšak'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, REVTEX, and BIBTEX 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.

perltex in `macros/latex/contrib`
Allows defining LATEX macros with Perl code, thus combining LATEX's typesetting power with Perl's programmability.

pict2e in `macros/latex/contrib`
A picture-drawing package, described in the second edition of *LATEX: A Document Preparation System*.

pittetd 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.

rrgtrees 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 BIBTEX.

stdpage in `macros/latex/contrib`
Produce standard pages of n lines with at most 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 `musictex` and `musixlyr`.

wallpaper in `macros/latex/contrib`
Easy addition of background images to LATEX documents, including tiling.

xarrow in `macros/latex/contrib`
Extensive arrows: `\xlongequal`, `\xleftrightarrow`, `\xlongleftrightarrow`, `\xlongleftarrow`, `\xlongrightarrow`, and `\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 `keyval` package.

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macros/latex/exptl

mem in `macros/latex/exptl`
An experimental environment for multilingual and

multiscript typesetting with LaTeX in the Aleph typesetting system.

xfrac in `macros/latex/exptl`
Produce visually pleasing split level fractions for arbitrary fonts.

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support

autoconf in `support`
Autoconf macros to test for the presence of LaTeX.

bibex in `support`
Automates the extraction of bibliographic references from BibTeX databases.

bmeps in `support`
A program to convert from PNG, TIFF, JPEG, and NetPBM to EPS.

chktex in `support`
Finds typographic errors in LaTeX.

easylatex in `support`
Turns "ASCII math" into LaTeX source.

eukleides in `support`
A Euclidean geometry drawing language.

gellmu in `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.

latexdiff in `support`
A Perl script for finding the differences between two LaTeX files as another LaTeX file, with various output format options.

latexrender in `support`
Use LaTeX in PHP programs.

ldiff in `support`
A Python script for reporting the differences between two LaTeX files, as a PostScript document.

maketable in `support`
Convert Word or Excel tables to TeX tabular structures.

mimetex in `support`
Parses well-formed LaTeX math expressions, emitting either GIF images or MIME xbitmaps.

orderrefs in `support`
Reorder the bibliography in a LaTeX document by order of citation.

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

png2pdf in `support`
Convert PNG images to PDF.

preview-latex in `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.

pydocstrip in `support`
An alternative to TeX `docstrip`.

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

shortcuttool in `support`
Enables file import to the input tool Shortcut and provides a shortcut file.

tex4ht in `support`
A complete system for translating (LA)TeX and ConTeXt sources into HTML, XML, MathML, etc.

texconverter in `support`
Windows front-end to various LaTeX to HTML converters.

tif2eps in `support/pstools`
Convert TIFF images to EPS.

vpp in `support/viewprintpspdf`
A command line utility to view and print PostScript and PDF documents.

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systems

epmtfe in `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 (LA)TeXing, previewing and executing of auxiliary programs from the editor menu.

latexpix in `systems/win32`
A drawing program for Windows which generates LaTeX pictures.

oztex in `systems/mac`
OzTeX is a standalone Mac implementation of TeX; also can be used as a front-end to teTeX on OS X.

pdftex in `systems`
An extension of TeX that can create PDF directly from TeX source files. It also contains many new features and extensions to TeX.

TeXmacs in `systems/unix`
GNU TeXmacs is a free scientific text editor, which was inspired by both TeX and GNU Emacs.

WinShell in `systems/win32`
A graphical user interface for easily working with TeX. It is *not* a TeX system itself, so requires a system such as MikTeX or TeX Live.

vtex in `systems`
VTeX/Free for OS/2 and Linux (x86).