

# Bibliography

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This so-called “Green Book” introduces programming techniques for designing efficient PostScript programs with the help of examples in the areas of typesetting text, constructing graphics, writing calculators, debugging programs, etc. These directly usable examples accomplish specific practical tasks and have been carefully designed and debugged to show in detail how the language works. Each of the fifteen chapters addresses a specific aspect of top-to-bottom program design or problem solving and contains some useful advice. Available electronically from

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This so-called “Blue Book” has a *Tutorial* section with numerous annotated examples and short programs, and a *Cookbook* section which is a collection of useful techniques and procedures for the PostScript language. Available electronically from

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[http://partners.adobe.com/public/developer/en/ps/5002.EPSF\\_Spec.pdf](http://partners.adobe.com/public/developer/en/ps/5002.EPSF_Spec.pdf)

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This is the *metafun* manual. The *metafun* system provides an interface between *METAPOST* and  $\TeX$ . The required  $\TeX$  macros are included in  $\text{CON}\text{T}\text{E}\text{X}\text{T}$ , and the *METAPOST* code comes with *metafun*. Thanks to *metafun*, *METAPOST* definitions can be easily integrated in  $\TeX$  code, thus adding large graphics capabilities to  $\TeX$ . Available electronically from <http://www.pragma-ade.com/general/manuals/metafun-p.pdf>
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The *METAPOST* system implements a picture-drawing language very much like Knuth’s *METAFONT* except that it outputs PostScript commands instead of bitmaps. *METAPOST* is a powerful language for producing figures for documents targeted to PostScript output devices. It provides easy access to all features of PostScript and it includes facilities for integrating text and graphics. The appendix of this user’s manual explains the differences between *METAPOST* and *METAFONT*. The document is available electronically as: <http://cm.bell-labs.com/cm/cs/cstr/162.ps.gz>
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This report describes a graph-drawing package that has been implemented as an extension to the *METAPOST* graphics language, which has a powerful macro facility for implementing such extensions. A few new language features to support the graph macros are introduced. The proposed features for generating and manipulating pictures allow the user to perform actions that would be difficult to achieve in a stand-alone package. The document is available electronically as: <http://cm.bell-labs.com/cm/cs/cstr/164.ps.gz>
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This book describes how to produce good typography with  $\text{L}\text{T}\text{E}\text{X}$ , in particular how to set up and make proper use of PostScript fonts, and create high-quality graphics illustrations with  $\TeX$ -friendly methods. It contains many examples and summaries of procedures to follow. The book starts with a good overview of  $\TeX$ ,  $\text{L}\text{T}\text{E}\text{X}$ , *METAFONT*, and *METAPOST*, explaining how they all fit together. The second part of the book describes  $\TeX$ 's font mechanisms. The author does not limit himself to a description of how to set up a standard font family, but includes a lot of more advanced material. Examples included are using special effect fonts, specifying font families that contain alternate character sets or symbols, integrating high-quality commercial fonts, and typesetting mathematics with fonts other than the original  $\text{T}\text{E}\text{X}$  fonts (there is a 30-page overview on how to combine available mathematics font families with various often-used typefaces). The final part of

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Document available electronically as: <http://cm.bell-labs.com/cm/cs/cstr/116.ps.gz>



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On CTAN at: [macros/generic/diagrams/xypic/xy-3.7/doc/xyrefer.pdf](http://www.ctan.org/macros/generic/diagrams/xypic/xy-3.7/doc/xyrefer.pdf)
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This is a description of CIRC, a tool for typesetting circuit diagrams and block schematics. The package defines a large set of electrical symbols including resistors, capacitors, and transistors, which can be connected with wires in a very easy way. All symbols are drawn with `METAFONT` and the symbol set can be easily extended by the user.  
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`PGF` is a  $\TeX$  macro package for generating graphics. It is platform- and format-independent. It comes with a user-friendly syntax layer called `TikZ`. It is somewhat less powerful than `PSTricks`, which can use the full power of the PostScript language (e.g., for inline function plotting) and has a nice library of extra packages for specific application areas. However, it works together with most important  $\TeX$  backend drivers, including `pdftex` (which is not directly possible with `PSTricks`) and `dvips`. Moreover, since it is a recent development, its syntax is somewhat more consistent than `PSTricks`. The home page is at <http://sourceforge.net/projects/pgf/>.  
On CTAN at: [graphics/pgf/doc/generic/pgf/version-for-pdftex/en/pgfmanual.pdf](#)
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`MusiXTeX` is a set of  $\TeX$  macros to typeset orchestral or polyphonic music. This guide contains a technical and detailed description of all features of the system. The main author of `MusiXTeX`, Daniel Taupin, passed away in 2003. Two years later the `MusiXTeX` community decided to help keep his excellent work alive and current by assembling a new release (T.113), correcting various minor bugs, updating some references and providing dynamic links to archived versions where possible. No new functionality was introduced but a few additional packages were added to the basic distribution.  
<http://icking-music-archive.org/software/musixtex/musixdoc.pdf>
- [117] Daniel Taupin. “`MusicTeX`: using  $\TeX$  to write polyphonic or instrumental music”. In Zlatuška [140], pp. 257–272.  
This article gives a short overview of `MusicTeX`, a set of  $(\LaTeX)$  macros to nicely typeset polyphonic, instrumental, or orchestral music. Many voices or instrument lines, as well as up to four staves per voice are supported. Several note sizes, most usual ornaments, and such features as grace notes and cadenzas are also available. It is explained that the major typesetting difficulty resides in the handling of glue and of breaking lines when meeting irregular music and slurs.

- [118] Daniel Taupin. “Music $\TeX$ : using  $\TeX$  to write polyphonic or instrumental music”. *TUGboat*, 14(3):203–211, 1993.  
This article is a short introduction to Music $\TeX$ , a set of  $\TeX$  and  $\LaTeX$  macros to typeset polyphonic, instrumental or orchestral music. It handles an important number of instruments or voices (up to nine) and staves (up to four for each instrument). Most usual ornaments are available, including several note sizes, grace notes, and cadenzas. Several staff sizes can coexist in the same score to combine full-size staves with smaller “reminder” staves. The  $\LaTeX$  version is not suited for producing full scores but it can be used to typeset music excerpts in musicographic texts. Special attention has to be given to glue and line breaking in the case of irregular music and slurs. <http://www.tug.org/TUGboat/Articles/tb14-3/tb40musictex.pdf>
- [119] Daniel Taupin. “Using  $\TeX$  and METAFONT to build complicated maps”. *TUGboat*, 14(3):196–202, 1993.  
The article describes the procedure to publish a catalog of 1500 crags and climbable rocks in France. All relevant information, such as name, location, and importance, are stored in a large  $\TeX$  master file. The marks and their associated text, as well as their optimal position are calculated from these data and are superimposed on a map generated in METAFONT. <http://www.tug.org/TUGboat/Articles/tb14-3/tb40taupin-maps.pdf>
- [120] Daniel Taupin. “MusiX $\TeX$ , even more beautiful than Music $\TeX$  for music typesetting”. In Wietse Dol, editor, “Proceedings of the 9th European  $\TeX$  Conference, September 4–8 1995, Arnhem, The Netherlands”, pp. 351–358. Nederlandstalige  $\TeX$  Gebruikersgroep, 1995.  
This article is a description of MusiX $\TeX$  as a new music typesetting package derived from Music $\TeX$ . MusiX $\TeX$  is a three-pass system and produces more beautiful scores than Music $\TeX$ , which was a one-pass system. The first pass performs a rough  $\TeX$ ing which reports the spacings of each music section, the second pass uses an external program to compute optimal note spacings, and the third pass lets  $\TeX$  include this information to typeset the final score. This results in more visually attractive slurs and regularly spaced notes. [http://www.ntg.nl/maps/pdf/E\\_23.pdf](http://www.ntg.nl/maps/pdf/E_23.pdf)
- [121] Daniel Taupin. “Music $\TeX$ , using  $\TeX$  to write polyphonic and instrumental music, Version 5.17”, 1996.  
This is a deprecated package. Use MusiX $\TeX$  instead. Old files are still available at the URL <http://icking-music-archive.org/software/musictex/>
- [122] Piet Tutelaers. “A font and a style for typesetting chess using  $\LaTeX$  or  $\TeX$ ”. *TUGboat*, 13(1):85–90, 1992.  
The author describes how he built a 26-character chess font with METAFONT. The font consists of a chess board and separate sets of black and white chess pieces and empty squares. The  $\TeX$  macros for typesetting chess using the font are described. <http://www.tug.org/TUGboat/Articles/tb13-1/tb34tutelaers.pdf>
- [123] Gabriel Valiente Feruglio. “Typesetting commutative diagrams”. *TUGboat*, 15(4):466–484, 1994.  
This article presents a review of macro packages for typesetting commutative diagrams, which are compared according to several criteria, such as capability to produce complex diagrams, ease of use, quality of the output diagrams, readability of the documentation, installation procedures, resource requirements, availability, and portability. The compatibility of the different macro packages is also analyzed. <http://www.tug.org/TUGboat/Articles/tb15-4/tb45vali.pdf>
- [124] Kees van der Laan. “Typesetting bridge via  $\LaTeX$ ”. *TUGboat*, 10(1):113–116, 1989.  
Macros and a bidding environment for typesetting bridge card distributions and bidding sequences are described complemented by examples borrowed from the bridge literature. <http://www.tug.org/TUGboat/Articles/tb10-1/tb23laan.pdf>
- [125] Kees van der Laan. “Tiling in PostScript and METAFONT — Escher’s wink”. *MAPS*, 19:39–67, 1997.  
This article describes programs for various tilings, both in METAFONT and in PostScript. [http://www.ntg.nl/maps/pdf/19\\_12.pdf](http://www.ntg.nl/maps/pdf/19_12.pdf)

- [126] Timothy Van Zandt and Denis Girou. “Inside PSTricks”. *TUGboat*, 15(3):239–246, 1994.  
The macro-commands of the PSTricks package offer impressive additional capabilities to (L<sup>A</sup>)T<sub>E</sub>X users, by giving them direct access to much of the power of PostScript, including full support for color. The article describes the implementation of a few of the features of PSTricks (version 0.94).  
<http://www.tug.org/TUGboat/Articles/tb15-3/tb44tvz.pdf>
- [127] Timothy Van Zandt. “PSTricks user’s guide”, 1993.  
This is the official PSTricks documentation. <http://tug.org/PSTricks/doc/pst-usrfull.pdf>
- [128] Timothy Van Zandt. PSTricks - PostScript macros for Generic T<sub>E</sub>X, Documented Code, 1997.  
PSTricks is a collection of PostScript macros that is compatible with most T<sub>E</sub>X macro packages, including Plain T<sub>E</sub>X and L<sup>A</sup>T<sub>E</sub>X. Included are macros for color, graphics, rotation, and overlays. This is the documented code. There is also a *User’s Guide* and a read-me file.  
On CTAN at: [graphics/pstricks/doc/code/pst-code.pdf](http://www.ctan.org/graphics/pstricks/doc/code/pst-code.pdf)
- [129] Timothy Van Zandt. The multido package, 2004.  
Fixed-point arithmetic is used when working on the loop variable, so that the package is equally applicable in graphics applications like PSTricks as it is with the more common integer loops.  
On CTAN at: [graphics/pstricks/base/generic/](http://www.ctan.org/graphics/pstricks/base/generic/)
- [130] Boris Veytsman and Leila Akhmadeeva. “Drawing Medical Pedigree Trees with T<sub>E</sub>X and PSTricks”. *The PracT<sub>E</sub>X Journal*, 2006(4).  
The package provides a set of macros based on PSTricks to draw medical pedigrees according to the recommendations for standardized human pedigree nomenclature. The drawing commands place the symbols on a pspicture canvas. An interface for making trees is also provided.  
<http://tug.org/pracjournal/2006-4/veytsman>
- [131] Herbert Voß and Jana Voß. “The plot functions of pst-plot”. *TUGboat*, 22-4:314–318, 2001.  
Plotting of external data records is one of the standard problems of technical-industrial publications. Very often the data files are imported into gnuplot, provided with axes of coordinates and further references and finally exported to L<sup>A</sup>T<sub>E</sub>X. This article explains ways to get proper data plotting without using external applications.  
<http://www.tug.org/TUGboat/Articles/tb22-4/tb72vossplot.pdf>
- [132] Herbert Voß. “Three-dimensional plots with pst-3dplot”. *TUGboat*, 22-4:319–329, 2001.  
There exist several packages for plotting three-dimensional graphical objects. This article describes pst-3dplot, which is similiar to the pst-plot package for two dimensional objects, mathematical functions and datafiles.  
<http://www.tug.org/TUGboat/Articles/tb22-4/tb72voss3d.pdf>
- [133] Herbert Voß. The pstricks-add - package, 2006.  
This package collects together examples that have been posted to the PSTricks mailing list, together with some additional features for PSTricks. The package also includes additions and bugfixes for PSTricks, pst-plot, pst-node and pst-tree.  
On CTAN at: [graphics/pstricks/contrib/pstricks-add/](http://www.ctan.org/graphics/pstricks/contrib/pstricks-add/)
- [134] Herbert Voß. The pst-3dplot - package, 2006.  
A package using PSTricks to draw a large variety of graphs and plots, including 3-D math functions. Data can be read from external data files, making this package a generic tool for graphing within T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X without the need for external tools.  
On CTAN at: [graphics/pstricks/contrib/pst-3dplot/](http://www.ctan.org/graphics/pstricks/contrib/pst-3dplot/)
- [135] Herbert Voß. PSTricks: Grafik für T<sub>E</sub>X und L<sup>A</sup>T<sub>E</sub>X, Fourth Edition. DANTE – Lehmanns, Heidelberg/Hamburg, 2007.  
This book explains all keywords and macros of the basic packages of the PSTricks bundle using examples. A lot of the additional packages including pst-vue3d, pst-3dplot or pst-eucl, are also mentioned.

- [136] Helene Wanske. “Notenproduktion im Umbruch. Gedanken zur gegenwärtigen und zukünftigen Musikalienherstellung”. In Hans-Joachim Koppitz, editor, “Gutenberg-Jahrbuch 1990”, pp. 237–243. Gutenberg-Gesellschaft, Internationale Vereinigung für Geschichte und Gegenwart der Druckkunst e.V., Mainz, Germany, 1990.
- [137] Jan V. White. *Color for the Electronic Age*. Watson-Guption Publications, New York, 1990.
- This book is about the functional use of color in charts, graphs, typography, and pictures. It shows how color can be used as a practical and efficient tool to focus attention, explain relationships, and analyze data; how color helps the reader comprehend information faster; and how it can establish identity by associating a certain color with a given element thus easing recognition and turning information into knowledge. Colors can have psychological and emotional effects, carry cultural connotations, and must thus be used with great care. With the help of hundreds of “right” and “wrong” examples the author shows practically and clearly what works and what does not in many of the important areas of written communication. Useful rules about color patterns can also be found on the Web in Susan Fowler’s “Color and patterns” ([http://www.fast-consulting.com/color/cp\\_toc.htm](http://www.fast-consulting.com/color/cp_toc.htm)), Jan White’s “Full color” ([http://www.insideoutdesign.com/full\\_color.pdf](http://www.insideoutdesign.com/full_color.pdf)), Ann L. Wiley’s “Effective color” (<http://www.tec.ufl.edu/~kdtm/effcol.pdf>), or Aries Arditi’s “Effective color contrast” ([http://www.lighthouse.org/color\\_contrast.htm](http://www.lighthouse.org/color_contrast.htm)).
- [138] Michael J. Wichura. *The P<sub>l</sub>T<sub>E</sub>X Manual*. Number 6 in T<sub>E</sub>Xniques: publications for the T<sub>E</sub>X community. T<sub>E</sub>X Users Group, Providence, RI, 1987.
- This book describes the P<sub>l</sub>T<sub>E</sub>X language. The syntax of each command is fully detailed. With the help of many examples it is explained how to setup a graph, draw rules, lines, curves, dots and dashes, and generate shadings. Inclusion of P<sub>l</sub>T<sub>E</sub>X pictures in a page, the rotation of images, and how to use L<sub>A</sub>T<sub>E</sub>X and P<sub>l</sub>T<sub>E</sub>X together are described. The level of reader understanding can be tested with the help of several dozen exercises, whose answers are included in an appendix.
- [139] Michael J. Wichura. “Macros for drawing PiCtures”. *TUGboat*, 9(2):193–197, 1988.
- This article is a short overview of P<sub>l</sub>T<sub>E</sub>X, a collection of T<sub>E</sub>X macros that let T<sub>E</sub>X users easily instruct T<sub>E</sub>X to typeset beautiful pictures, and in particular mathematical figures, as a part of their books.
- <http://www.tug.org/TUGboat/Articles/tb09-2/tb21wichura-pictex.pdf>
- [140] Jiří Zlatuška, editor. *EuroT<sub>E</sub>X ’92: Proceedings of the 7th European T<sub>E</sub>X Conference*, Prague, Czechoslovakia, September 14–18, 1992. Masarykova Universita, Brno, 1992.



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The index has been split into five parts. We start with a general index that covers all entries apart from those of the three large graphics languages, METAPOST, PSTricks, and Xy-pic, that are described in chapters 3, 5, and 7 respectively. These three languages each have their own separate index, in order to do justice to the specific terms they use to denote their native constructs. This also helps the reader to avoid mistakenly finding a solution offered by one language when creating a graphic in one of the other languages. Important general concepts are additionally cross-referenced from the general index. We end with an index of authors.

To make the indexes easier to use, the entries are distinguished by their “type”, and this is often indicated by one of the following “type words” at the beginning of the main entry or a sub-entry:

boolean, counter, document class, env., file, file extension, font, key, key value, option, package, program, rigid length, or syntax.

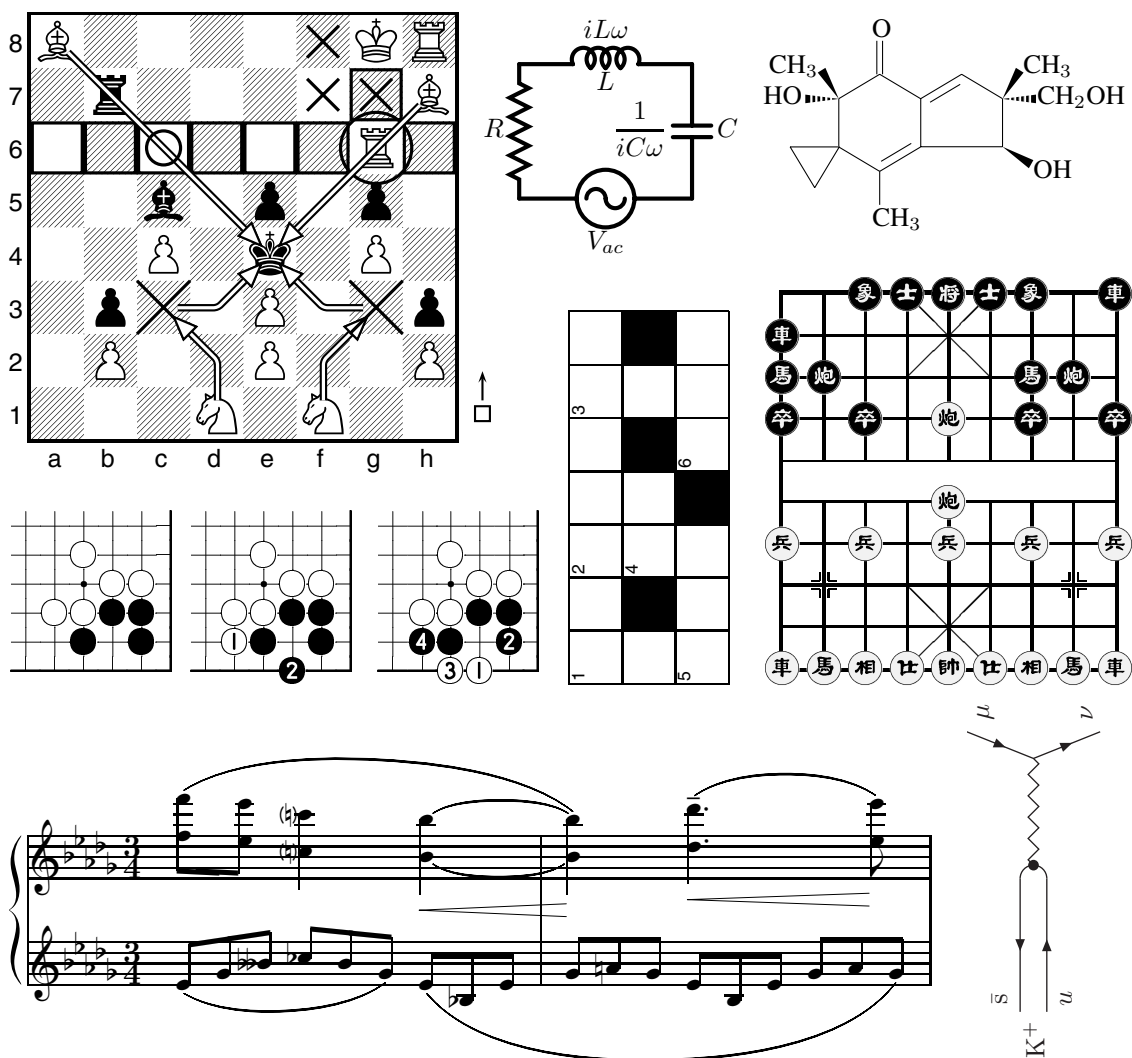
The absence of an explicit “type word” means that the “type” is either a L<sup>A</sup>T<sub>E</sub>X “command” or simply a “concept”.

Use by, or in connection with, a particular package is indicated by adding the package name (in parentheses) to an entry or sub-entry. There is one “virtual” package name, `tlgc`, that indicates commands introduced only for illustrative purposes in this book.

A *blue italic* page number indicates that the command or concept is demonstrated in an example on that page.

When there are several page numbers listed, **bold face** indicates a page containing important information about an entry, such as a definition or basic usage.

When looking for the position of an entry in the index, you need to realize that, when they come at the start of a command or file extension, both the characters \ and . are ignored. All symbols come before all letters and everything that starts with the @ character will appear immediately before A.



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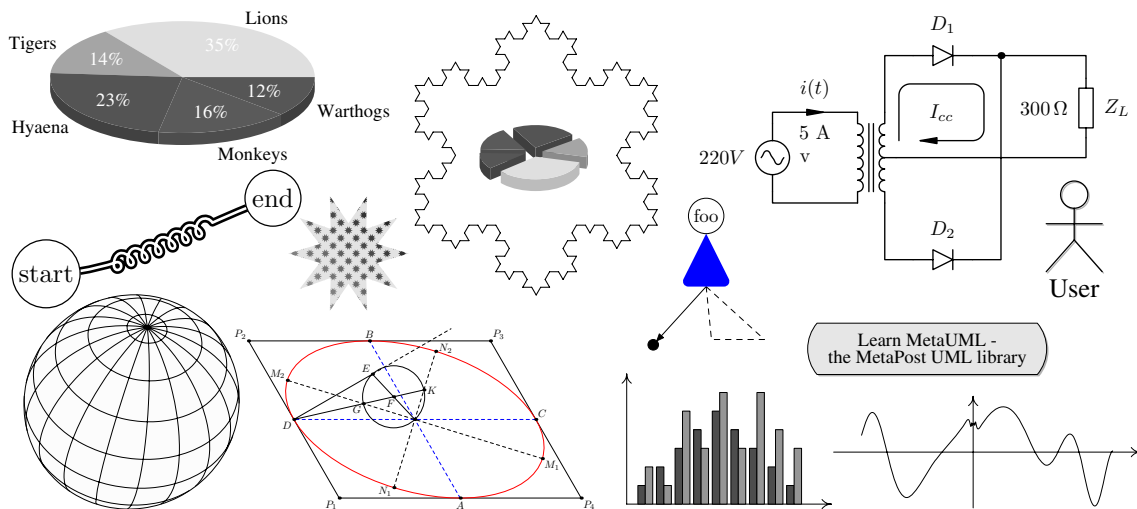
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