Programming LATEX — A survey of documentation and packages

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Github: https://github.com/bdtc/docsurvey Copyright 2017-2024 Brian Dunn*

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Abstract

A survey of documentation for LATEX. Included are references to printed and electronic books and manuals, symbol lists, FAQs, the LATEX source code, CTAN and distributions, programming-related packages, users groups and online communities, and information on creating packages and documentation.

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Introduction

Reinventing the wheel may be useful if you think that you can do it better. Worse, though, is not even being aware that the wheel has already been invented in the first place, which can be an embarrassing waste of time. Such can be the case both for a new LATEX programmer who isn't aware of the many ways

things may be done, but also for someone, this author included, who learned LATEX many years ago but may have missed some of the recent advancements in package code and documentation.

A wealth of information is available, not only in print and online, but also directly embedded in the typical LATEX distribution. The following is meant to be a broad overview of some of today's resources for LATEX programmers.

In some cases the same document may be listed in several categories. For example, a graphics FAQ also available in French may be listed under graphics, FAQs, and also French documents.

Many older documents are not included.

(The latest version of this document is available as the LATEX docsurvey package.)

Printed books

Even in an electronic/online era, printed books still have the advantage of being able to be opened for reference without taking up space on the screen. Printed books also provide extended discussion of useful topics, have extensive human-edited indexes which are more useful than a simple document-wide search function, and some are also available in electronic format.

TEX FAQ

TEX FAQ. URL: https://texfaq.org/.

An online resource, which includes a detailed list of printed books.

More Math Into LATEX

Grätzer

George Grätzer. *More Math Into LATEX*. 5th ed. Springer, 2016. ISBN: 978-3-319-23795-4. URL: https://www.springer.com/gp/book/9783319237954.

Updated edition.

Guide to IATEX Kopka et al.

Helmut Kopka and Patrick W. Daly. *Guide to LATEX*. 4th ed. Addison-Wesley Professional, 2004. 597 pp. ISBN: 0-321-17385-6. URL: https://www.pearson.com/us/higher-education/program/Kopka-Guide-to-La-Te-X-4th-Edition/PGM156755.html.

An introduction and more advanced material, including an extensive reference guide.

LATEX Beginner's Guide

Kottwitz

Stefan Kottwitz. LATEX Beginner's Guide. Packt Publishing, 2011. ISBN: 1847199860. URL: https://www.packtpub.com/product/latex-beginner-s-guide/9781847199867.

An overview with numerous examples.

IATEX Cookbook Kottwitz

Stefan Kottwitz. LATEX Cookbook. Packt Publishing, 2015. ISBN: 978-1-784-39514-8. URL: http://latex-cookbook.net.

More examples.

LATEX: A Document Preparation System

Lamport

Leslie Lamport. LATEX: A Document Preparation System. 2nd ed. Addison Wesley Professional, 1994. 272 pp. ISBN: 0-201-52983-1. URL: https://www.pearson.com/us/higher-education/program/Lamport-La-Te-X-A-Document-Preparation-System-2nd-Edition/PGM159713.html.

The classic introduction to LATEX, in continuous reprint for decades.

The LATEX Companion, 3rd Edition

Mittelbach et al.

Frank Mittelbach and Ulrike Fischer. *The LATEX Companion, 3rd Edition.* 3rd ed. Addison-Wesley, 2023. 1980 pp. ISBN: 978-0-13-816657-1. URL: https://www.informit.com/store/latex-companion-parts-i-ii-3rd-edition-9780138166571.

Provides extended discussion and examples of the inner workings of LATEX and hundreds of useful packages.

Books about TEX, typography, and friends

TEX Users Group

TEX Users Group. Books about TEX, typography, and friends. URL: http://tug.org/books/.

TEX Users Group book store, with reviews. Includes more than 75 books. Categories: published by TUG, by Donald E. Knuth, about TEX and its applications, about typography and fonts, and about other related topics. Discounts for TUG members.

Presentations with LATEX

Voß

Herbert Voß. Presentations with LATEX. Lehmanns Media GmbH, 2012. 206 pp. ISBN: 9783865414960.

PSTricks: Graphics and PostScript for TEX and LATEX

Voß

Herbert Voß. *PSTricks: Graphics and PostScript for TEX and LATEX*. UIT Cambridge, 2011. ISBN: 978-1-906-86013-4. URL: https://www.uit.co.uk/pstricks.

Typesetting Mathematics with LATEX

Voß

Herbert Voß. *Typesetting Mathematics with LATEX*. UIT Cambridge, 2010. ISBN: 978-1-906-86017-2. URL: https://www.uit.co.uk/typesetting-mathematics-with-latex.

Typesetting Tables with LATEX

Voß

Herbert Voß. *Typesetting Tables with LATEX*. UIT Cambridge, 2011. ISBN: 978-1-906-86025-7. URL: https://www.uit.co.uk/typesetting-tables-with-latex.

Books and documentation by category

Most of these are provided with the TEX distribution, and may be updated with each release. Access the embedded documentation from a command line using the texdoc program.

TEX

For a list of older books, see https://www.texfaq.org/FAQ-tex-books.

TEX for the Impatient

Abrahams et al.

Paul W. Abrahams, Kathryn A. Hargreaves, and Karl Berry. *TEX for the Impatient*. 2020. 393 pp. url: https://ctan.org/pkg/impatient.

A tutorial and reference for TEX, plain TEX, and Eplain. Also available in French and Chinese.

(texdoc impatient).

A Gentle Introduction to TEX

Doob

Michael Doob. A Gentle Introduction to TeX. A Manual for Self-study. 2002. 97 pp. url: https://ctan.org/pkg/gentle.

A comprehensive tutorial on plain TEX.

(texdoc gentle).

TEX by Topic Eijkhout

Victor Eijkhout. *TEX by Topic. A TEXnician's Reference*. Addison-Wesley UK, 1991. 317 pp. ISBN: 0-201-56882-9. URL: http://eijkhout.net/texbytopic/texbytopic.html.

A reference for TEX. This may be useful for understanding the source code of LATEX packages, many of which are quite old and written in low-level TEX. (texdoc texbytopic).

TEX in a Nutshell Olšák

Petr Olšák. TeX in a Nutshell. 2023. 31 pp. URL: https://ctan.org/pkg/tex-nutshell.

The basics of plain T_EX.

(texdoc tex-nutshell).

Wikibooks

Wikibooks. TeX. URL: https://en.wikibooks.org/wiki/TeX.

An online book about low-level TEX.

Getting Started with Plain TEX

Wilkins

D. R. Wilkins. *Getting Started with Plain T_EX*. 1994. 40 pp. URL: http://www.ntg.nl/doc/wilkins/pllong.pdf.

LATEX

Writing Scientific Documents Using LATEX

Bennieston

Andrew J. Bennieston. Writing Scientific Documents Using LATEX. 2009. URL: https://ctan.org/pkg/intro-scientific.

An introduction to typesetting scientific documents.

Formatting Information, A beginner's introduction to typesetting with LATEX

Flynn

Peter Flynn. Formatting Information, A beginner's introduction to typesetting with LATEX. 2005. URL: https://ctan.org/pkg/beginlatex.

A beginner's introduction to typesetting with LATEX.

The very short guide to typesetting with IATEX

Flynn

Peter Flynn. The very short guide to typesetting with LATEX. 2016. URL: https://ctan.org/pkg/latex-veryshortguide.

A four-page introduction.

LATEX 2_{ε} : An unofficial reference manual

Greenwade et al.

George D. Greenwade et al. LAT_EX2_E : An unofficial reference manual. English, French, Spanish. 246 pp. URL: https://latexref.xyz.

A thorough but concise reference manual for LATEX $2_{\mathcal{E}}$, available in several languages.

(texdoc -l latex2e-help).

Getting something out of LATEX

Hefferon

Jim Hefferon. *Getting something out of LATEX*. 2009. URL: https://ctan.org/pkg/first-latex-doc. Create your first document in LATEX.

Guide to LATEX Kopka et al.

Helmut Kopka and Patrick W. Daly. *Guide to LATEX*. 4th ed. Addison-Wesley Professional, 2004. 597 pp. ISBN: 0-321-17385-6. URL: https://www.pearson.com/us/higher-education/program/Kopka-Guide-to-La-Te-X-4th-Edition/PGM156755.html.

An introduction and more advanced material, including an extensive reference guide.

LATEX Beginner's Guide

Kottwitz

Stefan Kottwitz. LATEX Beginner's Guide. Packt Publishing, 2011. ISBN: 1847199860. URL: https://www.packtpub.com/product/latex-beginner-s-guide/9781847199867.

An overview with numerous examples.

IATEX Cookbook Kottwitz

Stefan Kottwitz. LATEX Cookbook. Packt Publishing, 2015. ISBN: 978-1-784-39514-8. URL: http://latex-cookbook.net.

More examples.

LATEX: A Document Preparation System

Lamport

Leslie Lamport. LATEX: A Document Preparation System. 2nd ed. Addison Wesley Professional, 1994. 272 pp. ISBN: 0-201-52983-1. URL: https://www.pearson.com/us/higher-education/program/Lamport-La-Te-X-A-Document-Preparation-System-2nd-Edition/PGM159713.html.

The classic introduction to LATEX, in continuous reprint for decades.

LATEX for Undergraduates

Lounsbury

Andrew Lounsbury. LATEX for Undergraduates. 2022. 18 pp. URL: https://ctan.org/pkg/latex-for-undergraduates.

A minimalist introduction for undergraduate students, including setup and editors. Be sure to locate and open the source file LaTeX_for_Undergraduates.tex (texdoc latex-for-undergraduates).

The LATEX Companion, 3rd Edition

Mittelbach et al.

Frank Mittelbach and Ulrike Fischer. *The LATEX Companion, 3rd Edition.* 3rd ed. Addison-Wesley, 2023. 1980 pp. ISBN: 978-0-13-816657-1. URL: https://www.informit.com/store/latex-companion-parts-i-ii-3rd-edition-9780138166571.

Provides extended discussion and examples of the inner workings of LATEX and hundreds of useful packages.

Yet Another Guide to LATEX 2E

Morris

Michael P. Morris. Yet Another Guide to \LaTeX 2023. 72 pp. URL: https://ctan.org/pkg/yet-another-guide-latex2e.

Guide for users of Windows and TeXLive.

(texdoc yet-another-guide-latex2e).

The Not So Short Introduction to IATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

LATEX for authors — current version

LATEX Project team

LATEX Project team. LATEX for authors — current version. 2023. 22 pp. URL: https://www.latex-project.org/help/documentation/usrguide.pdf.

Guide to the new programming interface for document authors.

(texdoc usrguide).

LATEX 2ε for authors — historic version

LATEX Project team

LATEX Project team. LATEX 2_{ε} for authors — historic version. 2022. 31 pp. URL: https://ctan.org/pkg/usrguide.

An overview of the new features of LATEX 2ε compared to LATEX 2.09. (texdoc usrguide-historic).

LATEX for Complete Novices

Talbot

Nicola L. C. Talbot. LATEX for Complete Novices. Dickimaw Books, 2012. 279 pp. url: http://www.dickimaw-books.com.

An extensive introduction for a non-technical person.

(texdoc dickimaw-novices).

Using LATEX to Write a PhD Thesis

Talbot

Nicola L. C. Talbot. *Using LATEX to Write a PhD Thesis*. Dickimaw Books, 2013. 146 pp. url: http://www.dickimaw-books.com.

A followup to LATEX for Complete Novices, including extensive discussion about bibliographies, indexes, and glossaries. (texdoc dickimaw-thesis).

Wikibooks

Wikibooks. LaTeX. 2017. URL: https://en.wikibooks.org/wiki/LaTeX.

An online book, includes information about creating LATEX packages and classes.

LuaL^ATEX

LuaTEX Reference Manual

LuaTEX development team

LuaTeX development team. LuaTeX Reference Manual. 2020. 318 pp. url: http://mirrors.ctan.org/systems/doc/luatex.pdf.

The complete reference.

(texdoc luatex).

A guide to LuaLATEX

Pégourié-Gonnard

Manuel Pégourié-Gonnard. A guide to LuaLTEX. 2013. 14 pp. URL: https://ctan.org/pkg/lualatex-doc.

An overview, and references to related packages.

(texdoc lualatex-doc).

X3IALX

font-change-xetex

Dhawan

Amit Raj Dhawan. font-change-xetex. Macros to use OpenType and TrueType fonts with XaTeX. 2016. 21 pp. url: https://ctan.org/pkg/font-change-xetex.

For plain X₃T_EX.

(texdoc font-change-xetex).

The X₃T_EX Companion

Goossens et al.

Michel Goossens et al. *The XqTeX Companion. TeX meets OpenType and Unicode.* 2010. 112 pp. url: https://ctan.org/pkg/xetex.

Introduction to OpenType and Unicode, using OpenType fonts, handling Unicode-encoded sources.

The X₃T_EX reference guide

Robertson et al.

Will Robertson, Khaled Hosny, and Karl Berry. *The XATEX reference guide*. 2019. 25 pp. URL: https://ctan.org/pkg/xetex.

A summary of additional features over TEX.

(texdoc xetex-reference).

LATEX3 and expl3

The LATEX3 Interfaces

LATEX Project team

LATEX Project team. The LATEX3 Interfaces. 2020. 310 pp. url: https://ctan.org/pkg/l3kernel.

Reference documentation for the expl3 programming environment.

(texdoc interface3).

The IATEX3 kernel: style guide for code authors

LATEX Project team

LATEX Project team. The LATEX3 kernel: style guide for code authors. 2020. 5 pp. url: https://ctan.org/pkg/l3kernel.

Style guide for authors using expl3.

(texdoc 13styleguide).

The expl3 package and IATEX3 programming

LATEX Project team

LATEX Project team. The expl3 package and LATEX3 programming. 2020. 16 pp. url: https://ctan.org/pkg/l3kernel.

Introduction to expl3.

(texdoc expl3).

LATEX3: Programming in LATEX with Ease

Xiang

Ziyue "Alan" Xiang. LATEX3: Programming in LATEX with Ease. URL: https://www.alanshawn.com/latex3-tutorial/.

A LATEX3 programming tutorial.

Bibliography

Tame the BeaST Markey

Nicolas Markey. Tame the BeaST. The B to X of BibTEX. 2009. 48 pp. url: https://ctan.org/pkg/tamethebeast/.

About bibliographies and BibT_EX.

(texdoc tamethebeast).

Biblatex Cheat Sheet Rees

Clea F. Rees. *Biblatex Cheat Sheet*. 2017. 2 pp. URL: https://ctan.org/pkg/biblatex-cheatsheet.

A tri-fold quick reference. (texdoc biblatex-cheatsheet).

Math

User's Guide for the amsmath Package

American Mathematical Society et al.

American Mathematical Society and LATEX Project team. *User's Guide for the amsmath Package*. 2020. 44 pp. url: https://ctan.org/pkg/amsmath.

How to use amsmath. Also see International languages for the Italian, Japanese, and Vietnamese translations. (texdoc amsmath).

Short Math Guide for LATEX

Downes et al.

Michael Downes and Barbara Beeton. Short Math Guide for LATEX. 2017. 21 pp. URL: https://ctan.org/pkg/short-math-guide.

A summary of features in IATEX and packages for writing math formulas. (texdoc short-math-guide).

More Math Into LATEX

Grätzer

George Grätzer. *More Math Into LATEX*. 5th ed. Springer, 2016. ISBN: 978-3-319-23795-4. URL: https://www.springer.com/gp/book/9783319237954.

Updated edition.

Farbige Mathematik

Voß

Herbert Voß. "Farbige Mathematik". German. In: *TeXnische Komödie* (2004). URL: https://ctan.org/pkg/voss-mathcol.

Math in color. In German, but with easy-to-use examples.

(texdoc voss-mathcol).

Typesetting Mathematics with LATEX

Voß

Herbert Voß. *Typesetting Mathematics with LATEX*. UIT Cambridge, 2010. ISBN: 978-1-906-86017-2. URL: https://www.uit.co.uk/typesetting-mathematics-with-latex.

Page headings

The fancyhdr and extramarks packages

Oostrum

Pieter van Oostrum. *The fancyhdr and extramarks packages*. 2021. 74 pp. URL: https://ctan.org/pkg/fancyhdr.

Documents the fancyhdr and extramarks packages. Also includes an overview of the LATEX page mark system. (texdoc fancyhdr).

Tables

Also see the TEX FAQ Floats section: https://www.texfaq.org/#floats

Publication-quality tables in LATEX

Fear

Simon Fear. Publication-quality tables in LATEX. 2016. 18 pp. URL: https://ctan.org/pkg/booktabs.

Documents the booktabs package, and also includes thoughts on the design of tabular layouts in general. (texdoc booktabs).

Typesetting Tables with LATEX

Voß

Herbert Voß. *Typesetting Tables with LATEX*. UIT Cambridge, 2011. ISBN: 978-1-906-86025-7. URL: https://www.uit.co.uk/typesetting-tables-with-latex.

Graphics

Also see the TEX FAQ Graphics section: https://www.texfaq.org/#graphics

Visual PSTricks Casteleyn

Jean Pierre Casteleyn. Visual PSTricks. English, French. 2016. 261 pp. URL: https://ctan.org/pkg/visualpstricks.

A visual FAQ consisting of a small example for each effect.

(texdoc -l visualpstricks).

Visual TikZ Casteleyn

Jean Pierre Casteleyn. Visual TikZ. English, French. 2018. 221 pp. url: https://ctan.org/pkg/visualtikz.

A visual FAQ consisting of a small example for each effect.

(texdoc -l visualtikz).

Using Imported Graphics in LATEX and pdfLATEX

Reckdahl

Keith Reckdahl. Using Imported Graphics in LATEX and pdfLATEX. 2006. 124 pp. url: https://ctan.org/pkg/epslatex.

The TikZ and PGF Packages

Tantau

Till Tantau. The TikZ and PGF Packages. 2020. 1321 pp. URL: https://ctan.org/pkg/pgf.

As well as documenting the packages, this manual also includes "General guidelines and principles concerning the creation of graphics for scientific presentations, papers, and books".

(texdoc pgfmanual).

PSTricks: Graphics and PostScript for TEX and LATEX

Voß

Herbert Voß. *PSTricks: Graphics and PostScript for TEX and LATEX*. UIT Cambridge, 2011. ISBN: 978-1-906-86013-4. URL: https://www.uit.co.uk/pstricks.

Music

LATEX for Musicians Gonzato

Guido Gonzato. LATEX for Musicians. 2019. 66 pp. URL: https://ctan.org/pkg/latex4musicians.

Packages and programs for music symbols, lyrics, chord sheets, sheet music, and guitar tablature. (texdoc latex4musicians).

Presentations

Beamer by Example Mertz et al.

Andrew Mertz and William Slough. "Beamer by Example". In: *The PracTEX Journal* 2005.4 (2005). URL: http://tug.org/pracjourn/2005-4/mertz/mertz.pdf.

Graduated examples of the beamer package.

Examples from the book Presentations with LATEX

Voß

Herbert Voß. Examples from the book Presentations with LATEX. German. 2009. URL: https://ctan.org/pkg/presentations.

Source for examples from the book.

Examples from the book Presentations with LATEX

Voß

Herbert Voß. Examples from the book Presentations with LATEX. 2012. URL: https://ctan.org/pkg/presentations-en.

Source for examples from the book.

Presentations with LATEX

Voß

Herbert Voß. Presentations with LATEX. Lehmanns Media GmbH, 2012. 206 pp. ISBN: 9783865414960.

Fonts

Also see the TEX FAQ Fonts section: https://www.texfaq.org/#fonts

The LATEX Font Catalogue

Jørgensen

Palle Jørgensen. The LATEX Font Catalogue. URL: https://www.tug.org/FontCatalogue/.

A detailed list of fonts for LATEX, each with samples and setup information.

LATEX font encodings

Mittelbach et al.

Frank Mittelbach et al. LATEX font encodings. 2016. 39 pp. URL: https://ctan.org/pkg/encguide.

About T1 encoding, OT1, etc.

(texdoc encguide).

Essential NFSS2, version 2

Rahtz

Sebastian Rahtz. "Essential NFSS2, version 2". In: TUGBoat 14.2 (1993), pp. 132–137. URL: tug.org/TUGboat/Articles/tb14-2/tb39rahtz-nfss.pdf.

A user's view of the New Font Selection Scheme, version 2.

Using TrueType fonts with TEX (LATEX) and pdfTEX (pdfLATEX)

Rakityansky

Damir Rakityansky. *Using TrueType fonts with TEX (LATEX) and pdfTEX (pdfLATEX)*. URL: http://www.radamir.com/tex/ttf-tex.htm.

Font selection in LATEX: The most frequently asked questions

Schmidt

Walter Schmidt. "Font selection in LATEX: The most frequently asked questions". In: *The PracTEX Journal* 2006.1 (2006). URL: tug.org/pracjourn/2006-1/schmidt/schmidt.pdf.

Covers basic commands, default fonts, available font families, fonts for certain parts of the document.

LATEX 2ε font selection

team

IATEX Project team. IATEX 2: font selection. 2020. 35 pp. URL: https://ctan.org/pkg/fntguide.

Documentation of commands for selecting fonts, as well as those for defining the data-structures used by the selection commands. (texdoc fntguide).

Fonts and TEX TEX User's Group

TEX User's Group. Fonts and TEX. URL: http://tug.org/fonts/.

A collection of links related to TEX and fonts.

Cyrillic languages support in LATEX

Volovich et al.

Vladimir Volovich, Werner Lemberg, and IATEX Project team. *Cyrillic languages support in IATEX*. 1999. 7 pp. URL: https://ctan.org/pkg/cyrguide.

Installation, usage, encodings.

(texdoc cyrguide).

FAQs, symbol references, cheat sheets

Visual PSTricks Casteleyn

Jean Pierre Casteleyn. *Visual PSTricks*. English, French. 2016. 261 pp. url: https://ctan.org/pkg/visualpstricks.

A visual faq consisting of a small example for each effect.

(texdoc -l visualpstricks).

Visual TikZ Casteleyn

Jean Pierre Casteleyn. Visual TikZ. English, French. 2018. 221 pp. URL: https://ctan.org/pkg/visualtikz.

A visual FAQ consisting of a small example for each effect.

(texdoc -l visualtikz).

LATEX 2ε Cheat Sheet

Chang

Winston Chang. LaTeX2_€ Cheat Sheet. 2006. 2 pp. URL: https://ctan.org/pkg/latexcheat.

A quick-reference guide for LATEX and BibTEX. Also in Brazilian Portuguese, German, Japanese, and Spanish. (texdoc latexcheat).

Detexify

Detexify. URL: http://detexify.kirelabs.org/classify.html.

Draw a symbol, and the website tells you which macros might make that symbol.

TEX FAQ

TEX FAQ. URL: https://texfaq.org/.

An online resource, which includes a detailed list of printed books.

Online tutorials on LATEX

Indian TEX Users Group

Indian TEX Users Group. Online tutorials on LATEX. 2000. URL: http://tug.org/tutorials/tugindia/.

An extensive tutorial covering many aspects of LATEX.

Lammarsch Lammarsch

Marion Lammarsch. LATEX Cheat Sheet. 2017. 4 pp. URL: https://ctan.org/pkg/latex-refsheet.

A reference for LATEX with KOMA-Script. (texdoc latex-refsheet).

The Comprehensive LATEX Symbol List

Pakin

Scott Pakin. The Comprehensive LATEX Symbol List. 2017. 348 pp. url: https://ctan.org/pkg/comprehensive.

More than 14,000 symbols and LATEX commands.

(texdoc comprehensive).

The Visual LATEX FAQ

Pakin

Scott Pakin. The Visual LATEX FAQ. 33 pp. URL: https://ctan.org/pkg/visualfaq.

Click on a visual element to learn how it is programmed.

(texdoc visualFAQ).

Biblatex Cheat Sheet Rees

Clea F. Rees. *Biblatex Cheat Sheet*. 2017. 2 pp. URL: https://ctan.org/pkg/biblatex-cheatsheet.

A tri-fold quick reference. (texdoc biblatex-cheatsheet).

Every symbol (most symbols) defined by unicode-math

Robertson

Will Robertson. Every symbol (most symbols) defined by unicode-math. 2018. 119 pp. url: https://ctan.org/pkg/unicode-math.

Unicode math symbols.

(texdoc unimath-symbols).

TEX font errors: Cheatsheet

Schlömer

Nico Schlömer. *TeX font errors: Cheatsheet*. 2010. 3 pp. url: https://ctan.org/pkg/tex-font-errors-cheatsheet.

How TEX integrates fonts, and related error messages. (texdoc tex-font-errors-cheatsheet).

shapecatcher

shapecatcher. URL: http://shapecatcher.com/.

Draw a symbol, and the website tells you which Unicode symbols it might be.

TEX Resources on the Web

TEX Users Group

TEX Users Group. TEX Resources on the Web. URL: http://tug.org/interest.html.

A large collection of links to numerous resources.

Source code

The source code for LATEX $2_{\mathcal{E}}$ itself is also included in the distribution.

The LATEX 2ε Sources

Braams et al.

Johannes Braams et al. The LATEX 2ε Sources. 955 pp. URL: https://ctan.org/pkg/source2e.

Occasionally useful for figuring out how something really works.

(texdoc source2e).

List of internal LATEX 2ε Macros useful to Package Authors

Scharrer

Martin Scharrer. List of internal LATEX 2ε Macros useful to Package Authors. 14 pp. URL: https://ctan.org/pkg/macros2e.

A list of the core LATEX macros, each of which is linked to the source code.

(texdoc macros2e).

International languages

Multiple languages

The following are available in several languages. Also see CTAN's topic for each language for additional translations of package and other documentation.

Free Programming Books

Foundation

Ebook Foundation. Free Programming Books. URL: https://github.com/EbookFoundation/free-programming-books.

A variety of TEX-related and other programming books and documents.

LATEX 2_{ε} : An unofficial reference manual

Greenwade et al.

George D. Greenwade et al. \LaTeX 22: An unofficial reference manual. English, French, Spanish. 246 pp. URL: https://latexref.xyz.

A thorough but concise reference manual for LATEX 2_{ε} , available in several languages.

(texdoc -l latex2e-help).

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

LearnLATEX.org

Wright et al.

Joseph Wright et al. *LearnLATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Brazilian Portuguese

Guia Rápido LATEX 2_{ε}

Chang

Winston Chang. *Guia Rápido LATEX 2\varepsilon*. Brazilian. Trans. by Silvio C. G. Granja. 2006. 2 pp. url: https://ctan.org/pkg/latexcheat-ptbr.

A quick-reference guide for LATEX and BibTEX.

(texdoc latexcheat-ptbr).

LATEX 2ε Via Exemplos

Massago

Sadao Massago. L 4 Te 2 E 2 Via Exemplos. Brazilian. 2018. 264 pp. url: https://ctan.org/pkg/latex-via-exemplos.

A study course.

Bulgarian

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Catalan

LearnLATEX.org

Wright et al.

Joseph Wright et al. *LearnL^ATEX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Chinese

(Also see the Chinese category of the package list: p. 31)

TEX 急就帖 Abrahams et al.

Paul W. Abrahams, Kathryn A. Hargreaves, and Karl Berry. *TEX* 急就帖. Chinese. 2014. 429 pp. URL: https://ctan.org/pkg/impatient.

A tutorial and reference for TEX, plain TEX, and Eplain.

(texdoc impatient-cn).

Asymptote 范例教程

刘海洋

刘海洋. Asymptote 范例教程. Chinese. 2009. URL: https://ctan.org/pkg/asymptote-by-example-zh-cn.

A tutorial for asymptote in the form of a graphical FAQ. (texdoc asymptot

(texdoc asymptote-by-example-zh-cn).

CTEX FAQ (常见问题集)

吴凌云

吴凌云. CTEX FAQ (常见问题集). Chinese. 2007. URL: https://ctan.org/pkg/ctex-faq.

FAQ from the Chinese TEX Society.

(texdoc ctex-faq).

一份简短的关于LATEX安装的介绍

王然

王然. 一份简短的关于 LATEX安装的介绍. Chinese. 2020. 49 pp. URL: https://ctan.org/pkg/install-latex-guide-zh-cn.

Installing LATEX and compiling documents, using various operating systems.

(texdoc install-latex-guide-zh-cn).

Asymptote 中的常见问题 (FAQ)

译者

译者. Asymptote 中的常见问题 (FAQ). Chinese. 2009. 26 pp. URL: https://ctan.org/pkg/asymptote-faq-zh-cn.

A translation of the Asymptote FAQ.

(texdoc asymptote-faq-zh-cn).

LATEX Notes v 1.20

Huang

Alpha Huang. LATEX Notes v 1.20. Chinese. 2008. 107 pp. URL: https://ctan.org/pkg/latex-notes-zh-cn.

An introduction to TEX and LATEX, including the use of Chinese fonts.

(texdoc latex-notes).

The Not So Short Introduction to LATEX 2_{ε}

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Czech

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Dutch

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. The Not So Short Introduction to \LaTeX 2 ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Estonian

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Finnish

Käytännöllistä Latexia

Likonen

Teemu Likonen. *Käytännöllistä Latexia*. Finnish. 2021. 274 pp. url: https://ctan.org/pkg/kaytannollista-latexia.

A practical manual in Finnish

(texdoc latexia).

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

French

Also see Online communities.

TEX pour l'Impatient

Abrahams et al.

Paul W. Abrahams, Kathryn A. Hargreaves, and Karl Berry. *TEX pour l'Impatient*. French. 2004. 407 pp. URL: https://ctan.org/pkg/impatient.

A tutorial and reference for T_FX, plain T_FX, and Eplain.

(texdoc impatient-fr).

Apprends LATEX! Baudoin

Marc Baudoin. Apprends LATEX! French. 2012. 222 pp. URL: http://www.babafou.eu.org/Apprends_LaTeX.

A full textbook written for École Nationale Supérieure de Techniques Avancées.

Initiation à IATEX Bouzigues

Adrien Bouzigues. *Initiation à LATEX. Pour débutants ou jeunes utilisateurs*. French. 2017. 273 pp. URL: https://ctan.org/pkg/guide-latex-fr.

A guide on LATEX — for beginners or advanced users.

Visual PSTricks Casteleyn

Jean Pierre Casteleyn. Visual PSTricks. English, French. 2016. 261 pp. url: https://ctan.org/pkg/visualpstricks.

A visual FAQ consisting of a small example for each effect.

(texdoc -l visualpstricks).

Visual TikZ Casteleyn

Jean Pierre Casteleyn. Visual TikZ. English, French. 2018. 221 pp. URL: https://ctan.org/pkg/visualtikz.

A visual FAQ consisting of a small example for each effect.

(texdoc -l visualtikz).

French FAQ of the Gutenberg TEX user group

French FAQ of the Gutenberg TEX user group. French. Trans. by Marie-Paule Kluth. URL: https://ctan.org/pkg/faq-fr.

Rédaction avec LATEX

Goulet

Vincent Goulet. Rédaction avec LATEX. French. 2020. 196 pp. URL: https://ctan.org/pkg/formation-latex-ul.

An introductory course prepared for Université Laval, Québec, Canada.

(texdoc formation-latex-ul),

(texdoc formation-latex-ul-diapos).

LATEX 2_{ε} : An unofficial reference manual

Greenwade et al.

George D. Greenwade et al. \LaTeX 22: An unofficial reference manual. English, French, Spanish. 246 pp. URL: https://latexref.xyz.

A thorough but concise reference manual for $L^ATEX 2_E$, available in several languages.

(texdoc -l latex2e-help).

Tout Ce Que Vous Avez Toujours Voulu Savoir Sur LATEX Sans Jamais Oser Le Demander Lozano

Vincent Lozano. *Tout Ce Que Vous Avez Toujours Voulu Savoir Sur LATEX Sans Jamais Oser Le Demander*. French. 2011. 271 pp. url: http://lozzone.free.fr/index.php?vlunch=latex.

A book for beginners.

The Not So Short Introduction to IATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Utilisation de Graphiques Importés dans LATEX2

Reckdahl

Keith Reckdahl. *Utilisation de Graphiques Importés dans LATEX2*. French. 2001. 148 pp. URL: https://ctan.org/pkg/fepslatex.

How to import graphics in LATEX 2_{ε} .

(texdoc fepslatex).

XHIATEX — Appliqué Aux Sciences Humaines

Rouquette

Maïeul Rouquette. XqLATeX— Appliqué Aux Sciences Humaines. French. 2012. 268 pp. URL: https://ctan.org/pkg/latex-sciences-humaines.

Apprendre à programmer en TEX

Tellechea

Christian Tellechea. Apprendre à programmer en TEX. French. 2014. 580 pp. url: https://ctan.org/pkg/apprendre-a-programmer-en-tex.

Basic programming of TEX, with examples.

(texdoc apprendre).

TeXniques

TeXniques. Groupe francophone des Utilisateurs de TEX, LATEX et logiciels compagnons. French. URL: https://www.gutenberg.eu.org/TeXniques.

A collection of resources.

LearnIATEX.org

Wright et al.

Joseph Wright et al. *LearnLATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

German

(Also see Users groups, and Online communities.)

LATEX 2ε Befehlsübersicht

Chang

Winston Chang. $LAT_{EX}2_{\varepsilon}$ Befehlsübersicht. German. Trans. by Tammo Schwindt. 2006. 2 pp. url: https://ctan.org/pkg/latexcheat-de.

A quick-reference guide for LATEX and BibTEX.

(texdoc latexcheat-de).

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

The DANTE TEX Users Group Frequently Asked Questions

The DANTE TEX Users Group Frequently Asked Questions. German. URL: https://ctan.org/pkg/faq-de.

Farbige Mathematik

Voß

Herbert Voß. "Farbige Mathematik". German. In: *TeXnische Komödie* (2004). URL: https://ctan.org/pkg/voss-mathcol.

Math in color. In German, but with easy-to-use examples.

(texdoc voss-mathcol).

Anleitung

Weissenburger et al.

Jens Weissenburger and Damir Rakityansky. *Anleitung*. German. 2003. URL: https://ctan.org/pkg/anleitung.

Using LATEX, MikTEX, and TrueType fonts.

LearnLATEX.org

Wright et al.

Joseph Wright et al. *LearnLATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Indian

A practical guide to LATEX and polyglossia for Indian Languages

Holkar

Rohit Dilip Holkar. *A practical guide to LATEX and polyglossia for Indian Languages*. Marathi. 2017. 37 pp. URL: https://ctan.org/pkg/latex-mr.

Discusses Marathi, but also relevent to other Indian languages.

(texdoc latex-mr).

Italian

Manuale utente per il pacchetto amsmath

American Mathematical Society et al.

American Mathematical Society and LATEX Project team. *Manuale utente per il pacchetto amsmath*. Italian. Trans. by Giulio Agostini et al. 1999. 39 pp. URL: http://tug.ctan.org/tex-archive/info/italian/amsldoc/itamsldoc.pdf.

Manual for amsmath.

(texdoc amsldoc-it).

The Not So Short Introduction to IATEX $2_{\mathcal{E}}$

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Japanese

(Also see the Japanese category of the package list: p. 31)

User's Guide for the amsmath Package

American Mathematical Society et al.

American Mathematical Society and LATEX Project team. *User's Guide for the amsmath Package*. Japanese. Trans. by Yukitoshi FUJIMURA. 2018. 45 pp. url: https://www.latex-project.org/help/documentation/amsldoc_jpn.pdf.

Manual for amsmath.

pIATEX 2 チートシート

Chang

Winston Chang. $pL^nTEX2_{\varepsilon} \mathcal{F} - \mathcal{F} \mathcal{F} - \mathcal{F}$. Japanese. Trans. by Takuto Asakura. 2006. 2 pp. url: https://ctan.org/pkg/platexcheat.

A quick-reference guide for LATEX and BibTEX.

(texdoc platexcheat).

Short Math Guide for LATEX

Downes et al.

Michael Downes and Barbara Beeton. Short Math Guide for LATEX. Japanese. Trans. by Yukitoshi FUJIMURA. 2017. 21 pp. URL: https://www.latex-project.org/help/documentation/short-math-guide_jpn.pdf.

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTEX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

LATEX2e for authors

LATEX Project team

LATEX Project team. LATEX2e for authors. Japanese. Trans. by Yukitoshi FUJIMURA. 2015. 34 pp. URL: https://www.latex-project.org/help/documentation/usrguide_jpn.pdf.

An overview of the new features of LATEX 2ε compared to LATEX 2.09.

Korean

(Also see the Korean category of the package list: p. 31)

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Marathi

LearnIATEX.org Wright et al.

Joseph Wright et al. *LearnLATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Mongol

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Persian

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

Polish

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* $_{\mathcal{E}}$. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Portuguese

Introdução ao Uso do Preparador de Documentos IATEX

Campani

Carlos A. P. Campani. *Introdução ao Uso do Preparador de Documentos LATEX*. Portuguese. 2011. 188 pp. URL: https://ctan.org/pkg/cursolatex.

A tutorial as PDF slides.

(texdoc cursolatex).

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

LearnIATEX.org

Wright et al.

Joseph Wright et al. *LearnIATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Russian

Basic IATEX Kuznetsov

Alexey Kuznetsov. *Basic LATEX*. Russian. 2021. 364 pp. URL: https://ctan.org/pkg/basiclatex-ru. A tutorial in Russian.

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Slovenian

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\mathcal{E}}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Spanish

CervanTeX (Spanish TeX Group) FAQ

CervanTeX (Spanish TeX Group) FAQ. Spanish. url: https://ctan.org/pkg/faq-es.

(texdoc es-tex-faq).

Acordeón para LATEX 2ε

Chang

Winston Chang. Acordeón para LATEX 2ε . Spanish. Trans. by J. Luis Rivera. 2006. 2 pp. URL: https://ctan.org/pkg/latexcheat-esmx.

A quick-reference guide for LATEX and BibTEX.

(texdoc latexcheat-esmx).

LATEX 2_{ε} : An unofficial reference manual

Greenwade et al.

George D. Greenwade et al. \LaTeX : An unofficial reference manual. English, French, Spanish. 246 pp. URL: https://latexref.xyz.

A thorough but concise reference manual for LATEX 2_{ε} , available in several languages.

(texdoc -1 latex2e-help).

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

LearnIATEX.org

Wright et al.

Joseph Wright et al. *LearnLATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Thai

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Turkish

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Ukranian

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LATEX 2_{\varepsilon}*. Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -l lshort).

Vietnamese

Hướng dẫn sử dụng gói amsmath

American Mathematical Society et al.

American Mathematical Society and LATEX Project team. Hướng dẫn sử dụng gói amsmath. Vietnamese. Trans. by Ky Anh. 1999. 36 pp. URL: https://ctan.org/pkg/amslatexdoc-vietnamese.

Manual for amsmath.

(texdoc amsldoc-vn).

The Not So Short Introduction to LATEX 2ε

Oetiker

Tobias Oetiker. *The Not So Short Introduction to LaTeX2* ε . Bulgarian, Chinese, Czech, Dutch, Estonian, Finnish, French, German, Italian, Japanese, Korean, Mongol, Persian, Polish, Portuguese, Russian, Slovenian, Spanish, Thai, Turkish, Ukranian, Vietnamese. 2015. 153 pp. URL: https://ctan.org/pkg/lshort.

Covers introductory material, customizations, and a simple package.

(texdoc -1 lshort).

LearnL^AT_EX.org

Wright et al.

Joseph Wright et al. *LearnLATeX.org*. Catalan, German, English, French, Marathi, Portuguese, Vietnamese. 2021. URL: https://www.learnlatex.org/.

Sixteen lessons with examples, in multiples languages.

Journals

The PracTEX Journal

TEX Users Group

TEX Users Group. The PracTEX Journal. URL: http://tug.org/pracjourn/.

The online journal of the TEX Users Group. Twenty issues, from 2005–2012.

TUGBoat TEX Users Group

TEX Users Group. TUGBoat. URL: http://tug.org/TUGboat/.

The Communications of the T_EX Users Group. Published since 1980. Articles covering every aspect of T_EX.

Interviews

TUG Interview Corner

TEX Users Group

TEX Users Group. TUG Interview Corner. URL: http://tug.org/interviews/.

A large collection of interviews and articles about people related to TEX. Includes links to more than 250 lectures and other recordings by Donald Knuth, and various historical information.

Typesetting examples

• A large collection of examples: https://texample.net/

- A collection of small examples: http://tug.org/texshowcase/
- Excerpts from many books: https://ctan.org/topic/book-ex
- Entire books: http://www.tsengbooks.com/
- Discussion: https://tex.stackexchange.com/questions/1319/showcase-of-beautiful-typography-done-in-tex-friends
- Discussion: https://tex.stackexchange.com/questions/281415/showcase-of-beautiful-invitations-in-tex

General typesetting theory

Discussion about general typesetting theory, presented by various TEX-related authors. For a list of non-LATEX-specific books, see https://www.texfaq.org/FAQ-type-books.

Package canoniclayout

Beccari

Claudio Beccari. Package canoniclayout. 2011. 8 pp. URL: https://ctan.org/pkg/canoniclayout.

Documentation for the canoniclayout package. Also includes ideas regarding text-block proportions. (texdoc canoniclayout).

Publication-quality tables in LATEX

Fear

Simon Fear. Publication-quality tables in LATEX. 2016. 18 pp. URL: https://ctan.org/pkg/booktabs.

Documents the booktabs package, and also includes thoughts on the design of tabular layouts in general. (texdoc booktabs).

KOMA-Script — The Guide

Kohm

Markus Kohm. KOMA-Script — The Guide. 2018. 565 pp. URL: https://ctan.org/pkg/koma-script.

Documentation for the KOMA-Script package. Also includes discussion about the page layout of a book. (texdoc typearea).

The Octavo Package Revets

Stefan A. Revets. "The Octavo Package". In: *TUGboat* 23 3/4 (2002), p. 269. URL: https://ctan.org/pkg/octavo.

Design principles and guidelines emulating books from the Renaissance.

(texdoc octavo).

The TikZ and PGF Packages

Tantau

Till Tantau. The TikZ and PGF Packages. 2020. 1321 pp. uRL: https://ctan.org/pkg/pgf.

As well as documenting the packages, this manual also includes "General guidelines and principles concerning the creation of graphics for scientific presentations, papers, and books".

(texdoc pgfmanual).

A TUFTE-STYLE BOOK

The Tufte-LaTeX Developers

The Tufte-LaTeX Developers. A TUFTE-STYLE BOOK. 2015. 42 pp. url: https://ctan.org/pkg/tufte-latex.

Documentation for the Tufte-LATEX document classes. Also includes layout ideas from the books of Edward R. Tufte. (texdoc tufte-latex).

A Few Notes on Book Design

Wilson

Peter Wilson. *A Few Notes on Book Design*. 1st ed. The Herries Press, Aug. 2009. 139 pp. url: https://ctan.org/pkg/memdesign.

More than 100 pages of discussion about book design and typography.

(texdoc memdesign).

Accessing embedded information

texdoc and mthelp

A large amount of documentation is included in a TEX distribution. For TeXLive distributions, package documentation can be accessed with the texdoc program. Enter "texdoc -1 <name>" to search for matching package, file, or program names. In some cases the same document is available in both letter or A4 paper sizes, or in several languages. texdoc is also available online, with popular packages sorted by category.

(http://www.texdoc.net/)

For MikT_EX, the mthelp program accesses package documentation. Enter "mthelp <name>".

kpsewhich

The program kpsewhich may be used to find out where a file is located. kpsewhich filename searches for and returns the path to the given filename.

kpsewhich can also return directories, such as:

```
kpsewhich -var-value TEXMFROOT
kpsewhich -var-value TEXMFDIST
kpsewhich -var-value TEXMFLOCAL
```

Some package authors choose not to include the source code in the package documentation. To view the source code:

1. To locate and read a package's .sty file:

```
kpsewhich package.sty
```

Usually these files have their comments removed, so it is better to use the .dtx file instead.

2. The .dtx file is usually available, and will have the package's source code.

```
kpsewhich package.dtx
```

If it is not installed on your local system, it will be necessary to download the .dtx file from CTAN (see the next section).

The comments are not yet typeset and so will not be as easily read.

3. To typeset the documentation with the source code, copy the .dtx file and any associated image files somewhere local and then look for \OnlyDescription in the source. This command tells the ltxdoc package not to print the source code.

4. Remove \OnlyDescription, then process the .dtx file with

pdflatex package.dtx

Barring unusual circumstances, this will create a new documentation .pdf file with the package source code included.

Obtaining packages — Comprehensive TEX Archive Network (CTAN)

TEXLive installations use the tlmgr program to obtain packages. MikTEX installations automatically install packages as needed. Where TEX is installed by an operating-system package manager, that manager should be used to install additional packages.

For custom installations, it may be necessary to manually install packages downloaded from the Comprehensive TeX Archive Network (CTAN), which provides a master collection of packages. A search function is available, which is useful when you know the name of a package or its author, and a list of topics is also provided. There are so many topics, however, that finding the right topic can be a problem in itself. One useful method to find what you are looking for is to search for a related package you may already know about, then look at its description on CTAN to see what topics are shown for it. Selecting these topics then shows you related packages.

(https://ctan.org/)

Useful classes, packages, and programs

Use texdoc or mthelp to access information about each of the following.

General-use packages and classes

Classes:

memoir, koma-script

Page layout and headings:

fancyhdr, geometry, microtype, nowidow, titleps

Fonts:

font-change-xetex, fontspec, mathspec, unicode-math

Sectioning:

epigraph, fncychap, quotchap, sectionbreak, sectsty, titlesec, tocvsec2

Table of contents:

etoc, minitoc, multitoc, shorttoc, titletoc, tocbibind, tocdata, tocloft, tocvsec2

Title page:

authblk, titling

Front and back matter:

abstract, appendix

Indexing:

makeindex, xindy, xindex, gindex, hvindex, idxlayout, imakeidx, index, makeidx, splitidx, varindex, xindex

Glossary:

glossaries, nomencl

Bibliography:

bibtex, biblatex, custom-bib

Cross-referencing:

cleveref, hyperref, url, xr-hyper, xurl, zref

Foot notes, margin notes, page notes:

bigfoot, endheads, endnotes, footmisc, manyfoot, marginfit, marginfix, marginnote, pagenote, parnotes, sidenotes

Math:

amsmath, amssymb, breqn, mathtools, resizegather, nicematrix, scalerel, stackrel

Theorems:

amsthm, apxproof, ntheorem, shadethm, theorem, thmbox, thmtools

Units and fractions:

nicefrac, siunitx, xfrac

Floats:

caption, dblfloatfix, endfloat, fewerfloatpages, float, floatrow, hypcap,

keyfloat, newfloat, placeins, rotfloat, stfloats, **Direct formatting:** subcaption, subfig, subfloat, wrapfig

Tabular:

array, booktabs, colortbl, longtable, ltxtable, multirow, supertabular, tabularx, tabulary, threeparttable, threeparttablex, widetable, xltabular, xtab

Graphics:

asymptote, curves, fitbox, graphicx, pict2e, pstricks, tikz, xy

Color:

normalcolor, xcolor

Lists:

enumerate, enumitem, paralist

Minipages:

eqparbox, minibox, pbox, shapepar

Quotations and verse:

csquotes, epigraph, quoting, verse

Verhatim:

fancyvrb, fvextra, moreverb, shortvrb, upquote, verbatim

Frames:

boxedminipage2e, fancybox, fbox, framed, mdframed, niceframe, shadow, tcolorbox

Embellishments:

fancypar, fancytabs, fourier-orns, lettrine, pgfornament, pst-vectorian, sectionbreak

Multi-column:

adjmulticol, multicol, multicolrule, vwcol

Margins:

fullwidth, hanging, midpage

Line numbering:

lineno

Algorithms and listings:

algorithm2e, algorithmicx, listings, listingsutf8, minted

Acronyms:

acro, acronym

Ordinals:

engord, fmtcount, nth

cancel, ellipsis, embrac, enparen, hyphenat, lips, lua-check-hyphen, luacolor, pdfcol, pdfcolmk, pdfrender, realscripts, relsize, segsplit, soul, soulpos, soulutf8, stackengine, textfit, thinsp, trimclip, truncate, ulem, umoline, underscore, uspace, xellipsis

Symbols:

academicons, amssymb, bbding, chemgreek, dingbat, euro, eurosym, fontawesome, fontawesome5, fourier-orns, gensymb, latexsym, marvosym, metalogo, metalogox, pifont, textalpha, textcomp, textgreek, typicons, xunicode

Files:

attachfile, attachfile2, hyperxmp, intopdf, pdfpages, pdfx, xmpincl

Admonitions:

awesomebox, notes

Editorial:

changebar, changelog, changes, easy-todo, easyReview, ed, errata, fixme, fixmetodonotes, pdfcomment, pdfmarginpar, todo, todonotes, tram, xechangebar

Accessibility:

accessibility, accsupp, axessibility, pdfcomment, repltext, tagpdf

Presentations:

beamer, powerdot

Multi-langauge:

babel, beamer-rl, bidi, polyglossia

Chinese / Japanese / Korean (CJK):

cjkpunct, xeCJK

Chinese:

ctex, upzhkinsoku, xpinyin, zhlineskip, zhspacing

Japanese:

bxjscls, luatexja, platex, plautopatch, tascmac, uplatex, zxjatype

Korean:

kotex, luatexko, xetexko.

Debug:

chkfloat, cmdtrack, dprogress, inputtrc, lua-visual-debug, refcheck

Automatic compiling

The programs arara and latexmk automatically recompile as necessary to resolve all dependencies.

Converting to HTML and other document formats

Using TEX to generate the HTML:

The lwarp package and the tex4ht program each use native LATEX to interpret the document and generate HTML. More of LATEX is supported compared to the translators listed below.

lwarp package:

Supports hundreds of packages. Generates HTML, and provides indirect assistance for EPUB conversion and copy/paste into a word-processor. https://ctan.org/pkg/lwarp

tex4ht program:

Generates HTML, EPUB, ODT, and Docbook. http://tug.org/tex4ht/

Translators:

These systems use external programs to translate a subset of LATEX syntax into HTML. Search for each on CTAN (http:\ctan.org).

```
H^E v^E a:
         http://hevea.inria.fr/
    ТтН:
         http://hutchinson.belmont.ma.us/tth/
     GELLMU:
         http://www.albany.edu/~hammond/gellmu/
     LATEXML:
         http://dlmf.nist.gov/LaTeXML/
     PlasTeX:
         https://github.com/tiarno/plastex
     LATEX2HTML:
         http://www.latex2html.org/andhttp://ctan.org/pkg/latex2html
     TEX2page:
         http://ds26gte.github.io/tex2page/index.html
LATEX math to HTML:
     GladTEX takes a LATEX math expression and generates the corresponding HTML.
     GladTEX:
```

Programming LATEX

A number of packages are especially useful for LATEX programmers:

http://humenda.github.io/GladTeX/

(texdoc <packagename>)

```
xparse: Define macros and environments with flexible argument types.

etoolbox: A wide range of programming tools, often avoiding the need to resort to low-level TEX.

etextools: Adds to etoolbox. Strings, lists, and more.

xparse: Define macros and environments with flexible argument types.

environ: Process environment contents.

arrayjobx, fifo-stack, forarray, forloop, xfor:
Programming arrays, stacks, and loops.

iftex: Detect TEX engine.
```

ifplatform: Detect operating system.

xstring: String manipulation.

keyval, xkeyval, kvsetkeys: Key/value arguments.

pgfkeys, pgfkeyx: Another form of key/value

arguments.

kvoptions: Key/value package options.

expl3: LATEX3 programming.

l3keys, l3keys2e: Key/value for LATEX3.

chktex: Locates typographic errors.

CTAN topic macro-supp: An entire topic of useful

programming macros.

Creating and documenting new packages

Documentation for those interested in creating their own package or class:

Rolling your own Document Class: Using LATEX to keep away from the Dark Side

Flynn

Peter Flynn. "Rolling your own Document Class: Using LATEX to keep away from the Dark Side". In: *TUGboat* 28:1 (2007), pp. 110–123. URL: http://tug.org/TUGboat/tb28-1/tb88flynn.pdf.

An overview of the article class.

How to develop your own document class - our experience

Mansfield

Niall Mansfield. "How to develop your own document class — our experience". In: *TUGboat* 29:3 (2008), pp. 356–361. URL: http://tug.org/TUGboat/tb29-3/tb93mansfield.pdf.

A comparison of developing class vs. package files.

The doc and shortvrb packages

Mittelbach

Frank Mittelbach. The doc and shortvrb packages. 64 pp. url: https://ctan.org/pkg/doc.

Packages for documenting packages.

(texdoc doc).

The DocStrip program

Mittelbach et al.

Frank Mittelbach et al. The DocStrip program. 61 pp. url: https://ctan.org/pkg/docstrip.

The program which processes .dtx and .ins files to generate documentation and .sty files. (texdoc docstrip).

Good things come in little packages: An introduction to writing .ins and .dtx files

Pakin

Scott Pakin. "Good things come in little packages: An introduction to writing .ins and .dtx files". In: *TUGboat* 29:2 (2008), pp. 305–314. URL: http://tug.org/TUGboat/tb29-2/tb92pakin.pdf.

How and why to create your own .dtx and .ins files.

How to Package Your LATEX Package

Pakin

Scott Pakin. How to Package Your LATEX Package. 36 pp. URL: https://ctan.org/pkg/dtxtut.

A tutorial. (texdoc dtxtut).

LATEX 2_{ε} for class and package writers

LATEX Project team

LATEX Project team. LATEX 2ε for class and package writers. 33 pp. URL: https://ctan.org/pkg/clsguide.

Programming a package or class.

(texdoc clsguide).

Wikibooks

```
Wikibooks. LaTeX. 2017. URL: https://en.wikibooks.org/wiki/LaTeX.
```

An online book, includes information about creating LATEX packages and classes.

Users groups

TEX Users Group: http://tug.org

Lists of international users groups:

- http://tug.org/usergroups.html
- https://ctan.org/lugs
- http://www.ntg.nl/lug/

Online communities

English forums:

```
TeX — LATEX Stack Exchange: Almost any question has already been asked, and a quick web search will find answers, ranked by vote. http://tex.stackexchange.com
```

LATEX Community: A traditional forum with quick replies to your questions

```
http://www.latex-community.org
```

TopAnswers TeX: Large collection of questions and answers. https://topanswers.xyz/tex

German forums:

```
TeXwelt: http://texwelt.de/wissen/goLaTeX: http://golatex.de
```

French forums:

```
TeXnique.fr: http://texnique.fr
```

Mailing lists: Several dozen, spanning a wide range of TEX-related topics.

```
http://tug.org/mailman/listinfo
```

Newsgroup: comp.text.tex

Online editing and collaboration

Overleaf: Collaborative editing of LATEX documents online. https://www.overleaf.com/

Distributions — LATEX for various operating systems

TexLive: http://tug.org/texlive Unix and Windows

MiKTex: https://miktex.org Windows and Mac

proTeXt: http://tug.org/protext/
Windows

MacTeX: http://tug.org/mactex/

BasicTeX: https://www.tug.org/mactex/morepackages.html Mac(simplified)

Change log

2017/03/06: Initial version.

2017/10/04: Added users groups, mailing lists, distributions, LuaTEX, XATEX, chktex. Organization and formatting improvements.

2017/10/14: More information about accessing embedded documentation.

2018/01/18: Added texdoc.net.

2018/01/21: Added latex-veryshortguide, first-latex-doc, beginlatex, intro-scientific, guide-latex-fr.

2018/03/24: Added interface3, dickimaw-novices, dickimaw-thesis.

2018/04/01: Added TeXnique.fr.

2018/06/28: Added sections for non-English documents and general typesetting theory. Updated host and name for TEX FAQ. Added latex-via-exemplos and Ebook Foundation free programming books.

2018/10/18: Updated URL for $L^{A}T_{E}X2_{\varepsilon}$: An unofficial reference manual.

2020/12/14: Improved bibliography. Added categories for math and music; startlatex2e; items written in French, German, Indian, Italian, Japanese, Portuguese, Vietnamese; Dante users group.

2021/01/02: Now uses biblatex. Added mthelp, many international documents, and categories for FAQS and cheat sheets, graphics, tables, and fonts. Added lists of packages by category. Added Overleaf.

2021/01/09: Added several resources from TUG including journals and interviews, and more for the list of packages.

2021/12/30: Added usrguide3, learnlatex.org, latex3-tutorial, many international resources.

2024/01/06: Updated *The LATEX Companion, 3rd Edition*. Replaced Morris's *Gettings Started with LATEX 2\varepsilon* with *Yet Another Guide to LATEX 2\varepsilon*. Added *LATEX for Undergraduates, TEX in a Nutshell,* TopAnswers TeX, Basic TeX.