TeX Online

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April 8, 2016

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TEX, LATEX

TEXは数学者・計算機科学者であるドナルド・クヌース (Donald E. Knuth) により1978年にリリースされた組版処理ソフトウェア。

TEX is a typesetting system that is designed with two main goals in mind: to allow anybody to produce high-quality books using a reasonably minimal amount of effort, and to provide a system that would give exactly the same results on all computers, now and in the future.
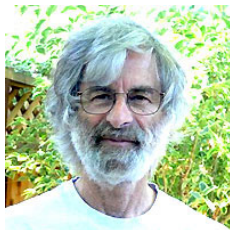
TEX, LATEX

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LATEX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation.

LATEX is based on Donald E. Knuth's TEX typesetting language or certain extensions. LATEX was first developed in 1985 by Leslie Lamport, and is now being maintained and developed by the LATEX3 Project

D. Knuth, L. Lamport and R. Stallman

- D. Knuth: TeX, METAFONT, macro, written in WEB which is based on *literate programming*, a way of producing compilable source code and cross-linked documentation typeset in TeX from the same original file. Created n 1978, current version 3.14159265.

- L. Lamport: LaTeX

- R. Stallman: Emacs, Free Software, GNU, GPL

Why TEX Online?

You can install TEX and LATEX in your computer.
Then why?

1. Installation is not easy and takes time.
   TeXLive 2015 (Size 4GB) + Updates
2. Need to maintain, and still deveping.
3. Need to carry your computer.

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Solution

Enjoy Cloud Computing!

Japanese? 日本語も使えますか?

Yes!

But .....

Compile Engine によっと多少注意が必要ですが、ほぼ問題ないと思います。多言語使用については、まだ完全には理解できていません。カ不足でゴメンナサイ。
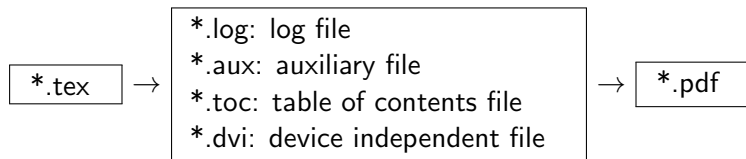
Let's Try TEX Online

TEX を使ってみよう

- JaxEdit: Online LaTeX editor with instant preview.
- http://jaxedit.com/note/
- Just try.

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TEX Engine

$$\boxed{\text{*.tex}} \rightarrow \boxed{\begin{array}{l} \text{*.log: log file} \\ \text{*.aux: auxiliary file} \\ \text{*.toc: table of contents file} \\ \text{*.dvi: device independent file} \end{array}} \rightarrow \boxed{\text{*.pdf}}$$

LaTeX + dvipdf, pdfLaTeX, XeLaTex, LuaLaTeX

Online TEX Sites

1. Cloud LaTeX
   - URL https://cloudlatex.io/ja
   - 日本語 LaTeX が default で、かつ compile engine が選択できる。
2. OverLeaf
   - URL https://www.overleaf.com
   - Many templates
   - Changed the name from writeLaTeX
3. ShareLaTeX
   - URL https://ja.sharelatex.com
   - Many templates
   - You can change engine
4. Cloud Sage (SMC)
   - URL http://cloud.sagemath.org
   - You can do almost anything.

Let's Try!

- Templates are online.
- Levels of using Japanese using English engine (pdfLaTeX, etc.) in OverLeaf, ShareLaTeX, SageMath
    1. Japanese or mixed docuemnt　日本語のまたは日本語を含む文書
       e.g. English (Senior) Thesis with mixed title page and Japanese summary.

       `\usepackage[whole]{bxcjkjatype}`
    2. Document using Japanese stylefile
       　目次などを日本語で生成するスタイルファイルを使う場合
       e.g. Japanese (Senior) Thesis with mixed English title page and English summary

       ```
       Use LuaLaTeX and replace the first line by
       \documentclass[a4paper, 12pt, report]{ltjsbook}
       % ltjsaticle for short paper
       \usepackage[ipa]{luatexja-preset}
       ```

日本語 Template

```
\documentclass[a4paper,12pt]{article}
%\usepackage[whole]{bxcjkjatype} % 英語エンジンのときは、% を
消して下さい。
\usepackage{amsmath, amssymb} % package for various math symbo
\usepackage{graphicx} % packages for including graphics
\begin{document}
\title{タイトル}
\author{なまえ}
\maketitle
\section{はじめに}
これは、サンプルです。日本語を含む文章を簡単に書くための
template と考えて下さい。この部分に文章を書きます。
\end{document}
```