

# About p $\LaTeX$ 2 $\epsilon$

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p $\LaTeX$  is a Japanese  $\LaTeX$  format, which is adjusted/extended to be more suitable for writing Japanese documents. It requires p $\TeX$ <sup>1</sup>, a  $\TeX$  engine with extensions for Japanese typesetting, which is designed for high-quality Japanese book “p”ublishing.<sup>2</sup> Both p $\TeX$  and p $\LaTeX$  were developed by ASCII Corporation (and its successor ASCII Media Works), so they are often referred to as “ASCII p $\TeX$ ” and “ASCII p $\LaTeX$ ” respectively.

In 2010, ASCII p $\TeX$  was incorporated into the world-wide  $\TeX$  distribution,  $\TeX$  Live. Since then, p $\TeX$  has been maintained/improved/changed along with  $\TeX$  Live sources. In recent versions of  $\TeX$  Live and W32 $\TeX$  (around 2011), the default engine of p $\LaTeX$  changed from original p $\TeX$  to  $\epsilon$ -p $\TeX$  (p $\TeX$  with  $\epsilon$ - $\TeX$  extension). Also, the original  $\LaTeX$  itself is also frequently updated. On the other hand, p $\LaTeX$  remained unchanged since 2006, which resulted in some incompatibility and limitations.

To follow these upstream changes, we (Japanese  $\TeX$  Development Community<sup>3</sup>) decided to fork ASCII p $\LaTeX$  and distribute the “community edition.” The development version is available from GitHub repository<sup>4</sup>. The forked community edition is different from the original ASCII edition, so any bug reports and requests should be sent to Japanese  $\TeX$  Development Community, using GitHub Issue system.

This document (platex-en.pdf) is a brief explanation of the p $\LaTeX$  2 $\epsilon$  community edition. It is somewhat of a historical document now, since p $\LaTeX$  2 $\epsilon$  came into existence in 1995 (although the English translation has been done by Japanese  $\TeX$  Development Community since 2017). The detail of source codes

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<sup>1</sup>The p $\TeX$  website: <https://asciidwango.github.io/ptex/> (in Japanese)

<sup>2</sup>There is another old implementation of Japanese  $\LaTeX$ , called j $\LaTeX$  (not available in  $\TeX$  Live). Also, MiK $\TeX$  has another program `platex`, but it has nothing to do with our Japanese p $\LaTeX$ !

<sup>3</sup><https://texjp.org>

<sup>4</sup><https://github.com/texjporg/platex>

are described separately in pldoc-en.pdf.

# 1 Introduction to this document

This document briefly describes  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ , but is not a manual of  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ . For the basic functions of  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ , see [1] (in Japanese). For extensions of some commands for vertical writing (which were first described in [2] in Japanese), see `plex.ttx` section in `pldoc-en.pdf`.

For Japanese typesetting, please refer to the documentation of  $\mathrm{p}\mathrm{T}\mathrm{E}\mathrm{X}$  (or “Japanese  $\mathrm{T}\mathrm{E}\mathrm{X}$ ”; the preliminary version of  $\mathrm{p}\mathrm{T}\mathrm{E}\mathrm{X}$ ), [3] (in Japanese), [4] (in English) and [5] (in English).

This document consists of following parts:

**Section 1** This section; describes this document itself.

**Section 2** Brief explanation of extensions in  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ . Also describes the standard classes and packages.

**Section 3** The compatibility note for users of the old version of  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$  or those of the original  $\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ .

**Appendix A** Describes `DOCSTRIP` Options for this document.

**Appendix B** Description of ‘`pldoc.tex`’ (counterpart for ‘`source2e.tex`’ in  $\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ ).

**Appendix C** Description of a shell script to process ‘`pldoc.tex`’, and a tiny perl program to check `DOCSTRIP` guards, etc.

## 2 About Functions of $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$

The structure of  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$  is similar to that of  $\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}\,2_{\epsilon}$ ; it consists of 3 types of files: a format (`platex.ltx`), classes and packages.

### 2.1 About the Format

To make a format for  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}$ , process “`platex.ltx`” with INI mode of  $\epsilon\text{-}\mathrm{p}\mathrm{T}\mathrm{E}\mathrm{X}$ .<sup>5</sup> A handy command ‘`fmtutil-sys`’ (or ‘`fmtutil`’) for this purpose is available in  $\mathrm{T}\mathrm{E}\mathrm{X}$  Live. The following command generates `platex.fmt`.

```
fmtutil-sys --byfmt platex
```

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<sup>5</sup>Formerly both  $\mathrm{p}\mathrm{T}\mathrm{E}\mathrm{X}$  and  $\epsilon\text{-}\mathrm{p}\mathrm{T}\mathrm{E}\mathrm{X}$  can make the format file for  $\mathrm{p}\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}$ , however, it’s not true anymore because  $\mathrm{L}\mathrm{A}\mathrm{T}\mathrm{E}\mathrm{X}$  requires  $\epsilon\text{-}\mathrm{T}\mathrm{E}\mathrm{X}$  since 2017.

The content of `platex.ltx` is shown below. In the current version of pL<sup>A</sup>T<sub>E</sub>X, first we simply load `latex.ltx` and modify/extend some definitions by loading `plcore.ltx`.

```

1 <{*plcore}

Temporarily disable \dump at the end of latex.ltx.
2 \let\orgdump\dump
3 \let\dump\relax

Load latex.ltx here. Within the standard installation of TEX Live, hyphen.cfg
provided by “Babel” package will be used.
4 \input latex.ltx

Load plcore.ltx.
5 \typeout{*****^J%
6      *^J%
7      * making pLATEX format^J%
8      *^J%
9      *****}
10 \makeatletter
11 \input plcore.ltx

```

Load font-related default settings, `pldefs.ltx`. If a file `pldefs.cfg` is found, then that file will be used instead.

```

12 \InputIfFileExists{pldefs.cfg}
13     {\typeout{*****^J%
14         * Local config file pldefs.cfg used^J%
15         *****}%
16     {\input{pldefs.ltx}}}

```

In the previous version, we displayed pL<sup>A</sup>T<sub>E</sub>X version on the terminal, so that it can be easily recognized during format creation; however `\everyjob` can contain any code other than showing a banner, so now disabled.

```

17 %\the\everyjob

Load platex.cfg if it exists at runtime.
18 \everyjob\expandafter{%
19     \the\everyjob
20     \IfFileExists{platex.cfg}{%
21         \typeout{*****^J%
22             * Loading platex.cfg.^J%
23             *****}%
24         \input{platex.cfg}}{%
25     }

```

Dump to the format file.

```

26 \let\dump\orgdump
27 \let\orgdump\@undefined

```

```

28 \makeatother
29 \dump
30 %\endinput
31 \</plcore>

```

The file `plcore.ltx`, which provides modifications/extensions to make  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$ , is a concatenation of stripped files below using `DOCSTRIP` program.

- `plvers.dtx` defines the format version of  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$ .
- `plfonts.dtx` extends `NFSS2` for Japanese font selection.
- `plcore.dtx` defines other modifications to  $\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$ .

Moreover, default settings of pre-loaded fonts and typesetting parameters are done by loading `pldefs.ltx` inside `platex.ltx`.<sup>6</sup> This file `pldefs.ltx` is also stripped from `plfonts.dtx`.

*Attention:*

You can customize  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$  by tuning these settings. If you need to do that, copy/rename it as `pldefs.cfg` and edit it, instead of overwriting `pldefs.ltx` itself. If a file named `pldefs.cfg` is found at a format creation time, it will be read as a substitute of `pldefs.ltx`.

### 2.1.1 Version

The version (like “2019-10-01”) and the format name (“`pLaTeX2e`”) of  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$  are defined in `plvers.dtx`.

### 2.1.2 NFSS2 Commands

$\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$  uses `NFSS2` as a font selection scheme, however, it supports only alphabetic fonts.  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$  extends `NFSS2` to enable selection of Japanese fonts in a consistent manner with the original `NFSS2`.

Most of the interface commands are defined to be clever enough, so that it can automatically judge whether it is going to change alphabetic fonts or Japanese fonts. It works almost fine with most of the widely used classes and packages, without any modification.

For the detail of (the original) `NFSS2`, please refer to `fntguide.tex` in  $\text{L}\text{A}\text{T}\text{E}\text{X } 2_{\varepsilon}$ .

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<sup>6</sup>ASCII  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X}$  loaded `pldefs.ltx` inside `plcore.ltx`; however,  $\text{p}\text{L}\text{A}\text{T}\text{E}\text{X}$  community edition newer than 2018 loads `pldefs.ltx` inside `platex.ltx`.

### 2.1.3 Output Routine and Floats

`plcore.dtx` modifies and extends some  $\text{\LaTeX 2}_{\epsilon}$  commands for Japanese processing.

- Preamble commands
- Page breaking
- Line breaking
- The order of float objects
- Crop marks (“tombow”)
- Footnote macros
- Cross-referencing
- Verbatim

## 2.2 Classes and Packages

Classes and packages bundled with  $\text{\LaTeX 2}_{\epsilon}$  are based on those in original  $\text{\LaTeX 2}_{\epsilon}$ , with some Japanese localization.

$\text{\LaTeX 2}_{\epsilon}$  classes:

- `jarticle.cls`, `jbook.cls`, `jreport.cls`  
Standard *yoko-kumi* (horizontal writing) classes; stripped from `jclasses.dtx`.
- `tarticle.cls`, `tbook.cls`, `treport.cls`  
Standard *tate-kumi* (vertical writing) classes; stripped from `jclasses.dtx`.
- `jltxdoc.cls`  
Class for typesetting Japanese `.dtx` file; stripped from `jltxdoc.dtx`.

$\text{\LaTeX 2}_{\epsilon}$  packages:

- `plext.sty`  
Useful macros and extensions for vertical writing; stripped from `plext.dtx`.

- `ptrace.sty`  
 $\text{p}\text{\LaTeX} 2_{\epsilon}$  version of `tracefmt.sty`; the package `tracefmt.sty` overwrites  $\text{p}\text{\LaTeX} 2_{\epsilon}$ -style NFSS2 commands, so `ptrace.sty` provides redefinitions to recover  $\text{p}\text{\LaTeX} 2_{\epsilon}$  extensions. Stripped from `plfonts.dtx`.
- `pfltrace.sty`  
 $\text{p}\text{\LaTeX} 2_{\epsilon}$  version of `fltrace.sty` (introduced in  $\text{\LaTeX} 2_{\epsilon}$  2014/05/01); stripped from `plcore.dtx`.
- `oldpfont.sty`  
Provides  $\text{p}\text{\LaTeX} 2.09$  font commands; stripped from `pl209.dtx`.

The packages “`ascmac.sty`” and “`nidanfloat.sty`”, which had been included in previous versions of  $\text{p}\text{\LaTeX}$ , is now distributed as a separate bundle.

### 3 Compatibility with Other Formats and Older Versions

Here we provide some information about the compatibility between current  $\text{p}\text{\LaTeX} 2_{\epsilon}$  and older versions or original  $\text{\LaTeX} 2_{\epsilon}$ .

#### 3.1 Compatibility with $\text{\LaTeX} 2_{\epsilon}$

$\text{p}\text{\LaTeX} 2_{\epsilon}$  is in most part upper compatible with  $\text{\LaTeX} 2_{\epsilon}$ , but some parameters are adjusted to be suitable for Japanese. Therefore, you should not expect identical output, even though the same source can be processed on both  $\text{\LaTeX} 2_{\epsilon}$  and  $\text{p}\text{\LaTeX} 2_{\epsilon}$ .

We hope that most classes and packages meant for  $\text{\LaTeX} 2_{\epsilon}$  works also for  $\text{p}\text{\LaTeX} 2_{\epsilon}$  without any modification. However for example, if a class or a package redefines a command which is already modified by  $\text{p}\text{\LaTeX} 2_{\epsilon}$ , it might cause an error at the worst case. We cannot tell whether a class or a package works fine with  $\text{p}\text{\LaTeX} 2_{\epsilon}$  beforehand; the easiest way is to try to use it. If it fails, please refer to the log file or a package manual.

Some  $\text{\LaTeX}$  packages are known to be incompatible with  $\text{p}\text{\LaTeX}$ . For those packages,  $\text{p}\text{\LaTeX}$ -specific patches might be available. Please refer to the documentation of the `plautopatch` package (by Hironobu Yamashita).

### 3.2 Compatibility with pL<sup>A</sup>T<sub>E</sub>X 2.09

pL<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> has ‘pL<sup>A</sup>T<sub>E</sub>X 2.09 compatibility mode’; use `\documentstyle` to enter it, but the support might be limited. Note that the 2.09 compatibility mode is provided solely to allow you to process very old documents, which were written for a very old system.

### 3.3 Support for Package ‘latexrelease’

pL<sup>A</sup>T<sub>E</sub>X provides ‘latexrelease’ package, which is based on ‘latexrelease’ package (introduced in L<sup>A</sup>T<sub>E</sub>X <2015/01/01>). It may be used to ensure stability where needed, by emulating the specified format date without regenerating the format file. For more detail, please refer to its documentation.

## A DOCSTRIP Options

By processing `platex.dtx` with DOCSTRIP program, different files can be generated. Here are the DOCSTRIP options for this document:

<i>Option</i>	<i>Function</i>
plcore	Generates a fragment of format sources
pldoc	Generates ‘pldoc.tex’ for typesetting pL <sup>A</sup> T <sub>E</sub> X 2 <sub>ε</sub> sources
shprog	Generates a shell script to process ‘pldoc.tex’
plprog	Generates a tiny perl program to check DOCSTRIP guards nesting
Xins	Generates a DOCSTRIP batch file ‘Xins.ins’ for generating the above shell/perl scripts

## B Documentation of pL<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> sources

The contents of ‘pldoc.tex’ for typesetting pL<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> sources is described here. Compared to individual processings, batch processing using ‘pldoc.tex’ prints also changes and an index. The whole document will have about 200 pages.

By default, the description of pL<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> sources is written in Japanese. If you need English version, first save

```
\newif\ifJAPANESE
```

as `platex.cfg`, and process `pldoc.tex` (pL<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> Community Edition newer than July 2016 is required).



First, create `pldoc.dic`; it serves as a dictionary for ‘mendex’ (Japanese index processor<sup>7</sup>), which is necessary for indexing control sequences containing Japanese characters (`\西暦` and `\和暦`).

```
32 <*pldoc>
33 \begin{filecontents}{pldoc.dic}
34 西暦      せいれき
35 和暦      われき
36 \end{filecontents}
```

We use `jltxdoc` class; we also require `plext` package, since `plext.dtx` contains several examples of partial vertical writing.

```
37 \documentclass{jltxdoc}
38 \usepackage{plext}
39 \listfiles
40
```

Do not index some  $\TeX$  primitives, and some common plain  $\TeX$  commands.

```
41 \DoNotIndex{\def,\long,\edef,\xdef,\gdef,\let,\global}
42 \DoNotIndex{\if,\ifnum,\ifdim,\ifcat,\ifmmode,\ifvmode,\ifhmode,%
43             \iftrue,\iffalse,\ifvoid,\ifx,\ifeof,\ifcase,\else,\or,\fi}
44 \DoNotIndex{\box,\copy,\setbox,\unvbox,\unhbox,\hbox,%
45             \vbox,\vtop,\vcenter}
46 \DoNotIndex{\@empty,\immediate,\write}
47 \DoNotIndex{\egroup,\bgroup,\expandafter,\begingroup,\endgroup}
48 \DoNotIndex{\divide,\advance,\multiply,\count,\dimen}
49 \DoNotIndex{\relax,\space,\string}
50 \DoNotIndex{\csname,\endcsname,\@spaces,\openin,\openout,%
51             \closein,\closeout}
52 \DoNotIndex{\catcode,\endinput}
53 \DoNotIndex{\jobname,\message,\read,\the,\m@ne,\noexpand}
54 \DoNotIndex{\hsize,\vsize,\hskip,\vskip,\kern,\hfil,\hfill,\hss,\vss,\unskip}
55 \DoNotIndex{\m@ne,\z@,\z@skip,\@ne,\tw@,\p@,\@minus,\@plus}
56 \DoNotIndex{\dp,\wd,\ht,\setlength,\addtolength}
57 \DoNotIndex{\newcommand,\renewcommand}
58
```

Set up the Index and Change History to use `\part`.

```
59 \ifJAPANESE
60 \IndexPrologue{\part*{索引}}%
61             \markboth{索引}{索引}%
62             \addcontentsline{toc}{part}{索引}%
63 イタリアック体の数字は、その項目が説明されているページを示しています。
64 下線の引かれた数字は、定義されているページを示しています。
65 その他の数字は、その項目が使われているページを示しています。}
66 \else
67 \IndexPrologue{\part*{Index}}%
```

---

<sup>7</sup>Developed by ASCII Corporation; the program ‘makeindex’ cannot handle Japanese characters properly, especially Kanji characters which should be sorted by its readings.

```

68             \markboth{Index}{Index}%
69             \addcontentsline{toc}{part}{Index}%
70 The italic numbers denote the pages where the corresponding entry
71 is described, numbers underlined point to the definition,
72 all others indicate the places where it is used.}
73 \fi
74 %
75 \ifJAPANESE
76 \GlossaryPrologue{\part*{変更履歴}}%
77             \markboth{変更履歴}{変更履歴}%
78             \addcontentsline{toc}{part}{変更履歴}}
79 \else
80 \GlossaryPrologue{\part*{Change History}}%
81             \markboth{Change History}{Change History}%
82             \addcontentsline{toc}{part}{Change History}}
83 \fi
84

```

Modify the standard `\changes` command slightly, to better cope with this multiple file document.

```

85 \makeatletter
86 \def\changes@#1#2#3{%
87   \let\protect\@unexpandable@protect
88   \edef\@tempa{\noexpand\glossary{#2\space
89     \currentfile\space#1\levelchar
90     \ifx\saved@macroname\@empty
91       \space\actualchar\generalname
92     \else
93       \expandafter\@gobble
94       \saved@macroname\actualchar
95       \string\verb\quotechar*%
96       \verbatimchar\saved@macroname
97       \verbatimchar
98     \fi
99     :\levelchar #3}}%
100   \@tempa\endgroup\@esphack}

```

Codelines are allowed to run over a bit without showing up as overfull.

```

101 \renewcommand*\MacroFont{\fontencoding\encodingdefault
102   \fontfamily\ttdefault
103   \fontseries\mddefault
104   \fontshape\updefault
105   \small
106   \hfuzz 6pt\relax}

```

Section numbers now reach eg 19.12 which need more space.

```

107 \renewcommand*\l@section{\@dottedtocline{2}{1.5em}{2.8em}}
108 \renewcommand*\l@subsubsection{\@dottedtocline{3}{3.8em}{3.4em}}
109 \makeatother

```

Produce a Change Log and (2 column) Index.

```

110 \RecordChanges
111 \CodelineIndex
112 \EnableCrossrefs
113 \setcounter{IndexColumns}{2}
114 \settowidth\MacroIndent{\ttfamily\scriptsize 000\ }

Set the title, authors and the date for this document.
115 \title{The \pLaTeXe\ Sources}
116 \author{Ken Nakano \& Japanese \TeX\ Development Community}
117
118 % Get the date and patch level from plvers.dtx
119 \makeatletter
120 \let\patchdate=\@empty
121 \begingroup
122   \def\ProvidesFile#1\pfmtversion#2#3\ppatch@level#4{%
123     \date{#2}\xdef\patchdate{#4}\endinput}
124   \input{plvers.dtx}
125 \endgroup
126
127 % Add the patch version if available.
128 \def\Xpatch{0}
129 \ifx\patchdate\Xpatch\else
130 % number is assumed
131 \ifnum\patchdate>0
132   \edef\@date{\@date\space Patch level\space\patchdate}
133 \else
134   \edef\@date{\@date\space Pre-Release\patchdate}
135 \fi\fi
136
137 % Add the last update info, in case format date unchanged
138 % Note: \@ifl@t@r can be used only in preamble.
139 \def\lastupd@te{0000/00/00}
140 \begingroup
141   \def\ProvidesFile#1[#2 #3]{%
142     \def\@tempd@te{#2}\endinput
143     \@ifl@t@r{\@tempd@te}{\lastupd@te}{%
144       \global\let\lastupd@te\@tempd@te
145     }}
146   \let\ProvidesClass\ProvidesFile
147   \let\ProvidesPackage\ProvidesFile
148   \input{plvers.dtx}
149   \input{plfonts.dtx}
150   \input{plcore.dtx}
151   \input{plext.dtx}
152   \input{pl209.dtx}
153   \input{kinsoku.dtx}
154   \input{jclasses.dtx}
155   \input{jltxdoc.cls}
156 \endgroup

```

```

157 \@ifl@t@r{\lastupd@te}{\pfmtversion}{%
158   \edef\@date{\@date\break (last updated: \lastupd@te)}%
159 }{}
160 \makeatother

```

Here starts the document body.

```

161 \begin{document}
162 \pagenumbering{roman}
163 \maketitle
164 \renewcommand\maketitle{}
165 \tableofcontents
166 \clearpage
167 \pagenumbering{arabic}
168
169 \DocInclude{plvers}    % pLaTeX version
170
171 \DocInclude{plfonts}  % NFSS2 commands
172
173 \DocInclude{plcore}   % kernel commands
174
175 \DocInclude{plext}    % external commands
176
177 \DocInclude{pl209}    % 2.09 compatibility mode commands
178
179 \DocInclude{kinsoku}  % kinsoku parameter
180
181 \DocInclude{jclasses} % Standard class
182
183 \DocInclude{jltxdoc}  % dtx documents class
184

```

Stop here if ltxdoc.cfg says \AtEndOfClass{\OnlyDescription}.

```

185 \StopEventually{\end{document}}
186

```

Print Change History and Index. Please refer to Appendix C.1 for processing of Change History and Index.

```

187 \clearpage
188 \pagestyle{headings}
189 % Make TeX shut up.
190 \hbadness=10000
191 \newcount\hbadness
192 \hfuzz=\maxdimen
193 %
194 \PrintChanges
195 \clearpage
196 %
197 \begingroup
198   \def\endash{--}
199   \catcode'\-\active

```

```

200 \def-\futurelet\temp\indexdash}
201 \def\indexdash{\ifx\temp-\endash\fi}
202
203 \PrintIndex
204 \endgroup

```

Make sure that the index is not printed twice (ltxdoc.cfg might have a second command).

```

205 \let\PrintChanges\relax
206 \let\PrintIndex\relax
207 \end{document}
208 \pdoc

```

## C Additional Utility Programs

### C.1 Shell Script mkpldoc.sh

A shell script to process ‘pldoc.tex’ and produce a fully indexed source code description. Run `sh mkpldoc.sh` to use it.

#### C.1.1 Content of mkpldoc.sh

First, delete auxiliary files which might be created in the previous runs.

```

209 <shprog>
210 <ja>rm -f pldoc.toc pldoc.idx pldoc.glo
211 <en>rm -f pldoc-en.toc pldoc-en.idx pldoc-en.glo

```

First run: empty the config file ltxdoc.cfg.

```

212 echo "" > ltxdoc.cfg

```

Now process pldoc.tex.

```

213 <ja>platex pldoc.tex
214 <en>platex -jobname=pldoc-en pldoc.tex

```

Make the Change log and Glossary (Change History) using mendex. ‘Mendex’ is a Japanese index processor, which is mostly upper compatible with ‘makeindex’ and automatically handles readings of Kanji words.

Option `-s` employs a style file for formatting. Here we use `gind.ist` and `gglo.ist` from L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>.

Option `-o` specifies output index file name.

Option `-f` forces to output Kanji characters even non-existent in dictionaries. (Makeindex does not have this option.)

```

215 <ja>mendex -s gind.ist -d pldoc.dic -o pldoc.ind pldoc.idx
216 <en>mendex -s gind.ist -d pldoc.dic -o pldoc-en.ind pldoc-en.idx
217 <ja>mendex -f -s gglo.ist -o pldoc.gls pldoc.glo

```

```
218 <en>mendex -f -s gglo.ist -o pldoc-en.gls pldoc-en.glo
```

Second run: append `\includeonly{}` to `ltxdoc.cfg` to speed up things. This run is needed only to get changes and index listed in `.toc` file.

```
219 echo "\includeonly{" > ltxdoc.cfg
220 <ja>platex pldoc.tex
221 <en>platex -jobname=pldoc-en pldoc.tex
```

Third and final run: restore the `cfg` file to put everything together.

```
222 echo "" > ltxdoc.cfg
223 <ja>platex pldoc.tex
224 <en>platex -jobname=pldoc-en pldoc.tex
225 # EOT
226 </shprog>
```

## C.2 Perl Script `dstcheck.pl`

Here we provide a perl script which helps checking the nested `DOCSTRIP` guards.

Usage:

```
perl dstcheck.pl <file-name>
```

The description of this script itself is available only in Japanese.

```
227 <*plprog>
228 ##
229 ## DOCSTRIP 文書内の環境や条件の入れ子を調べる perl スクリプト
230 ##
231 push(@dst,"DUMMY"); push(@dst,"000");
232 push(@env,"DUMMY"); push(@env,"000");
233 while (<>) {
234   if (/^%<\*([>]+)>/) { # check conditions
235     push(@dst,$1);
236     push(@dst,$.);
237   } elsif (/^%<\/*([>]+)>/) {
238     $linenum = pop(@dst);
239     $conditions = pop(@dst);
240     if ($1 ne $conditions) {
241       if ($conditions eq "DUMMY") {
242         print "$ARGV: '</$1>' (l.$.) is not started.\n";
243         push(@dst,"DUMMY");
244         push(@dst,"000");
245       } else {
246         print "$ARGV: '<*$conditions>' (l.$linenum) is ended ";
247         print "by '<*$1>' (l.$.)\n";
248       }
249     }
250   }
```

```

251 if (/^% *\\begin\\{verbatim\\}/) { # check environments
252     while(<>) {
253         last if (/^% *\\end\\{verbatim\\}/);
254     }
255 } elsif (/^% *\\begin\\{([^{]+)\\}\\{(.*)\\}/) {
256     push(@env,$1);
257     push(@env,$.);
258 } elsif (/^% *\\begin\\{([^{]+)\\}/) {
259     push(@env,$1);
260     push(@env,$.);
261 } elsif (/^% *\\end\\{([^{]+)\\}/) {
262     $linenum = pop(@env);
263     $environment = pop(@env);
264     if ($1 ne $environment) {
265         if ($environment eq "DUMMY") {
266             print "$ARGV: '\\end{$1}' (l.$.) is not started.\n";
267             push(@env,"DUMMY");
268             push(@env,"000");
269         } else {
270             print "$ARGV: \\begin{$environment} (l.$linenum) is ended ";
271             print "by \\end{$1} (l.$.)\n";
272         }
273     }
274 }
275 }

276 $linenum = pop(@dst);
277 $conditions = pop(@dst);
278 while ($conditions ne "DUMMY") {
279     print "$ARGV: '<*$conditions>' (l.$linenum) is not ended.\n";
280     $linenum = pop(@dst);
281     $conditions = pop(@dst);
282 }

283 $linenum = pop(@env);
284 $environment = pop(@env);
285 while ($environment ne "DUMMY") {
286     print "$ARGV: '\\begin{$environment}' (l.$linenum) is not ended.\n";
287     $linenum = pop(@env);
288     $environment = pop(@env);
289 }
290 exit;
291 </plprog>

```

### C.3 DOCSTRIP Batch file

Here we introduce a DOCSTRIP batch file 'Xins.ins,' which generates the scripts described in Appendix C.1 and C.2.

```

292 <*Xins>

```

```

293 \input docstrip
294 \keepsilent

295 {\catcode'#=12 \gdef\MetaPrefix{## }}

296 \declarepreamble\thispre
297 \endpreamble
298 \usepreamble\thispre

299 \declarepostamble\thispost
300 \endpostamble
301 \usepostamble\thispost

302 \generate{
303   \file{dstcheck.pl}{\from{platex.dtx}{plprog}}
304   \file{mkpldoc.sh}{\from{platex.dtx}{shprog,ja}}
305   \file{mkpldoc-en.sh}{\from{platex.dtx}{shprog,en}}
306 }
307 \endbatchfile
308 </Xins>

```



## References

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- [8] Laslie Lamport. “*L<sup>A</sup>T<sub>E</sub>X: A Document Preparation System*”. Addison-Wesley, 1986. (邦訳：倉沢良一監修, 大野俊治・小暮博通・藤浦はる美訳, 文書処理システム L<sup>A</sup>T<sub>E</sub>X, アスキー, 1990)
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## Change History

1995/05/08 v1.0	2016/06/19 v1.0l
first edition . . . . . 3	Get the patch level from
1995/08/25 v1.0a	<code>plvers.dtx</code> . . . . . 11
Added 'Compatibility', 'Usage of	2016/08/26 v1.0m
DOCSTRIP' and 'References' . . . 3	Moved loading <code>platex.cfg</code> from
1996/02/01 v1.0b	<code>plcore.ltx</code> to <code>platex.ltx</code> . . . 4
Adjusted for the latest DOCSTRIP	2016/09/14 v1.0n
( <code>omake-sh.ins</code> and	Improved banner saving method . . 4
<code>omake-pl.ins</code> . . . . . 15	2017/09/24 v1.0o
1997/01/23 v1.0c	Allow negative patch level for
Adjusted for the latest DOCSTRIP. 15	pre-release . . . . . 11
Don't copy <code>gind.ist</code> and <code>gglo.ist</code>	2017/11/11 v1.0p
from	Moved banner saving code from
<code>\$TEXMF/tex/latex2e/base</code>	<code>platex.ltx</code> to <code>plcore.ltx</code> . . . 4
directory. . . . . 13	2017/12/02 v1.0r
1997/01/25 v1.0c	English references added . . . . . 3
Add to <code>filecontents</code> environment	2017/12/05 v1.0s
for <code>pldoc.dic</code> . . . . . 8	Moved loading default settings
1997/01/29 v1.0c	from <code>plcore.ltx</code> to
Rename <code>pltpatch.ltx</code> to	<code>platex.ltx</code> . . . . . 4
<code>plpatch.ltx</code> . . . . . 11	2018/02/07 v1.0t
2016/01/27 v1.0d	Moved <code>ascmac</code> package to separate
Add <code>-e</code> test before <code>rm</code> command . 13	bundle . . . . . 7
Updated descriptions of pL <sup>A</sup> T <sub>Ε</sub> X 2 <sub>ε</sub>	2018/02/18 v1.0u
files . . . . . 6	Moved <code>nidanfloat</code> package to
2016/02/16 v1.0e	separate bundle . . . . . 7
Add a description of <code>platexrelease</code> 8	2018/04/06 v1.0v
2016/04/12 v1.0f	Sync with the latest <code>source2e.tex</code> 10
Update document. . . . . 1	2018/04/08 v1.0w
2016/05/07 v1.0g	Stop showing banner during
Save L <sup>A</sup> T <sub>Ε</sub> X banner . . . . . 4	format generation for safety . . . 4
2016/05/08 v1.0h	2018/09/03 v1.0x
Exclude <code>plpatch.ltx</code> from the	Mention <code>platexcheat</code> (Japanese
document . . . . . 11	only). . . . . 3
2016/05/12 v1.0i	Mention <code>plautopatch</code> . . . . . 7
Undefine temporary command	Update document. . . . . 1
<code>\orgdump</code> in the end. . . . . 4	2018/09/22 v1.0y
2016/05/20 v1.0j	Show last update info on
Add description of 'pfltrace' . . . . 6	<code>pldoc.pdf</code> . . . . . 11
2016/05/21 v1.0k	2019/09/29 v1.0z
Print also changes. . . . . 1	Fix typos in document. . . . . 1