

About p \LaTeX 2 ϵ

Ken Nakano & Japanese \TeX Development Community

Date: 2021/03/14

p \LaTeX is a Japanese \LaTeX format, which is adjusted/extended to be more suitable for writing Japanese documents. It requires p \TeX ¹, a \TeX engine with extensions for Japanese typesetting, which is designed for high-quality Japanese book “p”ublishing.² Both of them 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 ϵ -p \TeX (p \TeX with ϵ - \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 Community³) decided to fork ASCII p \LaTeX and distribute the “community edition.” The development version is available from GitHub repository⁴. 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 ϵ community edition. It is somewhat of a historical document now, since p \LaTeX 2 ϵ came into existence in 1995 (although the English translation has been done by Japanese \TeX Development Community since 2017).

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

²There is another old implementation of Japanese \LaTeX by NTT Electrical Communications Laboratories, named j \LaTeX (unavailable in \TeX Live). Also, MiK \TeX has another program `platex` for Polish, but it has nothing to do with our Japanese p \LaTeX !

³<https://texjp.org>

⁴<https://github.com/texjorg/platex>

1 Introduction to this document

This document briefly describes p \LaTeX 2 ϵ , but is not a manual of p \LaTeX 2 ϵ . For the basic functions of p \LaTeX 2 ϵ , see [1] (in Japanese). For extensions of some commands for vertical writing (which were first described in [2] in Japanese), see `pl ext .dtx` section in `pl doc-en .pdf`.

For Japanese typesetting, please refer to the documentation of p \TeX (or “Japanese \TeX ”; the preliminary version of p \TeX), [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 p \LaTeX 2 ϵ . Also describes the standard classes and packages.

Section 3 The compatibility note for users of the old version of p \LaTeX 2 ϵ or those of the original \LaTeX 2 ϵ .

Appendix A Describes DOCSTRIP Options for this document.

Appendix B Description of ‘`pl doc.tex` ’ (counterpart for ‘`source2e.tex`’ in \LaTeX 2 ϵ).

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

2 About Functions of p \LaTeX 2 ϵ

The structure of p \LaTeX 2 ϵ is similar to that of \LaTeX 2 ϵ ; it consists of 3 types of files: a format (`platex.ltx`), classes and packages.

2.1 About the Format

To make a format for p \LaTeX , process “`platex.ltx`” with INI mode of ϵ -p \TeX .⁵ A handy command ‘`f mtutil-sys` ’ (or ‘`f mtutil` ’) for this purpose is available in \TeX Live. The following command generates `platex.fmt`.

```
f $\text{mtutil-sys}$  --byfmt platex
```

⁵Formerly both p \TeX and ϵ -p \TeX can make the format file for p \LaTeX , however, it’s not true anymore because \LaTeX requires ϵ - \TeX since 2017.

The content of `platex.ltx` is shown below. In the current version of p^LA^TE^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

   If \typeout is still undefined, the input of LATEX kernel should have failed; abort
   now.
5 \ifx\typeout\undefined
6   \errhelp{Please reinstall LaTeX, or check e-TeX availability.}%
7   \errmessage{Failed to load ‘latex.ltx’ properly}%
8   \expandafter\end
9 \fi

   Load plcore.ltx.
10 \typeout{*****^J%
11         *^J%
12         * making pLaTeX format^J%
13         *^J%
14         *****}
15 \makeatletter
16 \input plcore.ltx

   Load font-related default settings, pldefs.ltx. If a file pldefs.cfg is found,
   then that file will be used instead. Some code may be executed after loading.
17 \InputIfFileExists{pldefs.cfg}
18   {\typeout{*****^J%
19           * Local config file pldefs.cfg used^J%
20           *****}%
21   {\input{pldefs.ltx}}
22 \ifx\code@after@pldefs\@undefined\else \code@after@pldefs \fi

   In the previous version, we displayed pLATEX 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.
23 %\the\everyjob

   Load platex.cfg if it exists at runtime.
24 \everyjob\expandafter{%
25   \the\everyjob
26   \IfFileExists{platex.cfg}{%
```

```

27 \typeout{*****^J%
28         * Loading platex.cfg.^J%
29         *****}%
30 \input{platex.cfg}}}%
31 }

Dump to the format file.
32 \let\dump\orgdump
33 \let\orgdump\@undefined
34 \makeatother
35 \dump
36 %\endinput
37 </plcore>

```

The file `plcore.ltx`, which provides modifications/extensions to make pL^AT_εE_X, is a concatenation of stripped files below using DOCSTRIP program.

- `plvers.dtx` defines the format version of pL^AT_εE_X.
- `plfonts.dtx` extends NFSS2 for Japanese font selection.
- `plcore.dtx` defines other modifications to L^AT_εE_X.

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

Attention:

You can customize pL^AT_εE_X 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 “2021-06-01”) and the format name (“pLaTeX2e”) of pL^AT_εE_X are defined in `plvers.dtx`.

2.1.2 NFSS2 Commands

L^AT_εE_X uses NFSS2 as a font selection scheme, however, it supports only alphabetic fonts. pL^AT_εE_X extends NFSS2 to enable selection of Japanese fonts in a consistent manner with the original NFSS2.

⁶ASCII pL^AT_εE_X loaded `pldefs.ltx` inside `plcore.ltx`; however, pL^AT_εE_X community edition newer than 2018 loads `pldefs.ltx` inside `platex.ltx`.

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 $\text{\LaTeX} 2_{\epsilon}$.

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

$\text{p}\text{\LaTeX} 2_{\epsilon}$ 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`.

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

- `pnext.sty`
Useful macros and extensions for vertical writing; stripped from `pnext.dtx`.
- `ptrace.sty`
`pLATEX 2ε` version of `tracefnt.sty`; the package `tracefnt.sty` overwrites `pLATEX 2ε`-style NFSS2 commands, so `ptrace.sty` provides redefinitions to recover `pLATEX 2ε` extensions. Stripped from `plfonts.dtx`.
- `pfltrace.sty`
`pLATEX 2ε` version of `fltrace.sty` (introduced in `LATEX 2ε 2014/05/01`); stripped from `plcore.dtx`.
- `oldpfont.sty`
Provides `pLATEX 2.09` font commands; stripped from `pl209.dtx`.

The packages “`ascmac.sty`” and “`nidanfloat.sty`”, which had been included in previous versions of `pLATEX`, 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 `pLATEX 2ε` and older versions or original `LATEX 2ε`.

3.1 Compatibility with `LATEX 2ε`

`pLATEX 2ε` is in most part upward compatible with `LATEX 2ε`, 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 `LATEX 2ε` and `pLATEX 2ε`.

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

Some `LATEX` packages are known to be incompatible with `pLATEX`. For those packages, `pLATEX`-specific patches might be available. Please refer to the documentation of the `plautopatch` package (by Hironobu Yamashita).

3.2 Compatibility with pL^AT_εX 2.09

pL^AT_εX 2_ε has ‘pL^AT_εX 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^AT_εX provides ‘latexrelease’ package, which is based on ‘latexrelease’ package (introduced in L^AT_εX <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>
<code>plcore</code>	Generates a fragment of format sources
<code>pldoc</code>	Generates ‘pldoc.tex’ for typesetting pL ^A T _ε X 2 _ε sources
<code>shprog</code>	Generates a shell script to process ‘pldoc.tex’
<code>plprog</code>	Generates a tiny perl program to check DOCSTRIP guards nesting
<code>Xins</code>	Generates a DOCSTRIP batch file ‘Xins.ins’ for generating the above shell/perl scripts

B Documentation of pL^AT_εX 2_ε sources

The contents of ‘pldoc.tex’ for typesetting pL^AT_εX 2_ε 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^AT_εX 2_ε sources is written in Japanese. If you need English version, first save

```
\newif\ifJAPANESE
```

as `platex.cfg`, and process `pldoc.tex` (pL^AT_εX 2_ε Community Edition newer than July 2016 is required).

First, create `pldoc.dic`; it serves as a dictionary for ‘mendex’ (Japanese index processor⁷), which is necessary for indexing control sequences containing Japanese characters (`\西曆` and `\和曆`).

```
38 \*pldoc
39 \begin{filecontents}{pldoc.dic}
40 西曆    せいれき
41 和曆    われき
42 \end{filecontents}
```

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

```
43 \documentclass{jltxdoc}
44 \makeatletter
45 \def\macro{\begingroup
46   \catcode'\_12 \catcode'\_12
47   \MakePrivateLetters \m@cro@ \iftrue}
48 \makeatother
49 \usepackage{plext}
50 \listfiles
51
```

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

```
52 \DoNotIndex{\def, \long, \edef, \xdef, \gdef, \let, \global}
53 \DoNotIndex{\if, \ifnum, \ifdim, \ifcat, \ifmmode, \ifvmode, \ifhmode, %
54   \iftrue, \iffalse, \ifvoid, \ifx, \ifeof, \ifcase, \else, \or, \fi}
55 \DoNotIndex{\box, \copy, \setbox, \unvbox, \unhbox, \hbox, %
56   \vbox, \vtop, \vcenter}
57 \DoNotIndex{\@empty, \immediate, \write}
58 \DoNotIndex{\egroup, \bgroup, \expandafter, \begingroup, \endgroup}
59 \DoNotIndex{\divide, \advance, \multiply, \count, \dimen}
60 \DoNotIndex{\relax, \space, \string}
61 \DoNotIndex{\csname, \endcsname, \@spaces, \openin, \openout, %
62   \closein, \closeout}
63 \DoNotIndex{\catcode, \endinput}
64 \DoNotIndex{\jobname, \message, \read, \the, \m@ne, \noexpand}
65 \DoNotIndex{\hsize, \vsize, \hskip, \vskip, \kern, \hfil, \hfill, \hss, \vss, \unskip}
66 \DoNotIndex{\m@ne, \z@, \z@skip, \@ne, \tw@, \p@, \@minus, \@plus}
67 \DoNotIndex{\dp, \wd, \ht, \setlength, \addtolength}
68 \DoNotIndex{\newcommand, \renewcommand}
69
```

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

```
70 \ifJAPANESE
71 \IndexPrologue{\part*{索引}}%
72   \markboth{索引}{索引}%
73   \addcontentsline{toc}{part}{索引}%
```

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


```

74 イタリック体の数字は、その項目が説明されているページを示しています。
75 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。
76 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。}
77 \else
78 \IndexPrologue{\part*{Index}}%
79             \markboth{Index}{Index}%
80             \addcontentsline{toc}{part}{Index}%
81 The italic numbers denote the pages where the corresponding entry
82 is described, numbers underlined point to the definition,
83 all others indicate the places where it is used.}
84 \fi
85 %
86 \ifJAPANESE
87 \GlossaryPrologue{\part*{変更履歴}}%
88             \markboth{変更履歴}{変更履歴}%
89             \addcontentsline{toc}{part}{変更履歴}}
90 \else
91 \GlossaryPrologue{\part*{Change History}}%
92             \markboth{Change History}{Change History}%
93             \addcontentsline{toc}{part}{Change History}}
94 \fi
95

```

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

```

96 \makeatletter
97 \def\changes@#1#2#3{%
98   \let\protect\@unexpandable@protect
99   \edef\@tempa{\noexpand\glossary{#2\space
100     \currentfile\space#1\levelchar
101     \ifx\saved@macroname\@empty
102       \space\actualchar\generalname
103     \else
104       \expandafter\@gobble
105       \saved@macroname\actualchar
106       \string\verb\quotedchar*%
107       \verbatimchar\saved@macroname
108       \verbatimchar
109     \fi
110     :\levelchar #3}}%
111   \@tempa\endgroup\@esphack}

```

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

```

112 \renewcommand*{\MacroFont}{\fontencoding\encodingdefault
113     \fontfamily\ttdefault
114     \fontseries\mddefault
115     \fontshape\updefault
116     \small
117     \hfuzz 6pt\relax}

```

Section numbers now reach eg 19.12 which need more space.

```
118 \renewcommand*\l@section{\@dottedtocline{2}{1.5em}{2.8em}}
119 \renewcommand*\l@subsubsection{\@dottedtocline{3}{3.8em}{3.4em}}
120 \makeatother
```

Produce a Change Log and (2 column) Index.

```
121 \RecordChanges
122 \CodelineIndex
123 \EnableCrossrefs
124 \setcounter{IndexColumns}{2}
125 \settowidth\MacroIndent{\ttfamily\scriptsize 000\ }
```

Set the title, authors and the date for this document.

```
126 \title{The \pLaTeXe\ Sources}
127 \author{Ken Nakano \& Japanese \TeX\ Development Community}
128
129 % Get the date and patch level from plvers.dtx
130 \makeatletter
131 \let\patchdate=\@empty
132 \begingroup
133   \def\ProvidesFile#1\pfmtversion#2#3\ppatch@level#4{%
134     \date{#2}\xdef\patchdate{#4}\endinput}
135   \input{plvers.dtx}
136 \endgroup
137
138 % Add the patch version if available.
139 \def\Xpatch{0}
140 \ifx\patchdate\Xpatch\else
141 % number is assumed
142 \ifnum\patchdate>0
143   \edef\@date{\@date\space Patch level\space\patchdate}
144 \else
145   \edef\@date{\@date\space Pre-Release\patchdate}
146 \fi\fi
147
148 % Add the last update info, in case format date unchanged
149 % Note: \@ifl@t@r can be used only in preamble.
150 \def\lastupd@te{0000/00/00}
151 \begingroup
152   \def\ProvidesFile#1[#2 #3]{%
153     \def\@tempd@te{#2}\endinput
154     \@ifl@t@r{\@tempd@te}{\lastupd@te}{%
155       \global\let\lastupd@te\@tempd@te
156     }{}}
157   \let\ProvidesClass\ProvidesFile
158   \let\ProvidesPackage\ProvidesFile
159   \input{plvers.dtx}
160   \input{plexpl3.dtx}
161   \input{plfonts.dtx}
162   \input{plcore.dtx}
```

```

163 \input{plext.dtx}
164 \input{pl209.dtx}
165 \input{kinksoku.dtx}
166 \input{jclasses.dtx}
167 \input{jltxdoc.cls}
168 \endgroup
169 \@ifl@t@r{\lastupd@te}{\pfmtversion}{%
170 \edef\@date{\@date\break (last updated: \lastupd@te)}%
171 }{}
172 \makeatother

```

Here starts the document body.

```

173 \begin{document}
174 \pagenumbering{roman}
175 \maketitle
176 \renewcommand\maketitle{}
177 \tableofcontents
178 \clearpage
179 \pagenumbering{arabic}
180
181 \DocInclude{plvers} % pLaTeX version
182
183 \DocInclude{plexpl3} % additions to expl3
184
185 \DocInclude{plfonts} % NFSS2 commands
186
187 \DocInclude{plcore} % kernel commands
188
189 \DocInclude{plext} % external commands
190
191 \DocInclude{pl209} % 2.09 compatibility mode commands
192
193 \DocInclude{kinksoku} % kinksoku parameter
194
195 \DocInclude{jclasses} % Standard class
196
197 \DocInclude{jltxdoc} % dtx documents class
198

```

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

```

199 \StopEventually{\end{document}}
200

```

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

```

201 \clearpage
202 \pagestyle{headings}
203 % Make TeX shut up.
204 \hbadness=10000
205 \newcount\hbadness

```

```

206 \hfuzz=\maxdimen
207 %
208 \PrintChanges
209 \clearpage
210 %
211 \begingroup
212   \def\endash{--}
213   \catcode'\-\active
214   \def-\{\futurelet\temp\indexdash}
215   \def\indexdash{\ifx\temp-\endash\fi}
216
217   \PrintIndex
218 \endgroup

```

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

```

219 \let\PrintChanges\relax
220 \let\PrintIndex\relax
221 \end{document}
222 \pdoc

```

C Additional Utility Programs

C.1 Shell Script `mkpldoc.sh`

A shell script to process ‘`pdoc.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.

```

223 \shprog
224 \ja)rm -f pdoc.toc pdoc.idx pdoc.glo
225 \en)rm -f pdoc-en.toc pdoc-en.idx pdoc-en.glo

```

First run: empty the config file `ltxdoc.cfg`.

```

226 echo "" > ltxdoc.cfg

```

Now process `pdoc.tex`.

```

227 \ja)platex pdoc.tex
228 \en)platex -jobname=pdoc-en pdoc.tex

```

Make the Change log and Glossary (Change History) using `mendex`. ‘`Mendex`’ is a Japanese index processor, which is mostly upward 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^AT_EX 2_ε.

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.)

```
229 <ja>mendex -s gind.ist -d pldoc.dic -o pldoc.ind pldoc.idx
230 <en>mendex -s gind.ist -d pldoc.dic -o pldoc-en.ind pldoc-en.idx
231 <ja>mendex -f -s gglo.ist -o pldoc.gls pldoc.glo
232 <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.

```
233 echo "\includeonly{" > ltxdoc.cfg
234 <ja>platex pldoc.tex
235 <en>platex -jobname=pldoc-en pldoc.tex
```

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

```
236 echo "" > ltxdoc.cfg
237 <ja>platex pldoc.tex
238 <en>platex -jobname=pldoc-en pldoc.tex
239 # EOT
240 </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.

```
241 <*plprog>
242 ##
243 ## DOCSTRIP 文書内の環境や条件の入れ子を調べる perl スクリプト
244 ##
245 push(@dst,"DUMMY"); push(@dst,"000");
246 push(@env,"DUMMY"); push(@env,"000");
247 while (<>) {
248   if (/^<\*([>]+)>/) { # check conditions
249     push(@dst,$1);
250     push(@dst,$.);
251   } elsif (/^<\[/([>]+)>/) {
252     $linenum = pop(@dst);
253     $conditions = pop(@dst);
254     if ($1 ne $conditions) {
255       if ($conditions eq "DUMMY") {
256         print "$ARGV: '</$1>' (1.$.) is not started.\n";
```

```

257     push(@dst,"DUMMY");
258     push(@dst,"000");
259   } else {
260     print "$ARGV: '<*$conditions>' (l.$linenum) is ended ";
261     print "by '<*$1>' (l.$.)\n";
262   }
263 }
264 }
265 if (/^% *\\begin\{verbatim\}/) { # check environments
266   while(<>) {
267     last if (/^% *\\end\{verbatim\}/);
268   }
269 } elsif (/^% *\\begin\{([^-}]+)\}\{(.*)\}/) {
270   push(@env,$1);
271   push(@env,$.);
272 } elsif (/^% *\\begin\{([^-}]+)\}/) {
273   push(@env,$1);
274   push(@env,$.);
275 } elsif (/^% *\\end\{([^-}]+)\}/) {
276   $linenum = pop(@env);
277   $environment = pop(@env);
278   if ($1 ne $environment) {
279     if ($environment eq "DUMMY") {
280       print "$ARGV: '\\end{$1}' (l.$.) is not started.\n";
281       push(@env,"DUMMY");
282       push(@env,"000");
283     } else {
284       print "$ARGV: '\\begin{$environment}' (l.$linenum) is ended ";
285       print "by '\\end{$1}' (l.$.)\n";
286     }
287   }
288 }
289 }
290 $linenum = pop(@dst);
291 $conditions = pop(@dst);
292 while ($conditions ne "DUMMY") {
293   print "$ARGV: '<*$conditions>' (l.$linenum) is not ended.\n";
294   $linenum = pop(@dst);
295   $conditions = pop(@dst);
296 }
297 $linenum = pop(@env);
298 $environment = pop(@env);
299 while ($environment ne "DUMMY") {
300   print "$ARGV: '\\begin{$environment}' (l.$linenum) is not ended.\n";
301   $linenum = pop(@env);
302   $environment = pop(@env);
303 }
304 exit;
305 </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.

```
306 ⟨*Xins⟩
307 \input docstrip
308 \keepsilent
309 {\catcode'#=12 \gdef\MetaPrefix{## }}
310 \declarepreamble\thispre
311 \endpreamble
312 \usepreamble\thispre
313 \declarepostamble\thispost
314 \endpostamble
315 \usepostamble\thispost
316 \generate{
317   \file{dstcheck.pl}{\from{platex.dtx}{plprog}}
318   \file{mkpldoc.sh}{\from{platex.dtx}{shprog,ja}}
319   \file{mkpldoc-en.sh}{\from{platex.dtx}{shprog,en}}
320 }
321 \endbatchfile
322 ⟨/Xins⟩
```

References

- [1] 中野 賢 『日本語 L^AT_EX 2_ε ブック』 アスキー, 1996.
- [2] インプレス・ラボ監修, アスキー書籍編集部編 『縦組対応 パーソナル日本語 T_EX』 アスキー出版局, 1994
- [3] アスキー出版技術部責任編集 『日本語 T_EX テクニカルブック I』 アスキー, 1990.
- [4] Haruhiko Okumura, “*pT_EX and Japanese Typesetting*”. The Asian Journal of T_EX, Volume 2, No. 1, 2008.
(<http://ajt.ktug.org/2008/0201okumura.pdf>)
- [5] Hisato Hamano, “*Vertical Typesetting with T_EX*”. TUGboat issue 11:3, 1990.
(<https://tug.org/TUGboat/tb11-3/tb29hamano.pdf>)
- [6] Donald E. Knuth. “*The T_EXbook*”. Addison-Wesley, 1984. (邦訳：斎藤信男監修, 鷺谷好輝訳, T_EX ブック 改訂新版, アスキー出版局, 1989)
- [7] Laslie Lamport. “*L^AT_EX: A Document Preparation System*”. Addison-Wesley, second edition, 1994.
- [8] Laslie Lamport. “*L^AT_EX: 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^AT_EX, アスキー, 1990)
- [9] Michel Goossens, Frank Mittelbach, Alexander Samarin. “*The L^AT_EX Companion*”. Addison-Wesley, 1994.
- [10] 河野 真治 『入門 Perl』 アスキー出版局, 1994

Change History

1995/05/08 v1.0	2016/09/14 v1.0n
first edition 2	Improved banner saving method . . . 3
1995/08/25 v1.0a	2017/09/24 v1.0o
Added 'Compatibility', 'Usage of	Allow negative patch level for
DOCSTRIP' and 'References' . . . 2	pre-release 10
1996/02/01 v1.0b	2017/11/11 v1.0p
Adjusted for the latest DOCSTRIP	Moved banner saving code from
(omake-sh.ins and	platex.ltx to plcore.ltx . . . 3
omake-pl.ins. 15	2017/12/02 v1.0r
1997/01/23 v1.0c	English references added 2
Adjusted for the latest DOCSTRIP. 15	2017/12/05 v1.0s
Don't copy gind.ist and gglo.ist	Moved loading default settings
from	from plcore.ltx to
\$TEXMF/tex/latex2e/base	platex.ltx 3
directory. 12	2018/02/07 v1.0t
1997/01/25 v1.0c	Moved ascmac package to separate
Add to filecontents environment	bundle 6
for pldoc.dic. 7	2018/02/18 v1.0u
1997/01/29 v1.0c	Moved nidanfloat package to
Rename pltpatch.ltx to	separate bundle 6
plpatch.ltx. 10	2018/04/06 v1.0v
2016/01/27 v1.0d	Sync with the latest source2e.tex 9
Add -e test before rm command . 12	2018/04/08 v1.0w
Updated descriptions of pL ^A T _ε X 2 _ε	Stop showing banner during
files 5	format generation for safety . . . 3
2016/02/16 v1.0e	2018/09/03 v1.0x
Add a description of platexrelease 7	Mention platexcheat (Japanese
2016/04/12 v1.0f	only). 2
Update document. 1	Mention plautopatch. 6
2016/05/07 v1.0g	Update document. 1
Save L ^A T _ε X banner 3	2018/09/22 v1.0y
2016/05/08 v1.0h	Show last update info on
Exclude plpatch.ltx from the	pldoc.pdf 10
document 10	2019/09/29 v1.0z
2016/05/12 v1.0i	Fix typos in document. 1
Undefine temporary command	2020/03/24 v1.1
\orgdump in the end. 4	Update document. 1
2016/05/20 v1.0j	2020/09/26 v1.1a
Add description of 'pfttrace' 5	Add plexpl3.dtx 11
2016/05/21 v1.0k	2020/09/28 v1.1b
Print also changes. 1	Add hook after loading defs 3
2016/06/19 v1.0l	2021/02/25 v1.1c
Get the patch level from	Check for latex.ltx status 3
plvers.dtx 10	2021/03/14 v1.1d
2016/08/26 v1.0m	Print expl3 commands correctly . . 8
Moved loading platex.cfg from	
plcore.ltx to platex.ltx . . . 3	