

The `ifvtex` package

Heiko Oberdiek
<oberdiek@uni-freiburg.de>

2007/01/10 v1.2

Abstract

This package looks for \TeX , implements and sets the switches `\ifvtex`, `\ifvtex<mode>`, `\ifvtexgex`. It works with plain or \LaTeX formats.

Contents

1	Usage	1
2	Implementation	2
2.1	Reload check and package identification	2
2.2	Check for previously defined <code>\ifvtex</code>	3
2.3	<code>\ifvtex</code>	3
2.4	Mode and \TeX switches	3
2.5	Protocol entry	4
3	Installation	4
3.1	Some details for the interested	5
4	History	5
	[2001/09/26 v1.0]	5
	[2006/02/20 v1.1]	5
	[2007/01/10 v1.2]	5
5	Index	6

1 Usage

The package `ifvtex` can be used with both plain- \TeX and \LaTeX :

plain- \TeX : `\input ifvtex.sty`

\LaTeX 2 ϵ : `\usepackage{ifvtex}`

The package implements switches for \TeX and its different modes and interprets `\VTeXversion`, `\OpMode`, and `\gexmode`.

<code>\ifvtex</code>

The package provides the switch `\ifvtex`:

```
\ifvtex
... do things, if  $\text{\TeX}$  is running ...
\else
... other  $\text{\TeX}$  compiler ...
\fi
```

Users of the package `ifthen` can use the switch as boolean:

```
\boolean{ifvtex}
```

```
\ifvtexdvi
\ifvtexpdf
\ifvtexps
\ifvtexhtml
```

VT_EX knows different output modes that can be asked by these switches.

```
\ifvtexgex
```

This switch shows, whether GeX is available.

2 Implemenation

2.1 Reload check and package identification

```
1 (*package)
```

Reload check, especially if the package is not used with L^AT_EX.

```
2 \begingroup
3   \expandafter\let\expandafter\x\csname ver@ifvtex.sty\endcsname
4   \ifcase 0%
5     \ifx\x\relax % plain
6     \else
7       \ifx\x\empty % LaTeX
8       \else
9         1%
10      \fi
11    \fi
12  \else
13    \expandafter\ifx\csname PackageInfo\endcsname\relax
14      \def\x#1#2{%
15        \immediate\write-1{Package #1 Info: #2.}%
16      }%
17    \else
18      \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
19    \fi
20    \x@ifvtex{The package is already loaded}%
21  \endgroup
22  \expandafter\endinput
23  \fi
24 \endgroup
```

Package identification:

```
25 \begingroup
26   \expandafter\ifx\csname ProvidesPackage\endcsname\relax
27     \def\x#1#2#3[#4]{\endgroup
28       \immediate\write-1{Package: #3 #4}%
29       \xdef#1{#4}%
30     }%
31   \else
32     \def\x#1#2[#3]{\endgroup
33       #2[#{#3}]%
34       \ifx#1\relax
35         \xdef#1{#3}%
36       \fi
37     }%
38   \fi
```

```

39 \expandafter\x\csname ver@ifvtex.sty\endcsname
40 \ProvidesPackage{ifvtex}%
41 [2007/01/10 v1.2 Switches for detecting VTeX and its modes (HO)]

```

2.2 Check for previously defined \ifvtex

```

42 \begingroup
43 \expandafter\ifx\csname ifvtex\endcsname\relax
44 \else
45 \edef\i/{\expandafter\string\csname ifvtex\endcsname}%
46 \expandafter\ifx\csname PackageError\endcsname\relax
47 \def\x#1#2{%
48 \edef\z{#2}%
49 \expandafter\errhelp\expandafter{\z}%
50 \errmessage{Package ifvtex Error: #1}%
51 }%
52 \def\y{^^J}%
53 \newlinechar=10
54 \else
55 \def\x#1#2{%
56 \PackageError{ifvtex}{#1}{#2}%
57 }%
58 \def\y{\MessageBreak}%
59 \fi
60 \x{Name clash, \i/ is already defined}{%
61 Incompatible versions of \i/ can cause problems,\y
62 therefore package loading is aborted.%
63 }%
64 \endgroup
65 \expandafter\endinput
66 \fi
67 \endgroup

```

2.3 \ifvtex

`\ifvtex` Create and set the switch. `\newif` initializes the switch with `\iffalse`.

```

68 \newif\ifvtex
69 \begingroup\expandafter\expandafter\expandafter\endgroup
70 \expandafter\ifx\csname VTeXversion\endcsname\relax
71 \else
72 \begingroup\expandafter\expandafter\expandafter\endgroup
73 \expandafter\ifx\csname OpMode\endcsname\relax
74 \else
75 \vtexttrue
76 \fi
77 \fi

```

2.4 Mode and GeX switches

```

78 \newif\ifvtexdvi
79 \newif\ifvtexpdf
80 \newif\ifvtexps
81 \newif\ifvtexhtml
82 \newif\ifvtexgex
83 \ifvtex
84 \ifcase\OpMode\relax
85 \vtextdvi true
86 \or % 1
87 \vtextpdf true
88 \or % 2
89 \vtextps true
90 \or % 3
91 \vtextps true

```

```

92 \or\or\or\or\or\or\or % 10
93 \vtxhtmltrue
94 \fi
95 \begingroup\expandafter\expandafter\expandafter\endgroup
96 \expandafter\ifx\csname gexmode\endcsname\relax
97 \else
98 \ifnum\gexmode>0 %
99 \vtxgextrue
100 \fi
101 \fi
102 \fi

```

2.5 Protocol entry

Log comment:

```

103 \begingroup
104 \expandafter\ifx\csname PackageInfo\endcsname\relax
105 \def\x#1#2{%
106 \immediate\write-1{Package #1 Info: #2.}%
107 }%
108 \else
109 \let\x\PackageInfo
110 \expandafter\let\csname on@line\endcsname\empty
111 \fi
112 \x{ifvtex}{%
113 VTeX %
114 \ifvtex
115 in \ifvtexdvi DVI\fi
116 \ifvtexpdf PDF\fi
117 \ifvtexps PS\fi
118 \ifvtexhtml HTML\fi
119 \space mode %
120 with\ifvtexgex\else out\fi\space GeX %
121 \else
122 not %
123 \fi
124 detected%
125 }%
126 \endgroup
127 \end{package}

```

3 Installation

CTAN. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/ifvtex.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/ifvtex.pdf](#) Documentation.

Unpacking. The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain-TeX:

```
tex ifvtex.dtx
```

TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

```

ifvtex.sty → tex/generic/oberdiek/ifvtex.sty
ifvtex.pdf → doc/latex/oberdiek/ifvtex.pdf
ifvtex.dtx → source/latex/oberdiek/ifvtex.dtx

```

¹<http://ftp.ctan.org/tex-archive/>

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

Refresh file databases. If your $\text{T}_{\text{E}}\text{X}$ distribution (`te $\text{T}_{\text{E}}\text{X}$` , `mik $\text{T}_{\text{E}}\text{X}$` , ...) rely on file databases, you must refresh these. For example, `te $\text{T}_{\text{E}}\text{X}$` users run `texhash` or `mktextlsr`.

3.1 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk ifvtex.pdf unpack_files output .
```

Unpacking with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$. The `.dtx` chooses its action depending on the format:

plain- $\text{T}_{\text{E}}\text{X}$: Run `docstrip` and extract the files.

$\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$: Generate the documentation.

If you insist on using $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ for `docstrip` (really, `docstrip` does not need $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{ifvtex.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by the configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with `pdf $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$` :

```
pdflatex ifvtex.dtx
makeindex -s gind.ist ifvtex.idx
pdflatex ifvtex.dtx
makeindex -s gind.ist ifvtex.idx
pdflatex ifvtex.dtx
```

4 History

[2001/09/26 v1.0]

- First public version.

[2006/02/20 v1.1]

- DTX framework.
- Undefined tests changed.

[2007/01/10 v1.2]

- Fix of the `\ProvidesPackage` description.

5 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

C		\newlinechar 53
\csname 3, 13, 26, 39, 43, 45, 46, 70, 73, 96, 104, 110		
E		O
\empty 7, 110		\OpMode 84
\endcsname 3, 13, 26, 39, 43, 45, 46, 70, 73, 96, 104, 110		P
\endinput 22, 65		\PackageError 56
\errhelp 49		\PackageInfo 18, 109
\errmessage 50		\ProvidesPackage 40
G		S
\gexmode 98		\space 119, 120
I		V
\i 45, 60, 61		\vtxdvitrue 85
\ifcase 4, 84		\vtexgextrue 99
\ifnum 98		\vtexhtmltrue 93
\ifvtex 1, 68, 83, 114		\vtexpdftrue 87
\ifvtxdvi 2, 78, 115		\vtexpstrue 89, 91
\ifvtexgex 2, 82, 120		\vtexttrue 75
\ifvtexhtml 2, 81, 118		W
\ifvtexpdf 2, 79, 116		\write 15, 28, 106
\ifvtexps 2, 80, 117		X
\ifx 5, 7, 13, 26, 34, 43, 46, 70, 73, 96, 104		\x 3, 5, 7, 14, 18, 20, 27, 32, 39, 47, 55, 60, 105, 109, 112
\immediate 15, 28, 106		
M		Y
\MessageBreak 58		\y 52, 58, 61
N		Z
\newif 68, 78, 79, 80, 81, 82		\z 48, 49