

# The `ifvtex` package

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## Abstract

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

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## 1 Usage

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

**plain- $\text{\TeX}$ :** `\input ifvtex.sty`

**$\text{\LaTeX}$  2 $\epsilon$ :** `\usepackage{ifvtex}`

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

`\ifvtex`

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<sub>E</sub>X 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<sup>A</sup>T<sub>E</sub>X.

```
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 </package>

```

## 3 Installation

**CTAN.** This package is available on CTAN<sup>1</sup>:

[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

```

---

<sup>1</sup><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

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