The ifetex Package

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CTAN: http://www.ctan.org/pkg/ifetex

VC: https://bitbucket.org/martin_scharrer/ifetex

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Abstract

This small package provides the if-switch `\ifetex` which indicated whether ε-TeX is available or not.

1 Usage

The package can be loaded as LaTeX package using `\usepackage`{ifetex} or in plainTeX using `\input` ifetex. In both cases it aborts silently if the `\ifetex` macro is already defined.

The package currently test if `\eTeXversion` is defined as a primitive and assumes ε-TeX if so.

Note that almost all modern LaTeX distributions use ε-TeX. The two major distributions TeX Live and MikTeX support it and use it by default (except for the classic `tex`). The LaTeX which comes with *Scientific Work Place* by MacKichan seems to not support ε-TeX yet. Package authors can use this package to test for missing ε-TeX and provide fall-back code.

`\NeedsETeX`[⟨*version*⟩]

The LaTeX package provides this macro which can be used in packages or classes to produce an error if ε-TeX is not available, similar to `\NeedsTeXFormat`. In addition an optional version number can be given in the format x.y, where x is the main version and y the revision. This number is checked against `\eTeXversion` and `\eTeXrevision` and an appropriate error is raised if the available ε-TeX is too old.

2 Implementation

2.1 `ifetex.sty`

```
1  %<!COPYRIGHT>
2  \ProvidesPackage{ifetex}[%
3  %<!DATE>
4  %<!VERSION>
```

```
5  %<*DRIVER>
6      2099/01/01 develop
7  %</DRIVER>
8      ifetex]

9  \@@input ifetex
```

> **\NeedsETeX**

> #1: optional version number (x.y)

Produces error if e-TeX is not available or if its version is too old.

```
10  \newcommand*\NeedsETeX[1][]{%
11    \ifetex
12      \ifx\@nnil#1\@nnil\else
13      \ifdim\the\eTeXversion\eTeXrevision\p@<#1\p@⟋
           relax
14        \@latex@error{This file needs e-TeX with ⟋
             version #1%
15        \MessageBreak but only version \the\eTeXversion⟋
             \eTeXrevision is available}{%
16          The current input file will not be processed
17          further,\MessageBreak
18          because it was written for a newer version of⟋
               e-TeX.
19          \MessageBreak\@ehd}%
20        \endinput
21      \fi\fi
22    \else
23      \@latex@error{This file needs e-TeX}{%
24        The current input file will not be processed
25        further,\MessageBreak
26        because it was written for e-TeX which is not ⟋
             available.
27        \MessageBreak\@ehd}%
28      \endinput
29    \fi
30  }
```

2.2 `ifetex.tex`

```
31  %<!COPYRIGHT>
```

Abort if **\ifetex** is already defined.

```
32  \expandafter\ifx\csname ifetex\endcsname\relax\else
33      \expandafter\endinput
34  \fi
```

> **ifetex**

Checks if `\eTeXversion` is a primitive.

```
35  \begingroup
36  \edef\tempa{\meaning\eTeXversion}%
37  \edef\tempb{\string\eTeXversion}%
38  \ifx\tempa\tempb
39      \endgroup
40      \expandafter\let\csname ifetex\expandafter\/
          endcsname\csname iftrue\endcsname
41  \else
42      \endgroup
43      \expandafter\let\csname ifetex\expandafter\/
          endcsname\csname iffalse\endcsname
44  \fi
```