

The ifmtarg package

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1 Documentation

The ifmtarg package provides an if-then-else programmer's command `\@ifmtarg` for testing for an empty macro argument. 'Empty' here refers to an argument of zero or more spaces only.¹ The command is fully expandable; its syntax is:

```
\@ifmtarg{<arg>}{<Code for arg empty>}
               {<Code for arg not empty>}
```

A variation is provided, `\@ifnotmtarg`, to be used when only the 'false' branch is required. It is slightly more efficient when code is only required for a non-empty argument.

```
\@ifnotmtarg{<arg>}{<Code for arg not empty>}
```

2 Examples

```
\newcommand{\isempty}[1]{%
  \@ifmtarg{#1}{YES}{NO}}
```

```
\isempty{}      → YES
\isempty{ }     → YES
\isempty{E}     → NO
\isempty{ E }   → NO
```

```
\newcommand{\isnotempty}[1]{%
  \@ifnotmtarg{#1}{YES}}
```

```
\isnotempty{}   →
\isnotempty{ }  →
\isnotempty{E}  → YES
\isnotempty{ E } → YES
```

¹If you need a command to test for emptiness that doesn't include spaces, use the `\t1_if_empty:nTF` conditional from the `expl3` package. `\@ifmtarg` is equivalent to `expl3's \t1_if_blank:nTF`.

3 History

(*Peter's comments follow.*) In an Email to me on 13 March 2000, Donald Arseneau pointed out some failings with my original definition of the `\@ifmtarg` command:

```
\newcommand{\@ifmtarg}[3]{%
  \edef\@mtarg{\zap@space#1 \@empty}%
  \ifx\@empty\@mtarg\relax #2\else #3\fi}
```

It works most of the time correctly but Donald showed that it can give unexpected results under conditions that I had not thought of. He suggested the coding that now appears in the package above for the `\@ifmtarg` and `\@ifnotmtarg` commands. For a discussion on detecting empty arguments see CTAN/info/aro-bend/answer.002

Change History

v1.2a New maintainer (Will Robertson)

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²<http://www.latex-project.org/lppl.txt>

4 Implementation

LaTeX2e file 'ifmtarg.sty' generated by the 'filecontents' environment from source 'ifmtarg' on 2010/07/10.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{ifmtarg}[2009/09/02_v1.2a_
   check_for_an_empty_argument]
3 \begingroup
4 \catcode'\Q=3
5 \long\gdef\@ifmtarg#1{\@xifmtarg#1QQ%
   \@secondoftwo\@firstoftwo\@nil}
6 \long\gdef\@xifmtarg#1#2Q#3#4#5\@nil{#4}
7 \long\gdef\@ifnotmtarg#1{\@xifmtarg#1QQ%
   \@firstofone\@gobble\@nil}
8 \endgroup
9 \endinput
```

<eof>