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. 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{} → YES
\isnotempty{E} → YES
\isnotempty{ E} → YES

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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\(^1\)If you need a command to test for emptiness that doesn’t include spaces, use the \texttt{\tl_if_empty:nTF} conditional from the expl3 package. \texttt{\@ifmtarg} is equivalent to expl3’s \texttt{\tl_if_blank:nTF}.

\(^2\)\url{http://www.latex-project.org/lppl.txt}
4 Implementation

LaTeXe file ‘ifmtarg.sty’ generated by the ‘filecontents’ environment from source ‘ifmtarg’ on 2010/07/10.

\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{ifmtarg}[2009/09/02 \v1.2a, check for an empty argument]
\begingroup
\catcode`\Q=3
\long\gdef\@ifmtarg#1{\@xifmtarg#1QQ% 
\@secondoftwo\@firstoftwo\@nil}
\long\gdef\@xifmtarg#1#2Q#3#4#5\@nil{#4}
\long\gdef\@ifnotmtarg#1{\@xifmtarg#1QQ% 
\@firstofone\@gobble\@nil}
\endgroup
\endinput

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