The **somedefs** toolkit package

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long time ago in a different century...

This file is maintained by the \LaTeX{} Project team. Bug reports can be opened (category tools) at https://latex-project.org/bugs.html.

Overview

This is an example ‘programmers toolkit’ package, for use by package writers. It allows package writers to provide options which switch definitions on and off. For example, a package `fred` might define a large number of commands, including `\foo` and `\baz`, so:

\usepackage{fred}

would use a lot of memory, even if `\foo` and `\baz` were the only commands needed. However, if the author of `fred` used the `somedefs` package, then the user would be able to say:

\usepackage[only,foo,baz]{fred}

and only the commands `\foo` and `\baz` would be defined.

To use the `somedefs` package in your own packages or classes, you say:

\RequirePackage{somedefs}

You can then use four new commands:

- \texttt{\textbackslash UseAllDefinitions} which says that all the commands in the file should be defined.

- \texttt{\textbackslash UseSomeDefinitions} which says that only the commands specified by \texttt{\textbackslash UseDefinition} should be defined.

- \texttt{\textbackslash UseDefinition{\texttt{name}}} which says that the command `\texttt{name}` should be defined.

- \texttt{\textbackslash ProvidesDefinition{\texttt{definition}}} which provides one definition, of the form `\texttt{definingcommand\texttt{\command}...}
For example, the package \texttt{fred} could say:

\begin{verbatim}
\RequirePackage{somedefs}
\UseAllDefinitions
\DeclareOption{only}{\UseSomeDefinitions}
\DeclareOption*{\UseDefinition{\CurrentOption}}
\ProcessOptions
\ProvidesDefinition{\newcommand\foo{...}}
\ProvidesDefinition{\newcommand\baz{...}}
\end{verbatim}

One of the commands \texttt{\UseAllDefinitions} or \texttt{\UseSomeDefinitions} should always be used. You may have some commands which need other commands, in which case you have to declare the options by hand. For example, if the command \texttt{\bar} needs the command \texttt{\foo}, you could say:

\begin{verbatim}
\DeclareOption{bar}{\UseDefinition{bar}\UseDefinition{foo}}
\end{verbatim}

For a longer example of the use of the \texttt{somedefs} package, look at the \texttt{rawfonts} package.

\section*{Implementation}

The driver for the documentation you’re now reading.

\begin{verbatim}
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{somedefs}[1994/06/01 v0.03 Toolkit for optional definitions]
\UseSomeDefinitions
\UseAllDefinitions
\UseDefinition
\ProvidesDefinition
\@providesdefinition
\@unprovideddefinition
\def\UseSomeDefinitions{%
\let\ProvidesDefinition\@providesdefinition
\def\UseDefinition#1{%
\expandafter\let\csname#1\endcsname\@unprovideddefinition
\def\ProvidesDefinition#1{%
\PackageError{somedefs}{No \noexpand\UseSomeDefinitions or \string\UseAllDefinitions}%
\end{verbatim}

This is a $\LaTeX$ package.
The package which used the ‘somedefs’ package has an error.

\def\@providesdefinition#1{\@provides@definition#1\relax
\@provides@definition}
\def\@provides@definition#1#2#3\@provides@definition{
\ifx#2\@unprovided@definition
#1#2#3%
\fi
\def\@unprovided@definition{\PackageError{somedefs}
{Package ‘somedefs’ error: this command was never defined}%
{You have requested a command which does not exist.}%
\@onlypreamble\UseSomeDefinitions
\@onlypreamble\UseAllDefinitions
\@onlypreamble\UseDefinition
\@onlypreamble\ProvidesDefinition
\@onlypreamble\@providesdefinition
\@onlypreamble\@provides@definition

That’s it!

(/package)