

The `somedefs` toolkit package

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long time ago in a different century...

This file is maintained by the L^AT_EX Project team.
Bug reports can be opened (category `tools`) at
<https://latex-project.org/bugs.html>.

This package is retained in the L^AT_EX tools bundle for stability reasons. Whilst bug fixes will be applied to `somedefs`, no *new* features will be considered.

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:

- `\UseAllDefinitions` which says that all the commands in the file should be defined.
- `\UseSomeDefinitions` which says that only the commands specified by `\UseDefinition` should be defined.
- `\UseDefinition{<name>}` which says that the command `\name` should be defined.

- `\ProvidesDefinition{⟨definition⟩}` which provides one definition, of the form `\definingcommand{⟨command⟩}...`

For example, the package `fred` could say:

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

One of the commands `\UseAllDefinitions` or `\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 `\bar` needs the command `\foo`, you could say:

```
\DeclareOption{bar}{\UseDefinition{bar}\UseDefinition{foo}}
```

For a longer example of the use of the `somedefs` package, look at the `rawfonts` package.

Implementation

The driver for the documentation you're now reading.

```
1 ⟨*driver⟩
2 \documentclass{ltxdoc}
3 \begin{document}
4 \DocInput{somedefs.dtx}
5 \end{document}
6 ⟨/driver⟩
```

This is a L^AT_EX 2_ε package.

```
7 ⟨*package⟩
8 \NeedsTeXFormat{LaTeX2e}
9 \ProvidesPackage{somedefs}[1994/06/01 v0.03 Toolkit for optional definitions]
```

```
\UseSomeDefinitions The package works by having \UseDefinition{⟨name⟩} define \name to be
\UseAllDefinitions \@unprovided@definition. If \UseSomeDefinitions has been called, then
\UseDefinition \ProvidesDefinition looks to see if \name is \@unprovided@definition. If
\ProvidesDefinition \UseAllDefinitions has been called, then \ProvidesDefinition does nothing.
\@providesdefinition If neither has been called, then \ProvidesDefinition produces an error message.
\@provides@definition 10 \def\UseSomeDefinitions{%
\@unprovided@definition 11 \let\ProvidesDefinition\@providesdefinition
12 }
13 \def\UseAllDefinitions{%
14 \let\ProvidesDefinition\@firstofone
15 }
16 \def\UseDefinition#1{%
17 \expandafter\let\csname#1\endcsname\@unprovided@definition
18 }
```

```

19 \def\ProvidesDefinition#1{%
20   \PackageError{somedefs}%
21     {No \noexpand\UseSomeDefinitions or \string\UseAllDefinitions}%
22     {The package which used the 'somedefs' package has an error.}%
23 }
24 \def\@providesdefinition#1{\@provides@definition#1\relax
25   \@provides@definition}
26 \def\@provides@definition#1#2#3\@provides@definition{%
27   \ifx#2\@unprovided@definition
28     #1#2#3%
29   \fi
30 }
31 \def\@unprovided@definition{%
32   \PackageError{somedefs}%
33     {Package 'somedefs' error: this command was never defined}%
34     {You have requested a command which does not exist.}%
35 }
36 \@onlypreamble\UseSomeDefinitions
37 \@onlypreamble\UseAllDefinitions
38 \@onlypreamble\UseDefinition
39 \@onlypreamble\ProvidesDefinition
40 \@onlypreamble\@providesdefinition
41 \@onlypreamble\@provides@definition

That's it!
42 \</package>

```