WTRef Package (v0.1)

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Abstract

WT series collects macros which author frequently use to create LaTeX documents. WTRef package is a part of this WT Series that extend LaTeX original cross-reference system. It make enable to divide namespace and arrow users to customise reference format. LaTeX 2ε on any kind of TeX engine is supported, but xkeyval package is required.

1 Loading the WTRef Package

To use WTRef package, load `wtref.sty` file with `\usepackage` command in preamble. On this occasion, you can specify the scope of closs-reference commands as package option.

`\usepackage[`⟨*scope*⟩`]{wtref}`

You can choose from following four types for ⟨*scope*⟩:

`chapter` Set the scope chapter-by-chapter. You can not use this option if `\chapter` is undefined (an error will be raised).

`section` Set the scope section-by-section.

`subsection` Set the scope subsection-by-subsection.

`global` Do not set any scope (default).

When you omit package option, ⟨*scope*⟩ will set to `global`.

2 Cross-Reference Commands

2.1 Definition of New Cross-Reference Commands

`\newref` command create a set of cross-reference commands.

`\newref{`⟨*ref type*⟩`}`

This `\newref` command can only be used in preamble. In addition, all characters of ⟨*ref type*⟩ must be able to use in control sequence (only ordinary alphabet is recommended) and can not be empty.

`\newref` command defines two commands: `\`⟨*ref type*⟩`label`, `\`⟨*ref type*⟩`ref`. In this documet, the formar are called **label commands** and the latter are called **reference commands**. `\newref` command overwrites existing commands, so ⟨*ref name*⟩ should be decided carefully.

2.1.1 Internal Processing

Label commands finaly are expanded to following format:

`\label{`⟨*ref type*⟩`:`⟨*scope num*⟩`:`⟨*label*⟩`}`

A ⟨*scope num*⟩ is string which composed by arabic numbers and periods. The format of ⟨*scope num*⟩ depends on ⟨*scope*⟩:

`chapter` "⟨*chapter num*⟩"

`section` "⟨*chapter num*⟩.⟨*section num*⟩" or "⟨*section num*⟩"

`subsection` "⟨*chapter num*⟩.⟨*section num*⟩.⟨*subsection num*⟩" or "⟨*section num*⟩.⟨*subsection num*⟩"

However, if ⟨*scope*⟩ is set to `global`, label command will be expanded to following form:

`\label{`⟨*ref type*⟩`:`⟨*label*⟩`}`

2.2 Reference Commands

Reference commands print contents of counters which labeled by label commands in specified formats. Usage of `\exref` is shown bellow as an example:

`\exref[`⟨*scope num*⟩`]{`⟨*label list*⟩`}`

The option argument ⟨*scope num*⟩ can be ommited when refering label exists in the same scope. Especially, if ⟨*scope*⟩ is set to `global`, this argument is always unnecessary, and in other words it will be ignored all the time.

In argument ⟨*label list*⟩, plural labels can be written in comma-separated. If actually plural labels are filled in, pertinent counters should be printed out in comma-separated form in default. You can change this format flexiby with `\setrefstyle` command.

3 Setting Referece Style

The output format of reference commands can be customised with `\setrefstyle` command. The syntax of `\setrefstyle` is shown bellow:

`\setrefstyle{`⟨*ref type*⟩`}{`⟨*options*⟩`}`

The `\setrefstyle` command can be used any place of LaTeX document (not only preamble), and change reference format locally.

In ⟨*options*⟩, you can set following parameters by key-value list:

`refcmd=`⟨*command*⟩ Specified ⟨*command*⟩ repeated for the number of labels which filled in ⟨*label list*⟩ time. String `#1` in ⟨*command*⟩ may be replaced into appropriate label name. The default value is `\ref{#1}`.

`sep=`⟨*command*⟩ Specified ⟨*command*⟩ is output as a separater of each `refcmd` when more than three labels filled in ⟨*label list*⟩. Notice that last one separater is given by `last sep`. The default value is `{,\space}`.

`last sep`(=⟨*command*⟩) Specified ⟨*command*⟩ is output as a last separater when plura labels filled in ⟨*label list*⟩. Behind the `=` can be ommited, and in that case `last sep` is set to identical value of `sep` (and this is the default).

`prefix=`⟨*command*⟩ Specified ⟨*command*⟩ put out first when referece command used. The default value is `{}`.

`suffix=`⟨*command*⟩ Specified ⟨*command*⟩ put out last when referece command used. The default value is `{}`.

Parameters which do not set explicitly will not be changed.