The zref-clever package*

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Abstract

zref-clever provides an user interface for making LaTeX cross-references which automates some of their typical requirements, thus easing their input in the document and improving the consistency of typeset results. A reference made with `\zcref` includes a "name" according to its "type" and lists of multiple labels can be automatically sorted and compressed into ranges when due. The reference format is highly and easily customizable, both globally and locally. zref-clever is based on zref's extensible referencing system.

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*This file describes v0.1.0-alpha, released 2021-09-13.

†https://github.com/gusbrs/zref-clever

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6 Reference Types

A "reference type" is the basic zref-clever setup unit for specifying how a cross-reference group of a certain kind is to be typeset. Though, usually, it will have the same name as the underlying LaTeX *counter*, they are conceptually different. zref-clever defines *reference types* and an association between each *counter* and its *type*, it does not define the counters themselves, which are defined by your document. One *reference type* can be associated with one or more *counters*, and a *counter* can be associated with different *types* at different points in your document. But each label is stored with only one *type*, as specified by the counter-type association at the moment it is set, and that determines how the reference to that label is typeset. References to different *counters* of the same *type* are grouped together, and treated alike by `\zcref`. A *reference type* may exist even when the *counter* it is associated with is not actually defined, and this inconsequential. In practice, the contrary may also happen, a *counter* may be defined but we have no *type* for it, but this must be handled by zref-clever as a "missing type" error (at least, if we try to refer to it).

A *reference type* can be associated with multiple counters because we may want to refer to different document elements, with different *counters*, with a single name, as a single *type*. One prominent case of this are sectioning commands. `\section`, `\subsection`, and `\subsubsection` have each their counter, but we'd like to refer to all of them by "section". The same for `\paragraph` and `\subparagraph`.

There are also cases in which we may want to use different *reference types* to refer to document objects sharing the same *counter*. Notably, the environments created with LaTeX's `\newtheorem` command and the `\appendix`.

7 Limitations

8 Acknowledgments

9 Change history

A change log with relevant changes for each version, eventual upgrade instructions, and upcoming changes, is maintained in the package's repository, at https://github.com/gusbrs/zref-clever/blob/main/CHANGELOG.md.