refenums - ReferenceableEnumElements

Define named items and provide back-references with that name

This package provides commands to define enumerable items with a number and a long name, which can be referenced later with the name or just the short form. For instance, “Milestone M1: Specification created” can be defined and later on be referenced with M1 or M1 (“Specification created”). The text in the references is derived from the definition and also rendered as hyperlink to the definition. Thus, a change of the definition also leads to a change of all references to the text. This ensures consistency in the text.

Usage

\usepackage{refenums}

Load the package after all packages (hyperref, cleveref, ...). For best results, use the nameinlink option at cleveref. The option capitalise is also useful if you use cleveref’s \cref command, therefore we recommend loading cleveref before refenums with following line: \usepackage[capitalise,nameinlink]{cleveref}

Define the “Referenceable Enum Environment”

Decide for <EnumId>. E.g., req.

Initialize

\setupRef Enums{<EnumId>}{<PrintName>}

In case <PrintName> is set to ONLYSHORT, only the short name is used.

Optional parameter: Separator between <EnumId> and number.

(Optional) Define shorthand macro to define the macros for referencing

\newcommand{\def<EnumId>}[2]\{\defEnum{<EnumId>}{#1}{#2}\}

Usage in the text

Define a single enum

- \defEnum{<EnumId>}{<FullName>}{<LabelId>} (always supported)
- \def<EnumId>{<FullName>}{<LabelId>} (when the shorthand command is defined)
Define a single enum using the inline format

\defineReferenceableEnumElementInline\{<EnumId>\}\{<FullName>\}\{<LabelId>\}.

Using this, a enumeration similar to the ones of the \texttt{inparaenum} environment is possible. \texttt{inparaenum} is offered by the \texttt{paralist} package.

Referencing

\begin{itemize}
\item \refEnumFull\{<EnumId>\}\{<LabelId>\} = \<EnumId>-\<Counter> ("<FullName>") \texttt{, e.g. R-1 ("Quality")}
\item \refEnumFullP\{<EnumId>\}\{<LabelId>\} is the long form for ‘\refEnumFull’.
\item \refEnumFullT\{<EnumId>\}\{<LabelId>\} = \<EnumId>-\<Counter>: "<FullName>", \texttt{e.g. R-1: "Quality"}
\item \refEnum\{<EnumId>\}\{<LabelId>\} = \<EnumId>-\<Counter>, \texttt{e.g. R-1}
\item References to the label
\item \nameref\{enum:\{<EnumId>:<LabelId>\} = \<FullName>
\item \ref\{enum:\{<EnumId>:<LabelId>\} = \<Counter>, \texttt{e.g. 1}
\end{itemize}

Example

Initialize: \texttt{\setupRefEnums\{R\}\{Requirement\}}

Define a single enum: \texttt{\defRefEnum\{R\}\{Quality\}\{qual\}}. When you want to put the element in a section, use the optional parameter: \texttt{\defRefEnum[\texttt{section}]\{R\}\{Quality\}\{qual\}}

Referencing:

\begin{itemize}
\item Reference only Name + Number: \texttt{\refEnum\{R\}\{qual\}}
\item Full reference with the print name in brackets: \texttt{\refEnumFull\{R\}\{qual\}}
\item Full reference with the print name appended after “:“: \texttt{\refEnumFullT\{R\}\{qual\}}
\end{itemize}

See also demo.tex.

Tuning

When defining a referenceable element, this element is enclosed using \texttt{\refenumenclosing} for normal enums and \texttt{\refenumenclosinginline} for inline enums. These commands can be redefined after package usage.

TODO

\begin{itemize}
\item The decision to put the enum in a section should be taken at \texttt{\setupRefEnums} not at \texttt{\defRefEnum}.
\end{itemize}
• Enable automatically generating `\def<EnumId>` at `\setupRef Enums` via a package parameter.

**Source code**

The latest source code is available at https://github.com/koppor/refenums

**Files**

• refenums.sty: the package
• demo.tex: small demonstration