CROSSREFTOOLS

Expandable extraction of cleveref or cross reference data and label utilities

Documentation

Version 0.9

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Contents

Typographical conventions

Throughout this documentation following symbols and conventions are used:

- 💼 **foo** means a the class `foo`

- ✉ **foo** names a package `foo`

- 🟩 **foo** indicates a counter named `foo`

- 📄 foo will indicate either a file named `foo` or a file extension `foo`

- 🗐 foo will indicate some files

- 🏷 foo names a special feature or tag `foo`

- 🔧 **foo** deals with a command or package option named `foo`

List of labels

Part I
Introduction

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Preface

This package provides expandable extraction of information stored in labels generated with ✉ **cleveref** and regular labels written by the usual \label macro, regardless whether ✉ **hyperref** is loaded

or not. For those regular cross-reference information ✉ **crossreftools** works in a ✉ **refcount** - like manner.

Whereas ✉ **cleveref** provides `\labelcref` and other commands or `\ref` from standard LaTeX2e kernel none of those are expandable and can not be used in an `\edef` - approach.

> **!** Most times class and package authors will benefit of this package, but there might be usual documents that need the features of ✉ **crossreftools**

All macros from this package use the prefix `\crt...`, eg `\crtrefname`.

1   Requirements, loading and incompatibilities

1.1   Required packages and TEX engine

The package does not require features from XeLaTeX or LuaLaTeX but can be run with those features as well as with LaTeX or pdfLaTeX. The compilation documentation requires however pdfLaTeX as of version 0.9.

No packages are loaded by ✉ **crossreftools** , this package does neither load ✉ **hyperref** nor ✉ **cleveref** itself.

1.2   Loading of the package

Loading is done with

```
\usepackage[options]{crossreftools}
```

As of version 0.9 ✉ **crossreftools** does have following option(s):

- `draft`

  By default, unless specified as package or class option, ✉ **crossreftools** works in draft mode, i.e. 🏷 List of Labels is enabled, see section Displaying label information for more on this.

- `final`

  This disables the feature 🏷 List of Labels, see section Displaying label information for more information about this feature – it is considered to be unnecessary having a List of Labels in a final version of document.

  By default, the package works in `draft` - mode, unless the class option `final` is specified already. In this case, the package option `final` can be omitted.

- `cleverefcompat`

Use this option if the ✉ **cleveref** version is older than 0.21.

> **!** With the release of ✉ **cleveref** version 0.21 (dating to 2018/02/08) the format of stored information by `\label` changed and causes wrong output of `\crtcrefpage`. Since version v0.5 2018-02-23 this change is caught with `\crtcrefpage`.

There is no loading order required. The macros related to ✉ **cleveref** expand to [UNDEFINED] if ✉ **cleveref** is not loaded.

> **!** In order to ensure that the changes to the cross referencing system introduced by ✉ **hyperref** and ✉ **cleveref** it is recommened to load ✉ **crossreftools** after both packages.

1.3   Incompatibilities

- Plain TEX:

  As of 0.9 this package cannot be used with plain TEX, since there is no real built-in support for cross-referencing in plain TEX.

- Issue with `\tcb@cs` from the ✉ **tcolorbox** and its documentation library regarding the `\crtlistoflabels` usage.

  As of 0.9 this package cannot cope with labels produced from ✉ **tcolorbox** for documented code – this inserts an unexpandable call of `\tcb@cs` in the label content which leaves unpleasant content in the List Of Labels (see Displaying label information). As long as no other solution is available, `\tcb@cs` is redefined to gobble its argument only and doing nothing inside the `\crtlistoflabels`^{→P.16} macro.

  > **!** This is the cause for the special `\refCom` macro provided by the documentation library from ✉ **tcolorbox** .

- Similarly any unexpandable content written to the ▪ aux - file by redefinitions of `\label` or `\@currentlabel` etc. will cause problems.

Part II
Macro descriptions

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2   Indicating undefined references

✉ **crossreftools** uses the content of the internal macro `\crt@refundefined` which defaults to [UNDEFINED]. Use `\crtrefundefinedtext`^{→P.7} to change the output of `\crt@refundefined`.

`\crtrefundefinedtext`{⟨*undefined reference indication text*⟩}

> This command sets the output of `\crt@refundefined` in the same manner like the standard macro `\title` would do for `\@title`.

> ⚠ `\crtrefundefinedtext`^{→P.7} is a preamble-only macro.

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Similar to `\crtrefundefinedtext`^{→P.7} is `\crtcrefundefinedcountervalue`^{→P.8}, providing an integer value in calculation contexts with `\ifnum` or `\setcounter`.

\crtcrefundefinedcountervalue{⟨*integer value*⟩}

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> This command sets the output of \crt@crefundefinedcountervalue in the same manner like the standard macro \title would do for \@title.

> **!** \crtcrefundefinedcountervalue^{→P.8} is a preamble-only macro.

3   Extracting information from regular labels

Depending on loading of ☑ **hyperref** there is some more information (properties) stored with a \label command. Common properties are reference and page, additions of ☑ **hyperref** are name, anchor and the (yet) unused 5th argument of \newlabel, the property is called unused as of version 0.9.

All properties are extracted with \crtextractref^{→P.8}.

Expandable

\crtextractref{⟨*property*⟩}{⟨*label name*⟩}

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> This command will extract one of the properties reference, page, anchor, name and unused from the label given as the 2nd mandatory argument.

For convenience, there are shortcuts to extract a specific property:

Expandable

\crtcrefpage{⟨*label name*⟩}

> This extracts the page number that would be printed by \cpageref.

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v0.5
2018-02

Expandable

\crtrefnumber{⟨*label name*⟩}

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29

> This extracts the reference value (or something that is stored by \@currentlabel belonging to a certain label name.

With ☑ **hyperref** being loaded, following commands return non-empty label information, without ☑ **hyperref** they are available, but expand to nothing.

Expandable

\crtrefname{⟨*label name*⟩}

> This extracts the name of the sectioning unit or counter as being specified with \nameref.

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Expandable

\crtrefanchor{⟨*label name*⟩}

This extracts the hyper target anchor of the reference in order to be used with \hyperlink.

\crtrefunused{⟨*label name*⟩}

This extracts the yet unused 5th argument of labels generated after ☑ **hyperref** is loaded. As of version v6.85a of ☑ **hyperref** , this argument has no meaning yet. If this is going to be change in future, \crtrefunused^→P.9 will probably be removed and replaced by another macro that reflects the meaning of this 5th argument.

\crtrefcounter{⟨*label name*⟩}

This macro tries to extract the counter name related to the label assuming that the standard anchor type is used: X.Y where X stands for the counter name and Y is some alphanumerical value constructed from \theHX, e.g. \theHchapter. If this pattern fails, \crtrefcounter^→P.9 will not compile.

4   Extracting information from cleveref

The ☑ **cleveref** package redefines the \label macro and stores another label with the same basic name and a suffix @cref, so

```
\label{foo}
```

would generate both the labels foo and foo@cref. The ☑ **cleveref** - version of a label saves basically five properties to the ▮ .aux - file.

- counter

  This property holds the name of the counter that was used in \refstepcounter.

- number

  This property holds the value of label, this is usually the value of a counter

  > **!** Please note that this property does not mean the reference value that is displayed with \cref or \Cref.

- result

- `reference` This property holds the reference that is to be typeset, i.e. the content displayed with \cref or \Cref, however, without hyperlinks.

- `page` This property stores the page number of the \label usage.

✉ **crossreftools** extracts those properties with \crtextractcref^{→P.10}.

Expandable

\crtextractcref{⟨*property*⟩}{⟨*label name*⟩}

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> This command will extract one of the properties `counter`, `number`, `result`, `reference` and `page` from the label given as the 2nd mandatory argument.

For convenience, there are shortcuts to extract a specific property:

Expandable

\crtcrefcounter{⟨*label name*⟩}

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08

> This extracts the counter belonging to a certain label name.

Expandable

\crtcrefnumber{⟨*label name*⟩}

v0.1
2017-10-
08

> This extracts the counter value (or something that is stored by \cref@currentlabel belonging to a certain label name.

\crtcrefcountervalue{⟨*label name*⟩}

> This extracts the counter value (or something that is stored by \cref@currentlabel belonging to a certain label name and can be used in any context that requrires integer values.
> If the label does not exist, the content of \crt@crefundefinedcountervalue is returned, which is by default a number, see \crtcrefundefinedcountervalue^{→P.8} in order how to set the return value.

\crtcrefresult{⟨*label name*⟩}

> This extracts the result of the splitting of a counter belonging to a certain label name.

`\crtcrefreference{`⟨*label name*⟩`}`

> This extracts the reference that would be printed by `\cref` or `\Cref`, without hyperlinks.

`\crtcrefname{`⟨*counter name*⟩`}`

> This extracts the lower case cross reference name of a given counter.

`\crtCrefname{`⟨*counter name*⟩`}`

> This extracts the upper case cross reference name of a given counter.

`Expandable`

`\crtcrefpluralname{`⟨*counter name*⟩`}`

> This extracts the lower case cross reference plural name of a given counter.

`\crtCrefpluralname{`⟨*counter name*⟩`}`

> This extracts the upper case cross reference plural name of a given counter.

`\crtcrefnamebylabel{`⟨*label name*⟩`}`

> This extracts the lower case cross reference name of a given label.

`\crtCrefnamebylabel{`⟨*label name*⟩`}`

> This extracts the upper case cross reference name of a given label.

`\crtcref{`⟨*label name*⟩`}`

> This displays the reference in the same way as `\cref` from ✉ **cleveref** would do in a setup without using `\crefformat` etc. The hyperlink is not displayed, however. This command is expandable.
> For the upper case version see `\crtCref`^{→ P. 11}.

`\crtCref{`⟨*label name*⟩`}`

> This displays the reference in the same way as `\Cref` from ✉ **cleveref** would do in a setup without using `\Crefformat` etc. The hyperlink is not displayed, however. This command is expandable.
> For the lower case version see `\crtcref`^{→ P. 11}.

4.1 Nonexpandable Commands

\crthyperlink{⟨*anchor*⟩}{⟨*link text*⟩}

This is a wrapper to the \hyperlink macro from ☑ **hyperref** to the given {⟨*anchor*⟩}, displaying the {⟨*link text*⟩}. If ☑ **hyperref** is not loaded, only the link text is displayed.

\crthypercref{⟨*label name*⟩}

This generates a linked reference to a given label like \cref would do. If ☑ **hyperref** is not loaded, no link but only the reference text is displayed.
For the upper case version see \crthyperCref^{→P.12}.

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\crthyperCref{⟨*label name*⟩}

This generates a linked reference to a given label like \Cref would do. If ☑ **hyperref** is not loaded, no link but only the reference text is displayed.
For the lower case version see \crthypercref^{→P.12}.

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5 Lower and upper case references

\crtlnameref{⟨*label name*⟩}

This generates a linked reference to the name like \nameref would do, but the first character is used in lower case mode. If ☑ **hyperref** is not loaded, no link but only the reference text is displayed. For the upper case version see \crtunameref^{→P.12}.

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18</div>

\crtlnameref*{⟨*label name*⟩}

This generates a reference like \nameref* would do, but the first character is used in lower case mode – no links are generated. For the upper case version see \crtlnameref*^{→P.12}.

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2018-03-
18</div>

\crtunameref{⟨*label name*⟩}

This generates a linked reference to the name like \nameref would do, but the first character is used in upper case mode. If ☑ **hyperref** is not loaded, no link but only the reference text is displayed. For the lower case version see \crtlnameref^{→P.12}.

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18</div>

\crtunameref*{⟨*label name*⟩}

This generates a reference like \nameref* would do, but the first character is used in upper case mode – no links are generated. For the lower case version see \crtlnameref*^{→P.12}.

6   Convenience macros

In case ☒ **hyperref** shouldn't be loaded, ☒ **crossreftools** provides some convenience wrapper macros

`\crtnameref{`⟨*label name*⟩`}`

> This generates a reference like `\nameref*` would do. If ☒ **hyperref** is not loaded but ☒ **nameref** is used, no link is generated, so `\crtnameref`^{→P.13} acts like `\crtnameref*`^{→P.13} For the unlinked version see `\crtnameref*`^{→P.13}.

`\crtnameref*{`⟨*label name*⟩`}`

> This generates a reference like `\nameref*` would do and does not generate a link. If neither ☒ **nameref** nor ☒ **hyperref** is used no output is generated from this macro. For the linked version see `\crtnameref`^{→P.13}.

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7   Placing more generic labels

Sometimes it is necessary to refer to content that is not connected to a counter and `\refstepcounter`. In this case the macros `\crtprovidecurrentlabel`^{→P.13}, `\crtprovidecurrentlabelname`^{→P.13}, `\crtprovidecurrentlabelinfo`^{→P.13} and `\crtcrossreflabel`^{→P.13} may be useful.

> **!** None of the macros placing 'arbitrary' labels described in this section is expandable!

`\crtprovidecurrentlabel{`⟨*usual label content*⟩`}`

> This sets `\@currentlabel` which is later on stored to be the label content with `\label` and being displayed with the various variants of `\ref` or `\cref` etc. from ☒ **cleveref**.

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`\crtprovidecurrentlabelname{`⟨*nameref label content*⟩`}`

> This sets `\@currentlabelname` which is later on stored to be the label content with `\label` and being displayed with the various variants of `\nameref` from ☒ **hyperref**.

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`\crtprovidecurrentlabelinfo{`⟨*usual label content*⟩`}{`⟨*nameref label content*⟩`}`

> This is a convenience macro in order to provide both `\@currentlabel` and `\@currentlabelname` at once. If ☒ **hyperref** is loaded, a `\phantomsection` call is used before calling `\crtprovidecurrentlabel`^{→P.13} and `\crtprovidecurrentlabelname`^{→P.13}.

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`\crtcrossreflabel[`⟨*nameref label content*⟩`]{`⟨*usual label content*⟩`}[`⟨*label name*⟩`]`

> This macro is an even more convenient wrapper for `\crtprovidecurrentlabelinfo`^{→P.13} by using the 2nd (mandatory) argument both for the usual label and the nameref label content if the

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1st optional argument is not specified. This resembles the `\caption[]{}` or e.g. `\section[]{}` mechanism where the first optional argument is used for the ToC - related entries.
The 2nd optional argument is placing the `\label` with the relevant label name.

> **!** Please note that depending on the presence of the 1st optional argument either the 2nd or der 1st argument is displayed in the input stream, i.e. in the document text. If this is not requested, use the starred form `\crtcrossreflabel*`→ P. 14.

`\crtcrossreflabel*[`⟨*nameref label content*⟩`]{`⟨*usual label content*⟩`}[`⟨*label name*⟩`]`

This behaves like `\crtcrossreflabel`→ P. 13 but suppresses the output of the 2nd or 1st argument explicitly. Use this to place hidden labels and anchors.

8   Checking for label existence

Sometimes it is necessary to check whether some label exists in order to refer to it. The macros

- `\crtifdefinedlabel`^{→P.15}

- `\crtcrefifdefinedlabel`^{→P.15}

check for the label existence and execute the relevant true or false conditions for labels defined the usual `\label` macro and for their ☑ **cleveref** version.

Those macros have related commands that revert the test, i.e. they check for the non-existence of a label:

- `\crtifundefinedlabel`^{→P.15}

- `\crtcrefifundefinedlabel`^{→P.15}

`\crtifdefinedlabel`{⟨*label name*⟩}{⟨*true branch*⟩}{⟨*false branch*⟩}

This checks whether the label 'label name' is defined and executes the true branch, otherwise the false branch.

`\crtifundefinedlabel`{⟨*label name*⟩}{⟨*true branch*⟩}{⟨*false branch*⟩}

This checks whether the label 'label name' is undefined and executes the true branch, otherwise the false branch.

`\crtcrefifdefinedlabel`{⟨*label name*⟩}{⟨*true branch*⟩}{⟨*false branch*⟩}

This checks whether the label 'label name' is defined by ☑ **cleveref** and executes the true branch, otherwise the false branch.

`\crtcrefifundefinedlabel`{⟨*label name*⟩}{⟨*true branch*⟩}{⟨*false branch*⟩}

This checks whether the label 'label name' is undefined by ☑ **cleveref** and executes the true branch, otherwise the false branch.

9   Displaying label information

For some reason it might be useful to have a list of all defined labels available. Currently, the support from ☑ **crossreftools** for this limited, however.

> **!** ☑ **crossreftools** redefines `\label` at the beginning of the document body. It takes care about a potential optional argument of `\label` as is introduced by ☑ **cleveref** .

9.1   Useful macros for the list of labels

\crtlistoflabels

This displays a list of all cross-reference labels in the order of their definition, the heading has the title `List of labels`, in order to change the title redefine `\listoflabelsname`^{→P.16}.
An ordinary entry to the list - of - labels file (default extension 📄 lla) is written with `\addcontentsline`

```
\addcontentsline{\crt@listoflabelsfileextension}
                {\crt@listoflabelsstructurelevel}
                {\protect\numberline{\crtrefnumber{#1}}#1}
```

where `\crt@listoflabelsfileextension`^{→P.16} and `\crt@listoflabelsstructurelevel`^{→P.17} are internal versions of `\crtlistoflabelsfileextension`^{→P.16} and `\crtlistoflabelsstructurelevel`^{→P.16}.
This command does add an entry into the table of contents (📄 toc - file) either on chapter or on section level, depending whether the class is 💼 **book** or not.
If no ToC - entry should be made, use `\crtlistoflabels*`^{→P.16}.

> **!** If the package (or class) option `final` is enabled, the 🏷 List of Labels feature is disabled and `\crtlistoflabels`^{→P.16} expands to nothing.

\crtlistoflabels*

This behaves like `\crtlistoflabels`^{→P.16} but does not generate an entry in the table of contents.

\crtlistoflabelsfileextension{⟨*extension*⟩}

This changes the extention of the list of labels file. The value is stored internally in `\crt@listoflabelsfileextension`^{→P.16} which defaults to `lla`

\crt@listoflabelsfileextension

This holds the extension (without a dot in the name) of the list of labels file. Do not change this macro directly, but use `\crtlistoflabelsfileextension`^{→P.16} instead.

\listoflabelsname

This is the title of the list of labels heading, it defaults to `List of labels`.
It can be changed with `\renewcommand`.

\crtlistoflabelsstructurelevel{⟨*counter name*⟩}

This changes the level of the label entries in the list of labels. The value is stored internally in `\crt@listoflabelsstructurelevel` which defaults to `section`

> **!** This is a preamble - only macro.

`\crt@listoflabelsstructurelevel`

> This holds the structure level of the list of labels entries. Do not change this macro directly, but use `\crtlistoflabelsstructurelevel`[→P.16] instead.

9.2 Useful macros for the label command

✉ **crossreftools** provides two hook macros to be usable inside of the `\label` command

`\crtprelabelhook`{⟨*argument*⟩}

> This hook is executed before the internally stored `\label` is called, the argument can be 'anything'.
> By default, this macro expands to nothing, but can be redefined with `\renewcommand`.

`\crtpostlabelhook`{⟨*argument*⟩}

> This hook is executed after the internally stored `\label` is called, the argument can be 'anything'.
> By default, this macro expands to nothing, but can be redefined with `\renewcommand`.

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Part III
Examples

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10   Driver example

```
%% LaTeX package crossreftools - version 0.9 (2019/01/03 -- 15:57:43)
%% Driver file for crossreftools.sty
%%
%%
%%

    -------------------------------------------------------------------
%% Copyright (c) 2017 -- 2019 by Dr. Christian Hupfer <typography dot with dot
    latex at gmail dot com>
%%

    -------------------------------------------------------------------

%%
%% This work may be distributed and/or modified under the
%% conditions of the LaTeX Project Public License, either version 1.3
%% of this license or (at your option) any later version.
%% The latest version of this license is in
%%   http://www.latex-project.org/lppl.txt
%% and version 1.3 or later is part of all distributions of LaTeX
%% version 2005/12/01 or later.
%%
%%
%% This work has the LPPL maintenance status 'author-maintained'
%%
%%

\documentclass{book}

\usepackage{hyperref}
\usepackage{nameref}
```

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```
\usepackage[user]{zref}
\usepackage{cleveref}

\usepackage{crossreftools}


\setlength{\parindent}{0em}

\def\labeltoshow{foochapterlabel}

\def\equationlabeltoshow{fooequationlabel}


\crtlistoflabelsstructurelevel{section}
\begin{document}

\tableofcontents

\crtlistoflabels*

\clearpage

\chapter{Some easy usages of crossreftools}
%\setcounter{chapter}{16}% Just for checking

Let us refer the usual way: \Cref{\labeltoshow}

\edef\foocntr{\crtcrefcounter{\labeltoshow}}

The counter for \fbox{\labeltoshow} is \foocntr\ or
    \crtcrefcounter{\labeltoshow}. It is used on page
    \crtcrefpage{\labeltoshow}. The value for the misspelled label name is
    \crtcrefnumber{labeltoshowstuff}, whereas the correct value is
    \crtcrefnumber{\labeltoshow}.


Let us check for a subsection label: \crtcrefcounter{foosubsectionlabel}

The result is \fbox{\crtcrefresult{\labeltoshow}}

\edef\labeltoshowname{\crtcrefname{chapter}}
```

```
\section{Extracting usual reference information}

Extracting content with  \verb!\crtextractref!
  \begin{itemize}
  \item reference:   \crtextractcref{reference}{\labeltoshow}
  \item page:   \crtextractcref{page}{\labeltoshow}
\end{itemize}

If the \fbox{hyperref} package is loaded, further properties are retrievable:

\begin{itemize}
  \item name:   \crtextractref{name}{\labeltoshow}
  \item hyperanchor: \crtextractref{anchor}{\labeltoshow}
  \item unused: \crtextractref{unused}{\labeltoshow}
  \end{itemize}

The 5th (and usually empty) label property introduced by hyperref is unused as
    of version v6.85a of that package -- \crtextractref{unused}{labelname} will
    return nothing here, i.e. the expansion is empty.


This works only if there is usual hyper anchor for the counter:
    \crtrefcounter{fooequationlabel}.

\section{Extracting the cleveref names}

\begin{itemize}

\item The lower case cross reference name for \fbox{\equationlabeltoshow} is
    \crtcrefnamebylabel{\equationlabeltoshow}, this time using
    \verb!\crtcrefnamebylabel!; the upper case name is
    \crtCrefnamebylabel{\equationlabeltoshow}.
\item  Extracting content with  \verb!\crtextractcref!
  \begin{itemize}
  \item counter: \crtextractcref{counter}{\labeltoshow}
  \item number: \crtextractcref{number}{\labeltoshow}
  \item result: \crtextractcref{result}{\labeltoshow}
  \item reference:   \crtextractcref{reference}{\labeltoshow}
  \item page:   \crtextractcref{page}{\labeltoshow}
  \end{itemize}
\end{itemize}
```

```
The macro \verb!\crtextractcref! is
    expandable!\edef\counterof{\crtextractcref{counter}{\labeltoshow}} Using
    the stored value for counter: \counterof!


See \crthyperCref{fooequationlabel} and \cref{pythagoreantheorem}.



\chapter{Placing more generic labels}

\clearpage
\crtcrossreflabel[Let us place a label without a counter]{Let us plant a label
    not being connected to a counter:}[somelabel] and \crtcrossreflabel*{some
    visible text that is invisibly placed here}[invisiblelabel]




\clearpage

See \ref{somelabel} or \crtnameref{somelabel} on \cpageref{somelabel}, but
    \crtlnameref{somelabel}. \crtunameref{invisiblelabel}


\chapter{This is foo}\label{foochapterlabel}

\setcounter{section}{5}
\section{Foo}\label{foosectionlabel} \zlabel{foosectionlabel}

\subsection{Foo subsection} \label{foosubsectionlabel}

\begin{equation}
  E=mc^{2}\label{firstequationlabel}
\end{equation}

\begin{equation}
  E=mc^{2}\label{fooequationlabel}
\end{equation}


\clearpage
```

```
\section{Another foo bar section}
\begin{equation}
  a^{2} + b^{2}=c^{2}\label[section]{pythagoreantheorem}% Explicitly use a
    wrong counter type here for testing
\end{equation}


\chapter{Checking for label existence}

\crtifdefinedlabel{firstfooequationlabel}{%
  Yes, that label exists%
}{
  No, that label does not exist%
}

\crtcrefifdefinedlabel{fooequationlabel}{%
  Yes, that cleveref label exists%
}{
  No, that cleveref label does not exist%
}


\end{document}
```

Part IV

Meta information

11   Acknowledgements

I would like to thank Javier Bezos to pointing me out to an issue with `\crtcrefnumber`$^{\rightarrow P.10}$ when being used as counter value extracting and inserting it again into `\setcounter` or any other occurence where a number value is expected.
This issue is regarded fixed with `\crtcrefcountervalue`$^{\rightarrow P.10}$.

12   Version history

- Version v0.9 2019-01-03

  Fixed bug in `\crtCref`$^{\rightarrow P.11}$ macro – it didn't show the reference number.

- Version v0.8 2018-12-29

  Added `\crtcrefcountervalue`$^{\rightarrow P.10}$, see section 11 for some explanation.

- Version v0.7 2018-12-28

  Corrected two typos in `\crtcref`$^{\rightarrow P.11}$ and `\crtCref`$^{\rightarrow P.11}$, leading to wrong reports of reference numbers.

- Version v0.6 2018-03-18

  – Corrected the typo in this manual about `\crtifdefinedlabel`$^{\rightarrow P.15}$ and `\crtifundefinedlabel`$^{\rightarrow P.1}$

  – Added the macros `\crtlnameref`$^{\rightarrow P.12}$ and `\crtunameref`$^{\rightarrow P.12}$ for providing a lower and upper case version of the first character in a `\nameref` - like usage.

  – Provided the convenience wrappers `\crtnameref`$^{\rightarrow P.13}$ and `\crtnameref*`$^{\rightarrow P.13}$ in order to make code compilable if ✉ **hyperref** is not loaded.

- Version v0.5 2018-02-23

  – Added the `cleverefcompat` option.

  – Changed the internal code of `\crtcrefpage`$^{\rightarrow P.8}$ which was necessary after the update of ✉ **cleveref** to version 0.21

     – Added some macros that check for label existence, see section 8 about this.

- Version v0.4 2017-12-26

     – Corrected typos in this documentation

     – Added the 🏷 List of Labels feature and the relevant macros from section 9.

     – Added the `final` and `draft` package options.

     – Introduced more generic label content macros.

- Version v0.3 2017-10-29

  Added the extraction macros for regular labels (i.e. not the ✉ **cleveref** - related ones) and convenience wrappers for generating links.

- Version v0.2 2017-10-25

  Introduced a check in `\crtcrefnamebylabel`^{→P.11} and `\crtCrefnamebylabel`^{→P.11} whether given label exists

- Version v0.1 2017-10-08

  First version

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