Package backrefx*
(Enhancements for backref)

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Abstract
The backrefx package enhances the backref package of David Carlisle and Sebastian Rahtz. It enables backref to print the bibliographic back references in a more typographical sound manner (similar to the back references in TeX Unbound of Hoenig), for example:

(Cited on page 10.)
(Cited on pages 10 and 12.)
(Cited on pages 10, 12 and 15.)

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1 Using backref package

With hyperref:

For back references with hyper-links, the backref package is loaded internally by the hyperref package and all the options are set within hyperref:

```latex
\usepackage[backref]{hyperref}
→ Refer to sections of citations.
\usepackage[backref=section]{hyperref} → Refer to sections of citations.
\usepackage[backref=slide]{hyperref} → Refer to sections of citations.
\usepackage[backref=page]{hyperref} → Refer to page numbers of citations.
\usepackage[pagebackref]{backref} → Refer to page numbers of citations.
```

Note that the back reference options must be loaded as part of the hyperref package and not as part of the \hypersetup options.

Without hyperref:

To activate back references without any hyper-links, the package backref can be loaded with options:

```latex
\usepackage[ref]{hyperref} → Refer to sections of citations.
\usepackage[pageref]{backref} → Refer to page numbers of citations.
```

Redefinition of \backrefalt:

The redefinition of the output to a more typographical sound manner can be accomplished with the \backrefalt command (see backref documentation). A typical preamble with a switch for hyper-links is:

```latex
\iftrue
  \usepackage[backref=page,\hyperref options]{hyperref}
  % hyperref dependent packages, e.g. memhfixc
\else
  \usepackage{nohyperref}
  \usepackage[pageref]{backref}
\fi
\renewcommand*{\backref\[1\]}\ifcase #1 \%
  (Not cited.\)%
  \or
    (Cited on page~\string"#2\.)%\else
    (Cited on pages~\string"#2\.)%
\fi
```
\renewcommand*{\backrefsep}{,␣}
\renewcommand*{\backreftwosep}{␣and~}
\renewcommand*{\backreflastsep}{␣and~}

This will give output in the bibliography

(Cited on page 10.)
(Cited on pages 10 and 12.)
(Cited on pages 10, 12 and 15.)

2 Usage of backrefx package

The backrefx package is only provided for backward compatibility of existing document. Please do not use it for any new documents. The backrefx package requires the backref packages and only redefines the output formatting.

With hyperref

The backref package is loaded internally by hyperref and all options are set by hyperref. Backrefx must be loaded after hyperref and the output format is redefined. This results in hyper-links for all the good looking back references.

\usepackage{(options)}{hyperref}
\usepackage{backrefx}
\renewcommand*{\backrefpagesname}{...

: hyperref options: pagebackref = [true] or false
backref = [section], page, slide, none or false.

Without hyperref

The backref can be used without hyperref if hyper-links is not required.

\usepackage{(options)}{backrefx}
\renewcommand*{\backrefpagesname}{...

: backref options: pageref — refer to page numbers of citations.
ref — refer to sections of citations.

Language specific commands

The user can redefine the language specific commands to suit his or her needs. For example:
3 A test file for backrefx

\documentclass{book}
\usepackage{natbib}
\iftrue
\usepackage[backref=page]{hyperref}
\usepackage{backrefx}
\else
\usepackage[pageref]{backrefx}
\fi
\renewcommand*{\backrefpagesname}{Cited on page~}
\renewcommand{\backrefpagesnames}{Cited on pages~}
\renewcommand{\backrefsectionsname}{Cited in chapter~}
\renewcommand{\backrefsectionsnames}{Cited in chapters~}
\renewcommand{\backrefformat}[1]{\textit{(#1.)}}
\renewcommand{\backrefnocite}{not cited}
\listfiles
\begin{document}
\mainmatter
\chapter{First Chapter}
It was shown by \cite{els,smith,murphy} that ...
\clearpage
\chapter{Second Chapter}
It was shown \citep{smith,murphy} that ...
\clearpage
\appendix
\chapter{First Appendix}
It was shown by \cite{murphy} that ...
\nocite{Jones}
\begin{thebibliography}{999}
\bibitem{Jones(2003)}{Jones, J., (2003), \textsl{Test I.}}
\bibitem{Els(1990)}{Els, D.N.J., (1990),}
\end{thebibliography}
\end{document}
\textit{Test II.}

\textit{Test III.}

\textit{Test IV.}

\textsl{Test II.}

\textsl{Test III.}

\textsl{Test IV.}

\bibitem[Smith(1990)]{smith}
Smith, J., (1993),
\textsl{Test III.}

\bibitem[Murphy et.al.(2000)Murphy and Els]{murphy}
Murphy, K. and Els, D.N.J., (2000),
\textsl{Test IV.}

\end{thebibliography}
\end{document}

⟨/testfile⟩
4 The implementation

4.1 Options

If \texttt{backref} is already loaded (e.g. by \texttt{hyperref}), then suppress all local options to prevent conflicts. Otherwise load it with all the local options.

\begin{verbatim}
\@ifpackageloaded{backref}\
{\DeclareOption*{}\
{\ProcessOptions}\
{\RequirePackageWithOptions{backref}}
\end{verbatim}

Try to figure out the options \texttt{backref} was loaded with (especially when loaded with \texttt{hyperref}).

Options that can be used without package \texttt{hyperref}.

\begin{verbatim}
\ifx\backrefxxx\page@backref% (pageref)\n\def\x@backref{\backrefpagesname}\
\def\x@backrefs{\backrefpagesnames}\
\fi\n\ifx\backrefxxx\section@backref% (ref)\n\def\x@backref{\backrefsectionsname}\
\def\x@backrefs{\backrefsectionsnames}\
\fi\n\ifx\backrefxxx\hyper@section@backref% (hyperref)\n\def\x@backref{\backrefsectionsname}\
\def\x@backrefs{\backrefsectionsnames}\
\fi\n\ifx\backrefxxx\hyper@page@backref% (hyperpageref)\n\def\x@backref{\backrefpagesname}\
\def\x@backrefs{\backrefpagesnames}\
\fi
\end{verbatim}

Back-referencing to be hyper links, by page or section.

\begin{verbatim}
\ifx\backrefxxx\hyper@page@backref% (hyperpageref)\n\def\x@backref{\backrefpagesname}\
\def\x@backrefs{\backrefpagesnames}\
\fi
\end{verbatim}

4.2 Local definitions

The following text strings commands can be redefined by the user for language or format requirements.

\begin{verbatim}
\backrefpagesname
\backrefpagesnames
\backrefsectionsname
\backrefsectionsnames
\backreflist
\backrefformat
\backrefnocite
\end{verbatim}

(Maybe we need to load a config file?)
4.3 Redefining \texttt{backref} commands

\begin{verbatim}
\renewcommand*{\backref}{1}
\renewcommand*{\backrefalt}{\ifcase #1 \backrefformat{\backrefnocite} \or \backrefformat{\x@backref~#2} \else \backrefformat{\x@backrefs~#2} \fi}
\renewcommand*{\backrefsep}{, }
\renewcommand*{\backreftwosep}{\backreflist}
\renewcommand*{\backreflastsep}{\backreflist}
\end{verbatim}

Change History

v1.0 General: Initial version ............. 1
v2.0 General: Update for backref v1.23 1

Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

\begin{verbatim}
\textbf{Symbols} \begin{tabular}{ll}
\@ifpackageloaded & 53 \\
\texttt{A} & \backrefsectionsname\
\texttt{appendix} & 25 \\
\texttt{B} & \backrefsectionsname\
\texttt{backref} & 80 \\
\texttt{backrefalt} & 81 \\
\texttt{backrefformat} & 15, 73, 83, 85, 87 \\
\texttt{backreflastsep} & 91 \\
\texttt{backreflist} & 14, 73, 90, 91 \\
\texttt{backrefnocite} & 10, 58, 70, 74 \\
\texttt{backrefpagesname} & 10, 59, 71, 74 \\
\texttt{backrefpagesnames} & 11, 59, 71, 74 \\
\texttt{\backrefsectionsname} & 12, 62, 66, 73 \\
\texttt{\backrefsectionsnames} & 13, 63, 67, 73 \\
\texttt{\backrefsep} & 89 \\
\texttt{\backreftwosep} & 90 \\
\texttt{\backrefformat} & 57, 61, 65, 69 \\
\texttt{\backrefxxx} & 19, 32 \\
\texttt{\begin} & 33, 37, 41, 45 \\
\texttt{\citep} & 24 \\
\texttt{\citet} & 22, 27 \\
\texttt{\clearpage} & 22, 24 \\
\texttt{\DeclareOption} & 54 \\
\texttt{\def} & 58, 59, 62, 63, 66, 67, 70, 71, 73–79 \\
\texttt{\documentclass} & 2 \\
\texttt{\else} & 7, 86 \\
\texttt{\end} & 49, 50 \\
\texttt{\fi} & 9, 60, 64, 68, 72, 88 \\
\texttt{\chapter} & 21, 23, 26 \\
\texttt{\cite} & 24 \\
\texttt{\citeoption} & 22, 27 \\
\texttt{\hyperpage} & 69 \\
\texttt{\hypersection} & 65 \\
\texttt{\ifcase} & 82 \\
\texttt{\iftrue} & 4 \\
\end{tabular}
\end{verbatim}
<table>
<thead>
<tr>
<th>Command</th>
<th>Pages</th>
<th>Command</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>\ifx</td>
<td>57, 61, 65, 69</td>
<td>\P</td>
<td>T</td>
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<tr>
<td>\listfiles</td>
<td>18</td>
<td>\page@backref</td>
<td>57</td>
</tr>
<tr>
<td>\ProcessOptions</td>
<td>55</td>
<td>\textit</td>
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</tr>
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<td>\mainmatter</td>
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<td>\textsl</td>
<td>35, 39, 43, 47</td>
</tr>
<tr>
<td>\nocite</td>
<td>29</td>
<td>\renewcommand</td>
<td>10–16, 80, 81, 89–91</td>
</tr>
<tr>
<td>\or</td>
<td>84</td>
<td>\RequirePackageWithOptions</td>
<td>56</td>
</tr>
<tr>
<td>\space</td>
<td>14, 77</td>
<td>\x@backref</td>
<td>58, 62, 66, 70, 85</td>
</tr>
<tr>
<td>\section@backref</td>
<td>61</td>
<td>\x@backrefs</td>
<td>59, 63, 67, 71, 87</td>
</tr>
</tbody>
</table>