

Package **backref***

(Enhancements for **backref**)

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The **backrefx** package is now obsolete after the release of **backref** v1.23, because all the functionality are now provided by **backref**. This release of **backrefx** is only provided for backward compatibility of existing documents.

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 T_EX 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`:

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

```
\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:

```
\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:

```
\iftrue
  \usepackage[backref=page,⟨hyperref options⟩]{hyperref}
  % hyperref dependent packages, e.g. memhfixc
\else
  \usepackage{nohyperref}
  \usepackage[pageref]{backref}
\fi
\renewcommand*{\backref}[1]{%
\renewcommand*{\backrefalt}[4]{%
  \ifcase #1 %
    (Not cited.)%
  \or
    (Cited on page~#2.)%
  \else
    (Cited on pages~#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 `backrefx` can be used without `hyperref` if hyper-links is not required.

```

\usepackage[options]{backrefx}
\renewcommand*\backrefpagesname}{...
:

```

```

backrefx 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:

```

\renewcommand{\backrefpagesname}{Cited on page~}
\renewcommand{\backrefpagesnames}{Cited on pages~}
\renewcommand{\backrefsectionsname}{Cited in section~}
\renewcommand{\backrefsectionsnames}{Cited in sections~}
\renewcommand{\backreflist}{\space and~}
\renewcommand{\backrefformat}[1]{(#1.)}
\renewcommand{\backrefnocite}{}

```

3 A test file for backrefx

```

1 ⟨*testfile⟩
2 \documentclass{book}
3 \usepackage{natbib}
4 \iftrue
5   \usepackage[backref=page]{hyperref}
6   \usepackage{backrefx}
7 \else
8   \usepackage[pageref]{backrefx}
9 \fi
10 \renewcommand*{\backrefpagesname}{Cited on page~}
11 \renewcommand*{\backrefpagesnames}{Cited on pages~}
12 \renewcommand*{\backrefsectionsname}{Cited in chapter~}
13 \renewcommand*{\backrefsectionsnames}{Cited in chapters~}
14 \renewcommand*{\backreflist}{\space and~}
15 \renewcommand*{\backrefformat}[1]{\textit{(#1.)}}
16 \renewcommand*{\backrefnocite}{not cited}
17
18 \listfiles
19 \begin{document}
20 \mainmatter
21 \chapter{First Chapter}
22 It was shown by \citet{els,smith,murphy} that ... \clearpage
23 \chapter{Second Chapter}
24 It was shown \citep{smith,murphy} that ... \clearpage
25 \appendix
26 \chapter{First Appendix}
27 It was shown by \citet*{murphy} that ...
28
29 \nocite{Jones}
30
31 %Remember open lines in bibliography!!!!
32 \begin{thebibliography}{999}
33 \bibitem[Jones(2003)]{Jones}
34 Jones, J., (2003),
35 \textsl{Test I.}
36
37 \bibitem[Els(1990)]{els}
38 Els, D.N.J., (1990),

```

```
39   \textsl{Test II.}
40
41   \bibitem[Smith(1990)]{smith}
42     Smith, J., (1993),
43     \textsl{Test III.}
44
45   \bibitem[Murphy et.al.(2000)Murphy and Els]{murphy}
46     Murphy, K. and Els, D.N.J., (2000),
47     \textsl{Test IV.}
48
49 \end{thebibliography}
50 \end{document}
51 \</testfile>
```

4 The implementation

52 `\package`)

4.1 Options

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

```
53 \@ifpackageloaded{backref}%  
54   {\DeclareOption*{}}%  
55   \ProcessOptions}%  
56   {\RequirePackageWithOptions{backref}}
```

Try to figure out the options `backref` was loaded with (especially when loaded with `hyperref`).

Options that can be used without package `hyperref`.

```
57 \ifx\backrefxxx\page@backref%      (pageref)  
58   \def\x@backref{\backrefpagesname}%  
59   \def\x@backrefs{\backrefpagesnames}%  
60 \fi
```

```
61 \ifx\backrefxxx\section@backref%    (ref)  
62   \def\x@backref{\backrefsectionsname}%  
63   \def\x@backrefs{\backrefsectionsnames}%  
64 \fi
```

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

```
65 \ifx\backrefxxx\hyper@section@backref% (hyperref)  
66   \def\x@backref{\backrefsectionsname}%  
67   \def\x@backrefs{\backrefsectionsnames}%  
68 \fi
```

```
69 \ifx\backrefxxx\hyper@page@backref%  (hyperpageref)  
70   \def\x@backref{\backrefpagesname}%  
71   \def\x@backrefs{\backrefpagesnames}%  
72 \fi
```

4.2 Local definitions

<code>\backrefpagesname</code>	The following text strings commands can be redefined by the user for language or
<code>\backrefpagesnames</code>	format requirements.
<code>\backrefsectionsname</code>	73 <code>\def\backrefpagesname{Cited on page~}</code>
<code>\backrefsectionsnames</code>	74 <code>\def\backrefpagesnames{Cited on pages~}</code>
<code>\backreflist</code>	75 <code>\def\backrefsectionsname{Cited in section~}</code>
<code>\backrefformat</code>	76 <code>\def\backrefsectionsnames{Cited in sections~}</code>
<code>\backrefnocite</code>	77 <code>\def\backreflist{\space and~}</code>
	78 <code>\def\backrefformat#1{(#1.)}</code>
	79 <code>\def\backrefnocite{Not cited}</code>

(Maybe we need to load a config file?)

4.3 Redefining backref commands

```

80 \renewcommand*{\backref}[1]{%
81 \renewcommand*{\backrefalt}[4]{%
82   \ifcase #1 %
83     \backrefformat{\backrefnocite}%
84   \or
85     \backrefformat{\x@backref~#2}%
86   \else
87     \backrefformat{\x@backrefs~#2}%
88   \fi}

89 \renewcommand*{\backrefsep}{, }
90 \renewcommand*{\backreftwosep}{\backreflist}
91 \renewcommand*{\backreflastsep}{\backreflist}

92 </package>

```

Change History

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

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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.

Symbols	<code>\backrefsectionsname</code>	<code>\def</code> 58, 59, 62, 63, 66, 67, 70, 71, 73–79
<code>\@ifpackageloaded</code> . 53 12, 62, 66, <u>73</u>	<code>\documentclass</code> 2
A	<code>\backrefsectionsnames</code> 13, 63, 67, <u>73</u>
<code>\appendix</code> 25	<code>\backrefsep</code> 89	E
B	<code>\backreftwosep</code> 90	<code>\else</code> 7, 86
<code>\backref</code> 80	<code>\backrefxxx</code> 57, 61, 65, 69	<code>\end</code> 49, 50
<code>\backrefalt</code> 81	<code>\begin</code> 19, 32	F
<code>\backrefformat</code>	<code>\bibitem</code> . 33, 37, 41, 45	<code>\fi</code> . 9, 60, 64, 68, 72, 88
.. 15, <u>73</u> , 83, 85, 87	C	H
<code>\backreflastsep</code> ... 91	<code>\chapter</code> 21, 23, 26	<code>\hyper@page@backref</code> 69
<code>\backreflist</code> 14, <u>73</u> , 90, 91	<code>\citep</code> 24	<code>\hyper@section@backref</code> 65
<code>\backrefnocite</code> 16, <u>73</u> , 83	<code>\citet</code> 22, 27	I
<code>\backrefpagesname</code> 10, 58, 70, <u>73</u>	<code>\clearpage</code> 22, 24	<code>\ifcase</code> 82
<code>\backrefpagesnames</code> 11, 59, 71, <u>73</u>	D	<code>\iftrue</code> 4
	<code>\DeclareOption</code> 54	

<code>\ifx</code>	57, 61, 65, 69		
		P	T
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L		<code>\ProcessOptions</code> ...	55
<code>\listfiles</code>	18		<code>\textit</code>
			15
		R	<code>\textsl</code> ..
		<code>\renewcommand</code> ..	35, 39, 43, 47
M		10–	
<code>\mainmatter</code>	20	16, 80, 81, 89–91	U
		<code>\RequirePackageWithOptions</code>	<code>\usepackage</code> ...
		3, 5, 6, 8
N		56	
<code>\nocite</code>	29		X
		S	<code>\x@backref</code>
O		<code>\section@backref</code> ..	. 58, 62, 66, 70, 85
<code>\or</code>	84	<code>\space</code>	14, 77
			<code>\x@backrefs</code>
			. 59, 63, 67, 71, 87