

A file with several indexes

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Preface

This file illustrates some features of the `robustindex` package with option `multind`. This option supports multiple indexes, albeit in a plain style only.

Although this is not a book, we have chosen the book style for illustration. Let us say we want to use four indexes. First we choose tags to identify them. In this file we use the tags `main`, `bis`, `a1`, `b1`. With the `\setindex` command we activate an index. Thus `\setindex{main}` tells L^AT_EX that the active index is now the index identified by the tag `main`, until the next `\setindex` command. If a tag has not been encountered before, then a new index with that tag is created. The tag `main` is always known and the index with tag `main` becomes active at the `\begin{document}`. The `\index` command and the `\printindex` commands write to/from the active index. This is all you need to know about the option `multind`.

If you wish you may use `\sindex[bis]{entry}` as shorthand for

```
\setindex{bis}\index{entry}
```

and `\sindex{entry}` as shorthand for

```
\setindex{main}\index{entry}.
```

To see how option `multind` may be used, you may also compare the file `multisample.tex` with the output.

This preface has an *indexed term*. (You see this in the source file only.)

Chapter 1

Introduction

This introduction has another indexed term as well as the old indexed term. The page number is again 5, but now in arabic. If you index the same term twice on the same page, then one simply gets a repeat in the index. That is inherent in our method. Indeed we had to disable the implicit page range formation of `makeindex`.

Of course the index file *filename.ind* may be edited to remedy such flaws, but our hacking has made this file pretty unreadable. Use the option `multind` only if you are willing to keep the indexes simple. Even without editing the index file one may create complicated effects like the page ranges on page 15, which use several fonts in their page numbers. That is bad style, but it is possible. Note that if you open a page range you must close it again with the same index active as when you opened the range.

We have hacked various mechanisms of `makeindex`. Subentries are still supported. We illustrate this in `multisample.tex` and appendix A with alpha, beta and gamma. This also illustrates the use of `\gobblepageref`.

After running \LaTeX on *filename.tex* one must run `makeindex` on *filename* to get the index entries in *filename.ind*. Before this there may be error messages about labels or names. Do not exclude any relevant files. For instance, do not use `\includeonly`.

The package `hyperref` may break our code. Therefore one must use the option `hyperindex=false`, as in `\usepackage[hyperindex=false]{hyperref}`. Note that `robustindex` already puts hyperlinks in the index. Alternatively one may go against the advice of `hyperref` and put `robustindex` later in the preamble. In the file `multisample.tex` we actually used `\usepackage[plainpages=false,hyperindex=false]{hyperref}` because of the roman page numbers in the beginning.

Appendix A

Structure of the L^AT_EX file

```
\documentclass{book}

\usepackage{makeidx}
\usepackage[multind]{robustindex}
...
...\author{Wilberd van der Kallen\index{Wilberd}}
...
\makeindex      % obligatory with robustindex

\begin{document}
...
\tableofcontents
...\index{indexed term}                % on page v
...
...\index{other term!cited twice on same page} % on page 5
...\index{indexed term}                % on page 5
...\index{other term!cited twice on same page} % on page 5
...
\setindex{a1}\index{alpha!see beta}    % on page 5
\index{alpha!see also gamma\gobblepageref} % on page 5
...
...
\indexincontents % before the index.
\setindex{main}
\printindex

\renewcommand{\indexname}{Index bis}
....
\end{document}
```


Appendix B

Purpose of `robustindex.sty`

Amazingly often a third party changes the page numbers without rerunning `makeindex`. It is much nicer to have indexes that adapt themselves to all changes that do not involve `\index{entry}` commands.

The package achieves this by invoking the `\pageref` mechanism on automatically generated labels of the form `ind.2`, `ind.4`, `...`

Only after adding/deleting/modifying an `\index{entry}` command, or after changing the order of `\index{entry}` commands, does one have to run `makeindex`. But then it is important that you do run `makeindex`, even when no warning is issued. The robustness has its limits.

With option `multind` the package supports multiple indexes. But one still works with the standard compilation sequence
`latex filename.tex`, `makeindex filename`, `latex filename.tex`.

Glossary of Notations

$H^0(X, \mathcal{L})$	the sections of the vector bundle $\mathcal{L} _X$ over X , 9
$\text{Ext}_B^i(M, N)$	Ext group in the category \mathcal{C}_B , 9

Index

- alpha, 7
- animal
 - ruminant
 - cow, 7
 - fish, 7
- vardelta, 7
- time
 - now, 7

Index bis

bis, 7

Index with tag a1

- alpha
 - see also gamma
 - see beta, 5
- gamma, 7
- other term
 - cited twice on same page, 5, 5

Index with tag b1

tris, 7
998, 7
Wilberd, i
as
 is, 7
indexed term, v, 5
page range, 5–9
 this |is| complicated, 5–7, 9
 with risky label, 9
simpler
 page range, 5–9
simplest page range, 5–9

Indexes get plain layout

Our option `multind` breaks yet another mechanisms of `makeindex`. Recall that `robustindex` breaks automatic page ranges. The option `multind` prevents `makeindex` from inserting `\indexspace` commands at appropriate points in the index file. This makes the layout of an index more plain. Let us compare the index produced by `\robustmanual.tex` with the same index produced after the package `robustindex` is called with the option `multind`. Curiously the order changes a little too. To get them in the same order replace `\index{Wilberd}` with `\index{wilberd@Wilberd}`.

First without option

alpha, 1
 see also gamma
 see beta, 2

&, **2**

discussion, 1–2

gamma, **2**

Wilberd, 1

Next with option multind

Wilberd, 1

alpha, 1

 see also gamma

 see beta, 2

&, **2**

discussion, 1–2

gamma, **2**