### 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. We require that the argument to an \index command starts with at least two lower case letters or with the symbol <. So use \index{new york@New York} instead of \index{New York}, \index{za@z} instead of \index{z}.

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 LATEX 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.

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

\setindex{bis}\index{entry}

and  $\sindex{entry}$  as shorthand for

 $\operatorname{main}\operatorname{index}\{entry\}.$ 

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.)

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#### 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.

The index file *filename*.ind has become quite unreadable. Do not edit it. Use the option multind only if you are willing to keep the indexes standard. 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 IATEX 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 LATEX file

```
\documentclass{book}
\usepackage{makeidx}
\usepackage[multind]{robustindex}
\usepackage[plainpages=false,hyperindex=false]{hyperref}
...\author{Wilberd van der Kallen\index{wilberd@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{\indexcapstyle}[1]{\indexspace\textsc{#1}\par}
\renewcommand{\indexname}{Index with headings}
\setindex{main}
\printindex
\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.

## Index

```
alpha, 8
animal
ruminant
cow, 8
fish, 8

delta
vardelta, 8

time
now, 8

z, i
```

# Index bis

bis, 8

# Index with tag a1

```
alpha
see also gamma
see beta, 5
gamma, 8
other term
cited twice on same page, 5, 5
```

# Index with tag b1

```
as is, 8 indexed term, v, 5 page range, 5–9 this |is| complicated, 5–8, 9 with risky label, 9 simpler page range, 5–9 simplest page range, 5–9 tris, 8 Wilberd, i
```

# Index with headings

```
A alpha, 8 animal ruminant cow, 8 fish, 8

D delta vardelta, 8

T time now, 8

Z z, i
```