

A file with robust index

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# Preface

We will recall the purpose of `robustindex.sty` in appendix B.

Although this is not a book, we have chosen the book style for illustration.

If you want to see how `robustindex.sty` may be used, compare the file `robustsample.tex` or appendix A with the output.

If you are interested in our usage of `robustglossary.sty`, you must read the file `robustsample.tex`.

This preface has an *indexed term*.



# 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. Such editing will actually be the recommended way to achieve more complicated effects like the page ranges on page 12, which also use several fonts in their page numbers.

Traditionally page ranges and fonts for page numbers could be done with the encapsulating construction of `makeindex`, but that construction is broken by our package. (The encapsulating construction uses the `encap` character `|` in the argument of `\index`.) We have restored it to some extent, sufficient for common practice, but our rules are more naive than those of `makeindex`. See the file `robustsample.tex` for details.

Subentries are still supported. We illustrate this in `robustsample.tex` and appendix A with alpha, beta and gamma. This also illustrates the use of `\gobblepageref`.

After running  $\LaTeX$  on `filename` 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`.

Say we wish the index to occur in the table of contents. We then give the command `\indexincontents` before the index.

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 `robustsample.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<sup>A</sup>T<sub>E</sub>X file

```
\documentclass{book}

\usepackage{makeidx}
\usepackage{robustindex}
...
... \index{Wilberd}}           % on page i
...
\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
...
\index{alpha!see beta}           % on page 5
\index{alpha!see also gamma\gobblepageref} % on page 5
...
% For special effects you could simply edit filename.ind
% If you insist on using encapsulation,...
\index{...|...}...              % on page 5
\index{...|...}...              % on page 7
\index{...|...}...              % on page 9
....
\indexincontents % always put this before the index.
\printindex

\end{document}
```



## Appendix B

# Purpose of `robustindex.sty`

The package `robustindex` tries to remedy two problems.

- Amazingly often a third party changes the page numbers without rerunning `makeindex`. It is much nicer to have an index that adapts itself 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.

- The `theindex` environment lacks a destination for hyperlinks. That is a nuisance when one wants add the index to the bookmarks or to the table of contents in a pdf file: When one clicks on the link that displays the word `Index`, one wants to end up in the index.



# Glossary of Notations

$H^0(X, \mathcal{L})$  the sections of the vector bundle  $\mathcal{L}|_X$  over  $X$ , 5  
 $\text{Ext}_B^i(M, N)$  Ext group in the category  $\mathcal{C}_B$ , v

# Index

- alpha
  - see also gamma
  - see beta, 5
- indexed term, v, 5
- other term
  - cited twice on same page, 5, 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
- Wilberd, i