

The `keyindex` package*

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1 Introduction

The `keyindex` package provides functionality for producing an index without directly entering index entries into the text using the `\index` command, but instead by looking up short keys and printing a predefined string in the main text and adding a corresponding index entry. The standard use case is the production of an index of names: Rather than having to write in the text, e.g., “Einstein`\index{Einstein, Albert}`” every time, write “`\keyindex{Einstein}`,” which produces “Einstein” in the text and an index entry under “Einstein, Albert”. Of course, the correct index entries must be collected somewhere.

The package distribution also includes a bash script `makeindex` which produces a key index file for use with `keyindex` from a text file with entries of the form

```
<last name>, <first name>  
<key>|<last name>, <first name>  
<key>@<indexentry>
```

2 Interactions

`keyindex` requires the `ifthen` package.

3 Usage

`\keyindex` `\keyindex[<index option>]{<key>}` prints the text associated with index key *<key>* (using the hooks `\keyindexformat` and `\missingkeyindexformat`) followed by an index entry for *<key>*. The index entry is generated using the hook `\keyindexcommand` and the optional argument *<index option>* is added to the argument of `\keyindexcommand` after a `|`. For instance, `\keyindex[()]{Einstein}` might produce the same as

Einstein`\index{Einstein, Albert|()}`.

`\keyindexprint` `\keyindexprint{<key>}` prints only the text corresponding to *<key>*, but doesn't
`\keyindexonly`

*This document corresponds to `keyindex` 1.0, dated 2019/04/05.

add anything to the index. `\keyindexonly{<key>}[<index option>]` only adds the index entry but doesn't print anything in the text.

`\keyindexfile` `\keyindexfile{<file>}` will load the index key definitions from `<file>.kix`, which is assumed to contain only a list of lines of the form

`\keyindexentry {<key>}{<print text>}{<index text>}`

If it is not called, `keyindex` will use `\jobname.kix` as default. This must be used in the preamble.

`\keyindexformat` These are hooks to carry out the formatting in the text of the text corresponding to an index entry, or adding the entry to the index. They can be re-defined using `\renewcommand`. By default, `\keyindexformat{<text>}` just adds `<text>` to the document, `\missingkeyindexformat{<text>}` adds `\textbf{<text>}`, and `\keyindexcommand{<text>}` issues `\index{<text>}`.

4 Implementation

4.1 Setup

```
1 \RequirePackage{ifthen}

\keyindexfile sets \@keyindexfile to its argument; we set \@keyindexfile to
default to \jobname.kix
2 \newcommand*{\keyindexfile}[1]{%
3   \renewcommand*{\@keyindexfile}{#1}}
4 \newcommand*{\@keyindexfile}{\jobname.kix}

\keyindexformat formats index text; default: just prints argument.
5 \newcommand*{\keyindexformat}[1]{#1}

\missingkeyindexformat prints index key when not defined; by default, \textbf.
6 \newcommand*{\missingkeyindexformat}[1]{%
7   \textbf{#1}}

\keyindexcommand{<index text>} adds {<index text>} to the index; by default, it
does \index{<index text>} but can be redefined.
8 \newcommand*{\keyindexcommand}[1]{\index{#1}}

At the beginning of the document, we read the index key definition file
9 \AtBeginDocument{%
10  \InputIfFileExists{\@keyindexfile}{%
11    \PackageInfo{keyindex}{Using index key definition file
12      \@keyindexfile.}}{%
13    \PackageWarning{keyindex}{No index key definition file
14      \@keyindexfile!}}}

\keyindex[<index option>]{<key>} prints text for key <key>, and indexes it (with
|<index option>, if present). Printing is done by \keyindexprint, indexing by
\keyindexonly. If the key is undefined, we issue a warning and print the key
(using \missingkeyindexformat), not its replacement text.
15 \newcommand*{\keyindexprint}[1]{\@ifundefined{kix@e@detokenize{#1}}{%
16   \PackageWarning{keyindex}{Index key \detokenize{#1}}
```

```

17     undefined}%
18     \missingkeyindexformat{#1}}{%
19     \keyindexformat{\@nameuse{kix@e@detokenize{#1}}}}
20 \newcommand*{\keyindexonly}[2] [] {\@ifundefined{kix@e@detokenize{#2}}{%
21     \PackageWarning{keyindex}{Index key \detokenize{#2}
22     undefined}}{%
23     \ifthenelse{\equal{#1}{}}{%
24         \keyindexcommand{\@nameuse{kix@i@detokenize{#2}}}}{%
25         \keyindexcommand{\@nameuse{kix@i@detokenize{#2}}|#1}}}
26 \newcommand{\keyindex}[2] [] {\keyindexprint{#2}\keyindexonly[#1]{#2}}

```

The file `\@keyindexfile` must contain lines of the form `\keyindexentry{⟨key⟩}{⟨text⟩}{⟨index entry⟩}`. It is read at the beginning of the document and for each key, defines commands `\kix@e{⟨key⟩}` and `\kix@i{⟨key⟩}` which evaluate to `⟨text⟩` and `⟨index entry⟩`, respectively. Duplicate definitions are ignored but generate a warning.

```

27 \newcommand*{\keyindexentry}[3]{%
28     \@ifundefined{kix@e@detokenize{#1}}{%
29         \@namedef{kix@e@detokenize{#1}}{#2}%
30         \@namedef{kix@i@detokenize{#1}}{#3}}{%
31     \PackageWarning{keyindex}{Duplicate definition for keyindex key
32     \detokenize{#1} ignored}}

```