

# $\alpha$ Bib script

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## 1 Description

$\alpha$ Bib is a little Bash script allowing addition of alphabetical headers into Bib- $\text{\TeX}$  bibliographies. This may be useful with large bibliographies so that to find entries quickly. It takes a bibliography file produced by Bib- $\text{\TeX}$  (file with extension `.bbl`) as an input, and creates a new file with incorporated alphabetical headers. Those headers break the bibliography into bibliographic entry sets having the same initial. Each set is entitled with a header consisting of the initial letter corresponding to entries composing it. Note that this script is mostly intended for use with “alpha-like” Bib- $\text{\TeX}$  styles (*e.g.* `alpha.bst`).

## 2 Usage

The program syntax is the following:

```
alphabib [-hv] [-b [-l level]] <input.bbl> [<output.bbl>]
```

Input and output files may be identical, which is equivalent to no output file given. In those cases, the input file will be overwritten while running  $\alpha$ Bib. Of course, you always have to run Bib- $\text{\TeX}$  before running  $\alpha$ Bib.

`-h` and `-v` options will display help and version information. Option `-b` will cause insertion of bookmarks into PDF files generated by `pdflatex` or `ps2pdf`. Naturally, this option requires using the `hyperref` package [2] from Sebastian Rahtz and Heiko Oberdiek, and most probably the `tocbibind` package [3] too... Besides, option `-l` allows selection of bookmark insertion level, whose impact depends on the document class used (see Table 1 for correspondence with sectioning commands). If option `-b` is given without option `-l`, then bookmarks level is set automatically<sup>1</sup>.

An example is provided in the files `example.tex` and `example.bib`. Just type `make` to compile it. That will produce a PDF file with bookmarks. Ensure that the `alphabib` script is accessible from the `PATH` variable before running `make`.

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<sup>1</sup>More precisely, the first header is set as sub-level of the current level, and next headers are set to the same level as the first one.

Table 1: Level of sectioning commands depending on document class (coming from [1]).

Document class	<code>\part</code>	<code>\chapter</code>	<code>\section</code>	<code>\subsection</code>	...
<code>book, report</code>	-1	0	1	2	...
<code>article</code>	0		1	2	...

### 3 Customisation

You can customise headers by redefining the three following  $\text{\LaTeX}$  macros:

`\alphabibitemskip`: This command defines the skip before each initial. Its default value is `\bigskip`;

`\alphabibitemlabel`: This command defines typesetting of alphabetical item labels (optional argument of `\item` macro). The default definition is `\def\alphabibitemlabel#1{\Large\bfseries#1\hfill}`;

`\alphabibitemcontent`: This command defines typesetting of the right part of alphabetical items. The default definition is `\def\alphabibitemcontent#1{\ \ \ \ [-1ex]\hrule\medskip}`.

The two last commands are called with each initial as a parameter (*i.e.* `#1` is intended to be replaced by initials). Thus, you can put it either in the left (label) or the right (content) part of items.

In addition, you may use the following command in order to modify penalties:

`\alphabibitempenalty`: This command defines a penalty before each header. Its default definition is `\def\alphabibitempenalty{\penalty-200}`, which encourages page breaks before headers.

To summarise, each header is made according to the following pattern:

```
\alphabibitemskip%
\alphabibitempenalty%
\alphabibitemlabel[#1]\alphabibitemcontent{#1}
```

where `#1` is replaced by the relevant initial letter.

### 4 Bug reports

You can send bug reports to `mael.hillereau at free dot fr`.

### 5 Version history

**16.apr.2006 (v0.4)**: Initial public release. `\bibitem` commands are found using line breaks and partial control sequence names, which is quick-and-dirty programming. This should be fixed in a future release.

- 17.apr.2006 (v0.5):** Removed the “./” prefix of `alphabib` call in the Makefile of example file. Corrected some typos in the manual. Removed Type-3 fonts from `manual.pdf` and `example.pdf`.
- 20.apr.2006 (v0.6):** Switched to `getopts` for options processing. Added options `-b` and `-l` for inserting header bookmarks into PDF files generated using `pdflatex` and `ps2pdf`. Added penalty customisation option. Added customised headers into the example file. Fixed a bug occurring while output file was given but not already present on disk.

## References

- [1] Heiko Oberdiek. PDF information and navigation elements with `hyperref`, `pdfTeX`, and `thumbpdf`. In *EuroTeX conference*, September 1999. <http://www.uni-giessen.de/partosch/eurotex99/oberdiek/paper.pdf>.
- [2] Sebastian Rahtz and Heiko Oberdiek. The `hyperref` package, February 2004. <http://www.ctan.org/tex-archive/macros/latex/contrib/hyperref/>.
- [3] Peter Wilson. The `tocbibind` package, May 2004. <http://www.ctan.org/tex-archive/macros/latex/contrib/tocbibind/>.