

The package `EASYBIB`

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Abstract

The package `EASYBIB` introduces new items for easy custom-made bibliographies.

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1 The package **EASYBIB**

The scheme of the bibliography in the package **EASYBIB** was inspired by the bibliography system of $\mathcal{A}\mathcal{M}\mathcal{S}$ - $\mathcal{T}\mathcal{E}\mathcal{X}$. For the sake of flexibility, the syntax is somewhat different, yet the functionality is similar (although not identical). For the use, load the package using the usual syntax:

```
\documentclass{article}
.
.
\usepackage[definethebibliography]{easybib}
.
.
```

The option `\definethebibliography` overrides the default `thebibliography` environment. In this case the environment `thebibliography` takes the form:

```
\begin{thebibliography} ``[optional name]''
    ``(\cmd, space)'' {99}
.
.
.
\end{thebibliography}
```

so that you can override the default name `\refname` with the name of your choice, you can change the default `\section*` with `\cmd` and add extra space **space** in front of the items. The syntax of the bibliography command is now the following

```
\begin{thebibliography}{99}

\bookref{label name}
  \by      Author(s) name
  \bysame
  \title   Title of the book
  \bookinfo ...
  \publ    publisher
  \publaddr publisher address
  \pages   pages number
```

```

\yr      year
\lang    ...
\transl  ...
\endref

\paperref{label name}
\by      Author(s) name
\bysame
\title   Title of the book
\transl  ...
\jour    Journal name
\toappear ...
\inbook  ...
\publ    publisher
\eds     ...
\publaddr publisher address
\vol     volume
\yr      year
\pages   number of pages
\finalinfo ...
\lang    ...
\endref

\end{thebibliography}

```

the command

```
\bookref``[display label]''{label} ... \endref
```

is used to refer to a book, while

```
\paperref``[display label]''{label} ... \endref
```

is used to refer to a paper.

When an item, for example `\xxx`, is encountered then the following text is expanded as follows

```

\xxx+text ==> punctuation +
                begin commands +
text +
end commands

```

where the **punctuation** is displayed unless \xxx is the first displayed item. The default values for the items in the \bookref environment are the following

command	punctuation	begin commands	end commands
\by	,	\bfseries	nothing
\bysame	,	\hbox to3em {\hrulefill\hskip.1em}	nothing
\title	,	\scshape	nothing
\bookinfo	,	\rmfamily	nothing
\publ	,	\rmfamily	nothing
\publaddr	,	\rmfamily	nothing
\pages	,	\rmfamily	nothing
\yr	,	\rmfamily	nothing
\lang	nothing	()
\transl	,	\rmfamily	nothing

The default values for the items in the \paperref environment are the following

command	punctuation	begin commands	end commands
\by	,	\bfseries	nothing
\bysame	,	\hbox to3em {\hrulefill \hskip.1em}	nothing
\title	,	\itshape	nothing
\transl	,	\rmfamily	nothing
\jour	,	\rmfamily	nothing
\toappear	nothing	(to appear)
\inbook	,	\rmfamily	nothing
\publ	,	\rmfamily	nothing
\eds	nothing	(\@killglue, eds.)
\publaddr	,	\rmfamily	nothing
\vol	nothing	\bfseries	nothing
\yr	nothing	()
\pages	,	\rmfamily	nothing
\finalinfo	,	\rmfamily	nothing
\lang	nothing	()

2 The command `\moreref`

In the case of more than one reference of the same author or in the case of a series of papers or books on the same argument, it may be useful to use the `\moreref` command. The syntax is the following

```
\paperref{label name} or \bookref{label name}
items
\moreref'[punctuation]' {book or paper}
items
\moreref'[punctuation]' {book or paper}
.
.
\endref
```

The effect is to use a single label reference for more than one book or paper. The optional command “**[punctuation]**” can be used to change the default punctuation “**;**” to something else, for example you can use `\moreref[, see also:]{book}`.

3 The command `\endref`

The command `\endref` closes the definition of a reference. By default the reference is closed by the semicolon `;`. It is possible to change the default value as follows

```
\endref[punctuation], for example \endref[.]
```

This is useful for the last reference, for example

```
\begin{thebibliography}{99}

\bookref{aaa}
\by      J. Free
\title  A book title
\publ   A publisher
\yr     1970
\endref

\bookref{bbb}
```

```

\by      B. New
\title  Another book title
\publ   Another publisher
\yr     1992
\endref

\bookref{ccc}
\by      C. Old
\title  Yet another book title
\publ   Again a publisher
\yr     1986
\endref[.]

\end{thebibliography}

```

References

1. **J. Free**, A BOOK TITLE, A publisher, 1970;
2. **B. New**, ANOTHER BOOK TITLE, Another publisher, 1992;
3. **C. Old**, YET ANOTHER BOOK TITLE, Again a publisher, 1986.

4 The command `\refstyle`

There are many styles for display the labels of the bibliography. The standard \LaTeX way of changing the appearance is to modify the `\@bibitem` macro. A easiest way in **EASYBIB** is to use `\refstyle` before `\begin{thebibliography}`. The syntax is the following:

```
\refstyle{A} or \refstyle{B} or \refstyle{C}
```

the effect is to change `\@bibitem` as follows

command	<code>\@bibitem</code> definition	sample output
<code>\refstyle{A}</code>	<code>\def\@bibitem#1{#1.}</code>	1.
<code>\refstyle{B}</code>	<code>\def\@bibitem#1{[#1]}</code>	[1]
<code>\refstyle{C}</code>	<code>\def\@bibitem#1{}</code>	nothing

5 An example of bibliography from $\mathcal{A}\mathcal{M}\mathcal{S}$ - $\mathcal{T}\mathcal{E}\mathcal{X}$ documentation

The following complex example shows the features of `easybib` and is essentially the example showed in the $\mathcal{A}\mathcal{M}\mathcal{S}$ - $\mathcal{T}\mathcal{E}\mathcal{X}$ documentation translated in the language of `easybib`.

```
\begin{thebibliography}{99}

\bookref{abc}
\by V. I. Arnol$' $d, A. N. Varchenko,
    and S. M. Guse\u\i n-Zade
\title Singularities of differentiable maps.~{\rm I}
\publ ``Nauka'' \publaddr Moscow
\yr 1982
\lang Russian
\endref

\bookref{def}
\bysame
\title Singularities of differentiable maps.~{\rm II}
\publ ``Nauka'' \publaddr Moscow
\yr 1984
\lang Russian
\endref

\bookref{ghi}
\by O. A. Ladyzhenskaya
\title Mathematical problems in the dynamics of a
    viscous incompressible fluid
\bookinfo 2nd rev. aug. ed.
\publ ``Nauka'' \publaddr Moscow
\yr 1970
\lang Russian
\transl English transl. of 1st ed.
\moreref{book}
\title The mathematical theory of viscous
    incompressible flow
\publ Gordon and Breach \publaddr New York
\yr 1963; rev. 1969
\endref

\bigskip
```

```
\paperref{bib:4}
\by P. D. Lax and C. D. Levermore
\title The small dispersion limit for
       the KdV equation.~{\rm I}
\jour Comm. Pure Appl. Math.
\vol 36 \yr 1983 \pages 253--290
\finalinfo (overview)
\moreref[, see also:]{paper}
\title {\rm II}
\jour Comm. Pure Appl. Math.
\vol 36 \yr 1983 \pages 571--594
\moreref[, see also:]{paper}
\title {\rm III}
\jour Comm. Pure Appl. Math.
\vol 36 \yr 1983 \pages 809--829
\endref

\paperref{bib:5}
\by S. Osher
\title Shock capturing algorithms for equations
       of mixed type
\inbook Numerical Methods for Partial
       Differential Equations
\eds S. I. Hariharan and T. H. Moulton
\publ Longman \publaddr New York
\yr 1986 \pages 305--322
\endref

\paperref{bib:6}
\by G. S. Petrov
\title Elliptic integrals and their
       nonoscillatory behavior
\jour Funktsional. Anal. i Pri\~lo\~zhen.
\vol 20 \yr 1986 \pages 46--49
\moreref{paper}
\transl English transl. in Functional
       Anal. Appl. \vol 20\yr 1986
\endref[.]

\end{thebibliography}
```

References

1. **V. I. Arnol'd, A. N. Varchenko, and S. M. Guseĭn-Zade**, SINGULARITIES OF DIFFERENTIABLE MAPS. I, “Nauka”, Moscow, 1982 (Russian);
2. ———, SINGULARITIES OF DIFFERENTIABLE MAPS. II, “Nauka”, Moscow, 1984 (Russian);
3. **O. A. Ladyzhenskaya**, MATHEMATICAL PROBLEMS IN THE DYNAMICS OF A VISCOUS INCOMPRESSIBLE FLUID, 2nd rev. aug. ed., “Nauka”, Moscow, 1970 (Russian), English transl. of 1st ed.; THE MATHEMATICAL THEORY OF VISCOUS INCOMPRESSIBLE FLOW, Gordon and Breach, New York, 1963; rev. 1969;
4. **P. D. Lax and C. D. Levermore**, *The small dispersion limit for the KdV equation*. I, Comm. Pure Appl. Math. **36** (1983), 253–290, (overview), see also: II, Comm. Pure Appl. Math. **36** (1983), 571–594, see also: III, Comm. Pure Appl. Math. **36** (1983), 809–829;
5. **S. Osher**, *Shock capturing algorithms for equations of mixed type*, Numerical Methods for Partial Differential Equations, Longman (S. I. Hariharan and T. H. Moulton, eds.), New York (1986), 305–322;
6. **G. S. Petrov**, *Elliptic integrals and their nonoscillatory behavior*, Funktsional. Anal. i Prilozhen. **20** (1986), 46–49; English transl. in Functional Anal. Appl. **20** (1986).

```

\refstyle{B}

\begin{thebibliography}{AAAA}

\bookref[C1]{C1}
\by      B. Coomes
\title   Polynomial flows, symmetry groups, and
          conditions sufficient for injectivity of maps
\bookinfo Ph.D. thesis, Univ. Nebraska--Lincoln
\yr      1988
\endref

\paperref[C2]{C2}
\bysame % B. Coomes
\title   The Lorenz system does not have
          a polynomial flow
\jour    J. Differential Equations
\toappear

```

```

\endref

\paperref[GHMR]{GHMR}
\by      J. Guckenheimer, P. Holmes,
         M. Martineau, and L. P. Robinson
\title  Nonlinear oscillations, dynamical systems, and
         bifurcations of vector fields
\publ   Springer-Verlag \publaddr New York
\yr     1983
\endref[.]

\end{thebibliography}

```

References

- [C1] **B. Coomes**, POLYNOMIAL FLOWS, SYMMETRY GROUPS, AND CONDITIONS SUFFICIENT FOR INJECTIVITY OF MAPS, Ph.D. thesis, Univ. Nebraska–Lincoln, 1988;
- [C2] ———, *The Lorenz system does not have a polynomial flow*, J. Differential Equations (to appear);
- [GHMR] **J. Guckenheimer, P. Holmes, M. Martineau, and L. P. Robinson**, *Nonlinear oscillations, dynamical systems, and bifurcations of vector fields*, Springer-Verlag, New York (1983).

6 Modifying the appearance

You can control the default formats by the command

```

\bibsetfmt[group name,item]{punctuation}
                        {begin commands}
                        {end commands}

```

for example

```

\bibsetfmt[paper,by]{,}{\textit}{:}

```

This way you can easily modify the appearance of the bibliography.

7 Changing the order of the items

The order of the items:

```
for `paper' group:
by,bysame,title,transl,jour,toappear,
inbook,publ,eds,publaddr,vol,
yr,pages,finalinfo,lang
```

```
for `book' group:
by,bysame,title,bookinfo,publ,publaddr,
pages,yr,lang,transl
```

can be changed defining the macro `\paperlist` and `\booklist`. For example to have the **yr** item displayed after **pages** item in the **paper** group define:

```
\def\paperlist{by,bysame,title,transl,jour,%
               toappear,inbook,publ,eds,%
publaddr,vol,pages,yr,%
finalinfo,lang}
```

8 Citing

The following segment of code

```
\citestyle{A}
Cite mode A \cite{book:1,art:1,art:2}. \\
\citestyle{B}
Cite mode B \cite{book:1,art:1,art:2}. \\
\citestyle{C}
Cite mode C \cite{book:1,art:1,art:2}.
```

```
Cite mode A [?, ?, ?].
Cite mode B[?.?.?].
Cite mode C?.?.?.
```

for the previous bibliography

9 Defining new styles

If you do not like the predefined styles **paper** and **book** you can easily define new ones. For example suppose you want to define a new style **tales** with the item `\author, \title, \year` with:

`\author` in smallcaps style surrounded by a box

`\title` in italic style

`\year` in bold style within **(...)**

you must follow the following steps

define the list of items

```
\def\taleslist{author,title,year}
```

define the command `\talesref` with the items

```
\bibdefinestyles{tales}
```

it defines the items `\author, \title, \year` with the default format and the command `\talesref`.

change the default formatting

```
\bibsetfmt [tales,author]
{,}
{\setbox0\hbox\bgroup\scshape}
{\egroup\fbbox{\box0}}
\bibsetfmt [tales,title]{}{\itshape}{}
\bibsetfmt [tales,year]{}{\bfseries}{} }
```

The following example (which uses `[definethebibliography]`) shows the effect:

```
\def\taleslist{author,title,year}
\bibdefinestyles{tales}
\bibsetfmt [tales,author]{,}
{\setbox0\hbox\bgroup\scshape}
{\egroup\fbbox{\box0}}
\bibsetfmt [tales,title]{}{\itshape}{}
\bibsetfmt [tales,year]{}{\bfseries}{} }

\begin{thebibliography}[Tales] (\section*,1cm) {99}
\talesref{A}
```

```
\author Isaac Asimov
\title Nemesis
\year 1989
\endref
\talesref{B}
\author Roger Zelazny
\title Nove principi in ambra
\year 1970
\endref
\talesref{C}
\author Dean R. Koontz
\title Strangers
\year 1986
\endref[.]
\end{thebibliography}
```

Tales

- [1] **ISAAC ASIMOV** *Nemesis* (1989);
- [2] **ROGER ZELAZNY** *Nove principi in ambra* (1970);
- [3] **DEAN R. KOONTZ** *Strangers* (1986).