

Instructions for Authors

The R Journal Editors

Abstract *The R Journal* is compiled using L^AT_EX and authors are required to submit their articles as L^AT_EX documents. Here we provide authors with information for preparing submissions to the *Journal*.

Introduction

The R Journal is the refereed journal of the R Project for Statistical Computing (Ihaka and Gentleman, 1996). It features short to medium length articles covering topics that might be of interest to users or developers of R, including:

Add-on packages: Short introductions to or reviews of R extension packages.

Programmer's Niche: Hints for programming in R.

Help Desk: Hints for newcomers explaining aspects of R that might not be obvious from reading the manuals and FAQs.

Applications: Demonstrating how a new or existing technique can be applied in an area of current interest using R, providing a fresh view of such analyses in R that is of benefit beyond the specific application.

The R Journal intends to reach a wide audience and have a fast-track but thorough review process. Papers are expected to be reasonably short, clearly written, not too technical, and of course focused on R.

Authors of refereed articles should take care to

- put their contribution in context, in particular discuss related R functions or packages;
- explain the motivation for their contribution;
- provide code examples that are reproducible.

Continuing from *R News*, *The R Journal* will also have a news section, including information on:

Changes in R: New features of the latest release.

Changes on CRAN: New add-on packages, manuals, binary distributions, mirrors, etc.

Conferences: Upcoming R-related conferences and reports from conferences.

The purpose of this document is to describe to all prospective authors how to prepare a submission for *The R Journal*.

Preparing a submission

Please send submissions to regular columns (Programmer's Niche, Help Desk) to the respective column editor, all other submissions to the Editor-in-Chief or a member of the editorial board.

The following files provide a template for preparing an article for submission to *The R Journal*:

L^AT_EX style file: 'RJJournal.sty'.

Master L^AT_EX file: 'RJwrapper.tex'. This includes the file 'RJtemplate.tex', which is not itself a complete L^AT_EX document (it has no `\begin{document}` or `\end{document}`).

Article template: 'RJtemplate.tex'.

Running `pdflatex` on 'RJwrapper.tex' a couple of times (to get the references right) will produce 'RJwrapper.pdf', which shows how the template file would be typeset in an *R Journal* issue.

'RJtemplate.tex' should be modified to contain the body of your article and renamed according to the author's or authors' surnames. For example, an article by John Chambers would be in the file 'Chambers.tex', and one by Bill Venables and Brian Ripley would be in the file 'VenablesRipley.tex'.

'RJwrapper.tex' must then be modified to include your article; all L^AT_EX packages required by your article should be loaded in this file. Both '.tex' files should be submitted, along with the compiled 'RJwrapper.pdf' and all necessary figure files (the **References** section describes how a bibliography may be included within the article '.tex' file).

Language

Articles in *The R Journal* are written in English. We accept British and American spelling along with other national variations. We encourage authors for whom English is not their first language to have their papers edited by a competent copy-editor. We encourage all authors to conform to accepted norms of grammar and style, and to avoid sexist language, such as the use of 'he' for individuals of indefinite gender.

Marking text

The **RJournal** L^AT_EX package provides a much simplified version of the commands for marking words and phrases used by Texinfo¹ (but note that the L^AT_EX special characters still need special treatment). Please use these commands and the other mark-up facilities described in this section rather than attempting

¹<http://www.gnu.org/software/texinfo/>

to format output and other elements visually. Unless it is absolutely necessary, please refrain from introducing additional idiosyncratic mark-up—for example, for programming languages.

The commands provided are:

`\code{sample-code}` indicates text that is a literal example of a piece of a program. For example, `\code{rows <- nrow(X)}` is typeset as `rows <- nrow(X)`. The `\code` command should also be used for keyboard input and the names of objects, functions and arguments. Class names should be quoted; for example `\code{"lm"}` is typeset as "lm".

`\samp{text}` indicates text that is a literal example of a sequence of characters. It should be used whenever parts of inline code could be confused with text, for example `\samp{R CMD check}` is typeset as ‘R CMD check’ and e.g. `\samp{...}` would give ‘...’.

`\file{file-name}` indicates the name of a file. For example, `\file{RJwrapper.tex}` is typeset as ‘RJwrapper.tex’.

`\dfn{term}` indicates the introductory or defining use of a term. For example, `\dfn{environment}` is typeset as *environment*.

We also provide the following markup:

`\strong` emphasizes text more strongly than `\emph`. For example, `\strong{Note:}` is typeset as **Note:**.

`\pkg` indicates an R package. For example, `\pkg{MASS}` is typeset as **MASS**.

`\url` indicates a URL. For example, `\url{http://cran.r-project.org/}` is typeset as <http://cran.r-project.org/>.

Note that no markup is necessary to typeset R.

Quotations and examples

In addition to the standard L^AT_EX environments for quotations and examples (such as `quote`, `quotation`, `flushleft`, `center` and `flushright`), the **RJournal** package provides the following environments:

`example` is used to illustrate code, commands, and the like. The text is printed in a fixed-width font, and indented but not filled.

`smallexample` is similar to `example`, except that text is typeset in a smaller font.

These are patterned after the Texinfo environments with the same names. In particular, `\{`, `\}`, and `\|` retain their “usual” meanings and are not treated `verbatim`, which is not optimal for displaying R code

or output. Hence, we also provide a `smallverbatim` environment which works like `verbatim` but uses a smaller font for typesetting.

Sectioning, titles, and abstract

Use only `\section` and `\subsection` commands, not `\section*` or `\subsection*`.

The title of the article should be set with initial capitals, as in `\title{Drawing Diagrams with R}`. Only the initial word of section and subsection titles should be capitalized; for example, `\section{Starting at the end}`. The only markup that should be used inside titles is `\pkg`.

Every article should include a abstract of no more than 150 words. The abstract is entered with the `\abstract` command, and should appear immediately after `\maketitle` at the beginning of the article.

Author information

Authors’ names only should be given at the beginning of the article, following the title, using the `\author` command. All other information is given in the ‘signature block’ at the end of the article (see immediately below). For example, `\author{Ross Ihaka and Robert Gentleman}`.

The article should end with a signature block giving contact information for each author. For example

```
\address{Paul Murrell\\
  Department of Statistics\\
  The University of Auckland\\
  New Zealand}\\
\email{paul@stat.auckland.ac.nz}
```

Mathematics

The R Journal does not prescribe specific L^AT_EX mark-up for mathematics: Use mark-up that is conventional in your field. We do, however, encourage authors to follow sound L^AT_EX practices.

- For example, use proper mathematical operators: Do not write $\log(x)$, which will be typeset as $\log(x)$, but rather `\log(x)`, which will appear as $\log(x)$.
- Similarly, use `\left` and `\right` with delimiters in mathematical expressions in preference to bare delimiters: Do not write

```
\sum_{1=1}^n (X_{i}^{\prime} -
  \overline{X}^{\prime})^2
```

which will be typeset as $\sum_{i=1}^n (X'_i - \bar{X}')^2$, but rather

```
\sum_{1=1}^n \left( X_{i}^{\prime} -
  \overline{X}^{\prime} \right)^2
```

which will appear as $\sum_{i=1}^n (X'_i - \bar{X}')^2$.

Two-column figures and tables

Currently, *The R Journal* is typeset in two columns. By default, figures and tables will occupy only one column (see Figure 1), but you can use the `figure*` or `table*` environments to create a figure or table that spans both columns (see Figures 2 and 3).



Figure 1: A normal figure only occupies one column.

References

The standard way to produce citations for *The R Journal* is via the `\citep` and `\citet` commands (and their relatives) and a ‘.bib’ file that contains the references in BibTeX format.² The citation in the first paragraph of this style guide is of the form `\citep{R:Ihaka+Gentleman:1996}`. Figure 2 shows an example file called ‘example.bib’ which contains a single reference.

A bibliography is produced from ‘example.bib’ by placing the following line in ‘RJtemplate.tex’ (or whatever you end up calling it):

```
\bibliography{example}
```

and running `pdflatex` then `bibtex` on the file ‘RJwrapper.tex’.

You can make *The R Journal* editors’ job a bit easier if, at this point, you replace the line:

```
\bibliography{example}
```

with the contents of the file ‘RJwrapper.bbl’. Figure 3 shows what this ‘RJwrapper.bbl’ file looks like when produced from ‘example.bib’ (in Figure 2).

Summary

The steps involved in preparing an article for submission to *The R Journal* are as follows:

- Download ‘RJwrapper.tex’, ‘RJtemplate.tex’, and ‘RJJournal.sty’.
- Rename ‘RJtemplate.tex’ using the author’s or authors’ names (say, ‘Yourname.tex’), and replace its contents with the contents of your article.
- If appropriate, create a ‘Yourname.bib’ BibTeX file and add `\bibliography{Yourname}` at the end of ‘Yourname.tex’.
- Modify ‘RJwrapper.tex’ to include ‘Yourname.tex’ rather than ‘RJtemplate.tex’. Include all necessary \LaTeX `\usepackage` commands in the modified ‘RJwrapper.tex’.
- If appropriate, run `pdflatex` then `bibtex` on ‘RJwrapper.tex’ to create ‘RJwrapper.bbl’. Replace `\bibliography{Yourname}` in ‘Yourname.tex’ with the contents of ‘RJwrapper.bbl’.
- Run `pdflatex` on ‘RJwrapper.tex’ a couple of times (until all figure references are resolved) to produce ‘RJwrapper.pdf’.
- Iterate until ‘RJwrapper.pdf’ looks right.
- Then submit
 - The modified ‘RJwrapper.tex’;
 - ‘RJwrapper.pdf’;
 - ‘Yourname.tex’;
 - and all necessary figure files.

Acknowledgment

Parts of this style guide were adapted from documentation originally prepared by Kurt Hornik and Friedrich Leisch for the *R Journal* \LaTeX style file.

Bibliography

R. Ihaka and R. Gentleman. R: A language for data analysis and graphics. *Journal of Computational and Graphical Statistics*, 5(3):299–314, 1996. URL <http://www.amstat.org/publications/jcgs/>.

²We use the **natbib** package for citations.

```
@ARTICLE{R:Ihaka+Gentleman:1996,
  AUTHOR = {Ross Ihaka and Robert Gentleman},
  TITLE = {R: A Language for Data Analysis and Graphics},
  JOURNAL = {Journal of Computational and Graphical Statistics},
  YEAR = 1996,
  VOLUME = 5,
  NUMBER = 3,
  PAGES = {299--314},
  URL = {http://www.amstat.org/publications/jcgs/}
}
```

Figure 2: The contents of a file called 'example.bib'. This figure uses the figure* environment to span two columns.

```
\begin{thebibliography}{1}
\expandafter\ifx\csname natexlab\endcsname\relax\def\natexlab#1{#1}\fi
\expandafter\ifx\csname url\endcsname\relax
  \def\url#1{{\tt #1}}\fi

\bibitem[Ihaka and Gentleman(1996)]{R:Ihaka+Gentleman:1996}
R.~Ihaka and R.~Gentleman.
\newblock R: A language for data analysis and graphics.
\newblock {\em Journal of Computational and Graphical Statistics}, 5\penalty0
(3):\penalty0 299--314, 1996.
\newblock URL \url{http://www.amstat.org/publications/jcgs/}.

\end{thebibliography}
```

Figure 3: The contents of a file called 'Rjwrapper.bb'. This figure also uses the figure* environment to span two columns.