Instructions for Authors

by The R Journal Editors

Abstract *The R Journal* is compiled using LaTeX and authors are required to submit their articles as LaTeX 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:

Short introductions to R packages.

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.

Hints for programming in R.

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

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.

The R Journal also has a *News and Notes* 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.

News from the Bioconductor project: Latest developments from `www.bioconductor.org`.

R Foundation News: Donations to and new members of The R Foundation.

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 the Editor-in-Chief.

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

LaTeX style file: 'RJournal.sty'.

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

Article template: 'RJtemplate.tex'.

Bibliography template: 'RJreferences.bib'.

Running `pdflatex` and `bibtex` 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 LaTeX 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.

Do not include style files for other latex packages needed by your article.

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 LaTeX style file 'RJournal.sty' provides a much simplified version of the commands for marking words and phrases used by Texinfo[1] (but note that the LaTeX special characters still need special treatment). Please use these commands and the other mark-up facilities described in this section rather than attempting 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**.

`\CRANpkg` indicates an R package on CRAN, and includes a hyper-link to the corresponding web page. For example, `\CRANpkg{Rcpp}` is typeset as **Rcpp**.

`\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. Likewise, no markup should be used to typeset the names of external software. In particular, the `\pkg` command is reserved for R packages.

[1] http://www.gnu.org/software/texinfo/

Quotations and examples

In addition to the standard LaTeX 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}`.

If the title includes a package name, the name should be formatted with the `\pkg` command. This ensures that the package name is correctly typeset when it appears in the Table of Contents of *The R Journal*. Note that `\pkg` is the only markup that should be used inside a title.

Every article should include an 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. The abstract should not contain any citations or references.

Author information

Authors' names only should be given at the beginning of the article, following the title, using the `\author` command. The list of authors should begin with the word "by". All other information is given in the 'signature block' at the end of the article (see immediately below). For example, `\author{by 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 LaTeX mark-up for mathematics: Use mark-up that is conventional in your field. We do, however, encourage authors to follow sound LaTeX 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 $\sum_{1=1}^{n}(X_i' - \overline{X}')^2$, but rather

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

  which will appear as $\sum_{1=1}^{n}\left(X_i' - \overline{X}'\right)^2$.

	Left	Right
Up	1	2
Down	3	4

Table 1: A simple table with booktabs formatting.

Figures and tables

Horizontal lines in tables should use commands from the booktabs package, i.e. `\toprule` for the top of the table, `\bottomrule` for the bottom of the table, and `\midrule` for any horizontal lines within the table (see Table 1).

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{ihaka:1996}`. Figure 1 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', then running `pdflatex` as many times as necessary until LATEX stops complaining about undefined citations.

BibTeX will ignore capitalization in titles, unless words are protected inside curly braces, e.g. `R` will appear as "r", whereas `{R}` will appear correctly as "R". Ensure that proper names in titles are protected. Similarly, in the author field, corporate authors will not appear correctly unless protected, e.g. a bibtex entry with

```
AUTHOR = {The R Journal Editors}
```

will appear in the bibliography as "TRJ Editors" and should be protected with double braces:

```
AUTHOR = {{The R Journal Editors}}
```

Citing packages

The first time a package is cited in the text, excluding the abstract, it should be followed by a formal citation, such as the one generated by the `citation()` function in R. The first citation of a CRAN package should use `\CRANpkg`. Further citations use `\pkg` and need not be followed by a citation.

The BibTeX entry for an R package should not use the `\pkg` command to format the package name in the `TITLE` field.

[2] We 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 1: The contents of a file called 'example.bib'. This figure uses the `figure*` environment to span two columns.

Citing R

Articles in *The R Journal* do not include a citation of R itself.

Summary

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

- Download 'RJwrapper.tex', 'RJtemplate.tex', and 'RJournal.sty'.
- Rename 'RJtemplate.tex' using the author's or authors' names (say, 'Yourlastname.tex'), and replace its contents with the contents of your article.
- Create a 'Yourlastname.bib' BibTeX file and add `\bibliography{Yourlastname}` at the end of 'Yourlastname.tex'.
- Modify 'RJwrapper.tex' to include 'Yourname.tex' rather than 'RJtemplate.tex'. Include all necessary LaTeX `\usepackage` commands in the modified 'RJwrapper.tex'.
- 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';
  - 'Yourname.bib';
  - and all necessary figure files.

Acknowledgment

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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. [p1]