F1000Research Software Tool Article Template

The title should be detailed enough for someone to know whether the article would be of interest to them, but also concise. Please ensure the broadness and claims within the title are appropriate to the content of the article itself.

Author Name1[1] and Author Name2[2]

[1]**Address of author1**
[2]**Address of author2**

Please list all authors that played a significant role in developing the software tool and/or writing the article. Please provide full affiliation information (including full institutional address, ZIP code and e-mail address) for all authors, and identify who is/are the corresponding author(s).

Abstract

Abstracts should be up to 300 words and provide a succinct summary of the article. Although the abstract should explain why the article might be interesting, care should be taken not to inappropriately over-emphasise the importance of the work described in the article. Citations should not be used in the abstract, and the use of abbreviations should be minimized.

Keywords

Please list up to eight keywords to help readers interested in your article find it more easily.

Introduction

The introduction provides context as to why the software tool was developed and what need it addresses. It is good scholarly practice to mention previously developed tools that address similar needs, and why the current tool is needed.

Methods

Implementation

For software tool papers, this section should address how the tool works and any relevant technical details required for implementation of the tool by other developers.

Operation

This part of the methods should include the minimal system requirements needed to run the software and an overview of the workflow for the tool for users of the tool.

Results

This section is only required if the paper includes novel data or analyses, and should be written as a traditional results section.

Use Cases

This section is required if the paper does not include novel data or analyses. Examples of input and output files should be provided with some explanatory context. Any novel or complex variable parameters should also be explained in sufficient detail to allow users to understand and use the tool's functionality.

Discussion

This section is only required if the paper includes novel data or analyses, and should be written in the same style as a traditional discussion section. Please include a brief discussion of allowances made (if any) for controlling bias or unwanted sources of variability, and the limitations of any novel datasets.

Conclusions

This section is only required if the paper includes novel data or analyses, and should be written as a traditional conclusion.

Summary

This section is required if the paper does not include novel data or analyses. It allows authors to briefly summarize the key points from the article.

Data availability

Please add details of where any datasets that are mentioned in the paper, and that have not have not previously been formally published, can be found. If previously published datasets are mentioned, these should be cited in the references, as per usual scholarly conventions.

Software availability

This section will be generated by the Editorial Office before publication. Authors are asked to provide some initial information to assist the Editorial Office, as detailed below.

1. URL link to where the software can be downloaded from or used by a non-coder (AUTHOR TO PROVIDE; optional)

2. URL link to the author's version control system repository containing the source code (AUTHOR TO PROVIDE; required)

3. Link to source code as at time of publication (*F1000Research* TO GENERATE)

4. Link to archived source code as at time of publication (*F1000Research* TO GENERATE)

5. Software license (AUTHOR TO PROVIDE; required)

Author contributions

In order to give appropriate credit to each author of an article, the individual contributions of each author to the manuscript should be detailed in this section. We recommend using author initials and then stating briefly how they contributed.

Competing interests

All financial, personal, or professional competing interests for any of the authors that could be construed to unduly influence the content of the article must be disclosed and will be displayed alongside the article. If there are no relevant competing interests to declare, please add the following: 'No competing interests were disclosed'.

Grant information

Please state who funded the work discussed in this article, whether it is your employer, a grant funder etc. Please do not list funding that you have that is not relevant to this specific piece of research. For each funder, please state the funder's name, the grant number where applicable, and the individual to whom the grant was assigned. If your work was not funded by any grants, please include the line: 'The author(s) declared that no grants were involved in supporting this work.'

Acknowledgments

This section should acknowledge anyone who contributed to the research or the article but who does not qualify as an author based on the criteria provided earlier (e.g. someone or an organization that provided writing assistance). Please state how they contributed; authors should obtain permission to acknowledge from all those mentioned in the Acknowledgments section.

Please do not list grant funding in this section.

References

[1] J. M. Smith and A. B. Jones. *Book Title*. Publisher, 7th edition, 2012.

[2] A. B. Jones and J. M. Smith. Article Title. *Journal title*, 13(52):123–456, March 2013.

References can be listed in any standard referencing style and should be consistent between references within a given article.

Reference management systems such as Zotero provide options for exporting bibliographies as BibTeX files. BibTeX is a bibliographic tool that is used with LaTeX to help organize the user's references and create a bibliography. This template contains an example of such a file, `sample.bib`, which can be replaced with your own. Use the `\cite` command to create in-text citations, like this [1] and this [2].

USING LATEX

Some examples of commonly used LaTeX commands and features are listed below, to help you get started.

Sections

Use section and subsection commands to organize your document. LaTeX handles all the formatting and numbering automatically. Use ref and label commands for cross-references.

Tables

Use the table and tabledata commands for basic tables — see Table 1, for example.

Table 1. **An example of a simple table with caption.**

First name	Last Name	Grade
John	Doe	7.5
Richard	Miles	2

Figures

You can upload a figure (JPEG, PNG or PDF) using the files menu. To include it in your document, use the includegraphics command (see the example below in the source code).

Please give figures appropriate filenames eg: figure1.pdf, figure2.png.

Figure legends should briefly describe the key messages of the figure such that the figure can stand alone from the main text. However, all figures should also be discussed in the article text. Each legend should have a concise title of no more than 15 words. The legend itself should be succinct, while still explaining all symbols and abbreviations. Avoid lengthy descriptions of methods.

For any figures reproduced from another publication (as long as appropriate permission has been obtained from the copyright holder —see under the heading 'Submission'), please include a line in the legend to state that: 'This figure has been reproduced with kind permission from [include original publication citation]'.

Figure 1. Your figure legend goes here; it should be succinct, while still explaining all symbols and abbreviations.

Mathematics

LaTeX is great at typesetting mathematics. Let $X_1, X_2, \ldots, X_n$ be a sequence of independent and identically distributed random variables with $E[X_i] = \mu$ and $\text{Var}[X_i] = \sigma^2 < \infty$, and let

$$S_n = \frac{X_1 + X_2 + \cdots + X_n}{n} = \frac{1}{n} \sum_i^n X_i$$

denote their mean. Then as n approaches infinity, the random variables $\sqrt{n}(S_n - \mu)$ converge in distribution to a normal $\mathcal{N}(0, \sigma^2)$.

Lists

You can make lists with automatic numbering ...

1. Like this,

2. and like this.

... or bullet points ...

- Like this,

- and like this.