How To Cite CorTexT Manager

Marques da Costa, Joenio
Université Gustave Eiffel

Barbier, Marc
LISIS - Laboratoire Interdisciplinaire Sciences, Innovations, Sociétés

Villard, Lionel
ESIEE Paris

Daniel, Luis
LISIS - Laboratoire Interdisciplinaire Sciences, Innovations, Sociétés

June 24, 2022

1 Introduction

Software and Platform availability play a fundamental role in scientific activities and front of knowledge development. It concerns many disciplines, interdisciplinary research and open-sciences. Software, services, datasets and IT assets are more and more being assembled to give birth to research infrastructures. It has become necessary to increase the impact and radical empowerment of those applications and infrastructures on science dynamics, and thus to recognize Software and Infrastructure for research as a first class product. Researchers, engineers and their organizations must be encouraged by academic credit, so that the value of their involvement in support and development of software and platforms for science is acknowledged [1].

The European policy of research infrastructure plays a key role in this context. It intends to stimulate and foster the professionalization of infrastructure technology and management, in the interest of ensuring the sustainability of software and infrastructures on the service of science. On that account, the engagement of scientists and engineers in software and platform archictecture needs to be recongnized as a key contribution to ongoing and future dynamics of Science and Innovation in Societies.

One key issue in this topic is the role of software as key assets for new front of knowledge. This point has been and -still is- a matter of debate, such as how to apply the FAIR (Findable, Accessible, Interoperable and Reusable) principles to software [6], and proposals such as the Citation File Format (CFF) [4], a YAML format for describing software metadata, or CodeMeta [5], a JSON-LD conceptual vocabulary for software repositories interoperability.

Many of these proposals are built around debates centered on the software citation principles [7], which are summarized below:

Importance: Software should be considered a legitimate and citable product of research.

Credit and attribution: Software citations should facilitate giving scholarly credit and recognizing.

Unique identification: A software citation should include a globally unique identification.

Persistence: Unique identifiers and metadata describing the software should persist.

Accessibility: Software citations should facilitate access to the software itself and to its metadata.

Specificity: Software citations should facilitate identification of the specific version of software that was used.

Based on these principles and considering some of the more recent ideas on how to cite software, here follows a proposal of how the CorTexT Manager as a on line application or software should be cited in academic papers.

2 Cite CorTexT Manager with BibLaTeX

Within the general issue exposed in section 1, this note intends to specify the manner in which CorTexT Manager should be cited when it is used as a software that is developed and delivered by the CorTexT team as an online application for scientific work.

When cited the format of citation is to be clearly defined as shown hereunder [2] is displayed in the bibliographic references. This example uses the data described in the file *biblatex-software.bib*. This format is the one recommended to cite CorTexT Manager in an appropriate way.

References to Software (example)

[2] [SW] Philippe Breucker et al., *CorTexT Manager* version v2 (Coord.by Marc Barbier and Lionel Villard), Dec. 1, 2020. Laboratoire Interdisciplinaire Sciences Innovations Sociétés (LISIS). URL: `https://docs.cortext.net`(visited on 01/31/2022), VCS: `https://github.com/cortext/how-to-cite-cortext`.

2.1 BibLaTeX file

Below is the content of the BibLaTeX file *biblatex-software.bib* with the BibLaTeX Software extension[8].

```
@software{cortext_manager_v2,
  title = {CorTexT Manager},
  author = {Breucker, Philippe and Cointet, Jean-Philippe and Hannud
  Abdo, Alexandre and Orsal, Guillaume and de Quatrebarbes, Constance and
  Duong, Tam-Kien and Martinez, Cristian and Villard, Lionel and Ospina
  Delgado, Juan Pablo and Medina Zuluaga, Luis Daniel and Gómez Peña,
  Diego Fernando and Andrea Sánchez Castaño, Tatiana and Marques da
  Costa, Joenio and Laglil, Hajar},
  abstract = {Over the last decades, whether documents, databases or
  online contents, including social media, the digital traces associated
  with human activities in society have experienced a sustained growth in
  volume and a wide diversification. They represent a renewed pl8ayground
  for social sciences and humanities, shifting the fields studied and
  renewing research questions and methods. CorTexT Manager started at
  this crossroads, within a research infrastructure aiming in particular
  at identifying and gathering methods in order to assist and structure
  the approaches of the researchers that use it.  The main goal of
  CorTexT Manager is that a social scientist, or any other user, could
  come with a research question and leave with the fruits of a
  computational method suited to their question. Cortext Manager
  facilitates the analysis of complex heterogeneous networks, crossing
  social networks with semantic networks. It also offers capabilities to
  identify place names mentioned in documents and to analyze the
  associated dynamics across the geographical space, as well as
  heterogeneous topic modeling methods.  While continuing to move forward
  on the scientific and technical fronts, CorTexT Manager's functional
  design has been driven by a strong principle that still differentiates
  it: to offer users the ability to combine different methods and
  analyses without leaving the application.},
  date = {2020-12-01},
  month = {12},
  year = {2020},
  editor = {Marc Barbier and Lionel Villard},
  institution = {Laboratoire Interdisciplinaire Sciences Innovations
  Sociétés (LISIS)},
  version = {v2},
  url = {https://docs.cortext.net},
  urldate = {2022-01-31},
  repository = {https://github.com/cortext/how-to-cite-cortext},
}
```

When using this file it is possible to see the result of reference format citing CorTexT Manager [2] on the references section of this document.

3 Cite CorTexT Manager with BibTEX

References (example)

[3] Philippe Breucker et al. *CorTexT Manager*. Dec. 2020. URL: https://managerv2.cortext.net.

3.1 BibTEX file

Below is the content of the BibTEX file *bibtex.bib*, this file is created from *CITATION.cff* converted by *cffconvert* tool.

```
@misc{cortext_manager_v2_bibtex,
  keywords = {cortext},
  author = {Breucker, Philippe and Cointet, Jean-Philippe and Hannud
  Abdo, Alexandre and Orsal, Guillaume and de Quatrebarbes, Constance and
  Duong, Tam-Kien and Martinez, Cristian and Villard, Lionel and Ospina
  Delgado, Juan Pablo and Medina Zuluaga, Luis Daniel and Gómez Peña,
  Diego Fernando and Andrea Sánchez Castaño, Tatiana and Marques da
  Costa, Joenio and Laglil, Hajar},
  month = {12},
  title = {CorTexT Manager},
  url = {https://managerv2.cortext.net},
  year = {2020}
}
```

When using this file it is possible to see the result of reference format citing CorTexT Manager [3] on the references section at the end of this document.

3.2 APA file

Below is the content of the APA file *apalike.apa*, this file is created from *CITATION.cff* converted by *cffconvert* tool.

```
Breucker P., Cointet J., Hannud Abdo A., Orsal G., de Quatrebarbes C.,
Duong T., Martinez C., Villard L., Ospina Delgado J.P., Medina Zuluaga
L.D., Gómez Peña D.F., Andrea Sánchez Castaño T., Marques da Costa J.,
Laglil H. (2020). CorTexT Manager (version v2). URL:
https://managerv2.cortext.net
```

4 CorTexT Manager metadata

The CorTexT Manager metadata for academic citation is being maintained mainly in the *CITATION.cff* file.

CITATION.cff Citation File Format (CFF) file with metadata about the software CorTexT Manager, this file is the main file to centralize all metadata required for citation.

The *CITATION.cff* file can be read by the *cffconvert* tool and translated in some other formats, like *codemeta.json*, *bibtex.bib* and *apalike.apa*.

codemeta.json CodeMeta file generated from *CITATION.cff* by the *cffconvert* tool, this file is a machine-readable file in a interchangeable JSON-LD format.

bibtex.bib BibTeX file generated from *CITATION.cff* by the *cffconvert* tool, this file is useful for whom is using BibTeX as referencing system.

apalike.apa APA file generated from *CITATION.cff* by the *cffconvert* tool, this file is a plaintext format.

Besides those files there also the *biblatex-software.bib*

biblatex-software.bib BibLaTeX file with Software extension, this file is a transcription of all informations from the *CITATION.cff* file.

The *biblatex-software.bib* is the preferred way for citing CorTexT Manager as it offers much more rich metadata then the *bibtex.bib*

References

[1] Pierre Alliez et al. "Attributing and Referencing (Research) Software: Best Practices and Outlook From Inria". In: *Computing in Science Engineering* 22.1 (Jan. 2020). Conference Name: Computing in Science Engineering, pp. 39–52. ISSN: 1558-366X. DOI: 10.1109/MCSE.2019.2949413.

[2] [SW] Philippe Breucker et al., *CorTexT Manager* version v2 (Coord.by Marc Barbier and Lionel Villard), Dec. 1, 2020. Laboratoire Interdisciplinaire Sciences Innovations Sociétés (LISIS). URL: https://docs.cortext.net(visited on 01/31/2022), VCS: https://github.com/cortext/how-to-cite-cortext.

[3] Philippe Breucker et al. *CorTexT Manager*. Dec. 2020. URL: https://managerv2.cortext.net.

[4] Neil P. Chue Hong et al. *Software Citation Checklist for Developers*. eng. Tech. rep. Zenodo, Oct. 2019. DOI: 10.5281/zenodo.3482769. URL: https://zenodo.org/record/3482769 (visited on 08/31/2021).

[5] Stephan Druskat et al. "Citation File Format (CFF) - Specifications". eng. In: (Nov. 2019). Publisher: Zenodo. DOI: 10.5281/zenodo.3515946. URL: https://zenodo.org/record/3515946 (visited on 08/31/2021).

[6] *FAIR Research Software*. URL: https://fair-software.nl/home (visited on 08/31/2021).

[7] Arfon M. Smith, Daniel S. Katz, and Kyle E. Niemeyer. "Software citation principles". en. In: *PeerJ Computer Science* 2 (Sept. 2016). Publisher: PeerJ Inc., e86. ISSN: 2376-5992. DOI: 10.7717/peerj-cs.86. URL: https://peerj.com/articles/cs-86 (visited on 08/31/2021).

[8] softwareheritage.org. *Citing software with style*. en-US. May 2020. URL: https://www.softwareheritage.org/2020/05/26/citing-software-with-style/ (visited on 08/31/2021).