Citation of Scientific Software

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Attribution for Software and Source Code
Wednesday 9 July 2014
Why Cite Scientific Software?

- Reproducibility:
  - Allow others to use the same software to repeat the study
- Attribution:
  - Recognize source (creator, publisher or center)
- Documentation:
  - Identify software used, enable software reuse
- Provenance:
  - Record version and release of the software used
Attribution: Software Recognized in Grant Proposals

- NSF GPG Instructions for Results from Prior NSF Support
  - "evidence of research products and their availability, including, but not limited to: data, publications, samples, physical collections, software, and models". NSF 14-1, II-10.

- NSF GPG Instructions for Biographical Sketches - Products
  - “Acceptable products must be citable and accessible including but not limited to publications, data sets, software, patents, and copyrights”. NSF 14-1, II-12.

- NSF GPG Instructions for Data Management Plans
  - "types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project" NSF 14-1, II-21.

Interpreting Guidance for Referencing Software

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Citing Different Types of Scientific Software

- Data services
  - Integration, analysis,

- Web services
  - Standards compliant

- Applications (resident & mobile)
  - APIs

- Clients
  - Installed on a specific platform

- Database Management Systems
  - Data Catalogs
  - Archival Services
Recommendations for Practice

- **Software Developers**: Include a recommended citation for the software in the software *documentation*.
- **Software Users**: *Cite* software used for publications, both *in-text and referenced* in the list of references.
- **Data Centers**: Establish and implement policies to *provide guidance* on citing data and scientific software and offer *Recommended Citations* for data products and services, including web services, and apps offered.
- **Publishers**: Ensure that authors and reviewers are informed that *software should be cited* in-text and referenced in the list of references.