

[PROV-ES Hack-a-thon](#) [1]

Submitted by Annie Keyes on Fri, 2015-07-03 18:17 Wednesday, July 15, 2015 - 13:30 to 15:00

Event: [Summer Meeting 2015](#) [2]

Session Type: [Breakout](#) [3]

Expertise Level: [Beginner](#) [4]

Collaboration Area: [Data Preservation](#) [5]

Abstract/Agenda:

Earth Science Data Systems across NASA play a critical role in data processing and analysis of NASA datasets. However, there is a growing need to provide the provenance of these datasets as scientists increasingly need to assess the lineage of the data products to improve their understanding and trust of the science results. Lessons learned from Climategate show that there is public demand for more transparency and understanding in the science process. Science data systems are key to enabling the capture, management, and use of production provenance information. Science analysis now also may involve merging multi-sensor datasets where lineage can facilitate the understanding of the data. But there does not exist a formal recommendation for an interoperable standard for provenance representation for use in NASA's Earth Science Data Systems.

During 2013 and 2014, the Provenance - Earth Science (PROV-ES) Working Group primarily focused on defining extensions to the World Wide Web Consortium (W3C) PROV standard, and the technical aspects of an initial implementation of the specification to capture and explore lineage information for some sample projects. Technical work has been progressing through funded projects to mature the technology for capturing lineage information and make it easily viewable, understandable and useable. The NASA Earth Science Data Preservation Content Specification provides information on what has to be captured to ensure understandability of datasets in the future. PROV-ES aims to address how to capture the provenance for earth science data systems and what the level and type of provenance should be for supported content items.

We will give a brief overview of PROV-ES and dive into getting started with PROV-ES encodings, discovery, and visualization. We will provide an initial PROV-ES service virtual machine to deploy yourself.

We advise setting up this virtual machine ahead of time before the hackathon to avoid any potential issues with clogging the conference wifi network.

Please refer to our collaborative document [here](#) [6] for notes and installation instructions.

Presenters:

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[2] <https://commons.esipfed.org/2015SummerMeeting>

[3] <https://commons.esipfed.org/session-type/breakout>

[4] <https://commons.esipfed.org/taxonomy/term/260>

[5] <https://commons.esipfed.org/collaboration-area/data-preservation>

[6] <http://docs.google.com/document/d/1IYK0R2vivUJGttJCLAVhOkY3eHkySbjtB0elsZtg3N8/edit#heading=h.5kxzhsgf45y1>

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