

**DEMONSTRATION OF UPDATED OLAF CAPABILITIES AND TECHNOLOGIES.** C. Kingston<sup>1</sup>, E. Palmer, J. Stone, M. Drum, C. Neese, B. Mueller, <sup>1</sup>Planetary Science Institute, 1700 E Ft Lowell Rd, 110, Tucson, AZ, ckingston@psi.edu.

**Introduction:** The On-Line Archiving Facility (OLAF) provides an interface through which users can submit data to the NASA Planetary Data System (PDS) so that it can be reviewed, archived, and made available to the public. OLAF is maintained by the PDS Small Bodies Node.

**Goals.** The PDS4 standard can be complex and intimidating to learn, making archiving data a burdensome task. OLAF is designed to make submitting data to the PDS easier. OLAF outputs properly-formatted and PDS4-compliant XML product labels for several data types (with more currently under development). However, users are not required to maintain current understanding of an evolving standard and are thus isolated from PDS4 terminology altogether.

In support of these goals, OLAF has been undergoing a transformation into a more modern web application. The most recent improvements to OLAF include:

- developing a separate client application using Angular.js and Node.js
- separating client development from server logic
- developing a RESTful API from the existing OLAF codebase to consume data supplied by the server
- providing tools to manage observing systems and instruments/telescope relationships without having to learn terms specific to PDS4 or OLAF

OLAF includes the capability to upload tabular data as Comma Separated Values (CSV) files, as well as an improved method for uploading and batch processing to simplify the data submission process.

**Benefits:** These are some of the benefits of using the Angular framework with OLAF:

- Simplifies and enhances client-side development
- Establishes an extensive library of HTML modules with associated functionality
- Promotes re-usability of code blocks and custom validations
- Minimizes existing code revision
- Uses highly-readable JSON strings for data exchange
- Improves code maintainability

- Provides access to hundreds of thousands of open-source software packages
- Incorporates new data types easily

**CSV Tables.** The use of CSV files for tabular data allows users to use spreadsheet software like Excel to generate data files. CSV files also make it simpler to embed header definitions directly in the files either by hand or programmatically. Including the metadata in this way significantly reduces the number of steps in the data upload process. CSV files are also easier to format and are more human-readable than fixed-width tables.