

**Sam Fries**  
**Supported Projects: ESGF, UV-CDAT, ACME**

**Quarterly Report for Oct 1, 2016 – Dec 31, 2016**

**Quarter Accomplishments:**

- **UV-CDAT**
  - **VCS.js**
    - Implemented external API for using VCS.js (October 2016)
    - Built replacement system for ParaViewWeb (October 2016)
    - Implemented initial client-side visualization using Plot.ly (October 2016)
    - Added client-side data API (October 2016)
    - Created conda package for distributing VCS.js (October 2016)
  - **VCDAT**
    - Integrated VCS.js into VCDAT (October 2016)
    - Wrote abstract for HCI International paper (December 2016)
    - Completed rough prototype of VCDAT with support for plotting data and customizing some graphics methods (November 2016)
  - **CDMS**
    - Updated CDMS' testing framework to use python's unittest, and actually be run (October 2016)
    - Developed prototype provenance system for serializing and tracking changes to a variable (October-December 2016)
    - Presented provenance system at AGU 2016 (December 2016)
  - **VCS**
    - Created a Jupyter Notebook integration for VCS, allowing use of VCDAT's widgets to edit visualizations (November 2016)
- **ESGF**
  - **DiagnosticsViewer/output\_viewer**
    - Added functionality to compare multiple diags sets (November 2016)
    - Presented diagnostics output management at ACME meeting (November 2016)
  - **BASEJumper**
    - Completed overhaul of BASEJumper's backend (November 2016)
    - Deployed test environment integrating NERSC's HPSS and LLNL's ESGF test node (November 2016)
    - Integrated into CoG for progress information display (December 2016)
    - Presented at ESGF F2F 2016 (December 2016)

## **Next Quarter's Roadmap**

- Complete CDMS Provenance system (January 2016)
- Complete initial version of VCDAT (March 2016)
- Write paper on VCDAT for HCI International (February 2016)

## **Resources Required to Achieve Goals**

- As much of Matt's time as I can get; VCDAT needs two nearly-full time developers to complete on time.