

HDF Group report to LLNL
April 1 – April 30, 2011
Quincey Koziol

Summary:

During the period from April 1 to April 30, 2011 the HDF Group worked on the following tasks:

- Port and test HDF5 1.8.x releases on LLNL machines (32.7 hours)
- Stackable VFD Support (7.8 hours)
- Misc. Admin Tasks (4.9 hours)

The **total number of hours** worked is **45.4** hours.

New tasks:

During this time period the following tasks were begun:

- ***Stackable VFD Support***
 - Begin project to allow HDF5 VFDs to be flexibly stacked together, allowing new combinations to be supported and new features to be added more easily.

Completed tasks:

During this time period the following tasks or sub-tasks were completed:

- ***Stackable VFD Support***
 - Unarchive project, update source code to base on subversion repository, locate RFC for feature, begin design discussions.

Tasks in progress:

During this period of time The HDF Group worked on the following tasks:

- ***Port and test HDF5 1.8.x releases on LLNL machines, Albert Cheng*** (32.7 hours)
 - Testing 1.8.6 release and 1.8 branch on dawndev.
 - Filtering out extra output from mpirun, so that automated regression testing is better.
 - Set up Silo testing on HDF Group machines.

- ***Stackable VFD Support, Quincey Koziol, John Mainzer*** (7.8 hours)
 - Locate & update previous stackable VFD code and RFC.
 - Design discussions.
- ***Miscellaneous Admin Tasks, Quincey Koziol, Albert Cheng, John Mainzer*** (4.9 hours)
 - Planning and reporting activities.
 - User discussions, status telecons & e-mail.
 - Make snapshots, etc.

Current Projects for People:

- Quincey Koziol:
 - Design & architecture guidance
 - Project management
- Albert Cheng:
 - Port and test HDF5 on LLNL machines
- Vailin Choi:
 - Scoping effort for adding single chunk index method
- John Mainzer:
 - Enable starting “core” VFD from existing buffer
 - “stackable” VFD design and implementation
 - Design VFDs to enable poor man’s parallel I/O

Ongoing tasks for next reporting period:

- ***Scope effort for implementing “stackable” VFDs, John Mainzer***
 - Discuss feature and write RFC for allowing VFDs to be “stacked” on top of each other.
- ***Design VFDs to enable poor man’s parallel I/O, John Mainzer***
 - Discuss feature and write RFC for VFDs that can improve “Poor Man’s Parallel” I/O on HPC systems.
- ***Enable starting “core” VFD from existing buffer, John Mainzer***
 - Write and circulate RFC for adding feature to library.
 - Implement feature.
- ***Single Chunk Index Method for Chunked Datasets, Vailin Choi***
 - Scope effort for adding feature to library.
 - Implement feature.
- ***Port and test HDF5 on LLNL machines, Albert Cheng***
 - Stand up daily testing on LLNL machines.

- Investigate and add tests for “poor man’s parallel” I/O to HDF5 regression test suite.