

HDF Group report to LLNL
May 2012
Quincey Koziol

Summary:

During the month of May, 2012 the HDF Group worked on the following tasks:

- Page Buffering (24.0 hours)
- Metadata Aggregation (17.6 hours)
- Port and test HDF5 on LLNL machines (11.3 hours)
- Support starting core VFD from file image in memory (1.9 hours)
- Misc. Admin Tasks (0.8 hours)
- Support “single chunk” indexing method for chunked datasets (0.0 hours)
- Collaborations w/LANL developers about stackable VFD ideas (0.0 hours)
- Investigate and correct issues reported by Klocwork tool (0.0 hours)

The **total number of hours** worked is **55.6** hours.

New tasks:

During this time period the following tasks were begun:

- *none*

Completed tasks:

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

- ***Port and test HDF5 on HPC machines***
 - HDF5 1.8.9 release testing on LLNL systems

Deferred tasks:

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

- *none*

Tasks in progress:

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

- **Page Buffering, Jacob Gruber** (24.0 hours)
 - Research on existing page buffer prototype code
 - Begin writing RFC for feature
- **Metadata Aggregation, Vailin Choi, Quincey Koziol** (17.6 hours)
 - Review John's RFC and create "implementation" RFC for feature
- **Port and test HDF5 on HPC machines, Albert Cheng** (11.3 hours)
 - HDF5 1.8.9 release testing on LLNL systems
 - Work on Silo testing issues
- **Support starting core VFD from file image in memory, Frank Baker, Mark Evans** (1.9 hours)
 - Minor documentation tweaks
- **Miscellaneous Admin Tasks, Quincey Koziol** (0.8 hours)
 - Set up user accounts
 - Planning and reporting activities.
 - User discussions, status telecons & e-mail.
 - Make snapshots, etc.
- **Support "single chunk" indexing method for chunked datasets, -** (0.0 hours)
 - *Nothing to report during this time period*
- **Collaborations w/LANL developers about stackable VFD ideas, -** (0.0 hours)
 - *Nothing to report during this time period*
- **Investigate and correct issues reported by Klocwork tool, -** (0.0 hours)
 - *Nothing to report during this time period*

Current Projects for People:

- Quincey Koziol:
 - Design & architecture guidance
 - Project management
- Albert Cheng:
 - Port and test HDF5 on HPC machines
- Mark Evans/Frank Baker:
 - Update HDF5 documentation for new feature(s)
- Vailin Choi:
 - "Single chunk" chunked dataset indexing method
- Jacob Gruber
 - Prototype page buffering implementation

Ongoing tasks for next reporting period:

- ***Metadata Aggregation, Vailin Choi***
 - Update RFC describing new feature
 - Implement feature.
- ***Page Buffering, Jacob Gruber***
 - Gather requirements, use cases and goals of project
 - Write RFC describing new feature
 - Implement feature.
- ***Single Chunk Index Method for Chunked Datasets, Vailin Choi***
 - Second review.
 - Check in to subversion.
- ***Port and test HDF5 on LLNL machines, Albert Cheng***
 - Release testing on LLNL machines.

Deferred/Future tasks:

- ***Investigate and correct issues reported by Klocwork tool, Quincey Koziol***
 - Investigate issues reported by Klocwork and correct them.
- ***Scope effort for implementing “stackable” VFDs***
 - 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***
 - Discuss feature and write RFC for VFDs that can improve “Poor Man’s Parallel” I/O on HPC systems.