

HDF Group report to LLNL
March 2013
Quincey Koziol

Summary:

During the month of March, 2013 the HDF Group worked on the following tasks:

- Metadata Aggregation (118.5 hours)
- Project Management Tasks (0.8 hours)
- Test HDF5 release on LLNL machines (0.0 hours)
- Support starting core VFD from file image in memory (0.0 hours)
- User Support (0.0 hours)
- Investigate and correct issues reported by Klocwork (0.0 hours)
- Page Buffering (0.0 hours)
- Support “single chunk” indexing method for chunked datasets (0.0 hours)

The **total number of hours** worked is **119.3** hours.

Items of Note:

Vailin has nearly finished with the final set of revisions to the metadata aggregation feature and will be ready for another, final, code review shortly.

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:

- *none*

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:

- **Metadata Aggregation, Vailin Choi** (118.5 hours)
 - Design discussions
 - Revising approach to setting property for enabling feature, to simplify it and make it more logical for users. (And propagate change to tests & tools, etc)
- **Test HDF5 releases on LLNL machines, -** (0.0 hours)
 - *Nothing to report during this time period*
- **Project Management Tasks, Quincey Koziol** (0.8 hours)
 - Set up user accounts
 - Planning and reporting activities.
 - User discussions, status telecons & e-mail.
 - Make snapshots, etc.
- **Support starting core VFD from file image in memory, -** (0.0 hours)
 - *Nothing to report during this time period*
- **User Support, -** (0.0 hours)
 - *Nothing to report during this time period*
- **Page Buffering, -** (0.0 hours)
 - *Nothing to report during this time period*
- **Investigate and correct issues reported by Klocwork, -** (0.0 hours)
 - *Nothing to report during this time period*
- **Support “single chunk” indexing method for chunked datasets, -** (0.0 hours)
 - *Nothing to report during this time period*

Current Projects for People:

- Quincey Koziol:
 - Design & architecture guidance
 - Project management
- Vailin Choi:
 - Metadata aggregation design & implementation
 - Page buffering design & implementation
 - “Single chunk” chunked dataset indexing method
- Albert Cheng:
 - Test HDF5 releases on HPC machines

- Mark Evans/Frank Baker:
 - Update HDF5 documentation for new feature(s)

Ongoing tasks for next reporting period:

- ***Metadata Aggregation, Vailin Choi***
 - Revise RFC describing new feature as needed
 - Implement feature.
- ***Page Buffering, Vailin Choi***
 - Write RFC describing new feature
 - Implement feature.
- ***Single Chunk Index Method for Chunked Datasets, Vailin Choi***
 - Second review.
 - Check in to subversion.
- ***Test HDF5 releases on LLNL machines, Albert Cheng***
 - Release testing on LLNL machines (in May & November).
- ***Investigate and correct issues reported by Klocwork tool, Quincey Koziol***
 - Investigate issues reported by Klocwork and correct them.

Deferred/Future tasks:

- ***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.