

Status Report for August 15, 2009

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Summary of progress

Work activity; whether it reached associated milestones.

NCSA

Bill (submitted on 8/17/2009)

- Developer VM images: stack installed; waiting for Ray to validate
- Data Mapping in Harness: on hold until Policy Validation is complete
- Policy Validation: going well, although slightly behind schedule
 - ◆ basic validation refactored, debugged and tested

David (submitted on 8/22/2009)

- Working with Ray and Tim on DC3a final report
- Coordinating/attending LSST DC3b scoping Meeting
- Planning DC3b Middleware tasks/schedule
- Preparation for Primavera training in Tucson

Greg (submitted on 8/18/2009)

- Work on design and started proto coding for separating MPI from the generic harness
 - ◆ Testing early versions of `pex_harness`, `pex_mpiharness`
- Worked on design for separating Stage into two classes `PipelineStage`, `SliceStage` to manage preprocess/postprocess, process respectively
- LSST Planning Meeting

Steve (submitted on 8/17/2009)

- Attended LSST Planning Meeting
- Worked on design changes for Events for DC3b.
- Worked on Orca redesign. Implemented new class structure, and integrated code from DC3a Orca into new design. Still working on this.

Ray (submitted on 8/17/2009)

- LSST DC3b Planning:
 - ◆ with help of team, developed detailed tasks, time allocations, and resource assignments for Middleware and Build System
 - ◆ contributed to development of scaling tasks
 - ◆ participated in DC3b Scoping Meeting III
- Edited and completed DC3a Report; document now in review.
- participated in system architecture modeling workshop (virtually) at SLAC

- assisted Daus and Pietrowicz with harness and orchestration modeling

LSST Corporation

Robyn (submitted on 8/13/2009)

- Completed the acceptance test on the EA **TestCaseGenerator** module which extracts Integration Test scenarios from Use Case and Activity UML models.
- Completed the reverse engineering of DC3a source into the EA Model. The new logical model will be released next week.
- Resumed work on Parasoft C++Test use. Mapped the LSST Coding Standards to matching or similar Parasoft Rules. Will use existing Parasoft Rules as templates when possible. Concordance available at: [LSST 'must' Coding Standards Rules](#) and [LSST 'should' Coding Standards Rules](#)
- As time permits, will start revision of DC3a SDP Plans for use as DC3b SDP Plans.
- Note: I resume my regular work schedule on 1 September.

Database Group

K-T (submitted on 8/./2009)

Andy H (submitted on 8/./2009)

Serge (submitted on 8/./2009)

Daniel (submitted on 9/16/2009)

- Scalable queries:
 - ◆ Fixed chunk/subchunk bug
 - ◆ Updated master-worker API
 - ◆ Began updating parser grammar for near-neighbor queries.
 - ◆ Implemented object partitioner and partition map table generator
- Attended gearman talk at OSCON
 - ◆ Discussed gearman architecture and hypothetical integration with scalable queries with Eric Day
- SciDB:
 - ◆ Diagnosed and helped debug memory leaks in storage manager and cooking code
 - ◆ Implement early observation flushing for cooking
 - ◆ Diagnosed querytree reference bug
 - ◆ Added redundancy elimination to observation grouping.
 - ◆ Added parameterizations for cooking code.
 - ◆ Performed testing and debugging of parallel SciDB
 - ◆ Hacked mosaic-loading code.
 - ◆ Planned demo setup and running logistics.
 - ◆ Fixed other various demo issues.

Ray (submitted on 8/17/2009)

Jacek (submitted on 8/17/2009)

- note: on vacation until Aug 4
- scalable architecture: subPartitioner (coding and performance testing)
- dc3b planning (trac page updated)
- SciDB
 - ◆ funding discussions (internal within slac and with potential sponsors/collaborators)
- XLDB
 - ◆ communication with attendees
 - ◆ logistics (catering, arranging sponsors and payments)
 - ◆ agenda
 - ◆ website improvements
- VLDB
 - ◆ trip preparation including required paperwork

Major Accomplishments

* DC3a Executive Summary presented to board

Significant breakthroughs, issues resolved.

Objectives for the Next Period

What you expect to accomplish.

NCSA

Ray (submitted on 8/17/2009)

- Work on build system targets

LSSTC

Database Group

Problems Encountered and Solutions Being Pursued

Budget or schedule variance, technical issues, management issues.

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