

Status Report for September 15, 2009

Previous Month - Next Month Apps Middleware/Infrastructure

Guide on Reporting Percentage Completed:

For software development tasks,

- use 0% if the solution is still being designed;
- use 25% if the solution's design is completed;
- use 50% if the solution is implemented and tested within the Ticket branch;
- use 75% if the implementation review is complete, the Ticket branch has been merged onto the Trunk branch, and the Ticket is closed.
- use 100% if the affected Trunk packages are tagged and released.

For other tasks, still use these increments, but apply their meaning as best as possible.

Note: Please place an asterisk (*) after the percent if you updated this value in this report.

The "ID" number corresponds to the "Unique ID" column in the Middleware/Infrastructure?/DB project plan, a PDF of which is attached at [wiki:DC3bManagement](#).

Summary of progress

Work activity; whether it reached associated milestones.

Allsman Robyn

Reported xx/xx/xx

ID	Percent	Task	Comments
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*Percent updated in this report

Comments:

Other Activities

- Started testing process/procedure/suitability of Automatic Coding Standards Checking when Tickets are designated as 'inStandardsCheck'.

Axelrod Tim

Reported xx/xx/xx

ID	Percent	Task	Comments
683	0%	Defining units	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Baker Bill

Reported 9/18/9

ID	Percent	Task	Comments
569	10%	Maintain automated testing structure	ongoing
41	75%*	(BB) support distributable VMs for new developers	ongoing; latest VMs are ready & waiting for verification
74	50%*	configure test system for automated V&V	software installed; Robyn is configuring
637	0%	Automated standards checking script	<i>not started</i>
638	0%	Buildbot to detect ABI changes on trunk	<i>not started</i>
640	25%*	Validated policy files	implementation mostly complete
661	0%	Advanced interslice communications support	<i>not started</i>
662	0%	Machine-readable inputs/outputs manifest	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Becla Jacek

Reported xx/xx/xx

ID	Percent	Task	Comments
680	0%	Updates: source-related tables, Object table	<i>discussions with App team will start Sep 18</i>
681	0%	Updates: exposure-related tables	<i>discussions with App team will start Sep 18</i>
682	0%	Synthetic sources of data	<i>not started</i>
684	25%*	Standardizing names	<i>Implemented in schema, need to update formatters and test</i>
686	5%*	Evaluate hadoopDB	<i>Discussed hadoopDB in details with hadoopDB developers</i>
687	25%*	MySQL: test scalability and architect	<i>run some tests, still need to try at least binary bindings</i>
688	0%	Decide xrootd versus gearman	<i>not started</i>
689	0%	Run near neighbor query on lsst10	<i>not started</i>
691	0%	Partitioning: design partitioning of MovingObject? table	<i>not started</i>
693	0%	Tools for partitioning data	<i>not started</i>
697	0%	Task manager: design presentation	<i>not started</i>
700	0%	Benchmarking	<i>not started</i>

701	0%	Data Release tools	<i>not started</i>
702	0%	Documentation	<i>not started</i>
160	0%	capturing full SW/HW info	<i>not started</i>
159	0%	demonstrating re-creation of Calibrated Science Images	<i>not started</i>
165	0%	support persistence and retrieval of deep detection products and inputs	<i>not started</i>
465	0%	implement objectId synchronization between data releases (not DC3)	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

LSST

- organized 1 DataAccWG telecon
- documented spec for testbed and DC3b hardware, see dbDC3bHardware?

VLDB/XLDB

- prepared for XLDB, coordinated all logistics pre- and post-meeting (agenda, dinner, sponsors, badges, handouts, conf room arrangements, attaching photos and slides to website, mail list announcements, many others...)
- attended VLDB, helped with the SciDB demo
- organized XLDB3
- all paperwork related to the trip
- arranged [?article](#) for "SLAC Today".
- started writing xldb report

SciDB

- organizing face to face SciDB developers meeting at SLAC (coordinating all logistics, invitations for international collaborators)
- discussions with slac management about funding and future proposals
- discussions with slac lawyers and CFO about bringing external funds to the lab
- reaching out to geoscience, including abstract for AGU conference
- meeting with CTO of Persistent Systems
- meeting with VCs

Daues Greg

Reported xx/xx/xx

ID	Percent	Task	Comments
655	25%*	Refactor harness	<i>Stage splitting design is done and now being implemented</i>

656	0%	Pipeline shutdown mechanisms	<i>not started</i>
664	0%	Freeze-drying clipboards: Harness support	<i>not started</i>
106	75%	Work to support communication of general serializable types over MPI	
107	0%	Develop mechanisms for identifying/accessing	<i>not started</i>
113	0%	Improving harness exception handling	<i>not started</i>
660	25%*	Improve simple, interactive harness execution: infrastructure	<i>Thread based Pipeline designed and now being implemented</i>
709	0%	Improve simple, interactive harness execution: interface	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

- Stage splitting changes have been implemented in `Pipeline` and `Slice`. Two `pex_harness` examples have been transformed and tested, including tests of the `NoOp` functionality for the case where a `serialClass` or `parallelClass` is not provided.
- In the context of simple, interactive harness execution, a `Pipeline` launching `Slices` using Python `Threads` (no MPI) is working in a primitive form with the beginnings of thread synchronization (duplicating MPI barrier functionality with base Python `Events`)

Gehrig David

Reported 09/21/09

ID	Percent	Task	Comments
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*Percent updated in this report

Comments:

Other Activities

- Worked with Suzi and Jeff re DC3b project plan
- Received training in Primavera project planning/costing software
- Upgraded Trac installation on dc33
- Created anonymous access to SVN per Lupton's request
- Additional account management for NCSA cluster
- Vacation Sept. 10-11

Hanushevsky Andy

Reported xx/xx/xx

ID	Percent	Task	Comments
165	0%	support persistence and retrieval of deep detection products and inputs	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Laher Russ

Reported xx/xx/xx

ID	Percent	Task	Comments
482	30%	C++	
481	0%	Python	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Lim KT

Reported xx/xx/xx

ID	Percent	Task	Comments
688	0%	Decide xrootd versus gearman	<i>not started</i>
691	0%	Partitioning: design partitioning of MovingObject? table	<i>not started</i>
698	0%	Task manager: multiple queries	<i>not started</i>
699	0%	Task manager: interactions with user	<i>not started</i>
702	0%	Documentation	<i>not started</i>
469	*100%	DC3 provenance capture	
160	0%	capturing full SW/HW info	<i>not started</i>
159	0%	demonstrating re-creation of Calibrated Science Images	<i>not started</i>
166	*100%	support persistence and retrieval of nightly pipeline products and inputs	
165	0%	support persistence and retrieval of deep detection products and inputs	Design started
465	0%	implement objectId synchronization between data releases (not DC3)	Not DC3 task
180	0%	persistence framework refinement	Design started
643	0%	Upgrade OutputStage? to register outputs	Design started
644	0%	Implement simple, non-Policy retrieval	Design started
645	0%	App Class: remove need to declare friend classes	DC3b stretch goal
646	0%	App Class: remove intrusiveness of Boost persistence	DC3b stretch goal
647	0%	App Class: legacy file-based persistence/retrieval	DC3b stretch goal
648	0%	Python pers: investigate efficiency of methods	DC3b stretch goal
649	0%	Python pers: define app class interface	DC3b stretch goal
650	0%	Implement simple non-Policy persistence	DC3b stretch goal

651	0%	Upgrade InputStage?	DC3b stretch goal
652	0%	Generic ORM: mapping attributes to columns	DC3b stretch goal
653	0%	Generic ORM: collection persistence and retrieval	DC3b stretch goal
663	0%	Freeze-drying clipboards: design	Design started
669	0%	Determine segment images over a given sky tile	Prototype started
670	0%	LRU cache for raw segment images	<i>not started</i>
671	0%	LRU cache for calibrated science exposures	<i>not started</i>
672	0%	Write/retrieve images to disk/tape	<i>not started</i>
673	0%	Determine, retrieve cutout areas over given sky tile	Prototype started
675	0%	Write to co-add template pixel store on sky tile basis	Prototype started
674	0%	Determine template pixels overlaying given coords	Prototype started
676	0%	Retrieve template pixels	<i>not started</i>
677	0%	Investigate local disk use for postage stamp generation	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Monkewitz Serge

Reported xx/xx/xx

ID	Percent	Task	Comments
690	0%	Partitioning: research htm/healpix/stomp/dif	<i>not started</i>
692	0%	Implement generic query partitioner	<i>not started</i>
693	0%	Tools for partitioning data	<i>not started</i>
696	0%	DC3b syntax parser and aggregation	<i>not started</i>
465	0%	implement objectId synchronization between data releases (not DC3)	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Pietrowicz Steve

Reported 09/15/09

ID	Percent	Task	Comments
665	75%	Expose Event API	
228	0%	Event system failover	<i>not started</i>
666	0%	Scripts to monitor for node/pipeline failures	<i>not started</i>
667	0%	Python-based high-level event monitor scripts	<i>not started</i>

658	0%	I/O stage for interactive pipeline launch	<i>not started</i>
659	50% *	Refactor Orca	in branch, in testing phase
229	0%	life-support services	<i>not started</i>
538	0%	Event Monitor integration	<i>not started</i>
570	0%	Events orchestration layer support	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Plante Ray

Reported xx/xx/xx

ID	Percent	Task	Comments
623	100%*	Summarize design for EUPS changes	Reviewed 9/2; see summary
624	25%*	User preferences directory	Implementation is under way, 2/3 done
625	25%*	Support user/server tags	Implementation is under way, 2/3 done
626	0%	Improve packages installation/declaration	Design has been started
627	25%*	Improve EUPS documentation	Mostly in the form of in-line python docs; user docs will not start until after Oct. 1
628	0%	Meta releases	<i>not started</i>
629	0%	User publishing of packages to server	<i>not started</i>
631	0%	As-built manifests into install directories	<i>not started</i>
632	0%	Make SConsUtils dependency on EUPS optional	<i>not started</i>
633	0%	Upgrade SConstUtils for latest SCons	<i>not started</i>
641	0%	Logging tasks	Harness refactoring/scripting tasks depend on this; <i>not started</i>
654	100%*	Update UML + docs for STage code usage	Reviewed 9/9; see summary
111	100%*	Fill out design for orchestration layer	Done. see attached design documents to Orca refactor task page

*Percent updated in this report

Other Activities

- assisted Gehrig with Data Challenge planning
- ran two Middleware telecons
- assisted Cribbs and Freemon with infrastructure cost spreadsheets
- participated in SAT: assisted with DC3b scoping
- assisted with hardware requirements/resource development

Other Activities

Wang Daniel

Reported xx/xx/xx

ID	Percent	Task	Comments
685	5%*	Near neighbor query over 2 or 3 nodes	<i>Implementing parser updates (aliasing, stored procedure, subquery).</i>
688	0%	Decide xrootd versus gearman	<i>not started</i>
694	0%	Basic generic query parser in place	<i>not started</i>
695	0%	Demonstrate joining Object table with non-partitioned tables	<i>not started</i>
696	0%	DC3b syntax parser and aggregation	<i>not started</i>
698	0%	Task manager: multiple queries	<i>not started</i>
699	0%	Task manager: interactions with user	<i>not started</i>
701	0%	Data Release tools	<i>not started</i>
702	0%	Documentation	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

- SciDB
 - ◆ Added no-nesting hack to cooking code
 - ◆ Diagnosed Q5 problems
- Attended VLDB
 - ◆ Fixed/helped-fix some last minute issues with SciDB for demo
 - ◆ Staffed demo sessions, collected questions and feedback
- Attended XLDB
 - ◆ Took photos,
 - ◆ Moderated geoscience session
 - ◆ Presented introduction to benchmark
- Various travel paperwork

(Vacation 8/31-9/2, 9/14-9/15)

Major Accomplishments

Significant breakthroughs, issues resolved.

Objectives for the Next Period

What you expect to accomplish.

NCSA

Ray Plante

- finishing Logging task
- finish EUPS implementation changes

LSSTC

Database Group

Problems Encountered and Solutions Being Pursued

Budget or schedule variance, technical issues, management issues.

NCSA

Ray Plante

I am encouraging in our group greater use of Trac in the documentation of progress on tasks. Several of us are maintaining pages like the following as a place to gather notes, design issues, and progress:

- [Baker: validated policy files](#)
- [Pietrowicz: refactor orchestration](#)
- [Plante: design EUPS changes](#)

LSSTC

Database Group