

Middleware/Infrastructure? Status Report for December 15, 2009

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.

Baker Bill

Reported 12/18/09

ID	Percent	Task	Comments
MWI569	20%	Maintain automated testing structure	
MWI41	25%*	(BB) support distributable VMs for new developers	A VM candidate has been waiting for review since September. An updated version (which would still need to be reviewed) is waiting for a working release build.
MWI74	50%	configure test sytem for automated V&V	
MWI637	0%	Automated standards checking script	<i>not started</i>
MWI638	0%	Buildbot to detect ABI changes on trunk	<i>not started</i>
MWI640	100%*	Validated policy files	Tagged and released, but without thorough review.
MWI661	0%	Advanced interslice communications support	<i>not started</i>
MWI662	0%	Machine-readable inputs/outputs manifest	<i>not started</i>
MWI707	0%	Automating nightly DC3a run	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Becla Jacek

Reported 12/18/09

ID	Percent	Task	Comments
MWI680	75%*	Updates: source-related tables, Object table	<i>Current iteration done, I'm expecting more updates, waiting for input from Robert/Tim?</i>
MWI681	0%	Updates: exposure-related tables	<i>not started</i>
MWI682	0%	Synthetic sources of data	<i>not started</i>
MWI684	75%*	Standardizing names	<i>Mostly done, some fine-tuning still needed, related to covariance, tai etc, input from application people needed</i>
MWI686	100%*	Evaluate hadoopDB	<i>Done all we want to do at this point. Not worthwhile doing full evaluation, we are in close contact with the HadoopDB developers</i>
MWI691	0%	Partitioning: design partitioning of MovingObject? table	<i>not started</i>
MWI693	75%	Tools for partitioning data	
MWI697	25%*	Task manager: design presentation	<i>Started</i>
MWI700	25%*	Benchmarking	<i>Started</i>
MWI701	0%	Data Release tools	<i>not started</i>
MWI702	0%	Documentation	<i>not started</i>
MWI160	0%	capturing full SW/HW info	<i>not started</i>
MWI159	0%	demonstrating re-creation of Calibrated Science Images	<i>not started</i>
MWI165	0%	support persistence and retrieval of deep detection products and inputs	<i>not started</i>
MWI465	0%	implement objectId synchronization between data releases (not DC3)	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

- NSF review: db-related slides, dry-runs, participated in the review
- prepared documentation describing scalable db architecture, including tests and planning
- updated DC3b schema in EA, updated schema browser
- various mysql scalability related tests to determine best setup for dc3b and beyond
- wrote 1 page test description for SSD tests
- served on the review panel for the DES database review
- organized/attended Isst-slac meeting about SciDB
- meeting with Luiz (Observatorio Nacional/Brazil?)
- XLDB

- ◆ finalized writing the xldb report (exec summary, formatting)
- SciDB
 - ◆ transfered organization of AGU town hall meeting from me/KT to others from SciDB

Bosch Jim

Reported xx/xx/xx

ID	Percent	Task	Comments
MWI685	5%	Near neighbor query over 2 or 3 nodes	
MWI694	0%	Basic generic query parser in place	<i>not started</i>
MWI695	0%	Demonstrate joining Object table with non-partitioned tables	<i>not started</i>
MWI696	0%	DC3b syntax parser and aggregation	<i>not started</i>
MWI698	0%	Task manager: multiple queries	<i>not started</i>
MWI699	0%	Task manager: interations with user	<i>not started</i>
MWI701	0%	Data Release tools	<i>not started</i>
MWI702	0%	Documentation	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Cribbs Chris

Reported xx/xx/xx

ID	Percent	Task	Comments
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*Percent updated in this report

Comments:

Other Activities

Daues Greg

Reported 12/21/09

ID	Percent	Task	Comments
MWI656	50%*	Pipeline shutdown mechanisms	
MWI664	0%	Freeze-drying clipboards: Harness support	<i>not started</i>
MWI106	0%	Work to support communication of general serializable types over MPI	<i>not started</i>
MWI107	0%	Develop mechanisms for identifying/accessing	<i>not started</i>
MWI113	0%	Improving harness exception handling	<i>not started</i>
MWI660	50%*	Improve simple, interactive harness execution: infrastructure	

Other Activities

MWI709	25%	Improve simple, interactive harness execution: interface
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*Percent updated in this report

Comments:

- Shutdown event mechanism for modes 1--4 have been tested in the Python threaded harness ticket 1014

Other Activities

Hanushevsky Andy

Reported 12/18/09

ID	Percent	Task	Comments
MWI165	0%	support persistence and retrieval of deep detection products and inputs	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Started work on modifying xrootd - needed for scalable db architecture (node and task management)

Lim KT

Reported xx/xx/xx

ID	Percent	Task	Comments
MWI691	0%	Partitioning: design partitioning of MovingObject? table	<i>not started</i>
MWI698	0%	Task manager: multiple queries	<i>not started</i>
MWI699	0%	Task manager: interations with user	<i>not started</i>
MWI702	0%	Documentation	<i>not started</i>
MWI160	0%	capturing full SW/HW info	<i>not started</i>
MWI159	0%	demonstrating re-creation of Calibrated Science Images	<i>not started</i>
MWI165	0%	support persistence and retrieval of deep detection products and inputs	<i>not started</i>
MWI465	0%	implement objectId synchronization between data releases (not DC3)	<i>not started</i>
MWI180	0%	persistence framework refinement	<i>not started</i>
MWI643	0%	Upgrade OutputStage? to register outputs	<i>not started</i>
MWI644	0%	Implement simple, non-Policy retrieval	<i>not started</i>
MWI645	0%	App Class: remove need to declare friend classes	<i>not started</i>
MWI646	0%	App Class: remove intrusiveness of Boost persistence	<i>not started</i>
MWI647	0%	App Class: legacy file-based persistence/retrieval	<i>not started</i>
MWI648	0%	Python pers: investigate efficiency of methods	<i>not started</i>
MWI649	0%	Python pers: define app class interface	<i>not started</i>

MWI650	0%	Implement simple non-Policy persistence	<i>not started</i>
MWI651	0%	Upgrade InputStage?	<i>not started</i>
MWI652	0%	Generic ORM: mapping attributes to columns	<i>not started</i>
MWI653	0%	Generic ORM: collection persistence and retrieval	<i>not started</i>
MWI663	0%	Freeze-drying clipboards: design	<i>not started</i>
MWI669	0%	Determine segment images over a given sky tile	<i>not started</i>
MWI670	0%	LRU cache for raw segment images	<i>not started</i>
MWI671	0%	LRU cache for calibrated science exposures	<i>not started</i>
MWI672	0%	Write/retrieve images to disk/tape	<i>not started</i>
MWI673	0%	Determine, retrieve cutout areas over given sky tile	<i>not started</i>
MWI675	0%	Write to co-add template pixel store on sky tile basis	<i>not started</i>
MWI674	0%	Determine template pixels overlaying given coords	<i>not started</i>
MWI676	0%	Retrieve template pixels	<i>not started</i>
MWI677	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
MWI690	25%	Partitioning: research htm/healpix/stomp/dif	
MWI692	0%	Implement generic query partitioner	<i>not started</i>
MWI693	75%	Tools for partitioning data	
MWI696	0%	DC3b syntax parser and aggregation	<i>not started</i>
MWI465	0%	implement objectId synchronization between data releases (not DC3)	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

Pietrowicz Steve

Reported 12/17/09

ID	Percent	Task	Comments
MWI665	50%	Expose Event API	
MWI666	0%	Scripts to monitor for node/pipeline failures	<i>not started</i>
MWI667	0%	Python-based high-level event monitor scripts	<i>not started</i>

MWI228	25%	Event system failover	
MWI658	0%	I/O stage for interactive pipeline launch	<i>not started</i>
MWI659	50%	Refactor Orca	
MWI538	0%	Event Monitor integration	<i>not started</i>
MWI589	0%	Pipeline Fault Tolerance	<i>not started</i>
MWI570	0%	Events orchestration layer support	<i>not started</i>

*Percent updated in this report

Comments:

Currently working on getting condor/DAGman functionality integrated with Orca, which is part of the "Refactor Orca" work.

Other Activities

Plante Ray

Reported 12/21/09

ID	Percent	Task	Comments
MWI624	75%*	User preferences directory	Lupton and Plante have been testing this heavily.
MWI625	75%*	Support user/server tags	Lupton and Plante have been testing this heavily.
MWI626	0%	Improve packages installation/declaration	<i>not started</i>
MWI627	25%	Improve EUPS Docs	
MWI628	0%	Meta releases	<i>not started</i>
MWI629	0%	User publishing of packages to server	<i>not started</i>
MWI631	0%	As-built manifests into install directories	<i>not started</i>
MWI632	0%	Make SConsUtils dependency on EUPS optional	<i>not started</i>
MWI633	0%	Upgrade SConsUtils for latest Scons	<i>not started</i>
MWI641	0%	Logging tasks	<i>not started</i>

*Percent updated in this report

Comments:

Other Activities

- Preparation and participation in FDP Review (15-17 Dec, Tucson)
- posted package releases to server, including new 3rd party packages (with non-trivial build mechanisms), Healpix and minuit2
- Non-LSST travel: NRAO Charlottesville, 2-4 Dec.
- hosted visit from F. Pierfederici (Harvard), 16-20 Nov.; with assistance from Daues and Pietrowicz, worked on adapting IPSD pipeline to process Magellan data (see successes below).

Major Accomplishments

Significant breakthroughs, issues resolved.

- Through a collaboration with F. Pierfederici (Harvard), we successfully used the LSST IPSD pipeline (using the updated pex_harness and application packages) to calibrate Magellan images. We have also discussed plans for changes that would make LSST software more usable by outside projects.
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Objectives for the Next Period

What you expect to accomplish.

NCSA

LSSTC

Database Group

Problems Encountered and Solutions Being Pursued

Budget or schedule variance, technical issues, management issues.

NCSA

LSSTC

Database Group