

Previous month PT1.2 - Mgt/SE

Current month PT1.2

Next month PT1.2 - Mgt/SE

Note: Please place an asterisk (*) after the percent if you updated this value in this report. Also, please update the "Last Updated" column even if the % complete hasn't changed; that way we'll know that the figure represents the most current information.

Task	Start	Finish	Resources (lead first)	% Complete	Comments
<i>Database and Data Access Analyses</i>			<i>Becla Jacek</i>		<i>Successful 150-node qserv tests. Building/improving spreadsheet-based. Started running various standalone mysql scalability/performance tests (to follow up uncovered by the large scale tests)</i>
Scalability tests phase III (up to 250 nodes)	20110303	20110503	Becla Jacek[10%], Wang Daniel[75%], Dubois-Felsmann Gregory[5%]	80%*	Successfully run the on 150 nodes, need document.
Standalone MySQL scalability/performance tests	20110512	20110630	Becla Jacek [5%]	10%*	Started running various standalone mysql scalability/performance tests (to follow up uncovered by the large scale tests)
SSD Database Tests	20100802	20110419	Becla Jacek	95%	Still need to finalize summary document (spreadsheets got high priority...)
Improve trac db documentation for PDR	20090902	20110427	Becla Jacek[10%]	60%	
Write design document for PDR	20110428	20110525	Becla Jacek[5%], Lim KT[5%], Hanushevsky Andy[20%]	0%	
<i>Pipeline Middleware Analyses</i>	<i>20110222</i>	<i>20110601</i>	<i>Lim KT[0%], Plante Ray[0%]</i>		<i>Summary task, see below</i>
<i>Pipeline Execution Middleware Scaling Tests</i>	<i>20110222</i>	<i>20110601</i>	<i>Lim KT[0%], Plante Ray[0%]</i>		
Define scaling tests	20110222	20110420	Plante Ray[5%]	50%	
Create benchmark stage implementations and pipeline configurations	20110420	20110511	Daues Greg[25%]	0%	

Execute scaling tests, analyze, report results	20110511	20110601	Daues Greg[25%]	0%	
<i>Pipeline Execution Monitoring Visualization Tool</i>	20110222	20110512	Plante Ray		<i>The pipeline processing visualization tool tracks the progress of CCD through the pipeline and shows the progress status was updated to include run statistics showing % of work remaining/completed.</i>
Design/acquire/review pipeline processing visualization tool	20110301	20110503	Plante Ray[5%],Pietrowicz Steve[25%]	25%	Design implemented show in conference
Implement pipeline processing visualization tool	20110322	20110512	Pietrowicz Steve[75%]	25%	Implemented tool features based on
<i>Demonstrate rescheduling of failed processing</i>	20110222	20110512			
Create simulated worker failure mechanism	20110301	20110427	Pietrowicz Steve[50%]	25%	
Enable detection of failure and mapping to job	20110315	20110503	Pietrowicz Steve[75%]	25%	
Enable rescheduling of failed job	20110322	20110512	Pietrowicz Steve[75%]	25%	Jobs being rescheduled based on value based policy
<i>MOPS Analyses</i>			<i>Axelrod Tim</i>		<i>The Moving Object find/linkTracklets tests at various densities of solar system models of scaling tests with half-density, and various densities of "noise" and initial tests of subset track removal massive data sets. show that runtime scales cubically with density. real solar system data. This means that for fields, full-density are reasonable, and chi-squared probability filtering the volume tracks output is manageable. After filtering noise density minimal impact on number of tracks of</i>

					<i>objects found; so the addition of noise in runtimes but not errors be a major concern. reasonable densities will continue to evolve additional algorithms for the most dense fields.</i>
Complete analysis of runs of FindTracklets/LinkTracklets? and OrbFit? driven by simulated DIASources	20081010	20110427	Axelrod Tim[20%],Myers Jonathan[75%]	75%	
Estimate amount of CPU required for LSST MOPS	20101108	20110502	Axelrod Tim[20%],Myers Jonathan[75%]	75%*	Completed find/linkTracklets tests at various densities in solar system mode. A set of scaling tests for half-density SSM at varying densities completed. Results show linkTracklets runtime increases cubically with density in real SSM, but at full-density runtime is reasonable and after squared probability filter the volume of tracklets looks manageable. Addition of noise does not significantly increase linkTracklets runtime not enough to be a concern at reasonable densities; after the squared prob filter the density has minimal impact on the number of tracklets output or objects found.
Prototype key algorithms in MOPS design	20101206	20110523	Axelrod Tim[20%],Myers Jonathan[75%]	50%	Initial tests of parallel subset track removal on massive data sets completed at SDSC. Regarding parallel subset removal looks like the algorithm parallelizes very well on vSMP architecture and can handle the data volume nicely.
Determine requirements for FutureMOPS that will satisfy	20110117	20110530	Axelrod Tim[20%],Myers Jonathan[75%]	50%	

solar system science requirements as sketched out in SRD					
<i>Complete DM content in LSR and OSS</i>			<i>Dubois-Felsmann Gregory</i>		LSR and OSS are change control
Update star and galaxy counts	20100908	20110420	Dubois-Felsmann Gregory[5%]	75%*	Ivezic/Juric? analysis has been refreshed, the team is awaiting one further specific question formulation from g. Previous values were brought forward for CCB action on the update will be rolled out the expected OSS for the DQ requirements
Extract values for Data Quality Requirements	20101020	20110420	Dubois-Felsmann Gregory[5%]	75%	On hold awaiting requirements from the Tyson co
Review OSS to place under change control	20110316	20110426	Kantor Jeff[5%],Axelrod Tim[5%],Dubois-Felsmann Gregory[5%],Allsman Robyn[5%],Plante Ray[5%],Lupton Robert[5%],Becla Jacek[5%],Lambert Ron[5%],Lim KT[5%],Freemon Mike[5%],Connolly Andy[5%],Bosch Jim[5%]	100%*	
Capture network requirements in SysML model	20110427	20110427	Dubois-Felsmann Gregory[5%]	0%	
Capture cyber-security requirements in SysML model	20110428	20110504	Dubois-Felsmann Gregory[5%]	0%	
Support establishment of traceability between LSR and OSS	20100901	20110525	Dubois-Felsmann Gregory[15%]	53%	Isolated improvements in traceability in conjunction with additions
Establish bounding requirements in SysML for MOPS	20101206	20110509	Dubois-Felsmann Gregory[5%]	50%	Was awaiting analysis from Tim which is apparently nearly complete now
<i>Revise DM-FRS</i>			<i>Dubois-Felsmann Gregory</i>		
Restate existing quantitative requirements as constraint	20110418	20110419	Dubois-Felsmann Gregory[50%]	75%*	Needs final review

blocks					
<i>Update Structure Model</i>			<i>Dubois-Felsmann Gregory</i>		
Update Structure Model to match revised WBS	20110418	20110419	Dubois-Felsmann Gregory[50%]	50%*	Needs to be updated post-MREFC-resu WBS.
Update Structure Model - FRS traceability	20110509	20110510	Dubois-Felsmann Gregory[50%]	0%	
Create DM internal ICD N2 diagram	20110420	20110420	Dubois-Felsmann Gregory[50%]	0%	
<i>Update LSR/OSS/FRS traceability</i>			<i>Dubois-Felsmann Gregory[0%]</i>		
Establish traceability of FRS to OSS (or elsewhere)	20110502	20110506	Dubois-Felsmann Gregory[50%]	0%	Isolated improvement traceability in conjunction with additions
Review traceability with Tim and Chuck, clean up	20110511	20110513	Dubois-Felsmann Gregory[50%],Axelrod Tim[50%]	0%	
<i>Prepare ICDs</i>			<i>Dubois-Felsmann Gregory</i>		
DM-CCS	20110103	20110512	Dubois-Felsmann Gregory[25%],Marshall Stuart[25%]	33%	
DM-TCS	20110309	20110517	Sebag Jacques[50%],Dubois-Felsmann Gregory[50%]	40%	
Camera CoDR report review	20110517	20110524	Dubois-Felsmann Gregory	0%	
DM-OCS	20110317	20110601	Dubois-Felsmann Gregory[50%],Schumacher German[50%]	40%	Need to present to OCS groups
DM-EPO	20110502	20110516	Jacoby Suzanne[50%],Dubois-Felsmann Gregory[20%]	0%	DM-EPO session 1 AHM; significant in engaging larger group in understanding what we need; reg DM-EPO contact i
DM-sites	20110516	20110523	Dubois-Felsmann Gregory[50%],Lambert Ron[50%],Barr Jeff[50%]	50%	
DM - VAO	20110225	20110607	Plante Ray[5%]	50%	LSST-VAO meeting VOEvent particip.
<i>Update App and MW Reference Design for DC3a, DC3b PT1, PT1.1</i>			<i>Allsman Robyn</i>	25%	No change in status
Develop Performance Budgets, Timing/Sequence? Diagrams for Alert and Data Release steady state	20101014	20110427	Dubois-Felsmann Gregory[50%],Lim KT[75%]	50%	Diagrams developed quantities need to be reviewed
	20110428	20110502		0%	

Update reference design - structure model traceability			Dubois-Felsmann Gregory[50%],Kantor Jeff[25%],Allsman Robyn[50%],Lim KT[25%],Plante Ray[25%]		
<i>Update Infrastructure Reference Design</i>			<i>Freemon Mike</i>		<i>Reference design is substantially complete although minor revisions remain. Operational scenarios costed. Cost updates reflecting baseline are next week will be assisting on starting June 1.</i>
Update Mountain/Base? Network Design	20101022	20110422	Lambert Ron[20%]	50%	At meetings with the Chilean national (L) and international (AmLight?) research network institution will be providing the to Archive network LSST during operation created a plan to use the bandwidth available these links by 4 times average, and 8 times for a very modest total life cycle cost change would provide Gbps daytime, 40 Gbps nighttime, and 80 Gbps burst capacity and approximately \$15 million operations to construct. Not only does this higher reliability of in the current mode also enables new operational models transfer and alert generation.
Update Long-Haul Network Acquisition Plans	20101022	20110420	Lambert Ron[5%],Kantor Jeff[5%]	75%	Updated to show 10-40 - 80 Gbps in of commissioning a for LS - SCL - MI infrastructure built MREFC.
Update Infrastructure Power, Cooling, Floor Space	20110420	20110429	Lambert Ron[10%],Freemon Mike[10%]	0%	

Update Infrastructure Trends Document with our position (e.g. SSD, GPU, Advanced Processor Architecture, Virtual Shared Memory)	20110502	20110527	Freemon Mike[20%],Dubois-Felsmann Gregory[20%],Lim KT[20%]	0%	
Update Computing, Storage Reference Design Documentation	20110530	20110624	Freemon Mike[20%]	0%	Reference design of substantially complete, although minor revisions remain.
<i>Enterprise Architect Customizations</i>			<i>Dubois-Felsmann Gregory</i>		
<i>Requirements and Design for Science User Interface</i>			<i>Van Dyk Schuyler</i>		<i>The Science Steering Group and the Science Collaborations User Interface Group reviewed the Science User Interface requirements. One review issue are not these requirements. incorporated into SysML requirements baselined for PDR addressing a significant open area in the Design requirements.</i>
Review with SST, update and re-baseline	20110502	20110513	Van Dyk Schuyler[50%],Dubois-Felsmann Gregory[5%],Levine Deborah[50%]	50%	Draft distributed and comments collected
Integrate into FRS and prepare system requirements change requests to integrate	20110516	20110527	Van Dyk Schuyler[5%],Dubois-Felsmann Gregory[25%],Levine Deborah[5%]	0%	
Collate existing (best-of-breed) technology options with requirements	20110418	20110513	Van Dyk Schuyler[50%],Dubois-Felsmann Gregory[5%],Levine Deborah[50%]	75%	
Review with SAT, update and re-baseline	20110516	20110527	Van Dyk Schuyler[50%],Dubois-Felsmann Gregory[50%],Levine Deborah[50%]	0%	
Update SUI WBS	20110530	20110601	Van Dyk Schuyler[50%],Kantor Jeff[50%]	0%	
<i>Develop Apps Roadmap and Data Quality Plan</i>			<i>Axelrod Tim</i>		<i>The DM Project Manager has secured an agreement in principle for the Energy Survey to support their science collaboration acceptance tests and</i>

					quality metrics with This would address remaining significant area of requirements
Develop Apps sheet of DM Roadmap	20101125	20110425	Axelrod Tim[10%],Allsman Robyn[10%]	77%	App Status sheet does need more functional descriptions from team
<i>DM Test Plans</i>			<i>Allsman Robyn</i>	0%*	The DM integration documents are coming together. The protocol to derive the tests from FRS (both performance functional) is still being developed.
Draft DM Unit Test documents	20100930	20110422	Allsman Robyn[25%]	50%	Updated SDP's DM section to include implementation responsibility during and Construction. YET APPROVED TCT/SAT/etc.
Draft DM Integration Test documents	20101014	20110429	Allsman Robyn[25%]	50%	Draft is outlined and fleshed out.
Draft DM System Test documents	20110502	20110504	Allsman Robyn[35%]	0%	
Draft DM Acceptance Test documents	20110505	20110518	Allsman Robyn[25%]	0%	
Generate Integration Test Cases from DM Ref Design Use Cases/Activities?	20110519	20110525	Allsman Robyn[50%]	75%*	EA LSSTools was used to generate the test cases based on the Use Case Activity UML definitions. Final formatting of test cases is required.
Create Performance System Test Cases from DM Subsystem Requirements Constraint Blocks	20110526	20110601	Allsman Robyn[50%]	0%	The FRS documents have been reviewed to see if performance based requirements.
Generate Functional Acceptance Test Cases from DM Subsystem Requirements	20110602	20110608	Allsman Robyn[50%]	0%	
<i>Update DM Sizing Model</i>			<i>Freeman Mike</i>		Same comments as before (for reference design)
Update Science workbook and explanation document	20110228	20110420	Dubois-Felsmann Gregory[10%],Axelrod Tim[10%]	50%	Numbers and basic requirements updated. expectation of reorganization, final

					counts.
Update Technology Trends workbook and explanation document	20110418	20110422	Freemon Mike[20%]	0%	
Consolidate and update Computing workbook and explanation document	20110222	20110420	Lim KT[20%]	50%	Consolidation com quantities and form need review
Consolidate and update I/O and Storage workbook and explanation document	20110222	20110531	Lim KT[10%],Becla Jacek[25%],Axelrod Tim[10%]	80%*	Incorporated and r network estimates. query access cost r started documenting storage/io/network spreadsheet.
Update Network workbook and explanation document, integrate into sizing model sheets	20110222	20110421	Lambert Ron[20%],Kantor Jeff[10%]	75%*	Preparing letters fr AmLight?, REUN
<i>Complete DM Inputs to Risk Management, System Integration, Commissioning, and Operations Plans</i>			<i>Kantor Jeff</i>		<i>Completed analysis cost impact of sever operations descop scenarios</i>
Update DM parts of LSST System Integration Test Plan	20101022	20110429	Allsman Robyn[30%],Freemon Mike[10%],Kantor Jeff[5%]	0%	
Contribute DM sections to LSST Risk Management, Commissioning, I&T, and Operations Plans	20100416	20110527	Kantor Jeff[10%],Allsman Robyn[20%],Axelrod Tim[20%],Plante Ray[20%],Freemon Mike[20%],Dubois-Felsmann Gregory[13%]	4%	
Get MOUs with resource support/commitment from DM partners	20110418	20110610	Kantor Jeff[5%],Van Dyk Schuyler[5%],Freemon Mike[5%],Becla Jacek[5%],Lupton Robert[5%],Lambert Ron[5%]	0%	
<i>System Architecture Team</i>			<i>Dubois-Felsmann Gregory</i>		
<i>PDR material preparation</i>			<i>Kantor Jeff</i>		

Other Activity

Mario Juric, a Hubble Fellow at Harvard-Smithsonian Center for Astrophysics, has accepted the DM System Scientist position and is scheduled to start in January, 2012.

A Project Management Control System (PMCS) support person has been hired on contract through the remainder of FY11 to support Preliminary Design Review preparation and follow-up actions.