

Change requests of interest to DM


(This page should ultimately be replaced by a JIRA query against the envisioned future JIRA reimplementation of the change request database, using labels to represent "DM is interested in this". At the moment it is manually maintained.)



This page is manually maintained (primarily by [Gregory Dubois-Felsmann](#) and [Tim Jenness](#)). It contains change requests originated by DM as well as ones from or affecting other LSST subsystems which the editors believe will be of interest to DM staff. It also *omits* certain manifestly DM-related change requests that are primarily concerned with PMCS technicalities and will not be subject to full CCB action. These change requests are always available by [querying the database for DM-originated requests](#). The editors welcome comments on this policy!


We are not generally including LCRs concerning matters like budget adjustments and routine milestone changes.


Principal references:


- [LSST Change Request database](#)
 - [Query for change requests originated by DM](#) (note that this will not capture all the requests in the table below)
- [LSST Change Control Process, LPM-19](#)



LCR	Title	State	Documents Affected	Summary and comments	Related Issues
LCR-3678	Add catalogs of detections in single visits to the nightly data products		DPDD, DMSR	Adopts RFC-938	<div> RFC-938 - Jira proje ct does n't exist or you don't have per miss ion to view it.</div>



LCR-3476	Make DPDD description of shear measurement plans more concrete	LCR ASSIGNED	LSE-163	Adopts Metadetection as DM's approach to shear measurement for weak lensing.	<div> RFC -921 - Jira project does n't exist or you don't have per mission to view it.</div>
	Remove DMSR requirement 4.4.5 Summit to Base Network Ownership and Operation	LCR ASSIGNED	LSE-61	https://project.lsst.org/groups/ccb/node/5192	<div> RFC -855 - Jira project does n't exist or you don't have per mission to view it.</div>

LCR-2543	Modify LSE-61 Coadds Requirements to Align with DPDD + DRP Plans	STUDIED	LSE-61, LSE-29, LSE-30		<div> RFC -709 - Jira project does n't exist or you don't have per mission to view it.</div>
LCR-2508	Update T/CAM for 1.02C.03 and 1.02C.04	APPROVED	LDM-294.	Replaces John Swinbank with Ian Sullivan and Yusra AlSayyad as Pipelines T/CAMs.	
LCR-2485	Change Long-Haul Networks WBS and CAM	LCR ASSIGNED	LDM-294, LPM-43, LPM-44. Any documents which describe ongoing or future work on the networks should be transferred out of the DM baseline.		


LCR-2463	Update Data Products Definition Document LSE-163	APPROVAL PENDING	LSE-61 (DMSR), LSE-163 (DPDD)	Update Data Products Definition Document LSE-163 to bring it in line with current DM plans for Data Release Processing:	 RFC -710 - Jira project does n't exist or you don't have per mission to view it.
LCR-2453	Remove Explicit Data Facility Definition from OSS	APPROVAL PENDING	LSE-30 (OSS)	Remove explicit references to NCSA from OSS.	
LCR-2446	Remove No Longer Valid Milestone DLP-526	APPROVAL PENDING		DLP-526 was "Archive Center Integration Complete".	
LCR-2417	Various Milestones to be Added to DM	FULLY IMPLEMENTED	LDM-503 at least	Add a Science Platform milestone (relating to Data Preview 0) and three EFD milestones to the schedule, at level 2.	
LCR-2415	Specify Verifiable Minimum Version of VOTable (1.4) for Tabular Data	APPROVAL PENDING	LSE-61 (DMSR), LDM-554 (LSP Reqs)	Explicitly specify VOTable 1.4 as the minimum required version; replaces unverifiable reference to IVOA wiki.	
LCR-2405	Update T/CAM for 1.02C.05 (Science User Interface and Tools)	FULLY IMPLEMENTED	LDM-294	Replace Xiuqin Wu with Gregory Dubois-Felsmann as SUIT T/CAM.	
LCR-2383	Science Platform Name	FULLY IMPLEMENTED	Several, but only in terms of naming rather than technical details (LSE-61, -163, and -319; LDM-554, -542, -540, and others)	This LCR changes the name of the Science Platform to the "Rubin Science Platform", or RSP.	


LCR-2378	Correct LSE-61 Flux Units Definition to Nanojanskys	APPROVAL PENDING	LSE-61 (DMSR)	Reflect the October 2018 adoption of nanojansky as the unit for reporting of fluxes of measured objects.	 RFC -702 - Jira project does n't exist or you don't have permission to view it.
LCR-2377	Baseline Rubin Observatory Networks Technical Document	APPROVAL PENDING	LSE-479	Create a new, detailed technical document flowed down from the high-level requirements and design in LSE-78 .	
LCR-2376	Solar System Processing - Data Products and Implementation Updates	APPROVAL PENDING	LSE-30 (OSS), LSE-61 (DMSR) , LSE-163 (DPDD)	Minor updates to DMSR, mainly to reflect updated terminology. Terminology and schema changes in DPDD. More substantive changes to DM-level documents. 04 Aug 2020 Updated to include a need for OSS changes.	
LCR-2374	Update LSE-78 with Pre-Verification Review Comments	FULLY IMPLEMENTED	LSE-78 (Rubin Obs Network Design Doc)	Final updates before review.	
LCR-2364	Reduced DAQ Storage for ComCam	FULLY IMPLEMENTED	n/a	State for the record the failure (apparently in shipping) of one of the four storage boards in the DAQ for ComCam.	
LCR-2363	Electronic Logging Development	APPROVED		Add scope to subsystems as needed to provide for an observatory-wide electronic logbook.	
LCR-2354	Delay ESNet Phase 2 Implementation	FULLY IMPLEMENTED	(schedule only)	Defer until after USDF decision.	
LCR-2313	Update LSE-78 Rubin Observatory Network Design Document	FULLY IMPLEMENTED	LSE-78 (Rubin Obs Network Design Doc)	LSE-78 is the top-level design document for the Rubin Observatory Long-Haul Networks connecting La Serena - Santiago - US - France. It has been quite some time since it was updated and needed a refresh, as well as being made consistent with the final "as-built" configuration that will be in place at the start of operations. This LCR requests to update the document,	


LCR-2273	Construct Image Differencing Templates Outside of DRP	FULLY IMPLEMENTED	LSE-61 (DMSR)	The purpose of this Change Request is to clarify that the Data Management System will be capable of generating templates for image differencing separately from Data Release Production.	<div> RFC -681 - Jira proje ct does n't exist or you don't have per miss ion to view it.</div>
LCR-2265	Clarify Special Programs Processing in LSEs 72 and 61	FULLY IMPLEMENTED	LSE-72 (DM-OCS ICD), LSE-61 (DMSR)	Clarify how the association of acquired data with different survey programs (main/WFD vs. special-programs) is communicated from the OCS to DM.	<div> RFC -677 - Jira proje ct does n't exist or you don't have per miss ion to view it.</div>

LCR-2264	New CAM for 1.04C. 12.5, 1.02C. 08.00, 01, and 02	FULLY IMPLEMENTED	LDM-294 should have been updated, but wasn't.	Remove Jeff Kantor as T/CAM for 02C.08.{00, 01, 02}, replacing him with Cristián Silva .	<div> DM-25791 - Jira proje ct does n't exist or you don't have per miss ion to view it.</div>
LCR-2244	Proposal for new name for the LSST Science Platform	DENIED	Multiple DM-level documents use the old name.	VERA: the Vera Rubin Observatory Environment for Research and Analysis. It was announced at the project all hands of 2020-04-09 that the name "Rubin Science Platform" has been selected by the directorate before the formal completion of the CCB process.	<div> RFC-673 - Jira proje ct does n't exist or you don't have per miss ion to view it.</div>

LCR-2243	Flowdown of "10% for users" requirement	FULLY IMPLEMENTED	LSE-30 (OSS), LSE-61 (DMSR)	Improve the flowdown of the "10% for users" requirement on the provision of computing and storage for users.	
LCR-2233	Simplify Image Capture	FULLY IMPLEMENTED	LSE-69		
LCR-2187	U-Band Filter Fabrication Non-conformance Waiver	FULLY IMPLEMENTED			
LCR-2174	Move VO Services Effort from 1.02C.06.02 to 1.02.10.02	FULLY IMPLEMENTED	LPM-44, LDM-294	Development of the external (mainly IVOA) data services is being moved from the SLAC group to the SquaRE group.	
LCR-2166	Clarify Requirement DMS-REQ-0183	FULLY IMPLEMENTED	LSE-61	DMS-REQ-0183 as currently written erroneously implies that we must provide a secondary link between the Base and Archive (LDF) that is capable of twice the provisioned capacity of the primary link. That is an overstatement and is not required for operations or catch up, nor is it feasible from a cost standpoint, nor is it the baseline Base - Archive Network Design. This LCR corrects the wording of this requirement to reflect the real need, as well as the design baseline. (More detailed explanation appears in a comment on this LCR.)	
LCR-2148	Purchase DM Production Hardware in Ops	FULLY IMPLEMENTED		DM is no longer responsible for providing hardware for processing DR1 & 2. Returns \$8.1M to project contingency.	
LCR-2104	Replace "LSSTC Board" in LSR/OSS Data Access and Security Reqs	FULLY IMPLEMENTED	LSE-29 (LSR), LSE-30 (OSS), possibly LSE-61 (DMSR)	Removes obsolete language about the "LSSTC Board" controlling operational policies for data rights and IT security.	
LCR-2076	Add AuxTel Spectrograph IT Equipment Installation Activity	FULLY IMPLEMENTED	None	There will be several pieces of IT equipment to install when the AuxTel spectrograph arrives in Chile, e.g. control servers, etc. This activity was previously considered part of IT-514, but that activity is complete and this is on a different and later schedule.	
LCR-2073	Update LSE-309 Summit Base ITC Design	FULLY IMPLEMENTED	LSE-309	LSE-309 was baselined in August 2017. Since that time, much has occurred, and the design and implementation of ITC in the Summit, Base, and Summit-Base network has gone forward. This LCR provides updated information to better reflect the "as-built" systems.	
LCR-2045	Commissioning De-Scope LSSTCam Observing and SV Mini-Surveys	FULLY IMPLEMENTED		Removes 2 months of Science Pipelines testing from the Commissioning Plan. Reduces SV mini-survey from 3 months to 2 months, resulting in smaller survey areas.	
LCR-2008	Restore OSS-REQ-0033	FULLY IMPLEMENTED	LSE-30 (OSS), LSE-61 (DMSR), flowdown only)	OSS-REQ-0033 was removed from the OSS by LCR-899. It has recently been discovered that this broke the flowdown for two existing DM requirements, but also that this requirement applies in some respects to the whole Observatory, not just to the scheduler itself.	
LCR-2004	OSS Omission /Typo in OSS-REQ-0387	FULLY IMPLEMENTED	LSE-30 (OSS), LSE-61 (DMSR)	OSS-REQ-0387 (Photometric Performance) was belatedly flowed down from the LSR in LCR-924. This change request corrects a transcription error from the implementation of that LCR, as well as fixing a long-standing typo in the transcription of these parameters from the SRD.	
LCR-1934	LPM-72 Scope Options Update	FULLY IMPLEMENTED	LPM-72		
LCR-1933	Put Lower Bound on Prompt Data Delivery - L1PublicT	FULLY IMPLEMENTED	LSE-29 (LSR), LSE-30 (OSS), LSE-61 (DMSR)	Introduce a requirement not to release Level 1 / Prompt data products, other than alerts, before L1PublicTMin (6 hours, TBR) after image acquisition.	
LCR-1923	De-Scope Camera DAQ Crosstalk Correction Support	APPROVED	LSE-59, LSE-61	Camera would like to descope the requirement to provide crosstalk correction in the DAQ (that had been intended to support Alert Production). Inter-CCD crosstalk within a raft has been measured to be very small; inter-raft crosstalk is expected to be very small as well and will be measured soon. Consequence: if the Camera does not do it, then DM will have to do it in AP. If it's limited to intra-CCD crosstalk, then this is already within the HSC experience base and probably has little impact; if it's inter-CCD, intra-raft, though, it has a significant architectural impact on AP and may also have a real impact on the alert latency budget. (If there is inter-raft crosstalk, there's no existing architecture to handle it and we have a significant risk.)	

LCR-1916	Clarify Prompt Data Products in LSE-163	FULLY IMPLEMENTED	LSE-163 (DPDD)	Highlights: <ul style="list-style-type: none"> more clearly describes how forced photometry is handled by adding an additional table schema to the document, and specifies that this data will be included in the alert packets; clarifies the distinction between "Prompt" data products and "Data Release" data products 	
LCR-1883	OSS and DMSR Updates to Clarify Alert-Related Contents	FULLY IMPLEMENTED	LSE-30 (OSS), LSE-61 (DMSR)	Clarified latency, failure rate, and capacity requirements relating to the alert stream.	
LCR-1854	Rectify DM Science Budget	FULLY IMPLEMENTED	PMCS	"Science staff are increasing under 2C.02.02 - the verification scope in 2C.09.02 is moving into science."	
LCR-1843	OSS Corrections and Refinements Identified during V&V Planning	FULLY IMPLEMENTED	LSE-30 (OSS)	(Primarily) typographical corrections to OSS requirements arising from the analysis of the document to develop well-defined verifications.	
LCR-1809	Update of Master Security Policy	FULLY IMPLEMENTED	LPM-121	"... require the selection of specific security controls for each subsystem's computational resources. Additionally, the master security plan now requires the implementation of a small set of baseline controls for all LSST systems unless sufficient justification has been made and a variance has been granted (or unless prohibited by a site's own security policies). ..."	 RFC -326 - Jira project does n't exist or you don't have permission to view it.
LCR-1788	Modify LSE-68 to Reflect Actual Interface	FULLY IMPLEMENTED	LSE-68	"The DAQ API delivers pixel data in an in-memory representation different from the ICD. This LCR changes the ICD to match the API, as it is considered infeasible to change the API to match the ICD."	
LCR-1728	Update Science Platform Vision Document LSE-319 to Current Design	FULLY IMPLEMENTED	LSE-319	Updating "LSE-319 to better match the current state of the LSP design and nomenclature. The major changes are to more explicitly describe what is meant by 'next-to-data' processing and to confirm the VO-orientation of the LSP interface design."	
LCR-1711	Update Summit and Base IT and Networks Plan	FULLY IMPLEMENTED	(PMCS)		

LCR-1703	Fix Conflicting LSR (LSE-29) Requirements	FULLY IMPLEMENTED	LSE-29	Remove normative text which refers to the use of snap differencing for cosmic ray rejection, as it is in conflict with the existing requirement to support the Alternate Standard Visit (1x30s).	
LCR-1664	Specify Scientific Visualization Coordinate System for Camera Data	FULLY IMPLEMENTED	LSE-30, LSE-349 (new)	Adopt LSE-349, "Defining the Transformation Between Camera Engineering Coordinates and Camera Data Visualization Coordinates", as a baseline, and insert reference to it into the OSS (LSE-30).	
LCR-1578	DM-10 Delay DM Portal Development	FULLY IMPLEMENTED		Implements Portal descope DM-10. Some details in DMTN-096.	 <p>PST-62 - Jira project does not exist or you don't have permission to view it.</p>
LCR-1565	Correction to LCR-1403 Implementation	FULLY IMPLEMENTED		See original LCR below.	
LCR-1563	Update Identity Management Concept of Operations	FULLY IMPLEMENTED	LSE-279	Adding LDAP group naming conventions for LSP/DAC access rights.	
LCR-1554	Correct flowdown of residual ellipticity correlation requirements to LSR and OSS	FULLY IMPLEMENTED	LSE-29, LSE-30	<p>Update: The problem was found to originate in the flowdown from the SRD to the LSR. The LCR has been modified with new language for both the LSR and OSS that, finally, correctly implements the SRD specification. Outside the scope of the LCR, the DM-SST is researching whether the original SRD requirement still properly supports the needs of weak lensing science.</p> <hr/> <p>OSS-REQ-0234 (10-year Ellipticity Residuals) and OSS-REQ-0390 () are almost duplicates and clearly redundant. One should be removed. There is also a parent requirement, OSS-REQ-0389 () that is not very useful.</p> <p>There are also indications that the flowdown from the SRD to the LSR and OSS was not done correctly; Jim Bosch and Gregory Dubois-Felsmann are investigating.</p>	

LCR-1553	Update LSE-239: Base Facility Data Center Design Requirements	DENIED	LSE-239	Primarily updates intended to assist the verification process. (Denied: to be handled entirely in JIRA.)	
LCR-1503	Parallelize Camera Reverification on LSSTCam and ComCam on Telescope	FULLY IMPLEMENTED	(PMCS)	Parallelize on-sky data collection with ComCam with "white room" reverification of the full Camera on-Summit.	
LCR-1494	Add LSE-400 as an ICD for Header Service	FULLY IMPLEMENTED	LSE-400, LDM-638	Promote Header Service requirements to system level, in effect.	
LCR-1478	Remote Monitoring of System Operations	FULLY IMPLEMENTED	OSS (LSE-30)	Clarify and limit remote monitoring expectations with a new OSS requirement. Supersedes LCR-1278 (Remote Monitoring of System Operations).	
LCR-1473	Update LPM-19 Change Control Process	FULLY IMPLEMENTED	LPM-19	Limit membership of CCB, clarify voting process.	
LCR-1465	Additional OSS Requirements Flowdown to LSE-61	FULLY IMPLEMENTED	LSE-61	Flow down OSS provenance requirements (OSS-REQ-0172, OSS-REQ-0122) and reproducibility requirement (OSS-REQ-123) to additional DM requirements	 DM-14067 - Jira project does not exist or you don't have permission to view it.
LCR-1463	Update LSE-61 DMS-REQ-0274 Re: Alert Packet DIASource History Retention	FULLY IMPLEMENTED	LSE-61	Update requirement DMS-REQ-0274 to be in sync with the DPDD (LSE-163) to indicate that only 12 months of DIASource history will be included in the alert packets.	
LCR-1459	Updates to the Data Products	FULLY IMPLEMENTED	LSE-163		



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LCR-1426	Refine LSE-68 DAQ-DM interface	FULLY IMPLEMENTED	LSE-68	Refine interface with regard to image naming, metadata, units, and events.	
LCR-1425	Modify DMS requirements to include creation and display of HiPS and MOC data	FULLY IMPLEMENTED	LSE-61, then sequentially LDM-151, LDM-554, and the Sizing Model	Implements <div> RFC-441 - Jira project doesn't exist or you don't have permission to view it.</div>	
LCR-1424	Define Image Naming Convention	FULLY IMPLEMENTED	LSE-30, LSE-71, LSE-72, LSE-62	Specify the identifiers to be applied to image data at the time of acquisition and ingest to DM.	
LCR-1420	Update LSE-140 including LCR-733	FULLY IMPLEMENTED	LSE-140	This LCR applies LCR-733 to LSE-140 and corrects some other minor issues. It does not attempt to fully define the telemetry items expected from the auxiliary instrumentation; that will be left for a later LCR.	
LCR-1419	Remote Operability	FULLY IMPLEMENTED	LSE-30, LSE-62		


LCR-1405	Rewrite OSS-REQ-0161	FULLY IMPLEMENTED	LSE-30	This is the "Deep Detection and Measurement Quality" requirement. It is argued that it is "both unhelpful to scientists and awkward for DM to implement now" and "asking for something DM is not planning to deliver because it's not actually something anyone wants."	 LIT-94 - Jira project doesn't exist or you don't have permission to view it.
LCR-1403	Update Base and Long-Haul Network Activities	FULLY IMPLEMENTED	NA	<p>The Base Network plan has been delayed relative to the baseline due to the updated schedule for construction and occupancy of the Base Facility. This LCR reflects the updated dates.</p> <p>The US Network plan has been delayed while we coordinated with ESnet for dedicated 2 x 100 Gbps links between Atlanta and Chicago. The ESnet links provide additional path diversity and guaranteed latency for prompt processing over leased service from internet2. This coordination is documented in a request document and technical requirements document, which when finalized will be posted in docushare. The activities and dates in this LCR reflect the implementation plan and schedule for the ESnet links.</p>	
LCR-1395	Proposed Data Rights Policy Document LPM-261	REJECTED	LPM-261	Codifies a proposed data rights and data access policy. Will require SAC review and agency approval.	
LCR-1392	Restore requirement to OSS from LSE-369 scheduler requirements	FULLY IMPLEMENTED	LSE-30	Add OSS-REQ-0378 back to OSS so that DM tracing will work correctly.	
LCR-1375	Update Base Data Center IT Installation and Configuration Activities	FULLY IMPLEMENTED	NA	<p>Add Base Data Center activities in PMCS</p> <p>LCR-1367 folded into final version, which required going for NSF approval.</p>	
LCR-1367	Change DLP-533 Milestone and Predecessors	DENIED		"Denied" but in practice folded into LCR-1375.	
LCR-1364	Updated LSE-131 (EPO/DM ICD)	FULLY IMPLEMENTED	LSE-131	Mainly reduction of scope.	
LCR-1353	Reorganization of Early Integration Activities	FULLY IMPLEMENTED	PMCS	Clarification and augmentation of the list of planned cross-subsystem early integration activities.	



LCR-1348	New Reference Simulated Survey, baseline2018a	FULLY IMPLEMENTED			
LCR-1344	Add Performance Metrics to LSE-61	FULLY IMPLEMENTED	LSE-61	Add database and image access requirements and ability to calculate science KPMs.	
LCR-1343	Revisions to LSE-239 Base Data Center Requirements	FULLY IMPLEMENTED	LSE-239		
LCR-1332	Update LSE-30 (OSS) to Better Define OSS-REQ-0164	FULLY IMPLEMENTED	LSE-30	Improves and modernizes the language concerning the definition of completeness and reliability tests for DM.	<div> LIT-388 - Jira project does not exist or you don't have permission to view it.</div>
LCR-1309	Update DM Documentation Regarding Special Programs	FULLY IMPLEMENTED	LSE-29, LSE-30, LSE-61		


LCR-1302	LSR-REQ-0034 Clarification	FULLY IMPLEMENTED	LSE-29	Clarify the requirement concerning the saving of Observatory engineering data and the like.	 LIT-100 - Jira project does not exist or you don't have permission to view it.
LCR-1243	Update LSE-239 Base Data Center Requirements	FULLY IMPLEMENTED	LSE-239	LSE-239 was developed to provide the definition of the Base Data Center (BDC) requirements for the Base construction contracts and the BDC Information Technology and Communications (ITC) infrastructure design. Since that version, much has been learned and the requirements have been migrated into the project SySML requirements model. A new version of LSE-239 has been prepared as a document generated from Magic Draw, and has also been substantially re-organized, to more cleanly separate those sections directly applicable to the Base Facility construction contract (Sections 1 - 3), versus those more targeted at the ITC infrastructure design (Appendices I and II). Finally, as the formerly baseline Tape Library has been recommended to be replaced in the BDC ITC design baseline (LCR-781 and follow-on), requirements related to the Tape Library have been deprecated into Appendix III.	
LCR-1238	Implement DM and OSS part of LCR-786	FULLY IMPLEMENTED	LSE-61, LSE-30		
LCR-1230	Update to LSE-75	FULLY IMPLEMENTED	LSE-75	Defining feedback for Active Optics and guider. KTL rewording with more specifics after discussion with Sandrine.	
LCR-1214	Clarify DM's Level 1, 2, and 3 Terminology for the Science Community	FULLY IMPLEMENTED	LSE-163, LPM-231	Defines a new language for the three categories of data products, replacing Level 1, Level 2, and Level 3 in user-facing documentation.	
LCR-1203	Searchable - Interactive Nightly Reports	FULLY IMPLEMENTED		Need to determine what DM will need to do to meet this requirement.	
LCR-1154	Stand Up Data Access Rights Working Group - Put LPM-221 under Change Control	FULLY IMPLEMENTED	LPM-221		
LCR-1070	DM Milestones for Base LAN and Summit Network	FULLY IMPLEMENTED			


LCR-1068	Revised Commissioning Plan LSE-79	FULLY IMPLEMENTED	LSE-79		
LCR-1065	Date Update for the DM /EPO ICD Phase 3 Milestone	FULLY IMPLEMENTED			
LCR-1064	Add Priorities to LSE-61	FULLY IMPLEMENTED	LSE-61	<p>Add priorities to the baselined version of the document that are already part of the MagicDraw model (added as part of</p> <div>  DM-10647 - Jira project doesn't exist or you don't have permission to view it. </div> <p>)</p>	
LCR-1048	Update Summit Network Installation Schedule	FULLY IMPLEMENTED			
LCR-1034	Auxiliary Telescope Spectrograph Instrument and Detector Schedule and Cost Update	FULLY IMPLEMENTED		Updates the schedule and cost of the procurement of the Auxiliary Telescope Spectrograph Instrument. Details of the change are not yet available (25 Jul 2017).	
LCR-1024	Tie LSE-163 into OSS	FULLY IMPLEMENTED	LSE-30 (OSS); others indirectly, LSE-61	Resolves a long-running formal gap in our requirements flowdown. Makes the contents of the DPDD (LSE-163) authoritative in deriving DM-level requirements (i.e., in the DMSR, LSE-61) by stating in the OSS that the data products generated by DM shall conform to the DPDD.	
LCR-1021	Adjust Dates for DWDM Equipment Installation	FULLY IMPLEMENTED	PMCS	Notes ~60 day delay in the installation of the Summit-Base and Base-Santiago DWDM equipment, triggered by late delivery from the equipment vendor. New schedule shows installations complete by roughly November 2017.	
LCR-1018	Follow up to New Camera Image Types (LCR-773) to flow down requirements to subsystem specs and ICDs	FULLY IMPLEMENTED	LSE-59, LSE-71; DM impact to be analyzed	<p>Adds the new image types introduced by LCR-773 (New Camera Image Types) to the Camera requirements and OCS-Camera ICD. Superficially this doesn't require a response in DM-level documents; however, the <i>exploitation</i> of the new image types is driven by calibration requirements and so most likely they should eventually appear in DM documents.</p> <p>Note that as of 05 Sep 2017 LCR-773 itself is Approved but not Fully Implemented.</p>	
LCR-1013	Place the LSST Science Platform Vision Document under Change Control	FULLY IMPLEMENTED	LSE-319		
LCR-1006	Update DM-OCS ICD, LSE-72, to reflect DM design changes and to match recent LSE-70/LSE-209	FULLY IMPLEMENTED	LSE-72, LDM-230	Updates LSE-72 to match current design work. Incorporates changes from LCR-780 and LCR-888.	
LCR-1005	LSE-209 Software Component Document Reformat and Reqs Refresh	REJECTED	LSE-209, likely LSE-72	This is mostly a cleanup pass on a key OCS middleware definition document. The DM-to-OCS interface depends on its contents, so it's likely that some consequential changes to LSE-72 will be needed.	

LCR-1004	Withdraw LSE-77, "Infrastructure Interfaces Between Data Management and the Base Facility"	FULLY IMPLEMENTED	LSE-77, possibly LSE-239	In 2015, the project shifted from the then-existing DM-to-T&S ICD LSE-77 to a new "Base Data Center Requirements" document, LSE-239, to capture the needs of DM for data center space at the Base. LSE-77 became effectively a dead letter in the process. This change request is intended to just clean that up. Final result: LSE-77 has been withdrawn.	
LCR-983	Integrate DM and Camera Data Systems Early	FULLY IMPLEMENTED	PMCS, possibly ICDs, LSE-61	Perform additional early integration activities, notably around the use of the CCOB camera test facility to generate data to be ingested into DM on a regular basis.	
LCR-974	Update Network Requirements in LSE-61	FULLY IMPLEMENTED	LSE-61	One new requirements, modifications to 3 others.	
LCR-964	Summit Computer Room Requirements Document	FULLY IMPLEMENTED	LSE-299 (new)	Consolidates all planned compute hardware needed on the Summit (except what is actually in the domes).	
LCR-963	Summit - Base ITC Design Document	FULLY IMPLEMENTED	LSE-309 (new)	Product of Jeff Kantor's Summit-Base Tiger Team Touches on almost all DM's interfaces with the other systems.	
LCR-962	Flowdown LSE-163 (DPDD) to LSE-61 (DMSR)	FULLY IMPLEMENTED	LSE-163, LSE-61	Includes a handful of unrelated requirements changes/additions. Some text updates to DPDD.	
LCR-952	DM Management and Science Staffing	FULLY IMPLEMENTED		Assigns Wil O'Mullane as CAM for 02C.01.01 and 02C.02., and adds budget to support DM Science Analysts at UW.	
LCR-943	Minor updates to LSE-63	FULLY IMPLEMENTED	LSE-63 (Data Quality Assurance Plan)	LSE-63 has not been updated since 2011. This update includes some minor modernizations based on current best practice and removes mention that we are currently in R&D phase.	
LCR-924	Duplicate LSR Data Performance Metrics in OSS for DM Flow Down	FULLY IMPLEMENTED	LSE-30 (OSS)	Flows LSR-REQ-0093, LSE-REQ-0094 and LSR-REQ-0097 to OSS so that DM can include them in DMSR for verification of the performance metrics (via <div>  LIT-276 - Jira project doesn't exist or you don't have permission to view it. </div>).	
LCR-921	DM to Provide Service for Publishing Predicted Visit Sequence	FULLY IMPLEMENTED	LSE-61 (DMSR)	Publish telescope position and predicted schedule to the community (via <div>  LIT-215 - Jira project doesn't exist or you don't have permission to view it. </div>).	

LCR-908	Keep all Data Releases loaded in databases	FULLY IMPLEMENTED	LSE-30 (OSS) and many subordinate documents	Adopt the following requirement: "The LSST project shall maintain user access to the contents of all Data Releases. This facility may be provided with reduced performance and capacity for Data Releases older than the most recent one, but be qualitatively identical otherwise." in place of the current policy of maintaining access only to the two most recent data releases.	 RFC -325 - Jira project does n't exist or you don't have per mission to view it.
LCR-900	DM S17 Mid Cycle Replan	FULLY IMPLEMENTED	(PMCS)	Implement S17b plans for NCSA, SQuaRE, and AP with some small tweaks to other subsystems.	
LCR-899	Scheduler Requirements Control	FULLY IMPLEMENTED	LTS-347, possibly LSE-62	Promote the scheduler requirements in LTS-347 to project-level change control, moving them to an LSE-* document.	
LCR-888	Proposed Meta-data header client for LSST images	FULLY IMPLEMENTED	LSE-72, LDM-230, probably numerous others	Proposes that a common Summit-Base service be created that extracts all observation metadata (from published telemetry or the EFD) intended to be packaged with the image files, storing an artifact containing all this metadata as "headers" for later retrieval.	
LCR-851	Update to LSE-151	FULLY IMPLEMENTED	LSE-151 "Interface Control & Compliance Management Process"	Clarifies language surrounding ICDs and documents that describe or actually are the implementations of the interfaces controlled by ICD.	
LCR-849	Update LSE-78 LSST Observatory Network Design	FULLY IMPLEMENTED	LSE-78	LCR-849 is to make LSE-78 consistent with and refer to the Network Sizing document LDM-142. Requested CCB if this can be voted on via the electronic voting process. I think it is non-controversial and was discussed at some length in the DM TCT when we last updated LDM-142. It would be good to get this done, as there are a number of more significant changes to the same documents coming very soon as a consequence of Tiger Team activities.	
LCR-838	Auxiliary Telescope Scheduler	FULLY IMPLEMENTED	LTS-187 (draft: SPT-372)		

LCR-836	Typographic correction to LSE-69 to match LSE-130	FULLY IMPLEMENTED	LSE-69	<div>This is a trivial typographic correction that was requested a long time ago in</div> <div><div> LIT-183 - Jira project doesn't exist or you don't have permission to view it.</div></div>	<div><div></div><div>DM-9336 - Jira project doesn't exist or you don't have permission to view it.</div></div>
LCR-835	Camera Heterogeneous Sensor Focal Plane	FULLY IMPLEMENTED		Implicitly sharpens requirements on ability to determine the correct pixel geometry upon data ingest from Camera to DM. May have an implication for the generation of difference imaging templates, at the (~annual) template-creation level and/or at the nightly template-warp-instantiation level.	

LCR-795	Updates to DM/EPO interface requirements (LSE-131)	FULLY IMPLEMENTED	LSE-131	See substantive discussion in the DM Leadership Team Meeting 2017-03-20 .	 <p>LIT-97 - Jira project doesn't exist or you don't have permission to view it.</p>
LCR-788	Transfer Task Framework from 02C.07 to 02C.06	FULLY IMPLEMENTED	(PMCS)	Moves the Task class and a cluster of related classes and interfaces to be a responsibility of the SLAC group.	
LCR-787	Commissioning Re-Plan 2016	FULLY IMPLEMENTED	LSE-79	See also the February 2017 Commissioning Review . Awaiting the report of the review committee.	
LCR-786	Eliminate Base Network Outage Buffer; Expand Summit Camera Image Buffer	FULLY IMPLEMENTED	Unclear	<p>Kevin Long is awaiting guidance on what WBS element to use for the additional budget for the enlarged buffer.</p> <p>The "documents affected" is "Unclear" because it has not been completely decided whether to implement this as a change to requirements or as a specification that exceed the requirement. This is a separate question both at system and at Camera level.</p>	
LCR-785	Observatory Operations Server	REJECTED	Unclear; may require a new ICD. Would also affect DM design documents.		
LCR-783	Commissioning Cluster Services	REJECTED	Appears in DM design documents		
LCR-782	Additional OCS Driven Services for Archive Center Access	FULLY IMPLEMENTED	LSE-72, possibly LSE-140	Provide a means for the OCS to launch predefined batch processing actions at the Archive Center. Likely to be used for, e.g., producing synthetic calibration images following the collection of the input flats, bias frames, etc.	
LCR-780	Eliminate Engineering & Facilities Database Copies in Offline Archive Centers	FULLY IMPLEMENTED	LSE-72, LDM-230	<p>Requires changing EFD interface with OCS to be the ingest to the Reformatted EFD.</p> <p>30 Mar 2017: discussed at an OCS-DM meeting. Further discussions planned for 06 Apr 2017.</p>	

LCR-773	New Camera Image Types	FULLY IMPLEMENTED	LSE-30 (OSS)	Adds requirements for a pinhole filter and for the capability to take filterless images.	
LCR-747	Unified LSST Authentication and Authorization Services	FULLY IMPLEMENTED	LSE-279	Provides unified authentication and authorization technical services to assure authorized individuals access LSST services and systems.	
LCR-745	Targets of Opportunity requirements	FULLY IMPLEMENTED	LSE-29 (LSR), LSE-30 (OSS), LSE-62 (OCS reqts.)	Provides requirement flowdown for the need to handle target-of-opportunity observing.	
LCR-733	LSST CCD, CCS, and DAQ for the Auxiliary Telescope Spectrograph	FULLY IMPLEMENTED	LSE-140 and many others	Requires consequential changes to LSE-140 because of the change to direct spectrograph-to-DM image retrieval. The details of the timeline of capabilities required of DM to support the spectrograph, starting 8/2018, remain under analysis.	
LCR-687	Alternate Standard Visit with 30s single exposure	FULLY IMPLEMENTED	LSE-29 (LSR), LSE-30 (OSS)	Requires that DM be able to handle two types of standard visits: two 15s exposures, or one 30s exposure. Somewhat vague on the question of how closely the two types of visits could be interleaved.	
LCR-586	Update LSE-209 Software to OCS ICD	FULLY IMPLEMENTED	LSE-209	A further round of technical updates to the OCS-to-subsystem device interface. The draft already serves as the basis for the prototype and early integration work that is ongoing.	
LCR-581	Calibration Hardware Requirements Update	FULLY IMPLEMENTED	LSE-30 (OSS), LSE-60, LSE-140 (DM ICD)		
LCR-458	Support for "Deep Drilling" observing scenario	REJECTED		See <div> LIT-325 - Jira project doesn't exist or you don't have permission to view it.</div> for a task relating to unblocking this change request. Ultimately "Rejected" as no longer germane.	