DM System Science Team

Overview

The **LSST Data Management System Science Team (SST)** supports the DM Subsystem Scientist (as the overall Product Owner) in ensuring that Data Management Organization's initiatives provide solutions that meet the overall LSST scientific goals. Members of the SST work together to define, maintain, and communicate to the DM construction team a coherent vision of the LSST DM system responsive to the overall LSST Project goals. The SST also devises and undertakes initiatives to scientifically validate the DMS implementation.

Responsibilities

- Support the DM Subsystem Scientist in ensuring the DM System meets the LSST science objectives.
- Communicate with the science community and internal stakeholders to understand their needs, identifying the aspects to be satisfied by the DM Subsystem.
- Liaison with the science collaborations to understand and coordinate any concurrent science investigations relevant to the DM Subsystem.
- Develop, maintain, and articulate the vision of DM products and services that is responsive to stakeholder needs, balanced across science areas, well motivated, and scientifically and technologically current.
- Work with the DM Project Manager and DM Technical Managers to communicate and articulate the DM System vision and requirements to the DM construction team.
- Identify, develop, and champion new scientific opportunities for the LSST DM System, as well as identify risks where possible.
- Develop change proposals and/or evaluate the scientific impact of proposed changes to DM deliverables driven by schedule, budget, or other constraints.
- Lead the Science Validation of the deliverables of the LSST DM System.

Organization and Membership

SST membership comprises:

- DM Subsystem Scientist (chair)
  - Leanne Guy
- DM System Science Analysts
  - Colin Slater (DM Deputy Subsystem Scientist)
  - Melissa Graham
- DM Science Validation Scientist
  - Jeffrey Carlin
- DM Science Leads
  - Eric Bellm (Alert Production)
  - Jim Bosch (Science Pipelines and Data Release Production)
  - Gregory Dubois-Felsmann (LSST Science Platform)
  - Eli Rykoff (Calibration)

SST Ex-Officio

- Keith Bechtol Commissioning Science V&V lead
- Hsin-Fang Chiang
- Robert Lupton Commissioning Scientist

The primary roles of **Institutional Science Leads** are to serve as the Product Owners for parts of the system their respective institutions have been tasked to deliver. The **System Science Analysts (Staff)** generally lead and/or execute studies needed to support SST work. The **DM Science Validation Scientist** organizes and coordinates the Science Validation efforts (data challenges, other test exercises). The **Science Pipelines and Platform Scientists** serve as the architects of those two elements of the system, and broadly advise on topics related to the impact of science pipelines/platform on delivered science and vice versa. These roles are defined in the DM Organization Document (LDM-294). SST **ex-officio** members

Science Collaboration Points of Contact

Please see the DM-Community Communications page.

Subteams

- DM Science Validation Team (coordinator: DM Science Validation Scientist)

Communication and Meetings

This is the SST Confluence page. It's only accessible to logged in Confluence users (i.e., restricted to lsst-confluence-users group). The short link to this page is http://ls.st/sst.

DM SST business is generally conducted via the dm-sst@lists.lsst.org mailing list.

Any JIRA issue (typically RFCs, DMs, and LITs) of interest to the SST can be labeled with the 'dm-sst' label. Within the Data Management project on JIRA, issues that are the responsibility of DM Science Team should be assigned to the 'DM Science' team. The union of the two can be viewed using Issues tracked by the DM System Science Team filter in JIRA, or on the associated Kanban board.

DM SST Slack channel is #dm-sst; however, it's use is *discouraged* for anything other than messages not meant to be permanent (i.e., passing a link to someone, or communicating in real-time during meetings). There is no expectation that any of the SST members should follow or read (catch up) with the discussion on #dm-sst.

The SST as a whole meets every **week**, via BlueJeans video (https://bluejeans.com/103664856, 10:00am PT, every Friday, with the first meeting being on 24 March 2017). SST Meetings are chaired by the DM Subsystem Scientist. Meeting minutes are posted on the DM Science Team meeting minutes page, and short-term (to be done until the next meeting) actions recorded as Confluence tasks (see http://ls.st/jnv for your personal list of open tasks). The meetings are not closed, but they are intended as working meetings of the team to which others will be specifically invited as relevant topics arise on the team's agenda. The LSST Project Scientist will frequently attend the meetings of the SST.

Subteams within the SST (e.g., the, Science Validation Team, or SST Staff Meetings) may have additional meetings and gather on a different cadence.

- DM Science Team meeting minutes page

SST-driven Studies, Reports, Papers, and Presentations

DM SST work (e.g., data for studies, document sources) should go to repositories in https://github.com/lsst-dmsst, unless a more appropriate place exists for it.

Final results (written-up study reports) should be issued as DM Technical Notes (DMTNs) whenever appropriate. To facilitate the issuing of DMTNs, study reports should be kept in a repository separate from the repository with study data or code (e.g., DMTN repositories need to be kept in the lsst-dm github organization). The reference to the repository with study materials should be incorporated into the technical note via the git submodule mechanism.

All reports need to be added to Collection-5401 in Docushare, unless they've been published as DMTNs. If they were published as DMTNs, a Docushare URL object should be added to point to the relevant DMTN. Per project policy, documents should be added to Docushare by e-mailing them to Robert McKercher (the LSST Project Librarian). Docushare group "DM System Science Team" also exists to grant/restrict access to DM-SST documents, as needed.

Presentations given in SST roles need to be uploaded to a sub-collection in Collection-107. Per project policy, have them added by e-mailing Robert McKercher (the LSST Project Librarian). For presentations in meetings with significant DM presence, upload to a sub-collection with the name of the meeting (or ask one to be created). For one-off presentations (e.g., on telecons to project bodies, or Science Collaborations), use Collection-5712 ("DMSST Presentations").

SST-driven studies published as papers are generally subject to the rules of the LSST Publication Policy. When publishing, co-authorship and comments from LSST Builders (see Section 5 of the Publication Policy) need to be solicited.

- DM Science team Studies

Open Actions

List of SST actions (Confluence Tasks)

Description	Due date	Assignee	Task appears on
☐ Robert Lupton Clarify the meaning of time in the object table. 1 sentence description in sdm_schemas, can link to a short DMTN. *Update 2022-02-09: Meeting to resolve this on 2022-02-21* **28 Feb 2022**	28 Feb 2022	Robert Lupton	2018-11-05 DM SST F2F Agenda and Meeting notes
☐ Leanne Guy arrange to disucss at a future meeting if there are metrics from PDR3 & this paper that we might want to include in faro. **26 Oct 2021**	26 Oct 2021	Leanne Guy	2021-08-31 Science Metric Development Agenda and Meeting notes
☐ Keith Bechtol Schedule a time to have focused discussion on verification package, potentially next status meeting		Keith Bechtol	2021-09-14 Science Metric Development Agenda and Meeting notes
☐ Keith Bechtol to make a ticket to better understand mapping of these camera and calibration products characterization efforts to verification documents and the focus of these efforts. Discuss with the SCLT		Keith Bechtol	2021-09-14 Science Metric Development Agenda and Meeting notes

☐ Leanne Guy to talk to Science Pipelines (Yusra) about when do this transfer 19 Oct 2021	19 Oct 2021	Leanne Guy	2021-09-28 Science Metric Development Agenda and Meeting notes
☐ Colin to ask about capturing ideas for improvement to the stellar locus algorithm 30 Nov 2021	30 Nov 2021		2021-11-09 Science Metric Development Agenda and Meeting notes
☐ Gregory Dubois-Felsmann check if SDM standardization is adequately represented in project documents, and whether DMTN-067 should be required. 31 Mar 2022	31 Mar 2022	Gregory Dubois-Felsmann	2022-02-14 DM-SST Virtual F2F Agenda and Meeting notes
☐ Colin Slater to make a preliminary draft agenda for a workshop to clarify visualization use cases for science verification and validation		Colin Slater	2022-04-19 Science Metric Development Agenda and Meeting notes
☐ Jeffrey Carlin to review metric specification package organization and the relationship to formal requirements documents		Jeffrey Carlin	2022-04-19 Science Metric Development Agenda and Meeting notes
☐ Leanne Guy read RFC-842 and work out how much of this is in DM scope. Work with Eli Rykoff and Robert Lupton to make a plan to address this 28 Feb 2023	28 Feb 2023	Leanne Guy	2023-01-23 DM-SST Agenda and Meeting Notes
☐ Eli Rykoff , Leanne Guy Develop a proposal for what calibration processing, hardware, data we actually need and what will be needed for DR1. This has implications for the ORR and for prioritisation of work in commissioning 31 Jul 2023	31 Jul 2023	Eli Rykoff	2023-01-30 DM-SST Agenda and Meeting Notes
☐ Jim Bosch Provide a physical example of that a up on cell table would look like fo the Colin Slater / DAX team to review 31 Aug 2023	31 Aug 2023	Jim Bosch	2023-02-27 DM-SST Agenda and Meeting Notes
☐ Jim Bosch Provide an example of a file containing a cell-based coadd for Gregory Dubois-Felsmann to examine to assess implications for firefly 31 Mar 2023	31 Mar 2023	Jim Bosch	2023-02-27 DM-SST Agenda and Meeting Notes
☐ Leanne Guy talk to Steve R about presenting plans for the ShearObject table to PST and SciCollab chairs 20 Mar 2023	20 Mar 2023	Leanne Guy	2023-02-27 DM-SST Agenda and Meeting Notes
☐ Leanne Guy Prepare to consult the PST on the question of providing compressed PVIs for AP outputs, to cover the period before the data become available in a DR. 02 Jun 2023	02 Jun 2023	Leanne Guy	2023-03-27 DM-SST Agenda and Meeting Notes
☐ Parker Fagrelius Patrick Ingraham how long will it take to do a scan as described? No need to scan the whole WL range but will require additional points outside nominal lambda range. 30 Jun 2023	30 Jun 2023	Parker Fagrelius	2023-03-27 DM-SST Agenda and Meeting Notes
☐ Leanne Guy talk to Gregory Dubois-Felsmann to review the original intent of the AFS-related Portal requirements before deciding on a course of action 29 May 2023	29 May 2023	Leanne Guy	2023-05-01 DM-SST Focus Meeting - Brokers in Commissioning

		26 Jun 2023	Jim Bosch	2023-05-08 DM-SST Agenda and Meeting Notes
☐	Jim Bosch Incorporate 30-60 day period for raws on disk into the strawman proposal and present to KT 26 Jun 2023			
☐	Colin Slater Gregory Dubois-Felsmann Robert Lupton Jeffrey Carlin Convene meeting/vf2f session on definition of dataset selection requirements in DMS-REQ-293 31 Jul 2023	31 Jul 2023	Colin Slater	2023-07-10 DM-SST Agenda and Meeting Notes
☐	Yusra AlSayyad will look to see if there is any effort to help on option 1 28 Aug 2023	28 Aug 2023	Yusra AlSayyad	2023-08-14 DM-SST Agenda and Meeting Notes

Jira Issues of interest to the SST (as designated by the label #dm-sst)

Key	Summary	Created	Updated	Assignee	P	Status

No issues found