

Rubin Observatory

DM Science S20B Retrospective and F20A Plans

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S20B Retrospective



Progress on several alerts-related SST tickets:

- [DM-20296](#): alert stream pre-filtering & [DM-20298](#): alert packet contents: Awaiting input from broker proposals to understand community needs before moving forward
- [DM-20299](#): alert latency science impacts (OTT1) - most science cases can be satisfied on a 5 min timescale, some might evolve into needing a 60s latency in the future. Will not publish TN, don't want inadvertently push changes OTT1 unless explicitly asked

Interfaces for querying time series data -- work ongoing

Revision of host galaxy associations for DIAObjects -- [DM-23683](#)

- Providing more scientifically useful associations between DIAObjects and Objects in particular between transients and their host galaxies.

Crowded fields processing -- Prototyping work ongoing

Algorithms Workshop

- Occupied most of the last 3 months for several DM-SST members.
- Very successful, very positive feedback , community eager to see follow up sessions.

Community Brokers & Alerts

- 6-month delay announced to deadline for broker proposals
- Missed deadline of end March 2020 to provide sample alerts to broker proposing teams.
- Working with SAC to understand how they plan to evaluate the broker proposals and what the best course of action is now on sample alerts.

Providing Science User Support

- How to best support a growing science user community? Working with ops CE team engagement

- Evaluation of the pipeline task architecture and the [Metric Measurement Verification Framework](#) to compute performance metrics at scale started. Initial tests and implementation of PA1 metric look very promising.
- First [science pipelines release acceptance test campaign](#) carried out.
- Several bug fixes in validate_drp
- Closer interactions with commissioning team.

- Major progress on automation of SDM standardisation through to qserv ingest - as presented at this meeting. Aim when starting this was to have it running with HSC data on June/July timescale -- looking like we are still on track to deliver
- Progress on sdm_schema (née cat) means we can now look at how to evolve the DPDD
- Not much progress on open tickets

- Construction papers -- review of outlines, working on consolidating those papers with overlapping scope, especially with commissioning activities
- SPIE paper on documentation automation for V&V with Gabriele.
- Numerous knowledge transfer and support activities to the LDF
- LCR to support incremental template building outside of regular DRP in support of year 1 alerts submitted. (RFC-681)
- Major updates of the Solar System Products and Processing baseline - LCR submission in progress (RFC-620)
- Decision to adopt Parquet as user facing columnar data format for LSST catalog data (RFC-662)

- Robert Gruendl took on role of product owner for Prompt Services, taking over some responsibilities from K-T. See presentation at this meeting. Thanks to K-T for previously filling this role.

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F20A Plans



- Move ahead with implementation of all performance metrics in the Metric Calculation framework, migrating existing metrics from the validate_drp package and completing implementation of all performance metric defined in the DMSR
- Working on acceptance test plans for the level two milestones LDM-503-10b (Large Scale CCOB Data Access) and LDM-503-11 (Ops rehearsal for commissioning #2).
- Define the test plan for the RSP service of data resulting from an end-to-end test exercising the flow from data processing to RSP release. -> new milestone
- Acceptance testing of science pipelines release 20.0.0
- Complete test case specifications for priority 1a requirements (2 remaining)
- Continue to coordinate V&V efforts efforts with the commissioning V&V team

- Continue work on automation of SDM standardisation through to qserv ingest -- still aiming to have it running with HSC data on June/July timescale -- still looking feasible.
- Finalize evolution of DPDD and its relationship to sdm_schemas
- Describe in user-facing parquet data products in an LDM (RFC-662)
- Organize follow-up virtual sessions to the algorithms workshop
- Organization of community focused sessions for the virtual PCW.
- Coordinate first drafts of construction papers.
- Complete RSP requirements flowdown.

- Continuing work on prototype prototype for single-frame crowded field processing, expect to have a first prototype to demo to DM in 3 months?
- Continue work on review of time series features to compute and to merge work on the public interface for querying time series into [DMTN-118](#) - aim to present a proposal in a PST SciCollab talk.