

Vera C. Rubin Observatory

Standard Data Model Update

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U.S. DEPARTMENT OF
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CHARLES AND LISA SIMONYI FUND
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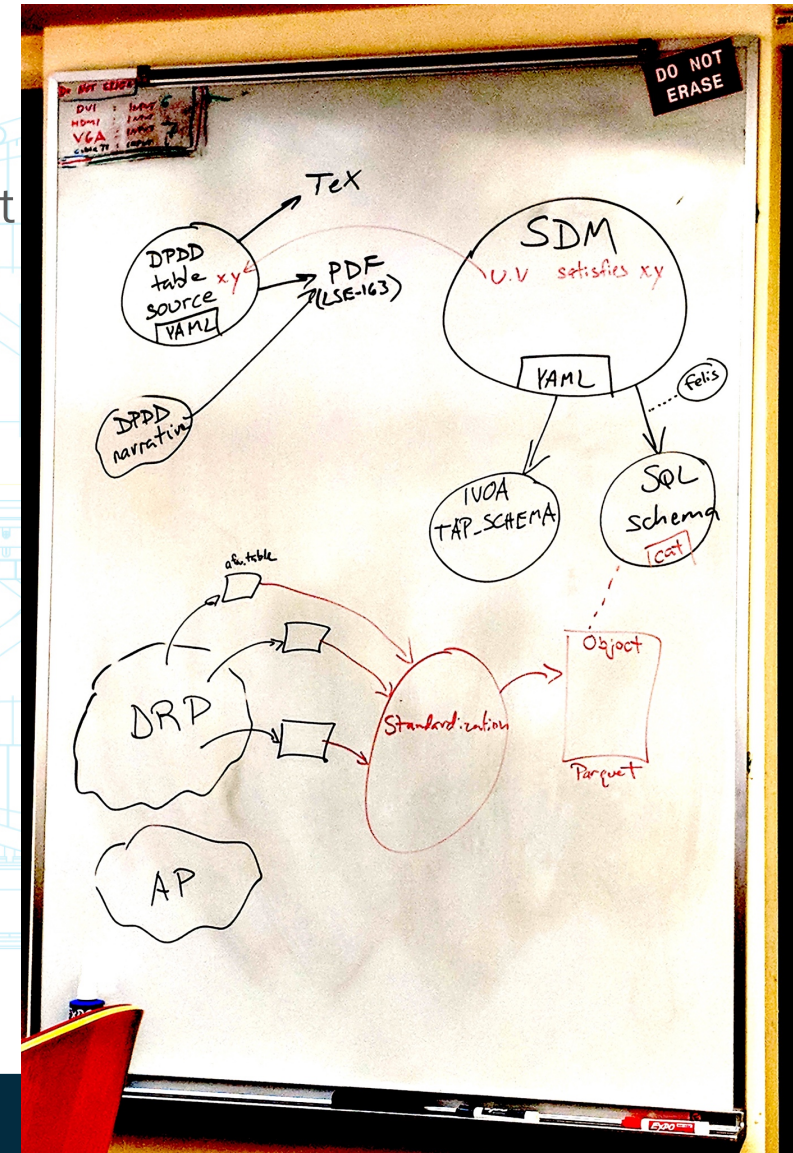


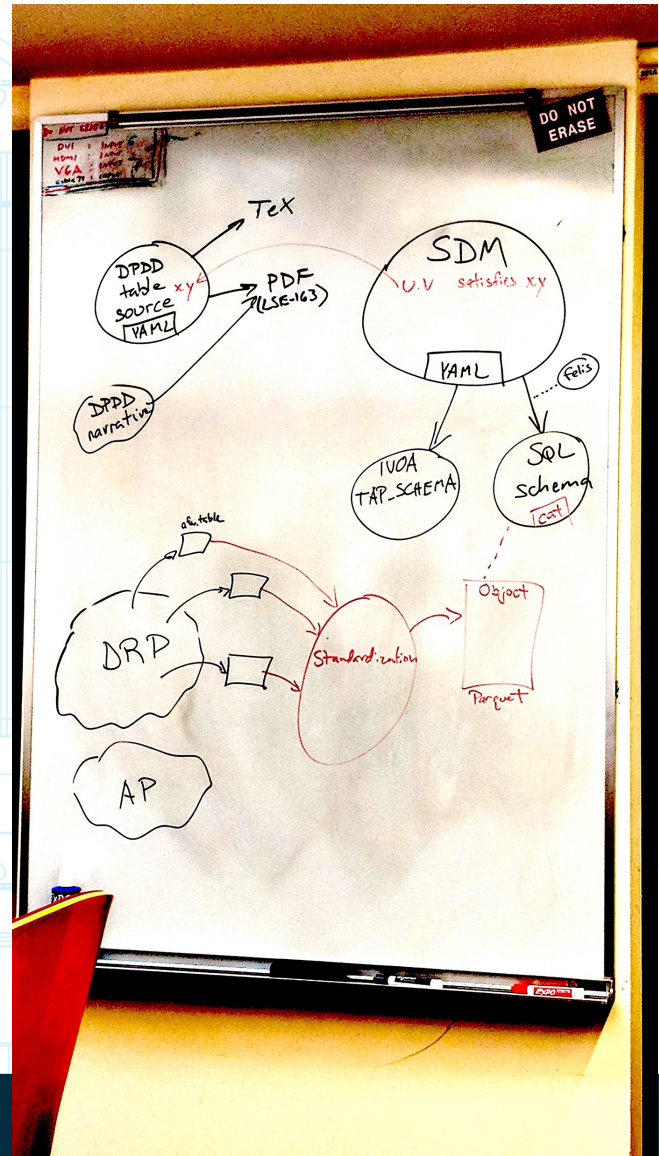
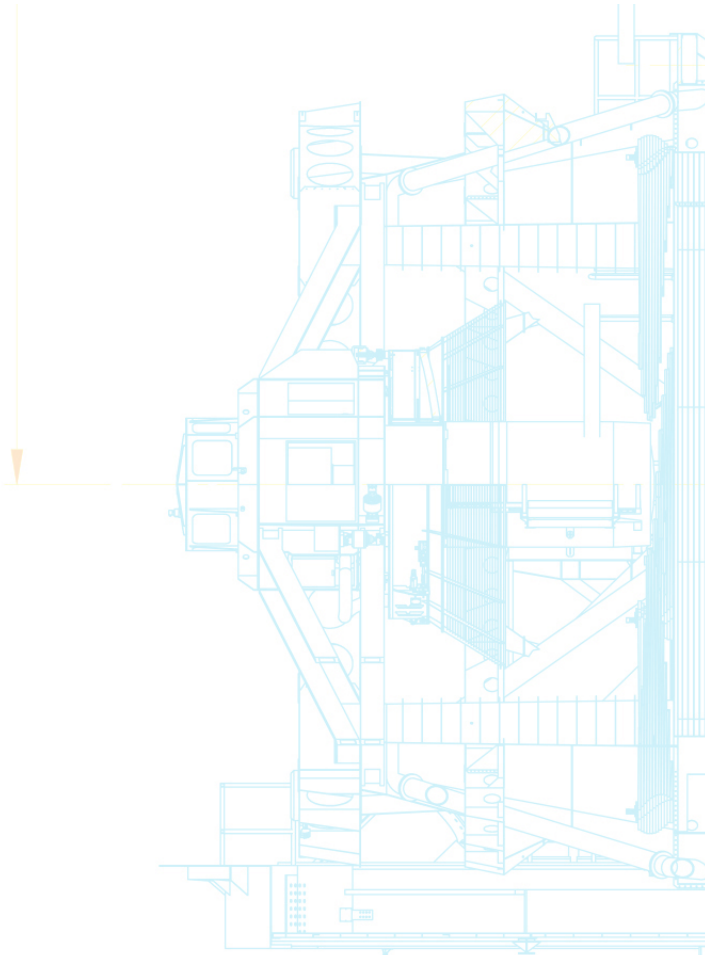
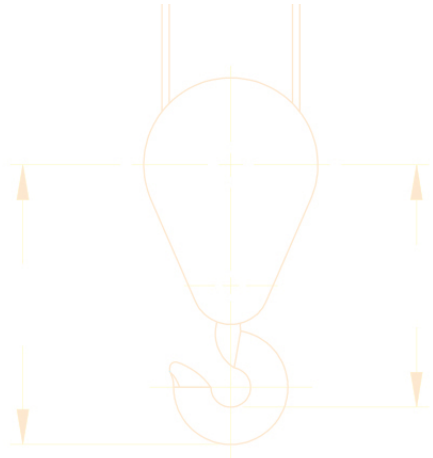
Recall the Problem and Vision:

2 DMLTs ago: We should stop talking about it and just do the thing.

1 DMLT ago: We did the thing, now we should automate it.

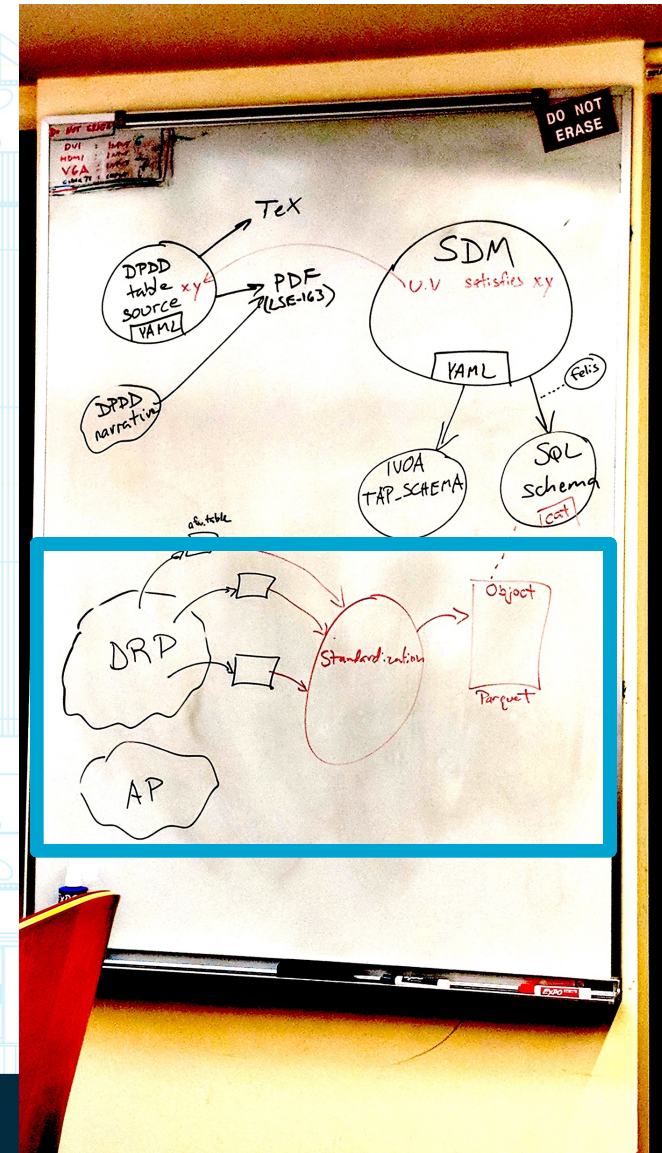
Now:





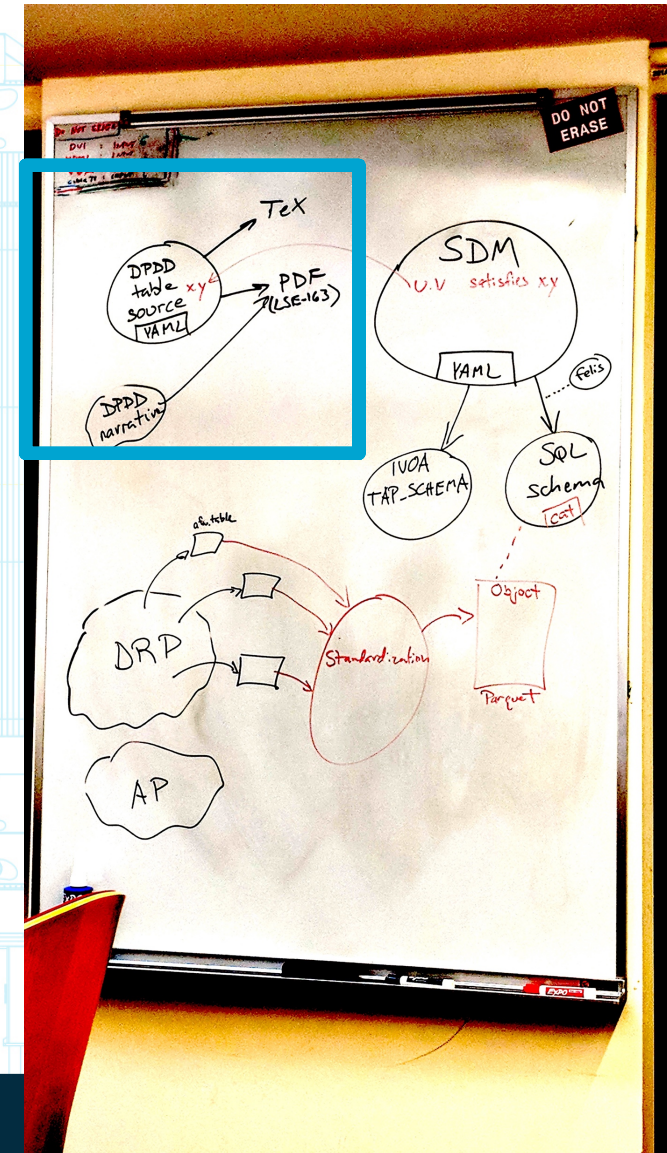
Science Pipelines

- The post-processing tasks that generate the parquet ObjectTable have been moved to pipe_tasks
- The post-processing tasks are run in standard DRPs
 - HSC monthly RC2
 - HSC ci_hsc_gen2 ←
 - PDR2 reprocessing
- Adapting pipe_analysis to use postprocessing outputs (parquet tables)
- New plugins: base_LocalPhotoCalib, base_LocalWcs



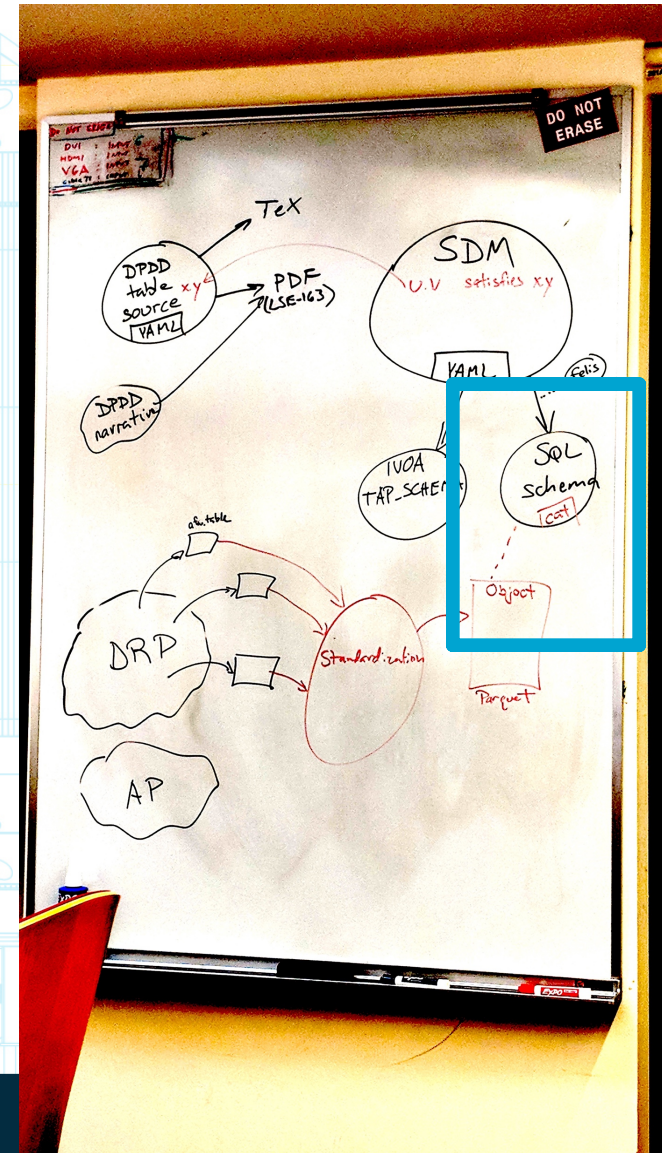
DM-22078: Reconciling DPDD with the required information for pipeline QA

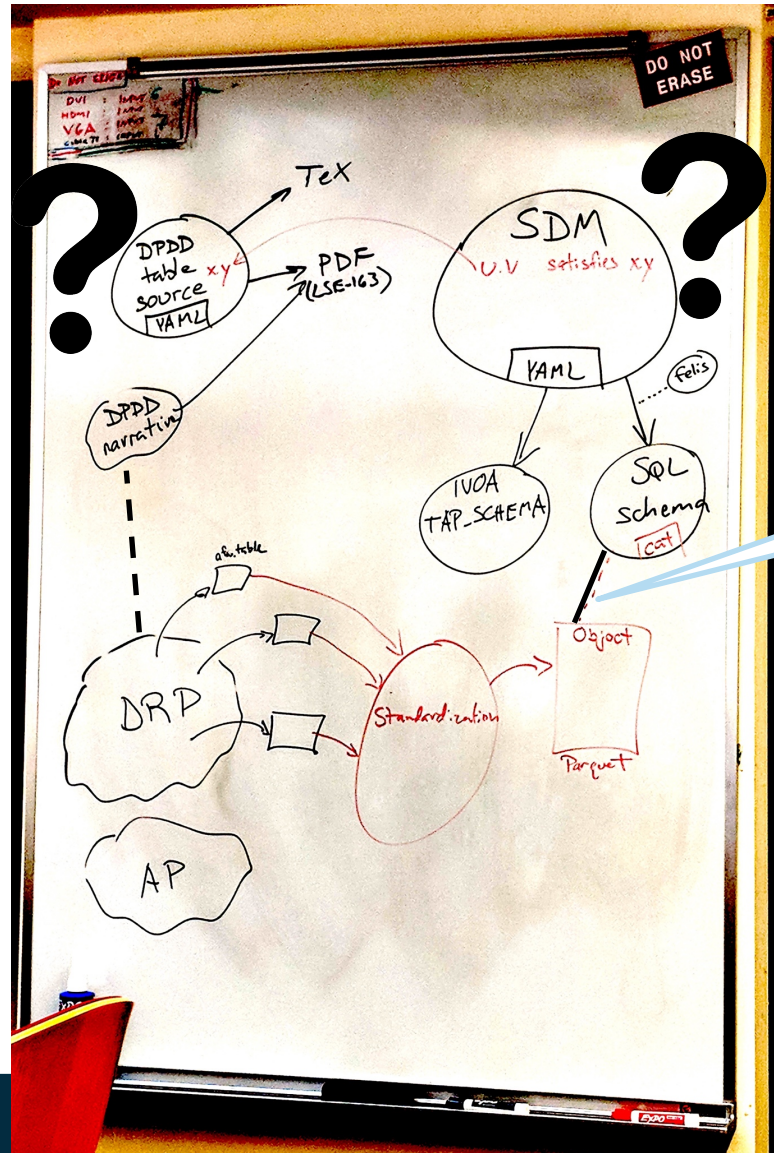
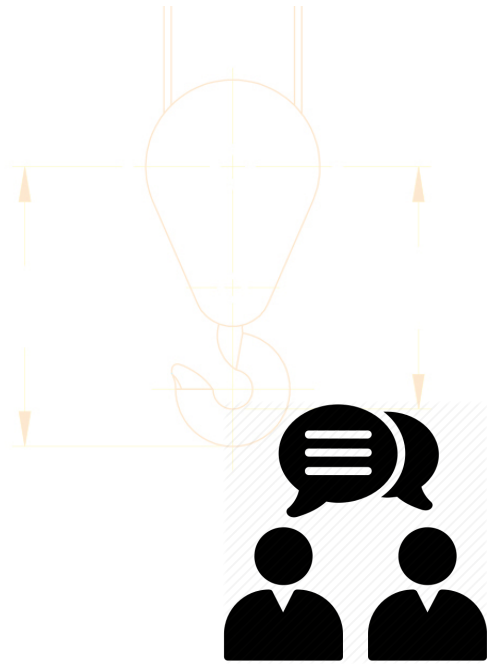
- Sat down with Leanne, Lauren M, and Jim to review the columns in the DPDD Object Table
- Jim has a pull request ready to remove multifit from the DPDD.
- Opened 11 tickets for discrepancies and annotated obs_subaru/Object.yaml with TODOs
- Ticket awaiting review by Leanne ([DM-22187](#))
- Update obs_subaru/Object.yaml and cat/hsc.yaml to reflect initial (pre-ticket) reconciliation and columns necessary for QA (e.g. per band flags, Aperture Corrections, blendedness, InputCount) (w_2020_08)



Interface between Pipelines and SDM

- HSC RC2 Object table was ingested into Qserv
- Yaml schema in cat (renamed to sdm_schema) for HSC Object Tables
- ci_hsc_gen2 cross-checks the schema column names between the output parquet and the yaml in cat
- [RFC-672](#) for adding cat (as sdm_schemas) to lsst_distrib.





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Checked by
ci_hsc

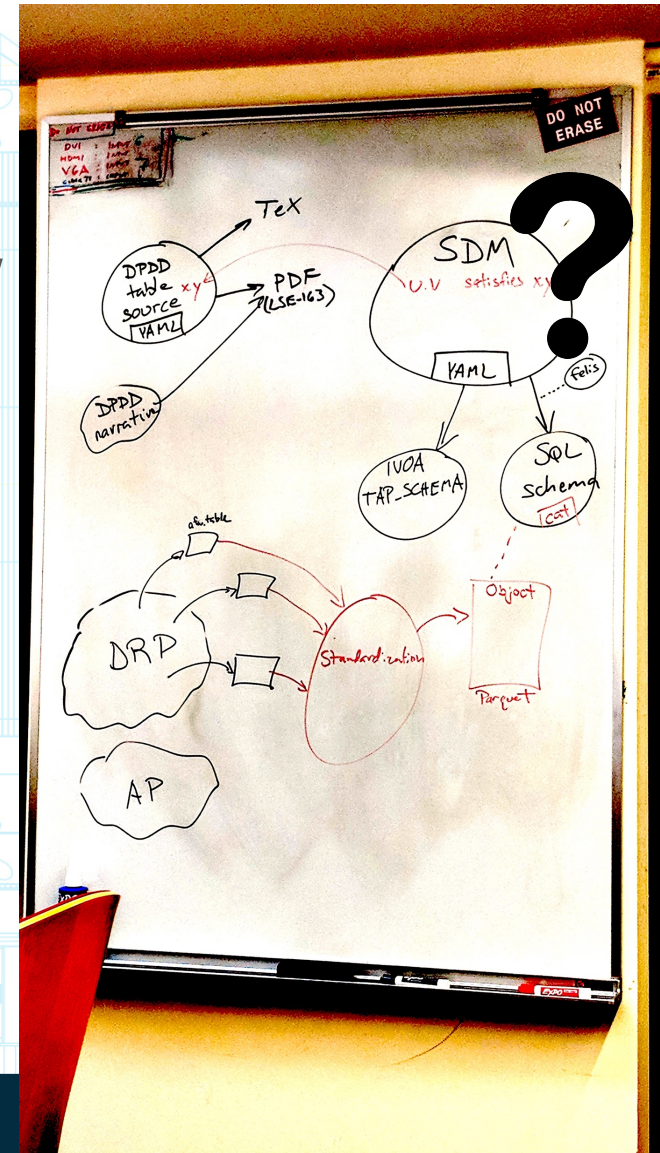


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DAX Future and Questions from Hsin-Fang

- Automation and Improvement of the Qserv ingest workflow
- Adopting Felis?
 - Right now TAP_SCHEMA is the only customer that really uses it.
 - github.com/lsst-dm/felis from lsst-dm to lsst?
 - Felis utilities: For example, given a felis table definition, how do I know if this follows the Felis syntax, whether types are declared correctly, etc?
- Need tools to verify pipeline outputs against Felis ddl. ci_hsc was convenient for basic verification, but not the right place for generic Felis or Parquet tools



Pipelines Future and Questions

- Add obs_Isst/ImSim/Object.yaml for the DC2 monthly reprocessing
- Write a SourceTable.yaml/ForcedSourceTable.yaml for HSC RC2 and ImSim DC2
- Internal changes you won't notice:
 - (ap_pipe already is DPDD-ified and interacts directly with a prototype APDB) feed this with a `DiaSource.yaml` / Functors
 - Adapt transformObjectCatalog to use new local per-row calibrations added by Chris
 - Convert functors to registry so that they can be added at runtime
- How do I or other pipelines devs get columns into the "official" Object table?

