

Gen3 Middleware Feb 2019

Fritz Mueller – SLAC National Accelerator Laboratory



Large Synoptic Survey Telescope

Agenda



- Sprint and goals since Feb 1
 - Feb 1 demo was clarifying and improved team focus
 - We've picked a new target; let's do it again!
- Roadmap refinements since since Feb 1
 - How has the new goal and the latest thinking affected roadmap sketch presented Feb 1?
 - Time to secure/affirm resource commitments from T/CAMs for S19B!
- Futures

Sprint and Goals



- Themes
 - Burn down uncertainties re. BG3 registry in Oracle
 - Continue to scale up workflow
 - Kick start LSP migration to Gen3 middleware
- Targets
 - Running monthly HSC RC2 reprocessing with Gen3 middleware, using Oracle registry backend and Pegasus workflow
 - Demonstrate access to output products from an LSP instance at NCSA (Oracle registry + GPFS DataStore)
 - Planning for demo at May DMLT
 - More details
<https://confluence.lsstcorp.org/display/DM/Gen3+Milestone+FY2019-2>

Roadmap Refinements

Gen2 Middleware Deprecation Roadmap



S19 Middleware Staffing Summary

Institution	FTE mo. Budgeted, S19
DRP	15.0
NCSA	23.0
DAX	3.5
ARCH	2.5
SQUARE	0.75
	44.75

- T/CAMs: Are these allocations still in your S19B plans?

Roadmap Refinements

Gen2 Middleware Deprecation Roadmap



Stabilization Phase

- Milestone: PipelineTask API Stability

PipelineTask specialization and command-line interfaces reviewed.
Problems identified; API-breakers addressed.
(~2 FTE mo. remaining, anticipated 5/19)

- Milestone: Data Repo Stability

Forward compatibility of SQLite/Posix datastores assured from this point.
(~2 FTE mo. remaining, anticipated 5/19)

- Probably best delayed post May demo to incorp. lessons learned
- Look for design reviews scheduled early June

Roadmap Refinements

Gen2 Middleware Deprecation Roadmap



Migration Phase

Pipeline Development

- Milestone: DRP on Gen3
(~9 FTE mo. remaining, anticipated 5-8/19)
- Milestone: AP on Gen3
- Milestone: CPP on Gen3
(~ 4 FTE mo. estimated, anticipated >4/19)

GEN3 MIDDLEWARE - 1 FEB 2019

6

- Need feedback from T/CAMs on what resources and when
- Anticipated support from DRP pathfinders
- G3 port-a-thon at PCW?

Roadmap Refinements

Gen2 Middleware Deprecation Roadmap



Migration Phase (cont.)

Service Development

- Milestone: LSP dev on Gen3
(~2 FTE mo. estimated, anticipated 8/19)
- Milestone: OODS dev on Gen3
(~1 FTE mo. estimated, anticipated >3/19)



GEN3 MIDDLEWARE - 1 FEB 2019

7

- LSP work to start soon; SQuaRE resources avail?
- OODS port still resourced S19B?

Roadmap Refinements

Gen2 Middleware Deprecation Roadmap



Gen2 Middleware Deprecation Roadmap



Operation Phase

- Production runs – start as cntl_pool and migrate to Pegasus as features become available. Requires ingest and cntl_pool. Eachrun will use new sqlite repro to isolate changes between runs.
- LSP – will create their own SQLite registries or use shared ones for their work generated from the (readonly) DBB.
- Summit/Base – will create their own sqlite registries from the OODS with risk of slowdown of image capture from the DAQ
- Oracle work and moving to single user Oracle and schema development continues.

- A hard part: Gen2 oper. parity
- Tilt schedule toward burning down NCSA concerns

Roadmap Refinements

Gen2 Middleware Deprecation Roadmap



Cleanup Phase

- Milestone: Gen2 butler and CmdLineTask removed from master!!
(anticipated 11/19)

- Sticking with this target as of Feb 2019!

GEN3 MIDDLEWARE - 1 FEB 2019

10

- Is DAX/SLAC the most sensible place from which to pilot continued middleware development beyond current goal of BG2 deprecation?
- Sad to hear doubts expressed by John yesterday re. formerly stated plan to search/hire dedicated MW czar. Rationale?