OpSim Planning

Purpose

This is a summary of current OpSim Activity.

- There are 7 components for the JIRA Project "Operations Simulator (OPSIM)": Cadences, Events, MAF, OPSIM, Scheduler, SSTAR, & System HW/SW.
- There are 2 scrum boards: MAF (includes component=MAF; managed by Lynne) and Cadence Team (components!=MAF; managed by Cathy)

OpSim v3.x Development

- Development needed for the Workshop is described in Epic = "Workshop Development".
- Development needed for the Project is described in Doc-15390
    - additional details to be described by documents in preparation (next section)
    - a draft timeline has been circulated to the team

Scheduler Development

A definition document and development plan for the Scheduler in Construction is in preparation. The evolution of the Simulator into an Operations tool as well as into the scheduler will be described. Specific requirements documents for each tool is in preparation.

- Response to the Review Committee Report
- Scheduler Objectives: a re-configuration of Doc-15390 "LSST Operations Simulation & Scheduling: An Overview & Development Plan")
- Scheduler Requirements: an expansion of Doc-15421 "Scheduler Requirements", and possibly encompassing Doc-16253 "OCS Input Requirements for Scheduling"
- Simulator Requirements: an expansion of Doc-15320 "Operations Simulator Requirements"

Cadence Studies

There are longer term plans for cadence studies and parameter tuning studies (a feasibility study for using SLAC-HPC is underway), but the current emphasis is validation and debugging of existing features in OpSim v3.0, and preparation for the Community Workshop in August as described here.

- Validation runs will build on Doc-15318 to finalize the validation of the v3.0 codebase
- Tier 1 runs will be replaced by better M2M=30 runs soon (sstars are in progress)
- Rolling cadence is being attempted without code changes (a bug prevents non-integer durations).
- Epic = "Other Workshop Runs"

Community Cadence Workshop - Aug 11-15, 2014

- Website: https://lsstcorp.org/meetings/ocw/
- Workshop Planning Document
- Testing MAF installation
- Testing OpSim installation
- Validation, Tier 1 and Tier 2 runs
- Documentation (Epic = "Workshop Documentation")

Metrics Analysis Framework (MAF)

- The planning & development document for the MAF is Doc-15319 "Analysis Tools: Plan for the Metrics Analysis Framework".
- Inclusion of Merit Functions is planned and described in Doc-15393 "Analysis Tools: Merit Function Prototypes"
- MAF Scrum Board tracks issues and progress

Simulated Survey Tools for Analysis & Reporting (SSTAR)

- No further development is planned; will be replaced by MAF. A description of this tool is Doc-15392 " Analysis Tools: SSTAR"
- Replication in MAF should include improvements specified here.
- Miscellaneous tasks are recorded in Epic = "Prep for MAF"

System Hardware & Software

- A proposal for preserving data and data access for older generation machines is being considered
- A proposal for obtaining new production machines is being considered.
- A feasibility study and recommendation on the capabilities and requirements for running OpSim v3.0 on SLAC-HPC machines will be documented.
- A feasibility study and recommendation (and time requirement) needed to parallelize opsim v3.0 codebase
- A backup plan for all machines will need to be designed and reviewed.