

# Simulations Description Report

This page displays the (non-SOCS) SIMS Epics, which are currently unresolved, and their descriptions.  
Updated: 2015-10-29 13:28

## Refactor SEDs including PCA SEDs and SED fitting (SIM-40)

Planned Story Points = None

### Statement of Work

No description provided.

## update GalFast to include LMC, SMC, the bulge, and O, B, and A stars (SIM-41)

Planned Story Points = None

### Statement of Work

No description provided.

## Validate and release the galaxy model (SIM-42)

Planned Story Points = None

### Statement of Work

No description provided.

## Update the model of variable stars (SIM-43)

Planned Story Points = None

### Statement of Work

No description provided.

## Generate OBA stars and potentially LMC and SMC distribution using GalFast (SIM-44)

Planned Story Points = None

### Statement of Work

No description provided.

## Implement bright stars (with appropriate positions on the sky) (SIM-45)

Planned Story Points = 54.0

### Statement of Work

No description provided.

## Generate a cloud model that works across all simulations (SIM-47)

Planned Story Points = None

### Statement of Work

No description provided.

## Issues for generating and solving self-calibration data sets (SIM-48)

Planned Story Points = None

### Statement of Work

No description provided.

## **Generate an updated sky model that matches site observations (SIM-49)**

Planned Story Points = None

Statement of Work

No description provided.

## **Implement realistic morphologies in catsim and phosim (SIM-50)**

Planned Story Points = None

Statement of Work

No description provided.

## **Generate errors (photometric, astrometric and shape) that are derived from either phosim or from signal-to-noise calculations (SIM-53)**

Planned Story Points = None

Statement of Work

No description provided.

## **Write GalSim Interface (SIM-54)**

Planned Story Points = None

Statement of Work

No description provided.

## **Add code to translate sky position into position on the focal plane (SIM-55)**

Planned Story Points = None

Statement of Work

No description provided.

## **test that phosim and catsim agree on calculated physical quantities (SIM-56)**

Planned Story Points = None

Statement of Work

No description provided.

## **test that I can make things (SIM-57)**

Planned Story Points = None

Statement of Work

No description provided.

## **Add SNIa to catalogs of galaxies generated by catsim (SIM-58)**

Planned Story Points = None

Statement of Work

Given a catalog of SNIa in the sky, one should be able to use the information in OpSIMs outputs to generate a set of SNIa fluxes/magnitudes. The task here is to generate such a catalog that will make such a calculation possible.

As a test, one should be able to obtain band magnitudes with a given transmission filter from throughputs.

## **Documentation and Reports (SIM-59)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Make a sky brightness model and validate using data (SIM-263)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Effort to encourage and manage community metrics, and extend MAF cadence metrics. (SIM-264)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Plotting inside the slicers has become ungainly. Let's move viz tools to separate module. Will have to figure out how to define which plots go with a slicer. (SIM-265)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Upgrades to web viz layer, to make things clearer/more readable/enable comparison plots. (SIM-266)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Improve MAF fidelity by adding focal plane layout, vignetting, etc. (SIM-270)**

Planned Story Points = None

#### Statement of Work

Add real focal plane layout.  
Add vignetting in focal plane.  
End result: improve fidelity of depth estimates

### **MAF driver script + pex\_config (SIM-271)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Support for cadence workshop (SIM-273)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Use cases and mechanics of generating comparison plots for all bidders (SIM-274)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Refactor the MAF driver to be more modular. Enable better control of plotting (separate from running metrics). Enable better control of complex metrics. Enable running 'unusual' slicers (movieSlicer, userDefinedPointings). (SIM-275)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Refactor MAF db classes to allow DBObject use, and allow hooks into slicers for iterating through chunks (SIM-277)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Development of material for the dry run and cadence workshop at August 2014 all-hands (SIM-278)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Metrics required by opsim (SIM-279)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Write and add unit tests to MAF (SIM-283)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Create solar system Slicer / simulation capability (SIM-284)**

Planned Story Points = None

#### Statement of Work

No description provided.

**An Epic to hold presentation layer issues (for now) (SIM-289)**

Planned Story Points = None

#### Statement of Work

No description provided.

**Supporting self calibration simulations. Generating mock catalogs and solving photometric system. (SIM-290)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **For the workshop (SIM-291)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Provide more documentation for MAF (SIM-293)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **split SSTAR/firstlook & determine SRD metrics required (SIM-899)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **MAF material for Cambridge and Bremerton workshops (SIM-1068)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Create Variability Stream from LSST simulations (SIM-1094)**

Planned Story Points = None

#### Statement of Work

Create Variability Stream from LSST simulations integrating with Opsim and Catsim

### **testing different protocols and environments (SIM-1113)**

Planned Story Points = None

#### Statement of Work

We encountered different problems with low level communication from size of tcp packets to performance decrease - permanent epic for testing different aspects of system

### **getting esper to work with alertsim (SIM-1115)**

Planned Story Points = None

#### Statement of Work

We need to install ESPER and test whether it is suitable for use in delivery/filtering of alerts

### **generate and transmit simulated cutouts (SIM-1119)**

Planned Story Points = None

#### Statement of Work

generate simple cutout  
test different ways to transmit images in alertstream

### **Comments from MAF users (SIM-1368)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **MAF upgrades and support for the cadence white paper (SIM-1409)**

Planned Story Points = None

#### Statement of Work

No description provided.

### **Create SSO diasources from Catsim (SIM-1457)**

Planned Story Points = 43.0

#### Statement of Work

6. Support NEO development work – 10/1/13 – 9/30/14

a. Implement functionality to ingest NEO asteroids models into the simulations framework.

b. Generate data to support the DM evaluation of the Moving Objects Pipeline algorithms and to support trade studies to evaluate the LSST capabilities for detecting asteroids

### **Compare sky model results to observations (SIM-1478)**

Planned Story Points = 59.0

#### Statement of Work

3. Validation and delivery of a unified LSST sky model – 10/1/15 – 9/30/16

a. Extension of the sky model for the LSST site to include the effects of the solar cycle

b. Extension of the sky model to account for twilight observations

c. Validation and documentation of the sky model in preparation for an internal review

### **mixed vendor focal plane (SIM-1486)**

Planned Story Points = 10.0

#### Statement of Work

Requested.

### **Develop interface to SysML base on DBObject classes (SIM-1488)**

Planned Story Points = 54.0

#### Statement of Work

5. Development of an interface to the System Engineering SysML database – 10/1/15 – 9/30/16

a. Evaluation of an interface to the SysML database using the database access tools developed for the catalog simulations

b. Dependent on the outcome of this evaluation, development of a simple query interface to the SysML database to support access to the project designs and requirements. Delivery of that interface to the project.

### **Validate SSO catalogs (SIM-1496)**

Planned Story Points = None

#### Statement of Work

Validate MAF and Catsim catalogs

### **provide CatSim code to support NEO catalog generation (SIM-1506)**

Planned Story Points = None

#### Statement of Work

No description provided.

## **Recreate SSO catalogs on fatboy (SIM-1520)**

Planned Story Points = None

Statement of Work

No description provided.