## Resource Objects

* **Dynamics Models**
  + Nonspherical gravity variational equations
  + SRP (cannonball) variational equations
  + Drag (cannonball) variational equations
  + Tide model and variational equations
  + Tropospheric correction
  + Ionospheric correction
* **Measurement Models**
  + Geometric
    - Range
    - Range Rate
    - RA-DEC
    - AZ-EL
  + Two-way (Station to Spacecraft)
    - Range
    - Doppler
    - RA-DEC
    - AZ-EL
  + Two Line Element Set
  + TDRSS
    - Forward link Doppler
    - 4-way range
    - Other?
  + Noise Models
    - White Noise
    - Gaussian Noise
    - Random Walk
    - FOGM
* **Solvers**
  + Simulator
  + Batch Least Squares
  + Kalman Filter with Smoother
  + Sigma Point Filter with Smoother
* **Solve-For and Consider**
  + Spacecraft Cartesian state
  + Measurement stochastic properties
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* **Ephemeris File**
  + CCSDS
  + SPK
* **Observation File**
  + B3
  + UTDF
  + Track 234
* **Event Locator**
* **Event Functions**
  + Light time iteration
  + Station rise-set
  + Eclipse (umbra/penumbra)

## Command Objects

* **RunSimulator**
* **RunEstimator**
* **Toggle** (Ephemeris File)
* **Propagate** (with SPK File)

# Estimates for New Features and Models



Table : Sample Work Items



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