

Use Case 1: Request Mission Data

Scope: Data Feeder

Primary Actor: none

Secondary Actor: (Lunar Mission)System

Related Use Cases: *Use Case 2: Request to Load a Parameter File, Use Case 3: Start the Data Feeder*

Stakeholders & Interests:

- (Lunar Mission) System: Requests Mission Data for current mission
- Flight Controller: Wants a simulation with as similar as possible to an actual mission
- Engineers/Tecnincians: Wants a simulation agnostic to source

Pre-Conditions: Data Feeder is started, Parameter File is loaded, Data Feeder is generating required mission data *See Use Case 2: Request to Load Parameter File,* (Lunar Mission) System is running.

Post-Conditions: Requested Data Returned to the (Lunar Mission) System

Flow of Events:

(Lunar Mission)System	Data Feeder
1. Request selected Mission Data	
	2. Returns the requested data as Specified
3. Periodically loops back to 1 for the duration of the Phase, State or Mission	
4. Stops collecting data upon completion of Phase, State or Mission	

Alternative Flows:

2a If the data is not available, then the Data Feeder returns an error

2b If the Data Feeder encounters an error while generating requested data, then the Data Feeder returns an error

Special Requirements:

- None

Open Issues

2a If the querry rate is faster than the Data Feeder update rate, then the current queried data could be similar to the previous queried data.