

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, (Lunaar 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:

- If the data is not available, then the Data Feeder returns an error
- If the Data Feeder encounters an error while generating requested data, then the Data Feeder returns an error

Special Requirements:

- None

Open Issues

- 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.