

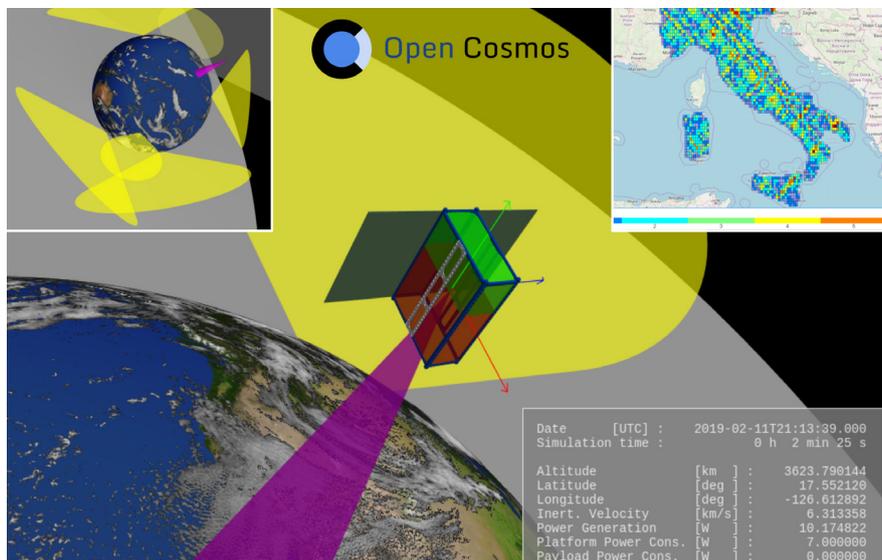
beeApp

On-line mission manager by  Open Cosmos



beeApp is our online cloud-based software that allows users to design their own space missions by running simulations based on their unique payload parameters.

Using our satellite platform (*beeSat*) configurations, *beeApp* simulates the functioning of all critical subsystems, and provides detailed mission performance data in seconds, giving the user a virtual preview of their entire mission.



- Cloud-based server data processing for fast simulations
- Full mission system-level analysis
- See ground track coverage over points-of-interest and ground station passes
- Detailed on-board power and link budget data
- Export results for post-processing

beeApp supports each phase of your mission through two modules:

MSD - Mission and System Design

This module allows users to perform mission analysis and studies by running simulations based on the end-user requirements and payload specifications.

HIL Hardware-In-the-Loop

By connecting *beeApp* with our *beeKit* payload qualification platform, the Hardware-In-the-Loop module allows users to operate the payload through the satellite qualification platform *beeKit* and perform functional tests



It contains the following features:

Real-time Mission Configuration

See in real-time the ground stations available, the launch slots available and possible orbits.

System Architecture Optimiser

Define payload key payload and mission parameters such as attitude modes, points and regions of interest, power and data generation rates, etc. *beeApp* then simulates the overall mission architecture and displays the results for further analysis.

Full HIL Integration

Use any saved MSD scenarios and run them in the HIL module for end-to-end functional payload testing and qualification.

Mission Analysis Summary

Export in different formats the results of the simulations performed in *beeApp*.

It contains the following features:

File Management

Upload scripts/code to *beeKit* and execute commands to operate the payload.

MSD Interaction

Run mission scenarios on *beeKit* after being simulated in MSD to validate payload performance.

Live Monitoring

Monitor the status of the payload and the processes being executed in the Payload Interface Unit (PIU).

Real-time operations

Edit mission parameters in real-time such as position, attitude and power, to simulate different operation scenarios.