



## OVERVIEW

ASCENT is our powerful modeling, simulation and analysis tool for spacecraft missions:

- Simulation environment for advanced flight and ground software development for all phases of the mission lifecycle
- Rich 2D/3D visualizations with OpenFrames and VR support

## Test-Like-You-Fly

Simulate single and multi-spacecraft missions with software, processor, and hardware in-the-loop support. Integrate with external bus and payload emulators, and work with scalable message bus and API.

## Customizations

Generate mission scenarios via Python API. Simulate spacecraft constellations, formations, and clusters with possible integration with external models and flight software applications.

## Portable Solution

Use pre-built environment for any OS via Docker. Spin up ready-to-run multi-spacecraft simulations with API for access to high-fidelity spacecraft data with support for cloud-based deployment.

## High-Fidelity Models

NASA-validated physics-based models. Dynamics and forces. Planetary gravity and atmosphere. Orbit maneuvering. Crosslink. Attitude determination and control. Power systems. GPS constellation. Position, navigation, and time. Sensors and more.

