

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

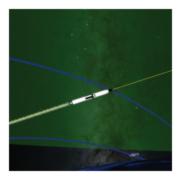
Simulate single and multi-spacecraft missions with software, processor, and hardware in-the-loop support. Integrate with external bus and payload emulators, and work with scalable message bus and API.

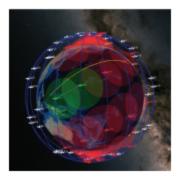
Customizations

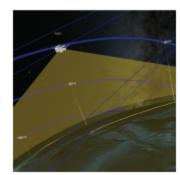
Generate mission scenarios via Python API. Simulate spacecraft constellations, formations, and clusters with possible integration with external models and flight software applications.

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.









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.