



*Spacecraft Buses,
Systems & Solutions*

SOFTWARE SIMULATORS



Blue Canyon Technologies offers simulators to serve a variety of needs, from mission analysis to hardware-in-the-loop testing. The GN&C Software Simulator is an executable that can run faster than real-time to support mission analysis and planning. The Real-time Dynamics Processor (RDP) is both a spacecraft simulator and command & telemetry interface to a unit under test. This combination of features enables test-like-you-fly capability at both the unit and spacecraft level. The RDP features an Ethernet port for communication with a test PC and a connection to the unit under test. The RDP can have its configuration modified and have software upgraded by the customer through the removeable microSD card.

The common simulation solution in both the GN&C Software Simulator and the RDP offers a suite of sensor/actuator testing and simulations that allow the user to gain insight into the performance of the spacecraft under various expected and test cases that the real spacecraft may experience.

SOFTWARE
SIMULATORS

SOFTWARE SIMULATORS



RDP

TEST/GSE INTERFACE

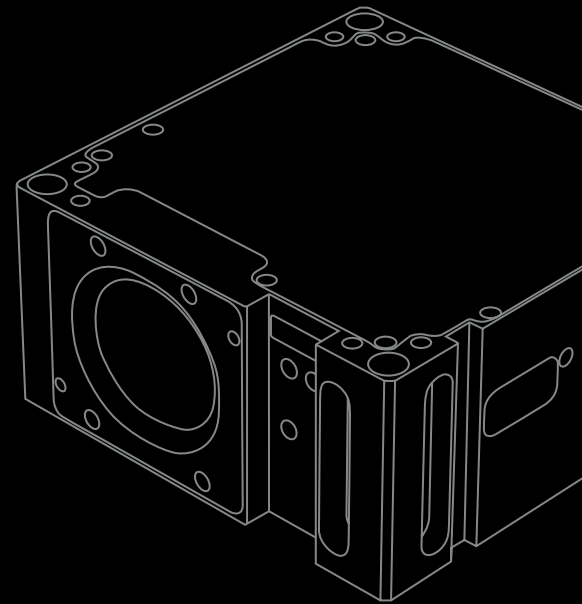
Ethernet

FLIGHT INTERFACE

RS-422 or RS-458,
LVDS for simulation

BCT SIMULATORS ARE ABLE TO
PROPAGATE AND MODEL THE FOLLOWING:

- Spacecraft dynamics
- All actuators
- All sensors
- Fault injection



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