Overview

The General Mission Analysis Tool (GMAT) is the worlds only enterprise, multi-mission, open source software system for space mission design, optimization, and navigation. The system supports missions in flight regimes ranging from low Earth orbit to lunar, libration point, and deep space missions. GMAT is developed by a team of NASA, private industry, public, and private contributors and is used for real-world mission support, engineering studies, as a tool for education, and public engagement.GMAT contains models of real world objects such as spacecraft and thrusters, and analysis "objects" such as propagators, plots, and reports. These objects are used in a mission sequence in which the user employs commands supported by the system to model mission events and perform estimation.For a complete list of new features, compatibility changes, and bug fixes, see the Release Notes. Below are just some of the new capabilities contained in this release. Production quality orbit determination (Operational Certification expected in November, 2016)Code 500 ephemeris propagatorSTK ephemeris file outputWrite command to save GMAT configurations during executionInclude macro to load GMAT configurations from external sources during executionMany new built in math functions and parameters130 pages of new user documentation

Software Details

Category	Design and Integration Tools
Reference Number	GSC-17177-1
Release Type	Open Source
Operating System	

Contact Us About This Technology

Goddard Space Flight Center
gsfc-softwarerequest@mail.nasa.gov