Mission Track

Spacecraft Mission Analyzer

INTEGRASYS
Building success from innovation

CAPEX or SaaS

MISSION TRACKING, TRAJECTORY MONITORING, & VISUALIZATION

Monitoring, simulating & visualizing spacecraft trajectories, ground visibility, and mission dynamics for Earth, lunar, and deep space operations.

www.integrasys-space.com

INTEGRASYS GROUP: USA, Australia, Indonesia, UAE, Spain, Ukraine, France, UK, and Luxembourg
info.sales@integrasys-sa.com

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Competitive Advantage

- Advanced mission trajectory visualization with real-time spacecraft motion modeling.
- Dual coordinate reference systems enabling both engineering-grade orbital analysis and intuitive mission visualization.
- Secure mission simulation environment with controlled access and protected datasets.
- Rapid mission setup and execution workflow designed for fast demonstrations and operational analysis.

Features

- Interactive web interface with simulation timeline controls for configuring and running scenarios.
- Integration with professional datasets to simulate spacecraft, Earth, Moon, and Sun dynamics.
- Support for geocentric coordinate systems for global Earth-centered mission visualization.
- Dynamic trajectory rendering showing spacecraft position along the mission path in real time with OrbiSat for SSA enhancement.
- Ground-based visibility analysis with color-coded trajectory segments indicating observable and non-observable periods.
- Mission scenario loading from predefined datasets or external trajectory files.
- Exportable mission visibility schedules for operational planning and coordination.
- Downloadable mission analysis reports summarizing trajectory and observation data.
- Antenna tracking scheduler for real-time mission tracking

Benefits

- Doppler Measurement and trajectory deviation detection.
- Improved understanding of mission dynamics through intuitive graphical trajectory visualization API.
- Determine spacecraft visibility windows from any ground location on Earth, including multiple locations.
- Support planning of communication opportunities between spacecraft and ground stations.
- Analyze mission behavior across multiple orbital regimes including Earth orbit, lunar trajectories, and deep space missions.
- Provide clear mission timelines for operational teams and mission analysts per location.
- Facilitate collaboration between engineering, operations, and mission planning teams.
- Support evaluation of mission scenarios using real spacecraft trajectory data.
- Enable centralized mission visualization for multiple spacecraft and operational scenarios.
- Support complex space traffic management for safety launches.

Company Awards

Vision Awards	MOST INNOVATIVE PRODUCT OF THE YEAR	2014
VSAT INDUSTRY AWARDS 2015	TECHNOLOGY INNOVATION OF THE YEAR	2015
VSAT GLOBAL 2017	BEST GROUND TECHNOLOGY OF THE YEAR	2017
WTA	TELEPORT TECHNOLOGY OF THE YEAR	2018
MSUA Mobile Satellite Users Association	GOVERNMENT MOBILE INNOVATION	2022
WTA	TELEPORT TECHNOLOGY OF THE YEAR	2023
MSUA Mobile Satellite Users Association	SATELLITE MOBILE INNOVATION AWARDS	2023
MSUA Mobile Satellite Users Association	NEW SPACE MOBILE INNOVATION AWARD	2024
BROADCASTPRO Manufacturer Awards	BEST CONTRIBUTION TO SUSTAINABLE SATELLITE OPERATIONS	2025
SSPI	BETTER SATELLITE WORLD AWARDS	2025