MORPHEUS SPACE
JOURNEY

DESIGN · SIMULATE · OPERATE

Journey is our flagship software platform enabling in-space mobility throughout a satellite's entire lifecycle - from design, simulation, and procurement, through to operations and decommissioning.

## Preliminary Mission Design

Mission Design

Preliminary Mission Design (PMD) is the first step within Journey, allowing users to quickly design and simulate satellite missions in order to:

- Generate a **Mission Summary** showcasing mission data, analysis, and system requirements profiles to help users dynamically test and refine their missions.

- **Match with 350+ subsystems** that meet their mission needs, accelerating both the design and procurement process.

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Mission Summary

PMD outputs a comprehensive Mission Summary following the successful design and simulation of a mission. Mission Summary consists of two parts:
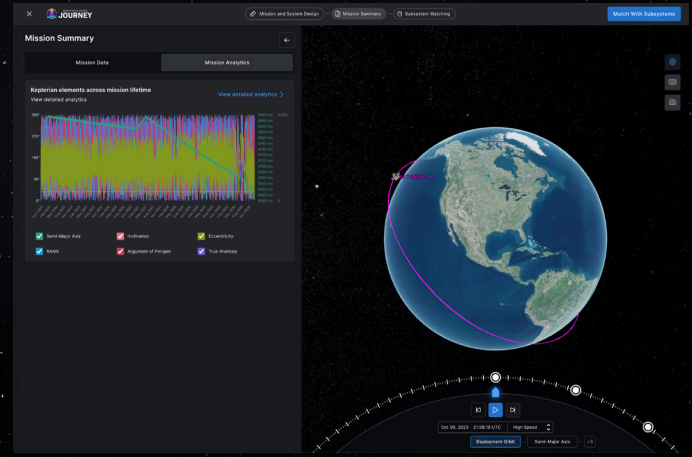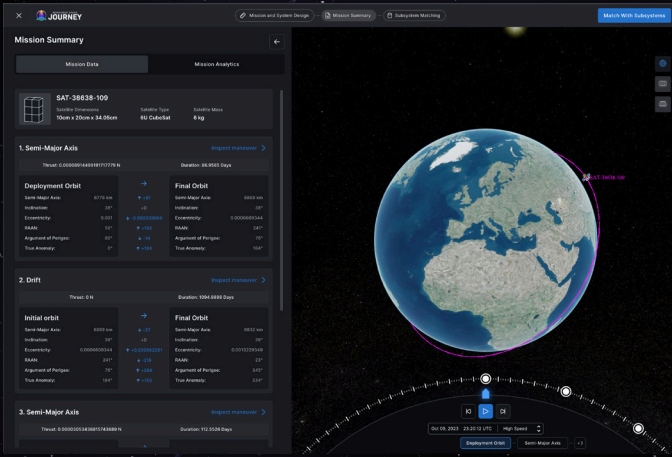
Mission Data outlines the Keplerian elements and their relative changes between a maneuver-specific initial orbit and final orbit. Additionally, it outputs the thrust required to perform this maneuver within the corresponding duration.

Mission Analytics offers more granularity by graphing Keplerian element changes over the course of both the entire mission profile and within maneuver-specific windows.

Subsystem Matching

Following the Mission Summary, users can match with subsystems that meet their mission requirements.

- Subsystem matching incorporates **over 350 subsystems** across propulsion, attitude determination and control, communications, and power systems.

- Within the subsystem matching module, users can quickly identify the propulsion system that best meets their needs and **submit a Request for Information (RFI)** to the manufacturer.

- Morpheus will then **forward the user's Mission Summary to the manufacturer** to provide context for the planned application, as well as any other requests around pricing, lead time, or other user-defined details.

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