### **DATA SHEET**

Mission Environment Customizable	Highly flexible and configurable allowing the operator easy customization of the product to the mission.
Soft Planning Policy	Mission Algorithms based on rule files for generation, detection and resolution/optimization.
Schedule generation rate	Configurable and Automatable.
User-friendly GUI	Friendly and intuitive providing all Eclipse application features.
External Interfaces	Easy customization to mission needs. Quick extension for new input/output formats.
Supported Platforms	SLES 11 and Red Hat 6.
User Interface	Eclipse RCP application.
Architecture	Client/Server based on SOAP messages. SOA paradigm.
Input/output data formats supported	XML and ASCII.
Customers	Missions
NASA Cesa	EPSMPF(EUMETSAT/NOAA)
Code Code	LRO (NASA)
<b>EUMETSAT</b>	SMOS (ESA)
	LDCM(NASA/USGS) Sentinel 1(ESA)
science for a changing world	Sentinel 3(ESA/EUMETSAT)
Honeywell	PAZ (INTA)
	SGSS (NASA)
	INGENIO (CDTI/ESA)

Other GMV products for satellite operations:

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### For more information about *flexplan* please visit us online at:

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*flexplan* 

A product by



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# flexplan

COMPLETE SOLUTION FOR **GENERIC** MISSION PLANNING AND SCHEDULING SYSTEM

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### WHAT IS flexplan ?

**flexplan** is a highly configurable and innovative Commercial Off-The-Shelf (COTS) Mission Planning and Scheduling (MPS) system.



flexplan Schedule Generation Human-Machine Interface

### flexplan PROVIDES

- End-to-end mission planning and scheduling support to a large variety of missions and users.
- Any source planning input processing, including fully integrated resource usage and availability processing.
- Integrated schedule of non-conflicting tasks generation, including planning for multiple entities (Ground and Space operations segments and manpower activities).
- Flexible design for a fast and easy mission customization, minimizing the integration effort with other ground segment systems.
- External report generation for consistent schedule operations, including executable spacecraft commands sequence of events and ground procedure pass scripts.
- Manual and automatic generation of schedules, including unmanned conflicts detection and resolution.
- Configurable External Interfaces (inputs/outputs), facilitating their integration and/or extension.
- Service Oriented Client/Server Architecture providing a SOAP web-services API.

### flexplan PROCESS & CORE COMPONENTS



## MULTI-MISSION, MULTI-CONSTELLATION, MULTI-PLATFORM, MULTI-USER

*flexplan* can be used for single missions, multi-missions and network scheduling.

**flexplan** can be configured for handling different user roles with different privilege levels to operate, monitor, filter and modify the schedule. The Graphical User Interface (GUI) is automatically adapted to user role and privileges.

### DUAL SCHEDULE GENERATION MODE

The mission schedule can be generated from simple rulesbased soft algorithms, complex code-based optimization algorithms, or both to maximize mission performance and schedule generation performance.

### HIGH PERFORMANCE

Studies and benchmarking analysis show that *flexplan* can improve overall mission performance by 10% to 20%.

### EASY TO USE, ADAPTABLE, SCALABLE

- No programming experience necessary.
- Soft algorithm generation makes system reusable from mission to mission. No need to recompile the data.
- Schedule monitoring is made easy with flexplan's web based schedule visualization for the entire mission.

### FULL LIFECYCLE SUPPORT

**flexplan** supports all off-the-shelf mission phases, including Launch, Testing, Operations and End-of-Life decommissioning.

### MODULAR

**flexplan**'s architecture is highly modular, allowing a wide variety deployment formats to provide the most optimal solution that enhances the scheduling experience and fits best the mission needs.

Additional schedule modules available include:

- TEG: Tailored Events Generation
- Scheduling Execution Monitor
- World Map Visualizer: 2D and 3D plan visualization
- Load Builder: CCSDS schedule generating component
- RQT: Report and Query Tool



flexplan 3D display of World Map Visualizer