

...pioneering satellite control

## Telemetry-West

9020 Balboa Avenue San Diego, CA 92123 858.694.7500 800.351.8483 Fax: 858.279.0693 www.L-3Com.com/TW/InControl

Denver Office 3033 S. Parker Rd., Suite 1200 Aurora, CO 80014 303.369.4410

E-mail: sales.TW@L-3Com.com



**Telemetry & RF Products** 

L-3. Headquartered in New York City, L-3 Communications is a prime contractor in aircraft modernization and maintenance, C3ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems.



Providing the World's Most Advanced Fleet-Capable Command and Control Solutions

# InControl®

Because up here, out of control means out of business

Excellence You Can Measure

# In Control®







The software designed from the ground up to manage satellite constellations with one control center is now better than ever.

### KEY FEATURES

- Multi-mission fleet capable
- Multi-vendor support
- Scalable
- Platform independent
- Ability to use same software application in satellite test and on-operations
- Fully customizable using XML configuration
- Automation for risk and cost reduction
- Modern designed, developed, and deployed in this century



### TECHNICAL DETAILS

Operating Systems

operating officing	32 01 0 1 bit
Windows <sup>™</sup>	
Solaris <sup>™</sup>	
Linux <sup>™</sup>	
Inter-Process Communications	CORBA
Languages	Java, C++
Telemetry Rates	up to 10 Mb/s
Command Rates	up to 100 kb/s
Database Format	XML
Language-independent Programming API	



# CORE CAPABILITIES:

**DATA DISTRIBUTION** — InControl™ offers an open architecture that provides multiple methods to distribute data to users and ingest data from other sources. This includes an API, custom user-written functions, Web access and open archive formats.

inmarsat
Satellite Control Centre

JAS SCRIPTING LANGUAGE — Powerful scripting language allows access to features of InControl™ through a scripted operations procedure. The JAS language is a superset which supports many industry-standard languages.

**AUTOMATION** — Combination of the integrated activity scheduler and the JAS scripting language provides for automation of operational and test procedures.

**ARCHIVING** — Configurable archiving facility for all project data including raw and processed archives, command histories and event logs.

**EVENT LOGGING** — Records and maintains permanent log of all activities performed. Log viewing capabilities provide means to filter, review and comment the activity log.

DATA DISPLAYS — JADE™ is a user-friendly, drag-and-drop application to display and monitor parameters and missions. Users have access to alphanumeric, time charts and custom animated graphics to create individual views and complete workbooks.

**EQUIPMENT MONITOR AND CONTROL** — Monitor and control of ground and test equipment is a logical extension of the capabilities provided by InControl™.

**DATA RETRIEVAL** — A powerful tool is available to access archived data by time range. Data analysts can request all samples or summary data from long-term archives.

**REPORT GENERATION** — Tools are included to generate customizable reports, which can include graphics, tailored formats and *as-run* data.

**LEGACY PROGRAM TRANSITION SUPPORT** — InControl™ includes procedure interpretation of several existing spacecraft scripting languages and the ability to add more. Tools are also available for the translation of existing displays.

BUILT-IN SIMULATION CAPABILITIES — InControl™ has the ability to simulate telemetry and command verification responses for operator training, mission rehearsal and procedure development.

FAULT TOLERANCE / FAILOVER / REDUNDANCY — Built-in configurable capabilities are provided to design and enact customized fault resolution processes.

 ${\bf XTCE\ TRANSLATOR}\ - \ {\bf A}\ {\bf tool}\ {\bf to}\ {\bf translate}\ {\bf from}\ {\bf XTCE}\ {\bf to}$  the internal XML data representation.

**ARCHITECTURE COMPATIBILITY** — Easily fits into an architecture which includes SOA, message buses and other interoperable service architectures. Multiple methods for interfacing with external  $3^{\rm rd}$ -party products and tools.

WEB-BASED — Using state-of-the-art Web 2.0 technologies, InControl™ includes powerful, rich-client interfaces to provide seamless access to client functions via a Web browser. This also allows for centralized management of software configurations and easy sharing of data archives.

Major satellite customers: Lockheed Martin | Orbital Sciences Corporation | Astrium | Sierra Nevada Corporation | Boeing Satellite Systems | Thales Alenia | Space Systems / Loral