Products, Solutions & Services

For Your CubeSat Mission Preparation & Execution



Space Applications Services offers a variety of products, solutions and services to support your mission preparation and execution. Space Applications Services can provide, or help you setup, your complete ground segment, from access to a network of ground stations, to the core Mission Control System and to Cloud-based data processing based on visual workflow. We provide scientific, engineering and integration services.

YAMCs

Modern, flexible, lightweight, scalable Mission Control System

Yamcs is a modern, flexible, lightweight, scalable and flight-proven Mission Control Systems.

Yamcs is a cost-efficient suite of tools for spacecraft, payload and ground segment operations preparation, execution and spacecraft AIT. Yamcs has been used for ISS internal and external payloads and facilities as well as other customers/applications. Yamcs Suite include a display development tool and other advanced modules.

DOWNLINK SERVICE

Access a Global Ground Station Network

Through its partnership with HELIAQ Global Ground Station Network, Space Applications Services can provide end to end communications services to support your mission execution. The service includes access to TC/TM up to 50Mbps, in S, C and X bands via a network of high-performance, low-cost ground stations.

Alternatively, our YAMCS Mission Control System can interface with other communications providers or infrastructure (e.g. ISS ground segment, ESOC, etc).

Build complex data workflow with a visual editor

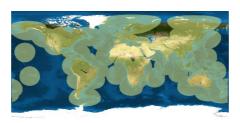
ASB

Automated Service Builder (ASB) is a platform and application agnostic solution for implementing complex processing chains over locally or globally distributed processing and data resources. ASB provides a "low coding" solution to develop a data processing facility. ASB makes it possible for users to define, configure and run algorithms embedded in workflows. ASB provides functions to register new processes, graphically edit definitions, workflow executing processors with user-defined parameters, and access the results either through a product catalogue or an FTP server.



Example of Yamcs display

- ⇒ See the separate Product Sheet or visit our website
- ➡ Consult <u>http://www.yamcs.org</u> for more information



HELIAQ coverage by 2022

➡ Please contact us for more information

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⇒ See the separate Product Sheet or visit our website

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HOTDOCK

Single mating interface for on-orbit or planetary surface assembly

A product line of mating interfaces providing androgynous coupling to transfer mechanical loads, electrical power, data and (optionally) thermal loads through a single interface. It allows assembly and reconfiguration of spacecraft and payloads on-orbit and on planetary surfaces. It supports launch loads and it makes it straightforward to replace failed modules, to swap payloads and provides chainable data interfaces for multiple module configurations. It is available in different dimensions and can be optimized for specific needs and budgets – including CubeSats to payloads of opportunity.

AOBCP

Human-readable Flight Software

Advanced On-Board Control Procedure (AOBCP) allows to implement cost effective operation and control of a spacecraft. The AOBCP is a procedural sequencing software system which simplifies spacecraft operations. minimizes uplink product size, and allows autonomous operations aboard a mission without the development of autonomous flight software. It allows the execution of adaptive mission operations through onboard execution of re-configurable automated engineering and science procedures, authored in a high-level language readily understandable to humans.

OTHER SERVICES:

Engineering, AIT/AIV, Operations

Our experts and senior operators have years of experience in:

- System Engineering of spacecraft and payloads
- Integration
- Software integration and testing
- Operations Preparation (procedures, displays, scripts)
- Operations Planning
- **Operations Execution (cost-effective** real-time operations, from short long campaigns to duration continuous 24/7 operations, by combining highly experienced operations engineers with automated monitoring and notification tools.)

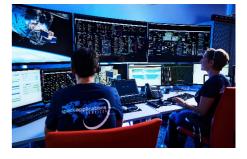


Two HOTDOCK interfaces before coupling

See the separate Product Sheet or visit our website



⇒ See the separate Product Sheet or visit our website



ABOUT SPACE APPLICATIONS SERVICES

Space Applications Services NV/SA is an independent Belgian company founded in 1987, with a subsidiary in Houston, USA.

Our aim is to research and develop innovative systems, solutions and products and provide services to the aerospace and security markets and related industries. Our activities cover manned and unmanned spacecraft, launch/reentry vehicles, control centres, robotics and a

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