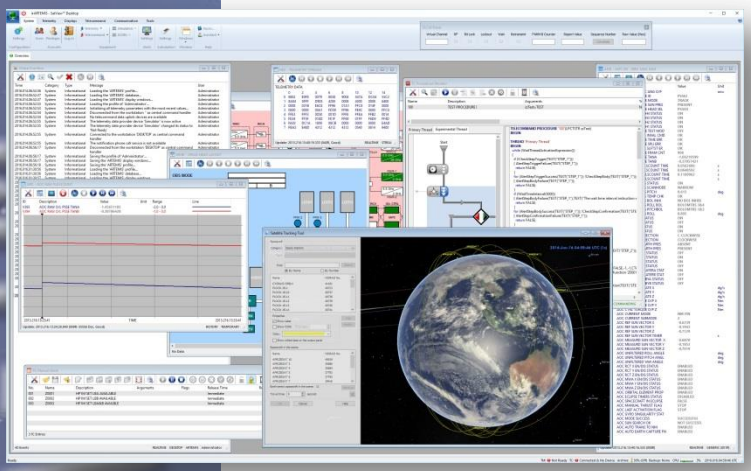
BINARY SPACE

RELIABLE SPACE SYSTEMS

Product Brief



SatView™ Desktop

SatView™ is a product developed by **BINARY SPACE** and designed to provide a complete set of telemetry monitoring & commanding services necessary to control satellites.
It is suited for satellite builders by providing effective support during Assembly, Integration and Testing (AIT) but also for satellite operators controlling a satellite during all sub-sequent life-cycles (IOT, NOP).

SatView™ is built upon standard hardware and software in order to reduce cost and complexity and is sold as a turn-key system with common ground-station interfaces.

It successfully supported the In-Orbit Test (IOT) campaign of ARTEMIS, European's advanced telecommunication satellite, in the ESA ground station located at Redu (Belgium) and is still extensively used to secure an overall status of the satellite.

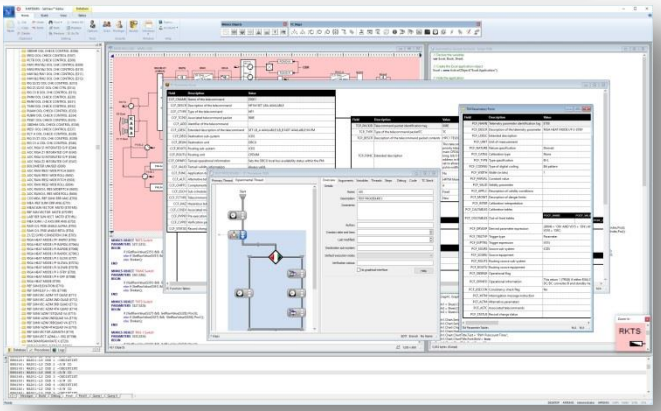
SatView™ Evaluation Topics

- **Standard Hardware and Software**
- **Latest Technology**
- **Little Maintenance**
- **Flexible Software Architecture**
- **Easy Migration to new Satellites**
- **Full Lifecycle Coverage**
- **Complete TM/TC Capabilities**
- **High degree of Automation**
- **Automatic Report Generation Capabilities**
- **Sophisticated Notifications** (Voice phone calls, FAX, E-Mails, FTP)
- **Remote (dial-in) Access**
- **Relational DBMS**
- **Security Profiles**
- **Low Cost**

The SatView™ environment consists of two main applications:

SatView™ Desktop
Supports all activities related to the real-time operations (e.g. telemetry data processing & visualization, telecommands, data archiving & retrievals and much more).

SatView™ Editor
Handles all off-line database tasks (e.g. database updates & parsing, mimics displays and script development as well as testing).



SatView™ Editor

An additional application, called **SatView™ Simulator**, is available providing simulated telemetry data for testing purposes. It is highly customizable and can easily be adapted to different data formats.

Windows Server 2016 | Windows 10 | Visual Studio 2015 | Microsoft® .NET

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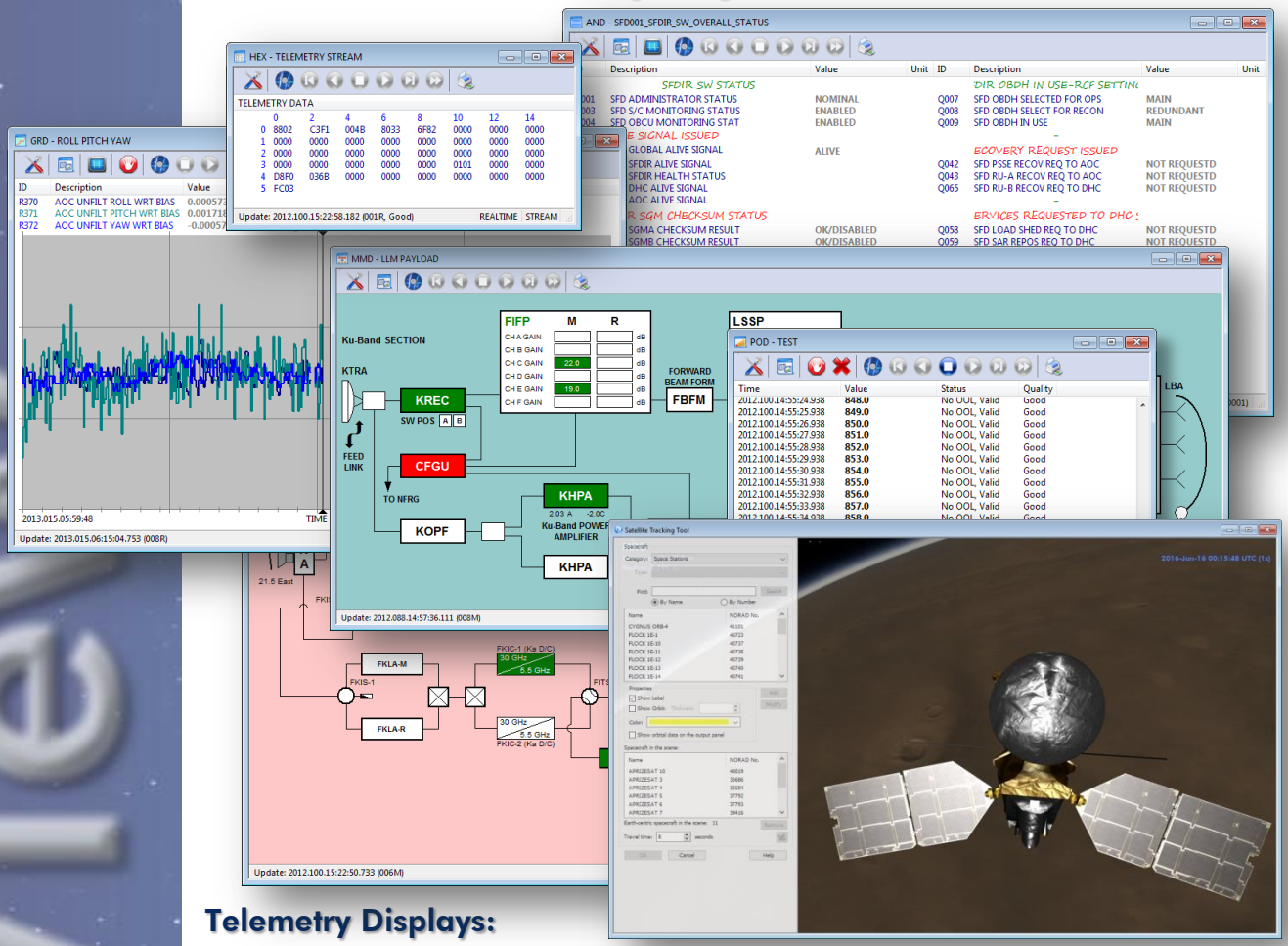
satview TM

Functions & Displays



Telemetry Displays:

- Alphanumeric Displays (ANDs)
- Graphic Displays (GRDs)
- Hexadecimal Displays (HEXs)
- Mimics Displays (MMDs)
- Out-of-Limit Displays (OOLs)
- Parameter Observation Displays (PODs)
- Satellite Tracking Display

Telemetry Data Processing:

- CCSDS Telemetry Packet Standard
- Raw Data, Sub-channels, Derived Parameters, Calibration, Out-of-Limit Checks
- Multiple Archive Files & Retrieval Sources, Automatic Backups, Data Extractions
- Memory Dumps, Custom Buffer Processing, Scheduled FTP Transfers
- Telemetry Events (On-the-fly mathematical Expressions)
- Triggered Telemetry Reports, Automatic Distribution (via E-Mails or FTP)
- Sophisticated Notifications (Phone Calls, E-Mails, FAX, Pagers, FTP)
- Automation of third-party Software (JScript .NET®)
- Export of real-time or historical Telemetry Data (via TPEP)
- System Alerts
- Generic telemetry data I/O interface

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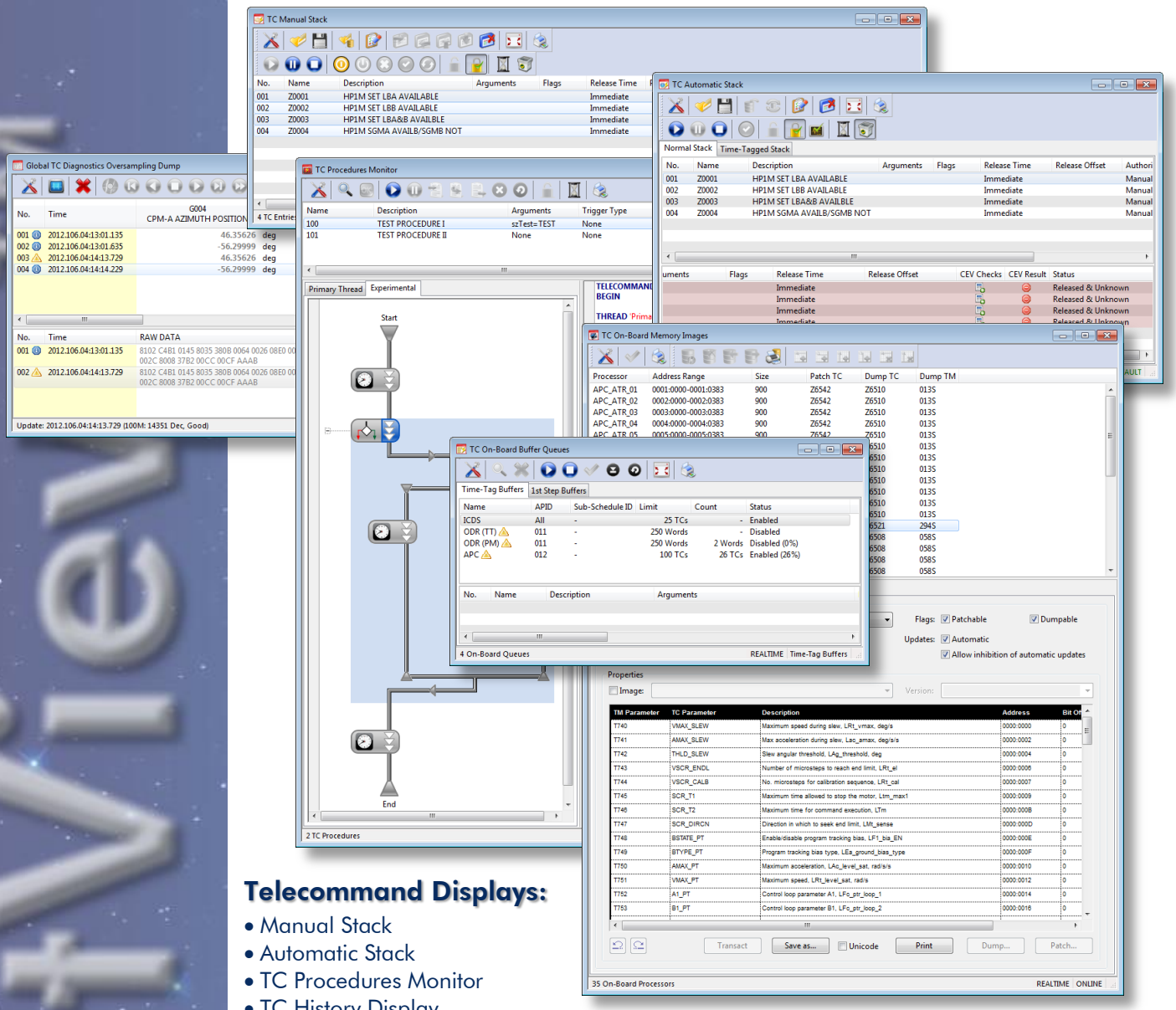
Functions & Displays



Telecommand Displays:

- Manual Stack
- Automatic Stack
- TC Procedures Monitor
- TC History Display
- TC Diagnostics Oversampling Dumps
- On-Board Buffer Queues
- On-Board Memory Images

Telecommand Data Processing:

- CCSDS Telecommand Packet Standard
- Commands, Command Sequences, Command Procedures
- Immediate TCs, Time-Tag TCs, Two-Step TCs
- Command Grouping/Blocking & Authorization
- Command Parameters & Parameter Sets, Calibration, Out-of-Limit Checks
- Pre-Transmission Verification (PTV), Pre-/Execution Verification (PEV/CEV)
- Generic telecommand data I/O interface

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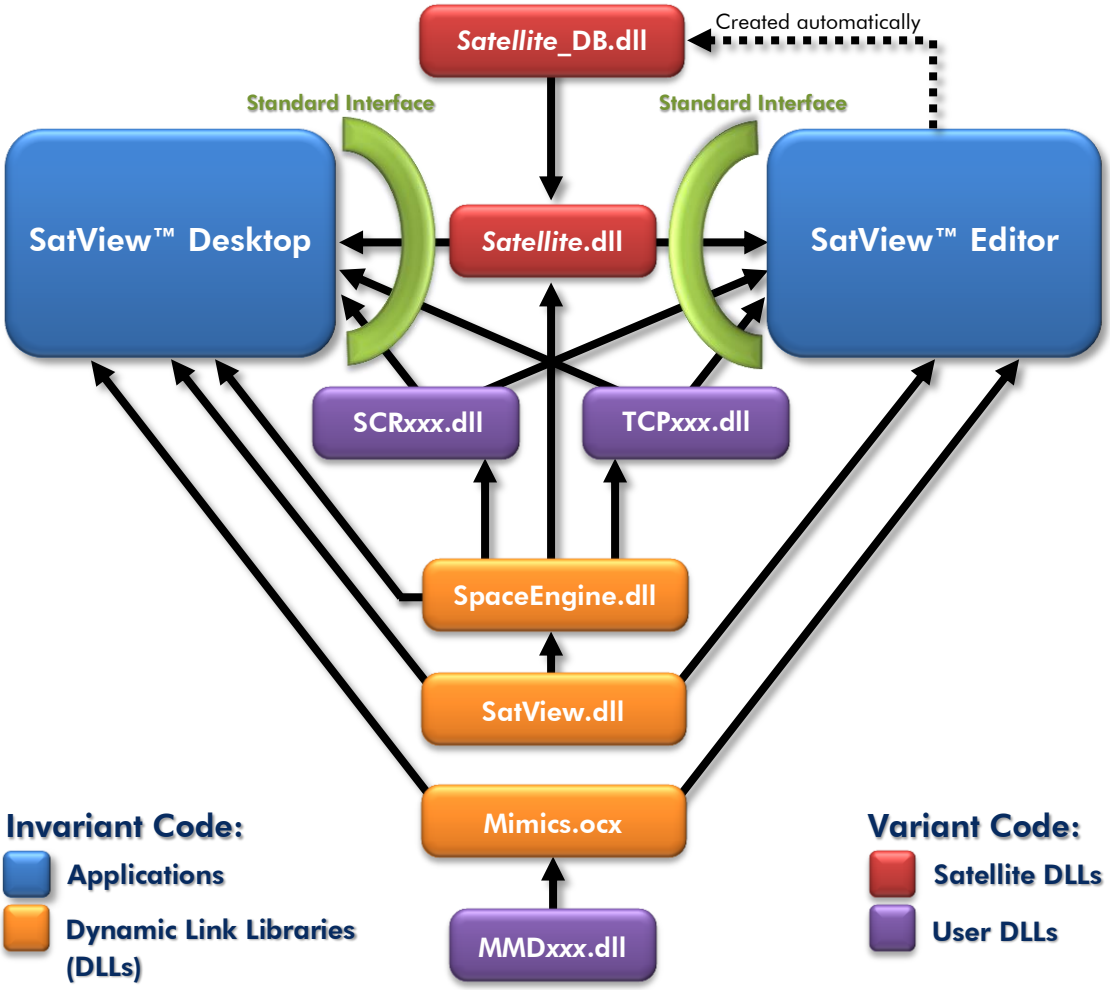
SatView™

Software Architecture

In order to minimize the effort necessary to adapt SatView™ to new projects, all source code related to satellite specifics is encapsulated in separate *Dynamic Link Libraries* (DLLs) which communicate with the kernel code via a standard interface:



Customer Support

It is our commitment to develop reliable and secure systems. All software is developed in-house in order to reduce dependency from any other suppliers than *Microsoft*®. This guarantees fast and seamless migration to the latest operating system versions as well as continued software maintenance.

Our response time with respect to technical issues is usually less than one day.
We are known as a very reliable and competent partner.

In der Weid 3, CH-8122 Binz
Tel: +41 8877987, Fax: +41 8877989, Email: info@binary-space.com, Web: www.binary-space.com