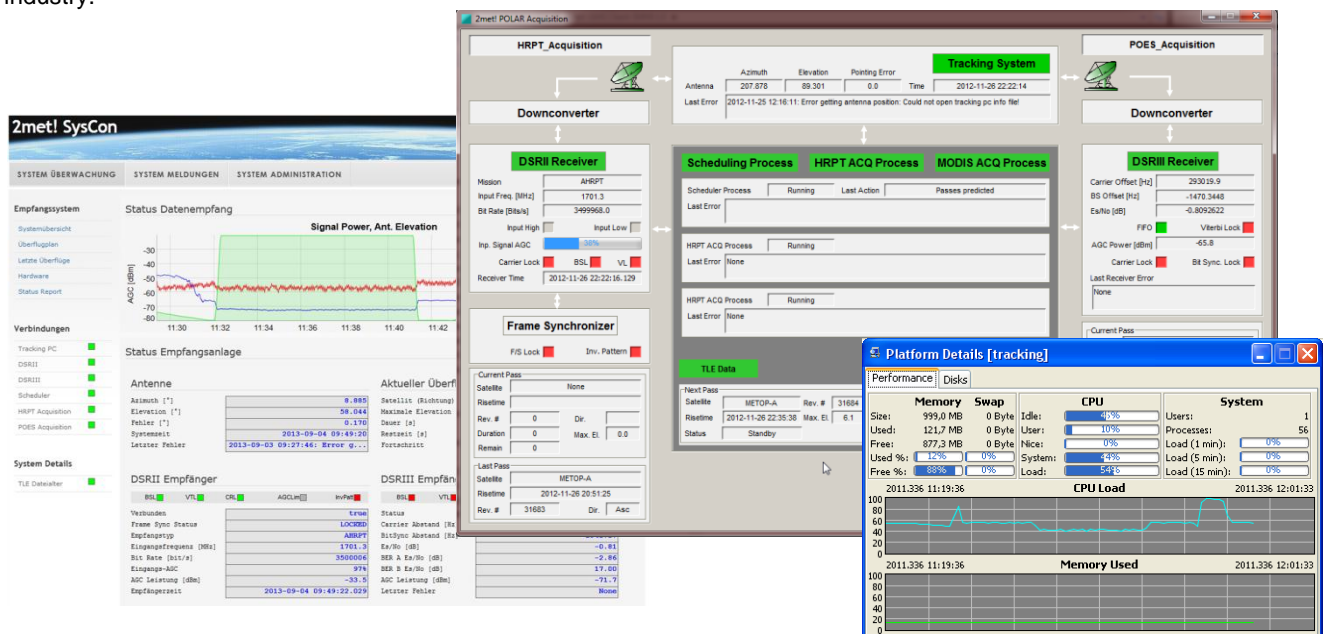


2met!® GMC User Station Monitoring and Control

Release 1.0

2met!® GMC is the monitoring & control software package within the 2met! application software. It is based on SCISYS monitoring and control framework egmc². 2met!® GMC allows graphical monitoring and control of the entire user station. Alert mechanisms, support for remote control and system recovery procedures enable users to operate satellite reception systems without any on-site presence.

Users benefit from a proven M&C framework technology which is running at many Satellite Ground Segments for more than 10 years. The software fulfills high quality assurance levels which are mandatory for software development in space industry.



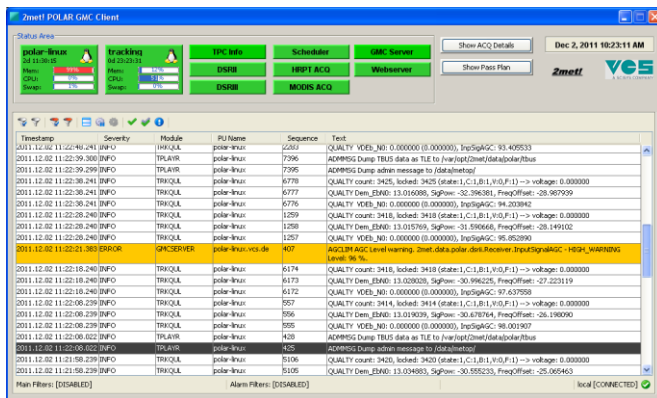
Highlights

- Powerful, JAVA based Monitoring and Control Framework
- Platform independent M&C components
- Complete monitoring of Satellite User Station: Hardware and Software, Services and Data Traffic, Work Flows
- Data Flow Monitoring: Pass scheduling, data acquisition, data quality check, data distribution
- Enables full automation of your system
- Remote monitoring and control of equipment
- Various alert mechanisms (e.g. E-Mail, SNMP Traps)
- Interfaces to many software and hardware items already available: SNMP, CORBA, SOAP, HTTP, XML-RPC, socket based communication, serial/parallel interfaces, JMS, SMTP, etc.
- Flexible, scalable and highly configurable system components for adaptation of the M&C tasks to users' needs
- Log file parser, command procedures in XML, generic service tools
- JAVA Clients with support for JAVA WebStart
- Web Clients with 2met!® SysCon
- M&C client support for mobile devices (Android)

User Station Monitoring and Control

2met!® GMC collects and processes all status information from the user station's components. Internal alert mechanisms could send messages to system operators (e.g. mail alerts) without the needs of having connected any monitoring clients.

2met!® GMC monitoring clients may reside on any machine in the local or remote network. They receive monitoring data and messages from the GMC server using the framework's internal MCC protocol and visualize the information. Several monitoring clients can subscribe for monitoring data, messages and control features at the GMC server.



Monitoring and Control Framework

SCISYS Monitoring and Control framework egmc² uses state-of-the-art software technology, which makes the framework applications highly configurable and adaptable to special user scenarios. The framework uses a component architecture, which allows building applications from small building blocks, which are finely grained to allow adaptation to diverse implementation scenarios.

The framework uses a highly efficient proprietary TCP based network protocol for its inter-process communications. This protocol enables M&C applications to be distributed easily over large networks. Via the hierarchical data structures employed in egmc², data processing and data collection become a distributed process.

The open interface concept allows customers to easily integrate additional in-house products and services as well as third-party products.

The MCC protocol and the API

The egmc² internal protocol (MCC) enjoys a special support by an openly available API.

This API is currently available in two programming languages:

- C++
- Java

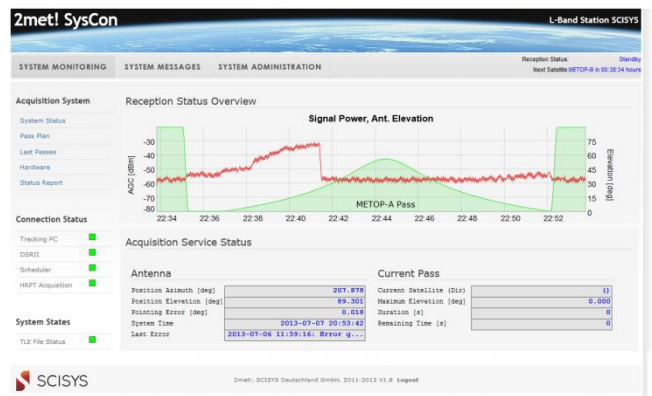
Via the Java implementation, tests have been done in additional Java-based scripting languages such as Jython and JRuby. The

APIs come with extensive documentation and sample programs. The C++ version exists in a native library implementation for Linux and Windows, but also in a QT version, using the QT network functions to provide platform independence. The MCC API is also available for the development of Android Apps.

2met! SysCon

2met!® SysCon is a web application running in a JAVA Servlet Container (typically Apache Tomcat) and includes these features:

- Support for all egmc² MCC services: monitoring, control and messaging
- Command interface for system commands or satellite reception scheduler
- User authentication and role-based access to services and system views
- No client installation; support for Firefox, Internet Explorer, Google Chrome and Safari
- AJAX-Push for automatic updates of monitoring views
- System Configuration Editor



Ordering Information

2met!® GMC

The software provides all functions to monitor and control Satellite User Stations in X-/L-Band as well as MSG DVB stations.

Contacts

If you have any questions, please contact our Marketing and Sales Department at 2met@scisys.de



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