

# CRMCS

COMSOFT SURVEILLANCE NETWORK

MONITORING AND CONTROL SYSTEM

# COMSOFT

# PRODUCT INFORMATION

CRMCS is COMSOFT's remarkable network management system tailored to the needs of radar data communication. Allowing fine-grained control from one or multiple central sites, it has proven enormously successful in modern radar data networks like the European RADNET.

Wide-spanning, multinational networks like the RADNET (Radar Data Distribution Network) have grown over large parts of Europe, promoting the sharing of radar data in and between countries.

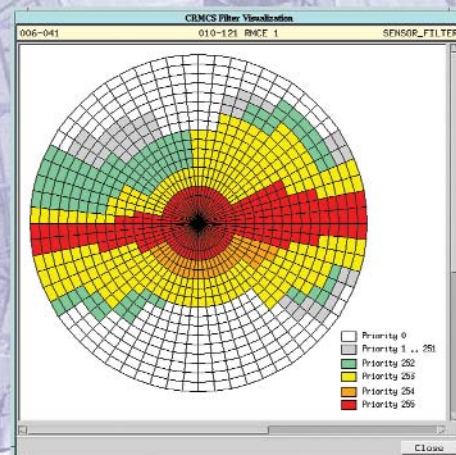
Many of the network nodes are based on COMSOFT's RMCDE (Radar Message Conversion and Distribution Equipment) providing real-time and fault-tolerant exchange of data in a multitude of radar formats.

CRMCS gives the user a transparent view into such a network, consequently contributing to the inherent safety and maintainability of the infrastructure.

With a wide range of statistical analysis tools important long-term data for network planning can be collected. Sophisticated remote software support tools complete the CRMCS spectrum.

## HIGHLIGHTS

- Advanced network management system for surveillance data networks
- High resolution graphical visualization of network status
- Fine-grained network diagnostics and statistics
- Safe and powerful network reconfiguration
- Full-scale remote software maintenance
- Optimized for use with COMSOFT's RMCDE



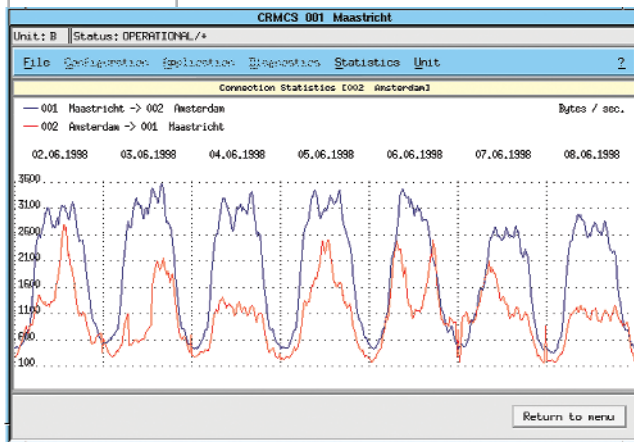
## MONITORING TOOLS

CRMCS provides a rich set of diagnostic tools to localize problems, to avoid bottlenecks in system behavior and to perform continuous delay time and load measurements between any two points in the network. Results are graphically visualized and provide a real-time picture of the network status.

Statistical data is gathered by CRMCS to support long-term design decisions concerning the network topology and

a proper scaling of link bandwidth. Graphical visualization of this data helps, e.g., to identify emerging bottlenecks and to trace long-term evolution of the radar data load.

For reporting and planning purposes printouts of all important monitor information can be generated, containing detailed diagrams of the network performance as well as overview charts for various network parameters.



Load statistics

## REMOTE SYSTEM SUPPORT

The CRMCS includes features to support the work of operators at a remote site. It facilitates the coordinated update of network configurations and the establishing or modification of communication routes between ATCs.

Remote system support further includes an operator mail system, file transfer functions and the possibility to perform on-line upgrades of the software, e.g. to add new applications.

## ARCHITECTURE

The CRMCS relates in its design to the OSI CMIP standard with a generic Management Information Base (MIB) and a Management Information Protocol (MIP). In contrast to the OSI approach it is tuned to cater for the high availability and throughput demands of the RADNET.

CRMCS runs with OSF/Motif under the UNIX operating system. It is delivered together with a high resolution 20" color monitor and a high quality laser printer.

An SQL database is internally used for storage and retrieval of statistics and configuration data. Connectivity is provided either via Ethernet LAN or X.25.

## MAJOR REFERENCES

Since 1994, a CRMCS is operational at the UAC Maastricht controlling the entire central European RADNET.

For the UK RADNET, two CRMCS are installed in the UK's network management center in Gatwick.

The German DFS at Langen received a CRMCS linked via X.25. Another CRMCS is located in Oestersund, Sweden.

# COMSOFT

Your Contact:  
Manfred Schmid  
Wachhausstr. 5a  
76227 Karlsruhe  
Germany

Tel.: +49-721-9497-104  
Fax: +49-721-9497-119  
Email: [info@comsoft.de](mailto:info@comsoft.de)  
Internet: [www.comsoft.de](http://www.comsoft.de)