RACOM

RADIO DATA NETWORKS

Network managemen

RANEC is a comprehensive software packag
MORSE network management and superviso
also be used for designing, developing and s

RANEC monitors the operation of networks in
current fault states. Various statistical data fo
in a database so that it can be analysed later
with a digital model of the terrain and this is u
networks.

Typical areas of use

- Monitoring and **management** of MORSE networks
- **Design and development**, work with the **digital model** of the terrain
- On-line **configuration** and **diagnostics** of radio modems in the network
- Remote immediate removal of any possible problems in the network

Benefits

- **Graphical interface**
- **One server + unlimited** number of graphical **clients**
- Displays the network **topology** on a background **map** (various formats of raster and vector maps)
- Gathering network **statistics** into a **database**

Description

Ranec Base

is a set of programs which allow users to operate a conventional Network Management Centre on the MORSE network, e.g.:

- **to monitor** activities in the MORSE network **in real time** and via RanecClient to display the immediate status of individual network points (communication status on/off, running on back-up supply, etc.)
- to send **e-mails** or **SMS** messages in case of **alarms**
- **to** periodically **save** statistical data from individual sites of the network (e.g. signal strength, response time, number of transferred / repeated / lost packets on all channels [serial, Ethernet, radio], internal temperature, voltage, noise, etc.) to the MySQL database
- **to change the configuration** of individual MORSE devices on-line
- to support **special** MORSE network **functions** in real-time - e.g. to manage radio modems operating in 'sleep mode' when supplied from solar panels, i.e. to manage switching from/to 'sleep mode' to achieve minimal energy consumption

RanecAdvanced

is an **auxiliary module** to RanecBase designed for advanced MORSE network users, particularly RACOM partners. This module integrates tools for:

- **network design and development**
- working with a **digital terrain model**
- displaying **signal coverage** of a territory from fixed points and mobile device
- **automatic** detection of the **topology** of a running network
- **detection** of radio network configuration **errors** (e.g. time synchronisation) and signal propagation problems

RanecClient

is **graphical client** for managing RanecBase and RanecAdvanced, and for displaying the data provided by these modules. In a LAN environment an unlimited number of RanecClients can be started simultaneously to one RanecBase or RanecAdvanced. RanecClient is supplied for OS Windows and Linux. RanecClient is supplied for OS Windows and Linux.

MServer

is a **server** supplied for MORSE networks. Among others all programs from the RANEC package run on it. OS Linux and MySQL database are its basement. In case when server run on MS Windows, all package can be installed via virtual machine like e.g. VMware.

MRemote

is a **remote access module** for the MORSE network. It can be run within the RANEC package and can be used for remotely accessing MServer as well as other RACOM devices in MORSE networks. MRemote can be implemented only as software accessible via the Internet or together with HW (telephone, GSM, or GPRS modem) according to specific customer situations and wishes.