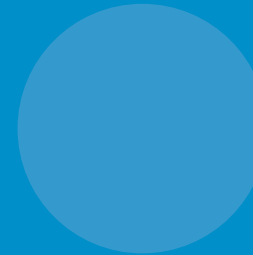
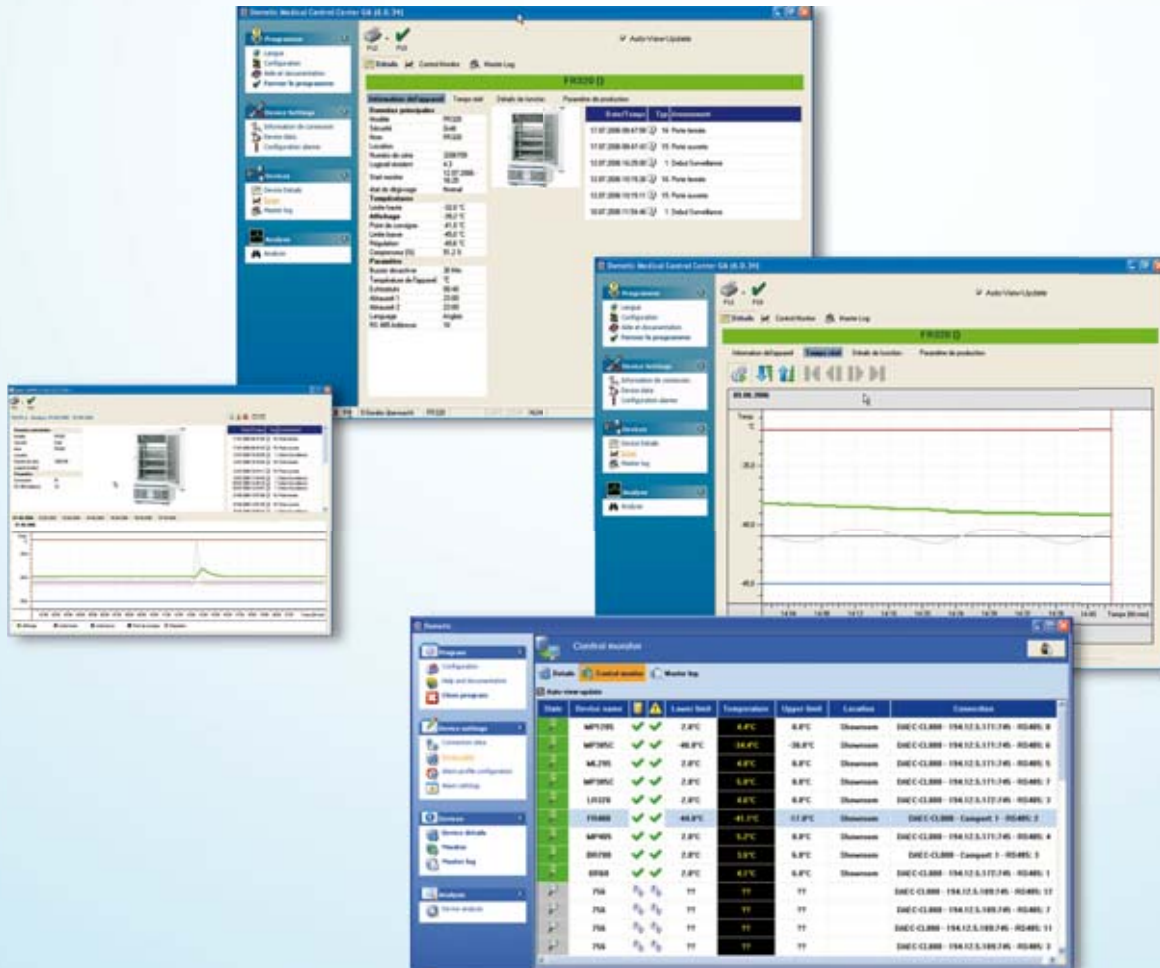


Monitoring Network

Biomedical Refrigeration | DMN



**Monitoring
&
Analyzing**

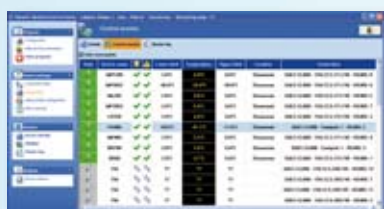
Technology for life

Dometic
MEDICAL SYSTEMS

DMN – Dometic Monitoring Network

Monitoring & Visualization Software incl. analysis tool

- Monitoring up to 32 status (depending on Dometic device version)
- Display and monitor temperature data
- History activity
- Event management (alarm, warnings)
- Analyze tool
- Data export
- Alarms forwarding (e-mail, SMS, audio)
- Report generator
- Graphics
- Language versions :



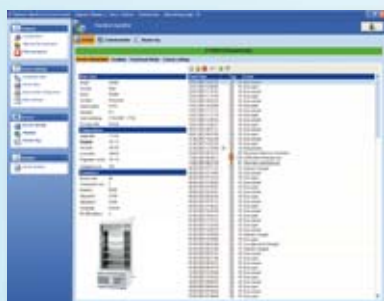
Control center

Overview (Control Monitor) of all monitored appliances:

Information regarding status, appliance name, location, connection, set cold/warm alarm limit, current temperature, message (event/activity)

Color code “Status”:

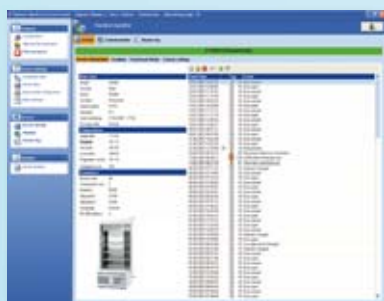
- Green: Appliance active and within the set parameters (t° alarm limits)
- Yellow: Appliance is not connected
- Grey: Appliance is deactivated
- Red: Appliance in state of alarm



Detailed display

Overview of appliance information

- **Master data:** Model, Dometic Safety Standard, name, location, serial number, firmware version, control start
- **Current temperatures and settings:** Planned and actual temperature, set cold/warm alarm limits, temperature of the control sensor, compressor running time
- **Parameter settings at the device:** Mute control time of the acoustic alarm signal, display mode (°C/°F), real time clock (device), set language version at device, RS485 address
- **Picture** of the connected and selected appliance in the case of Dometic models. For appliances connected via the PT100/Adam module for example, the Adam module is shown as background
- **Log Data:** Events / activities within date/time stamp, type event, description of event

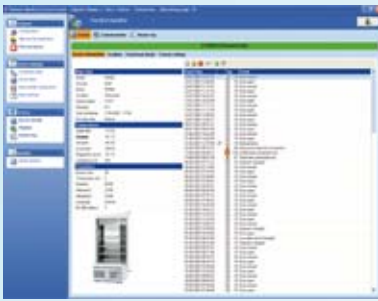


Real time graphics

Graphic temperature progress (in real time)

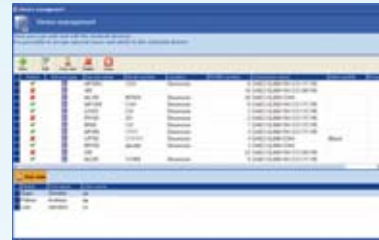
- Adjustable time axis
- Off-line navigation
- Captions

- Green: Current temperature
- Red: Set warm alarm limit
- Blue: Set cold alarm limit
- Black: Set planned temperature
- Magenta: Control sensor



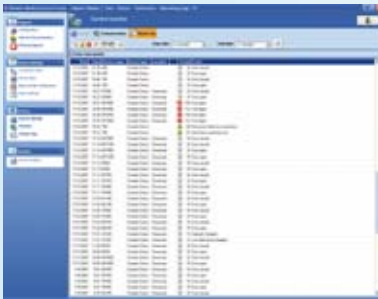
Functional details

- Current temperatures
- Digital inputs
- Digital outputs
- Alarms & warnings



Device settings

- Device information
- Device & user configuration



Total logbook

Display of the events / activities of all appliances can be sorted and filtered

- By date/time stamp
- By appliance name
- By appliance type
- By location
- By event type
- By event/activity message



User management

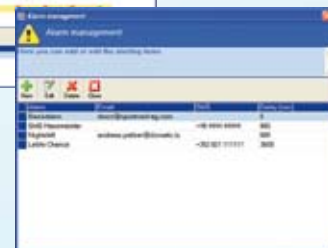
- Password login
- Access right



Alarm profile

- Parameters of the alarm profile (day, hour, minute)

Alarm management



Analysis tool

Types of analysis

- Printed analysis (up to 7 days from selected start date)
- Interactive analysis (max. up to 2 days)



Printed analysis

- Up to 7 days from selected start date
- Standardized/set scale
- Jointly printable



Interactive analysis

- Up to 2 days from selected start date
- Freely scalable
- Detailed information – in analogy to detailed live display (real time display) – at a certain point in time (via black marker)

Optional Accessories



RS485/LAN Converter
incl. power supply unit



RS485/WLAN Converter
incl. power supply unit



RS485/232 Converter
incl. power supply unit



PT100 sensor with transmitter (Adam module)
incl. power supply unit

Advantages

- For all Dometic models of the division "Medical Systems" with Gold & Silver electronic and RS485 interface. The DMN is developed for the pure recording and monitoring of temperatures of older legacy and third-party appliances via external PT100 sensor.
- Transparent and traceable monitoring (in real time) and documentation / archiving of storage conditions
- Capability to export data, e.g. to Microsoft® Excel
- Beside the monitoring and recording of temperatures, the device can also handle them
- Graphical illustration of temperature progress
- Simple and intuitive operation
- The standard software version can monitor up to 255 appliances (80 appliances via Serial RS232 Bus and 175 appliances via TCP/IP)
- Temperature values are always referenced to an event or an activity
- Additional output of detailed information : location of installation, serial / inventory number, graphical analysis, summary of hardware / software settings, self-diagnosis system, alarm/warning function via e-mail, SMS and network message (DAR)

Advantages compared to a temperature recorder

- High precision: Electronic-mechanical measuring system
- No daily or weekly changing of chart discs (prevents the circular chart discs)
- No changing of felt-tip pen
- No changing of batteries
- No maladjustment of the recorder arm during the changing of discs / pens / batteries
- Alarm and warning messages

Connection / Configuration - Examples

- Each refrigerator is separately connected to the monitoring PC via RS485/LAN converter via the customer's existing network. Advantage: If a refrigerator is relocated (within the network) it will be "found" by the software using its IP address and monitored.
- All refrigerators are connected to each other in series (via integrated RS485 interface and/or Adam module) via a data cable and addressed via the operating and control panel of the Dometic refrigerator. Then they are connected as bus via a LAN converter via the customer's network or alternatively – if the monitoring PC is in close proximity to the interconnected appliances – directly via a RS485/232 converter and the RS232 interface (serial com port) of the PC.

General items

- Every 15 seconds, the data of the connected refrigerators are read and updated
- Administrator's rights (only for the installation) are only required once for the initial installation
- An installation guide and the user manual are included on CD-ROM as Pdf files
- In order to be able to deliver the RS485/LAN converters pre-configured by the manufacturer, the customer's definition of the IP address(es) are required on time

Site requirements

- 1 socket for each refrigerator
- 1 socket for each PT100/Adam module (older legacy/third party appliances)
- 1 socket for each requires converter
- 1 RJ45 network socket per appliance or bus

System requirements (minimum requirements)

- CPU > 1.5 Ghz
- 40 GB HDD (free hard drive storage space, 50 MB per appliance and year)
- 256 MB RAM (minimum), recommended: 512 MB RAM
- Microsoft® Windows® (SP4), Windows® Vista
- Serial port (1 standard RS232 for each connected bus)

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