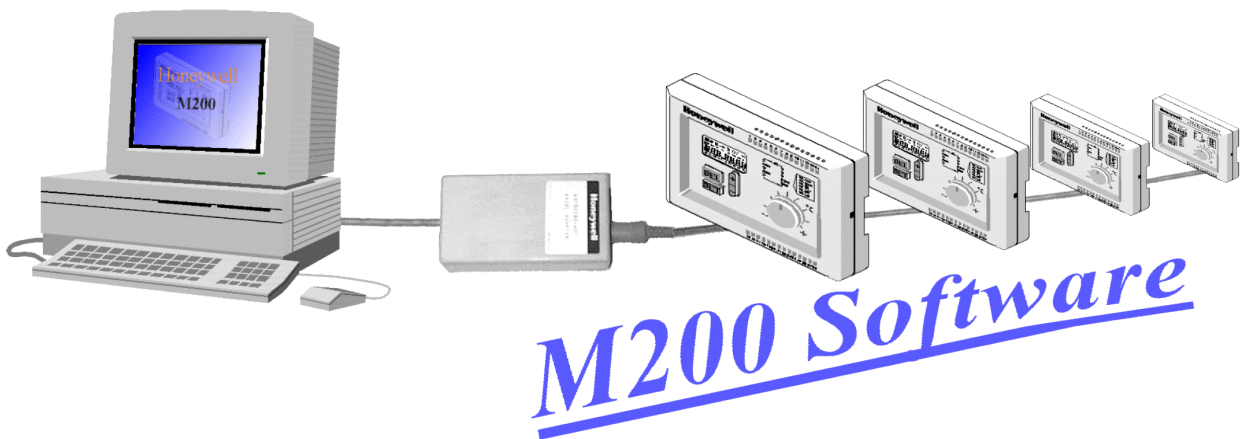


Operator's Terminal

MicroniK 200

USER GUIDE



OPERATOR'S TERMINAL

EN2B-0212GE51 R0102

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SOFTWARE INSTALLATION

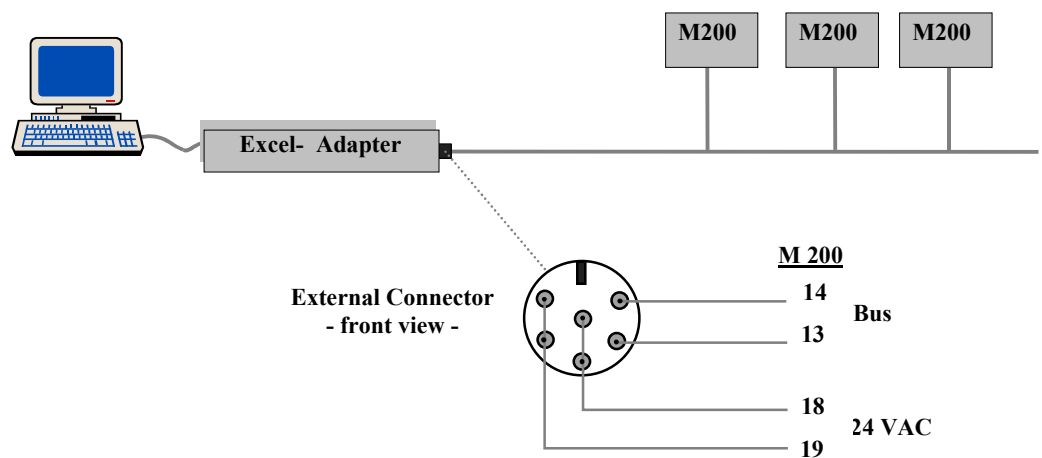
System requirements

- Pentium 100 min.
- Win 95 / Win 98 / NT
- Resolution 600*800 min.
- Memory: 16 MB min.
- PC Mouse
- CD Drive
- Excel Adapter (43 192 580-401) including the connector plug for the Bus and 24 Vac supply

Installation

Execute Setup.exe from the CD Drive.
This will automatically install the M200 interface S/W on the Hard Disk and the M200 icon to initialize the Operator's interface.

HARDWARE INSTALLATION



Connect the Bus and the 24 Vac to the Excel Adapter as shown above.
Interconnect all M200 controller terminals 13.
Interconnect all M200 controller terminals 14.
Interconnect all M200 controller terminals 18 (24 Vac).
Interconnect all M200 controller terminals 19 (24 Vac).
Connect the RS232 plug of the Excel Adapter to the PC port (1 or 2).

Switch on power to the M200 controllers and adjust the Bus address (C22) directly on each controller connected to the Bus (start with address 1).

Initialize the interface by double click on the M200 icon. Then click on (Options) and select the port (Excel Adapter) and the language English or Deutsch.

SCREEN LAYOUT AND FUNCTIONS

Honeywell M200

Options M200 Read M200 parameter Load Default Graph Show All Room Table Print Monitoring Info

M200 Adr.: 15 [Room 6.8] Type: F3C

W1	20.0	NightHigh	Off	T1°C	F 19.5
Wlim	16	NOFFS	5	T2°C	F 18.7
Wcomp	20	CtrlTyp	Lo	T3°C	F 18.8
Wi	0	CpaTyp	0	CPA	F.1
Su	0	Startup	Off	%rh	F open
Wcas	20.0	Y1Mode	4	OutD(Y1)	20.0
Rcas	10.0	Y3Mode	4	OutC(Y2)	0
Xp1	2.0	Y2Mode	4	OutH(Y3)	38.0
Xp2	10.0	YMode	0	Occupancy	F On
XpC	3.0	T2ext	0	Freeze	F On
XpH	6.0	LimTyp	0	Synch	No
tr1	Off	SensTyp	0	Ctrp 1	20.1
tr2	Off	Y1CTRF	0	Ctrp 2	26.0
Minpos	20	AddHour	Mar	SMode	Comf
YStart	0	SubHour	Oct	CMode	Comf
SOFFS	2.0	PSTG_H	Off	M200 connected	
T1Cal	0	PSTG_C	Off	11 (A3) Room 3.6	
T2Cal	0	tvD	15.0	12 (A3) Room 6.8	
T3Cal	0	Adapt	50	13 (A3) Room 6.9	
Retoffs	Off	BusAddr	15	14 (A3) Room 2.3	
RuntimeY1	60 S	Schedule	...	15 (F3C) Room 6.8	
RuntimeY3	60 S			16 (F3C) Room 3.6	
RuntimeY2	60 S			17 (F1C) Room 6.8	
NightLow	10			18 (UA1) Room 2.3	
				19 (A3C) Room 6.8	
				20 (F3C) Room 2.3	

Produktdate: 8.3.1999

19.5
Off
Fix
Unfix

T1°C: Bereich= -30... 140, Off

Application E

Y%

100%
20%
0%

tr2=off
Y3=38%
Y1=20%
Y2=0%

XpH=6
CtrpH=21
Xp2=10
CtrpC=31
XpC=3
%rh=open
T2=18.7°C

Fix=aktiv
Pollrate: 400 mS
Ctrp1 <--> Ctrp2

The Main Menu

After the start of program, the main menu appears as shown above .
 All settings are carried out with the left-hand mouse button.
 The language selection English or Deutsch can be done in the menu [Options].

Controllers on Bus

After the start of the program there is an automatic search for the controllers on the bus and in the display "M200 connected" appears.

If none or not all controllers are displayed here, test the following:

- The serial input on the PC (COM1 or COM2), on which the Excel adapter is connected, must be set in the menu [Options] (see Chapter [Options] on page 7) (default = COM1).
 - If several controllers are on the bus, their bus address must be adjusted directly on the controller. Select parameter C22 on the controller and adjust the bus address. Adjust the Bus address in ascending order starting with address "1".
 - If there are more than 32 controllers on the bus, modify the maximum number of controllers in the menu [Options], see Chap. [Options] on page 7. In order to not slow down the program execution, do not input a greater number than absolutely required. The addresses can be assigned between 1..253.
 - Check the 24VAC and bus wiring.
-

Controller Selection

In the list "M200 connected", all identified controllers are displayed (bus address and controller type).

Controller types: F1C = R7426A2014 F3C = R7426B2012
 A3C = R7426C2010 UA1 = R7426D2000

To carry out settings on a specific controller, select the controller by a mouse click. The graphic display application, as well as the parameter list, indicate the controller settings.

Controller Name

A name can be assigned (max. 13 characters) to every bus address (e.g. building, room number etc.).

Use the menu [Room Table] for this, see Chap. [Room Table] on page 10.

Control Parameter Setting

The individual controller parameters are selected from the parameter list by mouse click. Then, on the upper-right in the main menu, the table appears for setting the parameters (in addition the selected parameter flashes in the graphics display). The parameters can be adjusted with a mouse click or in the edit field with the keyboard. The setting range of a parameter is displayed in the lower line. Every modification of the parameters is immediately transferred to the controller and read out again from the controller. The value transferred successfully is displayed in the parameter list.

For controllers equipped with Real Time Clock, the settings of the Operation Modes and times are carried out in a separate menu. For this, click on the parameter [Schedule] see Chap. [Schedule] on page 15.

Main Menu Graphic

The following is displayed in the graphic display application:

- Configuration of the controller
 - Inputs of the controller T1, T2 etc.
 - Outputs of the controller Y1, Y2, Y3
 - Unusual operating status are displayed in red text
 - The parameter currently selected is represented in flashing mode
 - In the case of Cascade control, the button [Ctrp1 <--> Ctrp2] appears. With this, the display is switched between the two control loops, master and slave.
 - In the case of Wlim control the button [Ctrp1 <--> T2] appears. The display is changed with this.
-

Controller Restart

[Restart M200]

This display is not always available.

If the parameters 'Runtime' or 'Mode..' have been changed, a restart of the controller is necessary. The connected valve and damper actuators are then synchronized.

If, after setting the parameter, the display [*Restart M200*] appears, carry out the new start with a button click, after all parameters have been adjusted.

Controller Configuration

Refer to the relevant literature for the functions of the individual controller parameters.

Fixing Inputs

The input values T1, T2, T3, CPA, %rh, Frost Thermostat, Presence Switch and the Switch On/Off, can be fixed. With selection of one of these inputs and the input value, all inputs are fixed.

Fixing an individual input is not possible.

To cancel the fixing click on [Unfix].

Fixing Outputs

The controller outputs Y1, Y2 and Y3, can be fixed. With selection of one of these outputs and the value, the respective output is fixed.

To cancel fixing, click on [Unfix] for the respective output.

Graphic Display of Control Functions - Optimization of Control Performance

The inputs/outputs of each individual controller can be recorded with the menu [Graph] see Chap. [Graphics] on page 11.

Input / output value trendlogs help start-up personnel to verify the controller operation and to optimize the control performance. With the menu [Graph], the user can select the inputs/outputs and controllers to be recorded.

Status Overview of All Inputs and Outputs of Controllers on the Bus

Mouse click on [Display All] see Chap. [Status Display of All Controllers on the Bus] on page 14.

In this menu, the inputs and outputs of all controllers can be viewed graphically. In addition, the setpoint temperatures (Parameter W1) of the individual controller can be adjusted from here.

Parameter Reset to Factory Programmed Default Values

To reset all parameters of the controller to factory setting, click on [Load Default].

Setting of Controller Date and Time

Only for controllers with Real Time Clock function.

There are two possibilities to adjust the time in the controller:

1. Button click on parameter [Schedule]. In the schedule menu, adjust the date and time manually for the currently selected controller, or transfer directly the PC time and date into the controller.
2. Button click on [M200] and transfer the PC time and date simultaneously to all controllers located on the bus.

Daily, Weekly Time Schedules and Holiday Schedules

Only for controllers with Real Time Clock function.

Button click to parameter [Schedule] see Chap. [Schedule] on page 15.

With this function, the different Operation Modes and the Time Schedules can be programmed.

Save of Control and Configuration Parameters in Data File

In the menu [M200], see Chap. [M200] on page 8, the settings of a controller can be stored in the PC. All settings (including schedule) are stored. Every time the controller data is stored into an individual file. Assign an unique file name (max. 8 characters) for this. In addition, a "Note" containing a more detailed description can be defined (define the "Note" before storing!).

Copy of Control and Configuration Parameters from a Data File

Menu [M200], see Chap. [M200] on page 8.

The data stored in a file can be loaded into the controllers as follows:

- Copy all parameters (including schedule) into an individual controller.
- Copy only schedule into an individual controller.
- Copy schedule to all controllers

Main Temperature Monitoring within Programmed High and Low Limit Values

Menu [Monitoring] see Chap. [Monitoring] on page 17.
The temperature T1 of every controller can be monitored for minimum and maximum values.
The maximum deviations in each case are recorded in a list.

Printing of Main Menu

The parameter values and the display are printed out on the Windows standard printer by a mouse click on [Print].

Update of Programmed Control and Configuration Parameters

[Read M200 parameter]
The parameter values are read and displayed automatically with selection of a controller.
However, if the parameter values of a selected controller vary directly on the controller, the controller parameters need to be read again.
Alternatively, reselect the controller from the table "M200 connected".

Program Exit

Close the main program with the Windows button [X].
All menus, which are still open, will be closed and the program terminated.

Production Date Code

The Production date (Date Code) of the controller is displayed at lower-left corner in the main menu.

MENU OVERVIEW

[Load Default]

The factory set default parameter settings are loaded into the M200 controller. As a result, all changed parameters are overwritten.

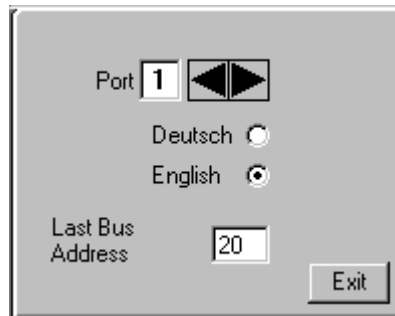
[Read M200-Parameter]

The parameter values are read automatically and displayed with selection of a controller.

However, if the parameter values of a selected controller vary directly on the controller, the controller parameters need to be read again.

Alternatively, reselect the controller from the table "M200 connected".

[Options]

**[Port]**

Input of COM port number (1-4), at which the Excel adapter is connected.

[German/English]

Selection of language, English or German.

[Last Bus address]

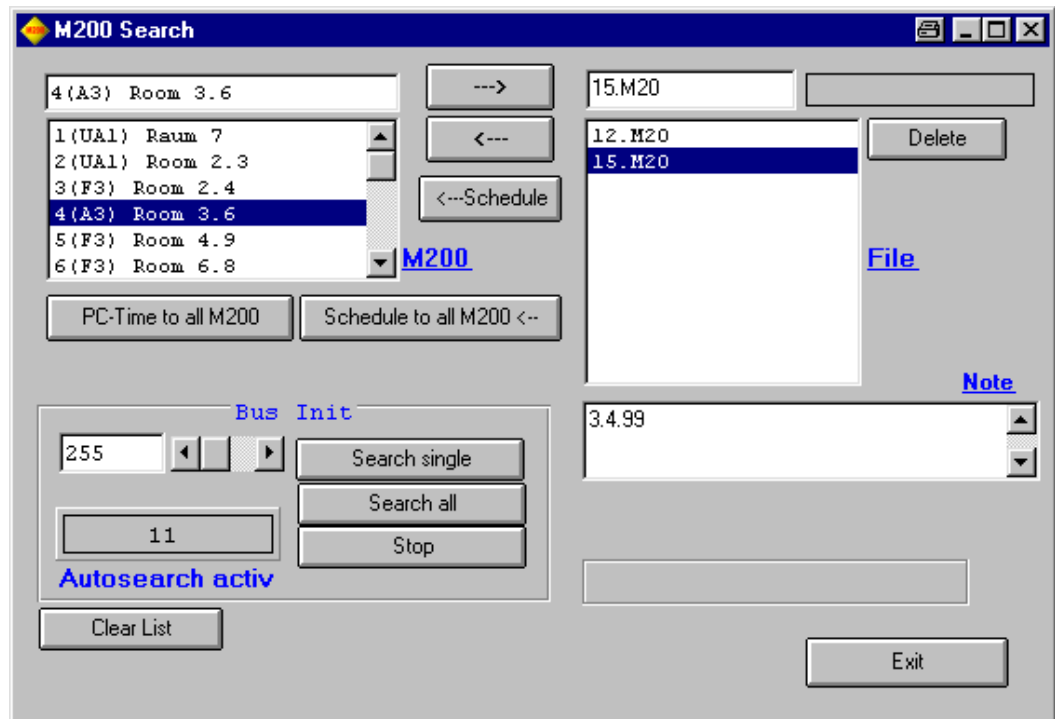
The individual Bus address of the controllers should be adjusted in ascending order starting with 1....

The automatic search for the controllers begins from Address 1. Set last bus address to the number of controllers present on the bus (highest controller address). Setting of a higher number will unnecessarily slow down the program. (Default=32).

[Exit]

Leave menu.

[M200]



Saving and Copying the Control and Configuration Parameters

Saving M200 Parameters in a Data File

The settings of a controller can be stored in the PC. All settings (including schedule) are stored every time into an individual file. Assign a dedicated file name (maximum 8 characters) for this. In addition, a Note with a more detailed description can be assigned (assign the Note before storing!).

Procedure:

- Select controller in the table "M200" with a mouse click.
- Enter desired file name into the edit field. The extension ".M20" is appended automatically and need not be entered.
An already-existent file name can be overwritten by clicking on the corresponding file in the list "file".
- In the field "Note", insert comments about this file.
- With a mouse click on [---->], all controller data are stored in the file.

The files can be copied also to or from another computer. These are stored under ..M200\Data\xxx.M20 and have the extension .M20.

Copying All Parameters from a Data File into a Controller

Copying all parameters (including schedule) into an individual controller.

- This is useful if a controller has been replaced and the previously stored settings have to be loaded into the new controller or, if there are several identical controlled systems, the data of an adjusted controller have to be loaded into the other controllers.

Procedure:

- Select file to be transferred with a mouse click in the table "file"
- Select the controller into which the data should be transferred with a mouse click in the table "M200"

- With a mouse click on [-----] all parameters (including schedule) are transferred to the controller.

Copying Schedules from a Data File into a Controller

Copy weekly and yearly schedule into an individual controller. The controller parameters are not transferred here.

Procedure:

- Select file to be transferred with a mouse click in the table "file"
- Select the controller into which the data should be transferred, in the table "M200" with a mouse click.
- With a mouse click on [----- Schedule] the schedule will be transferred to the controller.

Copying Schedules from a Data File in all Controllers

Copy weekly and yearly schedule into all controllers. The controller parameters are not transferred here.

By this function, the schedule can be programmed in a controller and then transferred to all other controllers. (Store controller parameters in a file --> transfer schedule to all controllers)

Procedure:

- Select file to be transferred with a mouse click in the table "file"
- The schedule is transferred to all controllers by a mouse click on [Schedule to all M200].

Controllers without clock function are not effected.

Deleting a Data File

- Select file through mouse click in the table "File".
- The file is deleted by mouse click on [Delete].

Setting of Date and Time in All Controllers

The PC time is transferred to all controllers by a mouse click on [PC-Time to all M200]

Search Functions

No settings are usually carried out here by the user.

The Autosearch [Search all], for general data transfer, must always be active.

In case of major bus malfunctions, it is possible to search manually for a specific bus address.

[Search single]

Single search of the controller.

[Search all]

Start automatic search.

Search all M200 addresses on the bus.

This search is started automatically on startup of the program.

The search is continuously carried out and the result of this search employed for all parts of the program.

[Stop]

Stop automatic search.

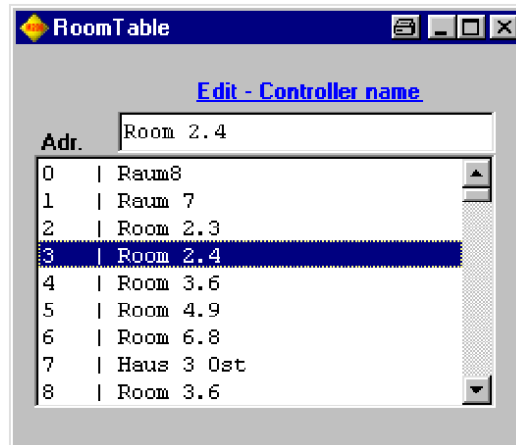
[Clear list]

Deletion of M200 list. The search for controllers on the bus is restarted and thus controllers, which are no longer available on the Bus, are not displayed anymore.

All graphic records currently running are terminated.

Menu Exit

Leave this menu through a mouse click on [Exit].

[Room Table]

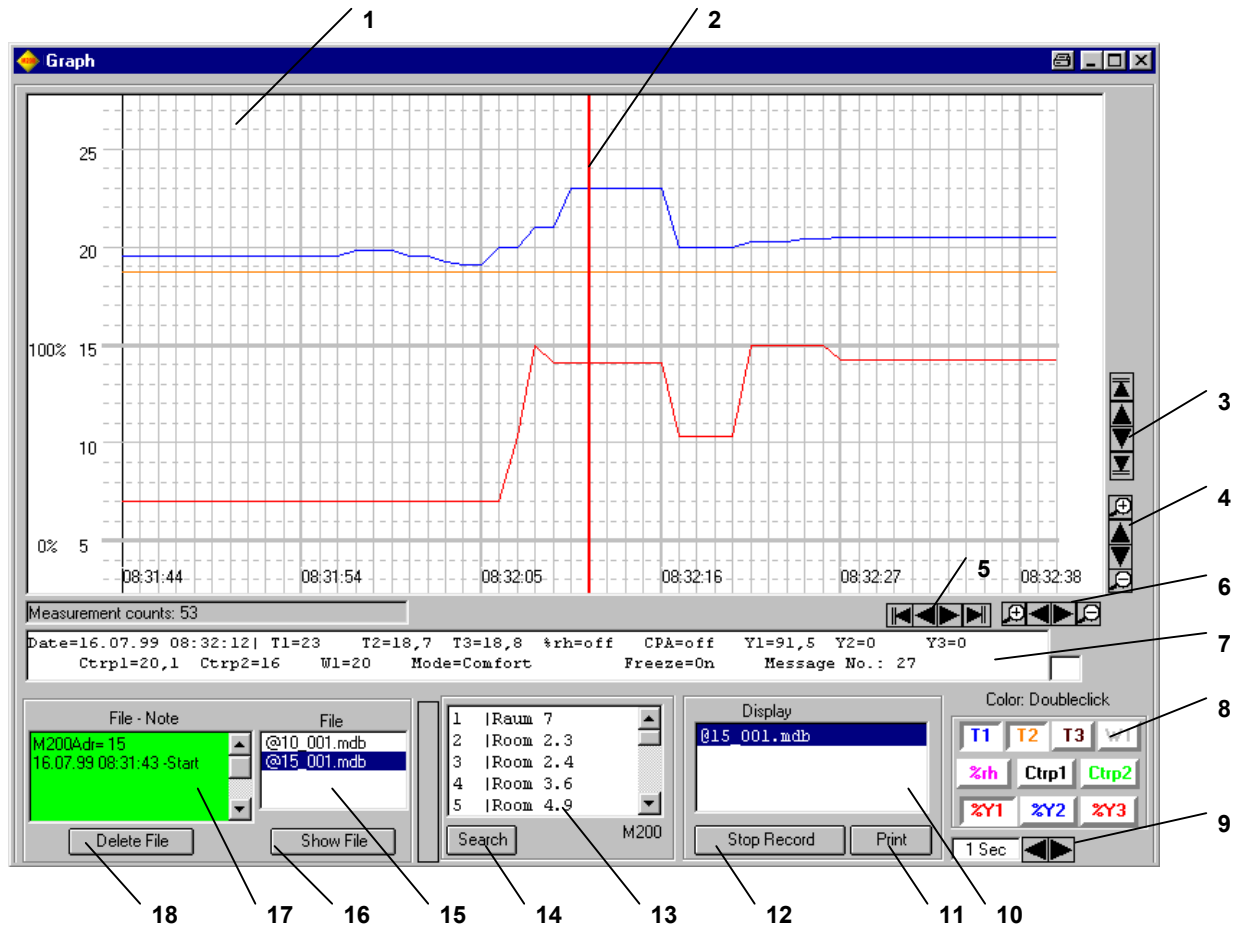
A name can be assigned to every bus address (e.g. building, room number etc.). This allows to identify the individual controllers in the list more easily.

A name containing a maximum of 13 characters can be assigned. To display the currently assigned names in the individual screens or the display "M200 connected", click onto [New Search]. The inputs are stored in the PC and are available again with a new start of the program. To transfer these entries into another computer, copy the file ".M200\Data\Room.mdb" into the other computer.

Procedure:

- Select bus address through mouse click in the table.
- Write the name to be assigned and store with <Return> button.
- Select next bus address etc.

[Graphics]



Buttons

- 1) Graphics display. Y1, Y2, Y3, %rh refers to scaling 0%..100%
- 2) Move cursor with the mouse. The data of this location is displayed in 7).
- 3) Move display vertically.
- 4) Zoom display vertically.
- 5) Move display horizontally.
- 6) Zoom display horizontally.
- 7) Data of cursor position 2).
- 8) Select curves to be represented. This has no influence on the storage of the data. (All data are always stored). The colors can be changed by a double-click.
- 9) Time-setting for measuring cycle.
- 10) List of the selected files.
- 11) Print graphics.
- 12) Stop selected recording.
- 13) List of controllers on the bus. A mouse click starts the recording.
- 14) To M200 search menu.
- 15) List of the measurement files generated.
- 16) Show selected file in the display.
- 17) Notes of the selected file. Additional Notes can be entered here.
- 18) Delete selected file (only if this is not currently being displayed).

Input and Output Value Trend Log of One or Several Controllers

The controllers on the bus are displayed in the table "M200" (13).
 Select one or more controllers, to be recorded from this table with a mouse click. All data of the controllers selected are now recorded.
 The selected controllers can now be viewed in the table "Display" (10).
 A file is simultaneously created in which all data is stored. These file names can now be viewed in the table "File" (15).

Format of the file names:@M200Adr_seqnumber.mdb e.g. "@3_012.mdb" =
 M200Adr. 3 ; sequence no. 12
 Stored in ..M200\Data

In the field "File, Note" (17) the automatically generated commentary regarding this file can be viewed.

Additional commentary can be written into this field. Note that the desired file is selected in the field "file".

Select the value for the intervals at which the data should be entered. This setting is valid for all currently running records. Do not select recording times too short, since a lot of PC disk space will be required for recording over a longer period. Approx. 110 bytes are required for every measurement.

Displaying Control Characteristic over Time (Trend Log)



The values for Y1, Y2, Y3 and %rh are represented in display field (1) in the range 0..100%. All other values are marked over the entire range.

Select controller	If several controllers are recorded simultaneously, select the desired display through a mouse click in the table "Display" (10).
Select curves	With keyboard (8), select the curves which you would like to view. (This selection does not affect the recording or the storage of the data.)
Adjust color of the curves	Through a mouse double-click in keyboard (8), the colors of the individual curves can be selected.
View individual measuring data	The red line (2) is positioned by a mouse click in display field (1). This line can also be moved by clicking on it and moving the mouse while keeping the left-hand mouse button depressed.
Zoom display horizontally	The measured data is displayed in field (7), located below it. With the buttons (6) the display can be zoomed in the horizontal direction. A mouse click on the arrow zooms step by step, while a mouse click on [+] or [-] zooms to maximum or minimum size. Zooming is done in such a way, that the red line always remains (if possible) on the current measurement.
Move display horizontally	The display can be moved in the horizontal direction with buttons (5). A mouse click onto the arrows moves step-by-step, while a mouse click on maximum buttons moves the display (left and right) to the beginning or end of the measurement.
Display mode: scroll	If the display is moved to the end of the measurement, the curve is displaced continuously to the left during recording, so that the current measurement is always displayed. If the display is moved in such a way that the last measurement cannot be seen in the display, a standing display appears.
Zoom display vertically	With the buttons (4) the display is zoomed in a vertical direction. A mouse click onto the arrows zooms step by step, while a mouse click on [+] or [-] zooms to maximum or minimum size.
Move display vertically	The display can be moved in a vertical direction with buttons (3). A mouse click onto the arrows displaces step-by-step, while a mouse click on maximum buttons (up and down) moves the display fully up or down.

Printing a Graph

A mouse click on [Print] (11) prints the display on the Windows standard printer. It is recommended to employ a color printer.

Menu Reduction

To work with another menu or program without terminating the recording, reduce the size of the menu.
Use the Windows buttons  and  for this.

Stopping the Trend Log

Select the recording to be terminated in the table "Display" (10) and click on [Stop recording].
To terminate all recording, close the menu with the Windows button [X]

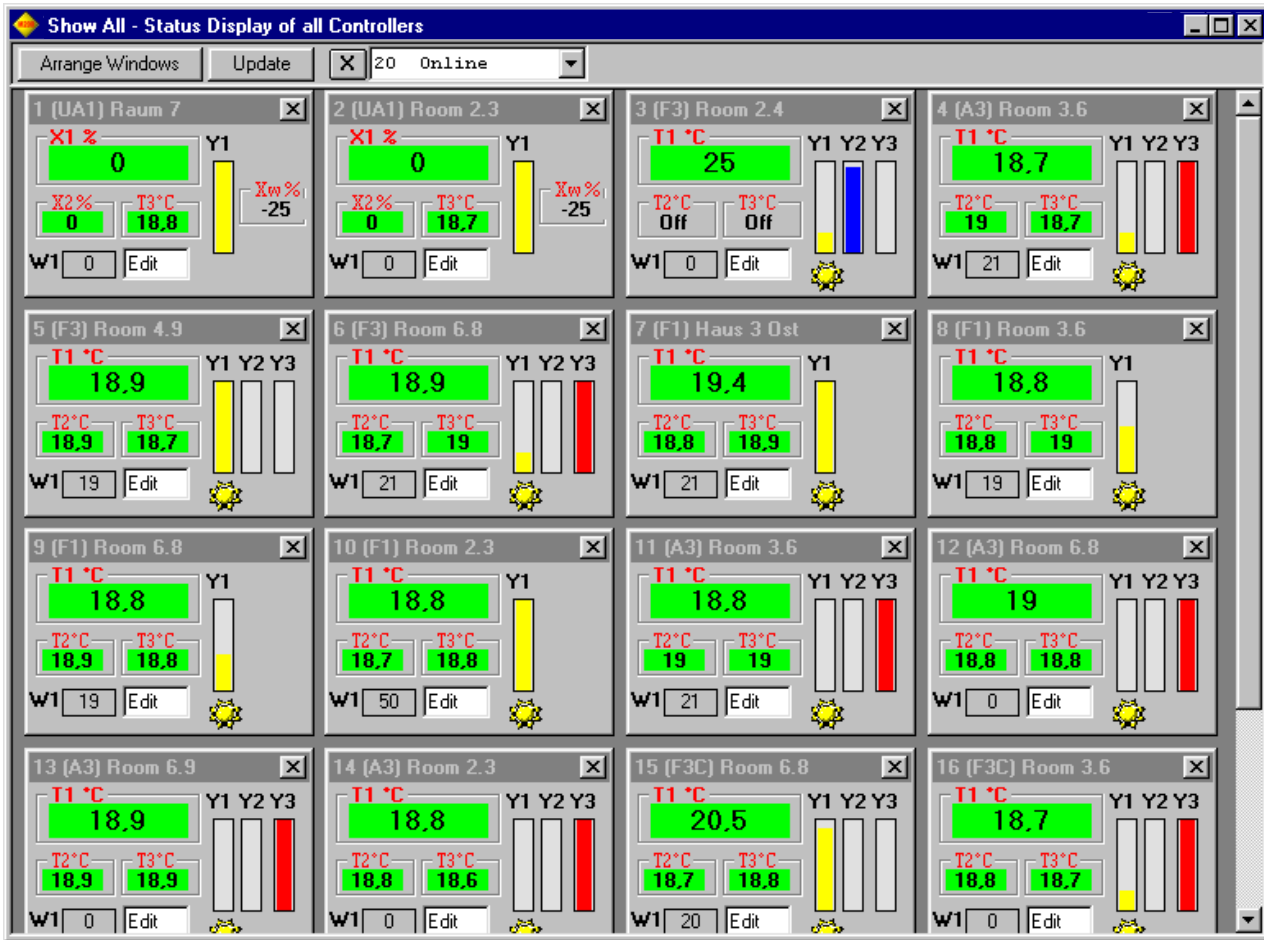
Displaying the Trend Log

Automatically created files during recording, can be displayed at any time.
For this click on the corresponding file in the table "File" (15) and then click on [Show file] (16). The file can then also be viewed in the table "Display" (10) and can be selected there for display.

Graphic Menu Exit

Close the menu with the Windows button [X].
All records in this menu are terminated properly.
(The M200 program is not terminated with this.)

[Status Display of All Controllers on the Bus]



After the start of this menu, all controllers on the bus are displayed.
 The following are displayed: T1, T2, T3, Xw, Y1, Y2, Y3, W1
 The setpoint value W1 of the controller can be changed by editing the window (next to W1).
 (Keyboard: Enter value and press <Return>)

[Arranging windows]

After modification of the screen size, individual windows can be arranged again with this.

[Update]

The individual controller windows can be removed with a mouse click on [X]. All controller windows are redisplayed with updates.

Symbols:



Controller mode = Comfort



Controller mode = Night



Controller mode = Standby (not present)



Off

Controller mode = Off



Controller mode = frost protection is active

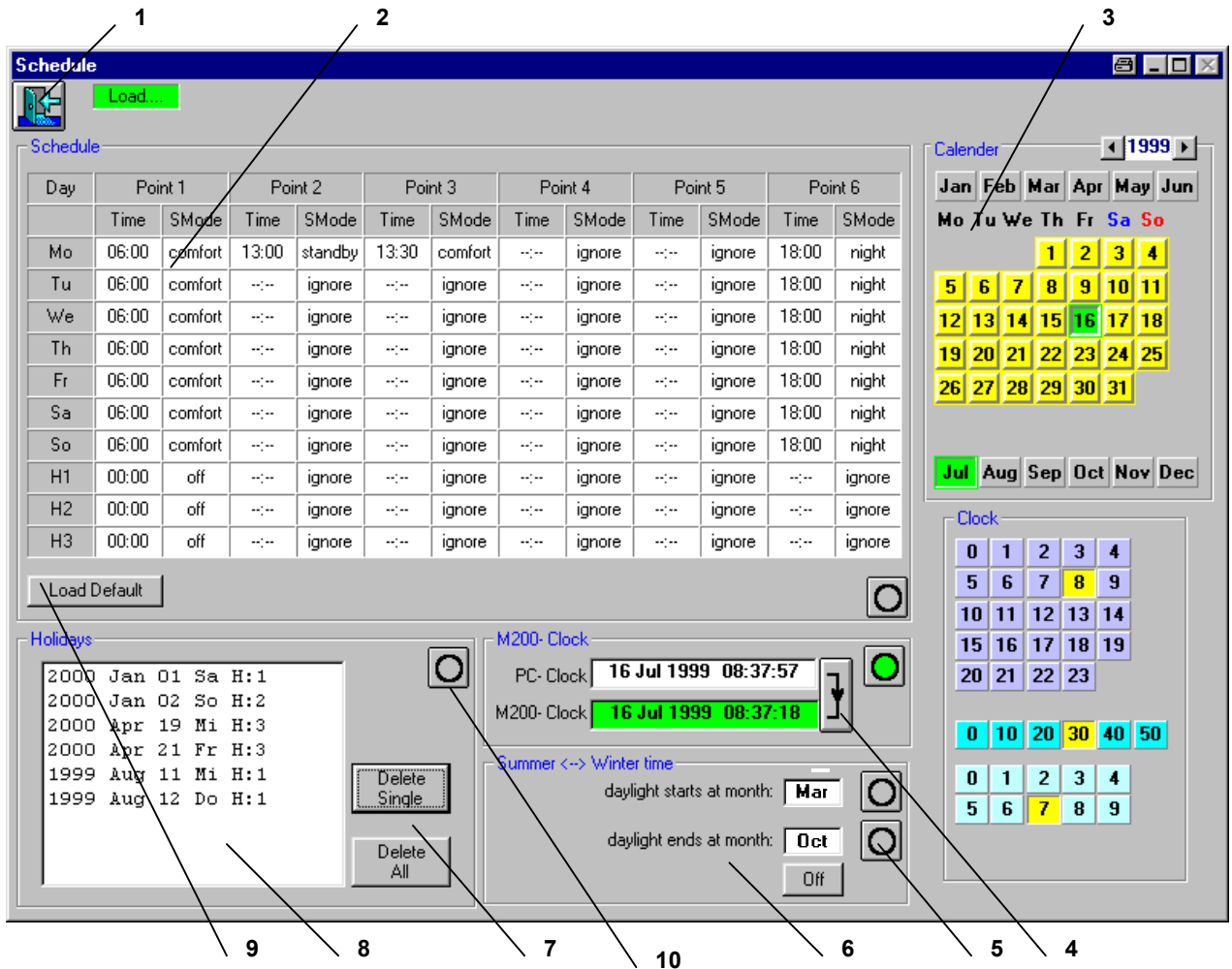
Menu Reduction

To work with another menu or program, without terminating the recording, reduce the size of the menu.
Use the Windows buttons  and  for this.

Menu Exit

Close the menu with the Windows button [X]. (The M200 program is not terminated with this.)

[Schedule]



Buttons

- 1) Leave menu
- 2) Adjust control mode for the individual days
The settings menu is opened with mouse click in the list.
Mo - So = day setting
H1 = holiday type 1
(unique holidays - deleted from the list of holidays* after the date has expired)
H2 = holiday type 2
(unique holidays - deleted from the list of holidays* after the date has expired)
H3 = holiday type 3
(annual holidays - not deleted from the list of holidays* after the date has expired)
*) left lower list Holidays.
- 3) Settings menu for input of the individual data
This menu has another appearance, depending on function

- 4) Transfer PC time to M200
Set PC clock (mouse click on window opens settings menu)
Set M200 clock (mouse click on window opens settings menu)
- 5) Opening the settings menu of the respective function (same as mouse click on the window)
- 6) Adjusting the month for summer or winter time
- 7) Delete entries of the holiday list.
- 8) List of holidays which are already determined
A mouse click on this list selects the entry to be changed or deleted
H1 = holiday type 1 (unique holiday - it is deleted from the holiday list after the date has expired)
H2 = holiday type 2 (unique holiday - it is deleted from the holiday list after the date has expired)
H3 = holiday type 3 (annual holiday - it is not deleted from the holiday list after the date has expired)
- 9) Load factory default settings
- 10) Select holiday programming

Daily, Weekly, and Holiday Schedules

Only for controllers with Real Time Clock function

With this function, the different Operation Modes and the Time Schedules can be programmed.

- Comfort mode - the controller controls the temperature exactly to the Control point (CTRP1).
- Standby mode - the controller controls to the temperature within the offset determined by the parameter [SOFFS].
- Night mode - the controller controls to the temperature within the offset which is determined by the parameter [NOFFS].
- Off-Mode - the controller is switched off.

There are following possibilities to determine at which point in time the controller should switch to a specific mode:

- 6 switching times for every weekday.
- 6 switching times for each holidays type not repeated every year (Type H1 and H2).
- 6 switching times for holidays which are repeated every year (Type H3).
- The date on which the settings of Type H1,H2 and H3 should become valid.

Programming Weekday Schedules

Click with the mouse on the respective switching point in Table, "Schedule" (2), that needs to be modified.

Adjust time and mode in the input menu (3). The values are immediately transferred to the controller. The different operation modes can be selected from the SMode setting menu.

A mouse click on [Delete time] deletes the selected entry and the switching point is ignored.

A mouse click on [Load Default] sets all inputs of the Table "Schedule" (2) back to the factory settings.

Programming Holiday Schedules

In order to open setting menu (3) for a new entry, click with the mouse on the round command button (10). Select date from the calendar, holiday type from HMode setting menu and enter by a click on [Save holiday].

Holidays not repeated every year

These entries apply, in each case, to only one year. If the calendar day of an entry has expired, this entry is deleted in the controller.

Two different settings are available for this: H1 and H2.

Adjust the date for these holidays (month and day) and select H1 or H2.

For storing, click on [Save holiday]. The entry then appears in the list "Holidays" (8).

Holidays which are repeated every year These entries are always valid. If the calendar day of an entry has expired, this entry is not deleted in the controller.
 The setting H3 is available for this.
 Adjust the date for these holidays (month and day) and select H3.
 For storing, click on [Save holiday]. The entry then appears in the list "Holidays" (8).
Delete holidays In order to delete an entry, select the entry in the table "Holiday" and click on [Delete single]
Delete all holidays In order to delete all entries, click on [Delete all]

Setting Time and Date

In the frame "M200- clock", the time of the computer and the time of the M200 controller can be adjusted.
 For this, click in the respective field.
 Transfer the time and date from the PC to the controller by means of a mouse click on the command button (4).

Setting the Summer / Winter Daylight Saving Time Period

In the field "Summer, <--> winter time" (6) the months can be modified. For this, click onto the round command button (5) and select the respective month from the calendar.

Menu Exit

Mouse click onto command button (1) at upper left.

[Monitoring]

The screenshot shows the 'Monitoring' software interface. At the top, there are four main control panels: 'Monitoring' (On/Off), 'General Report' (On/Off), 'Min/Max Monitoring' (Report Low and High / Report Low or High), and 'CMode' (On/Off, Calculate Off, Night, Standby, Comfort). An 'Exit' button is located to the right of these panels. Below the control panels, there are three main data areas: 'M200 connected' (a list of rooms 1-20), 'M200' (a table with columns for room, min, and max values, and a 'Save' button), and 'Report' (a detailed log table). At the bottom, there are buttons for 'Delete single', 'Delete all', 'Sort', 'Delete all', and 'Print'.

1	Raum 7
2	Room 2.3
3	Room 2.4
4	Room 3.6
5	Room 4.9
6	Room 6.8
7	Haus 3 Ost
8	Room 3.6
9	Room 6.8
10	Room 2.3
11	Room 3.6
12	Room 6.8
13	Room 6.9
14	Room 2.3
15	Room 6.8
16	Room 3.6
17	Room 6.8
18	Room 2.3
19	Room 6.8
20	Room 2.3

	Room	min	max
1	Raum 7	:	
2	Room 2.3	:	
4	Room 3.6	: 18	
5	Room 4.9	:	
6	Room 6.8	:	
10	Room 2.3	:	
11	Room 3.6	:	22
12	Room 6.8	:	
13	Room 6.9	: 19	21
18	Room 2.3	: 19	21
20	Room 2.3	:	

	Room	Date	Time	Mode	Temp
-1	Raum 7	16.07.	08:44	Mode=Comfort	U1=0 %
+1	Raum 7	16.07.	08:44	Mode=Comfort	U1=0 %
-2	Room 2.3	16.07.	08:44	Mode=Comfort	U1=0 %
+2	Room 2.3	16.07.	08:44	Mode=Comfort	U1=0 %
-5	Room 4.9	16.07.	08:44	Mode=Comfort	T1=18,9°C
+5	Room 4.9	16.07.	08:44	Mode=Comfort	T1=18,9°C
-6	Room 6.8	16.07.	08:44	Mode=Comfort	T1=18,9°C
+6	Room 6.8	16.07.	08:44	Mode=Comfort	T1=18,9°C
-10	Room 2.3	16.07.	08:43	Mode=Comfort	T1=18,8°C
+10	Room 2.3	16.07.	08:43	Mode=Comfort	T1=18,8°C
-12	Room 6.8	16.07.	08:44	Mode=Comfort	T1=19,1°C
+12	Room 6.8	16.07.	08:44	Mode=Comfort	T1=19,1°C
-13	Room 6.9	16.07.	08:44	Mode=Comfort	T1=18,9°C
+13	Room 6.9	16.07.	08:44	Mode=Comfort	T1=18,9°C
-18	Room 2.3	16.07.	08:44	Mode=Comfort	U1=0 %
-20	Room 2.3	16.07.	08:44	Mode=Comfort	T1=18,7°C
+20	Room 2.3	16.07.	08:44	Mode=Comfort	T1=18,7°C

Monitoring the temperature T1 (or, in the case of controller type R7426D2000, input U1)

- Reporting, if the temperature T1 exceeds the high and/or low limits:
 1. Message and report are displayed whenever the temperature T1 is above the units.
 2. Offset values for the respective mode (Night and Standby) is added or subtracted to the high and low limits.
 A message is generated, only if these thresholds are exceeded.
- Report of the minimum and maximum temperature displays, in which ranges the temperature T1 varies.

Setting Monitoring Limits

- Select a controller from the list "M200 connected" through mouse click.
- Enter min. and (or) max. value in the fields Min or Max
Leaving one of the fields empty, monitors only for minimum or maximum.
- Store setting for this controller with mouse click on [Save]
Changing minimum / maximum settings for a controller: Select the controller from the M200 list. Change the values in the Min and/or Max field. Save values by a click on [Save]
Removing controller monitoring: Select the controller from the M200 list. Click on [Delete single] deletes the controller from the list. Click on [Delete all] deletes all controller from the list.
- These settings are stored in a file and are loaded into the list with a new start of the M200 program.
- To transfer the settings into another computer, copy the file ..\M200\Data\Watch.dat into the other PC.

Low and High Limit Monitoring

[Display Min and Max] In the field "Min/Max Monitoring", the following setting options are available:

In the case of falling below the minimum temperature and/or exceeding the maximum temperature the respective values are separately displayed in the list "Report". Consequently, 2 lines are used for the display for every controller. Min and Max are displayed in the list with "+" and/or "-".

[Display Min or Max] the last value in each case

In the case of falling below the minimum temperature and/or exceeding the maximum temperature the last value in each case is displayed separately in the list "Report". Consequently, 1 line is used for the display for every controller. Min and Max are displayed in the list with "+" and/or "-".

Monitoring Concept

- The highest deviations are recorded in each case and displayed in the case of a further overshooting of the last value

The OFF, Night, Standby, and Comfort Controller Modes

Field "CMode " [On]

- If the controller is in the Standby or Night mode, the respective offset is considered in the measurement. e.g. monitoring Max = 22°C, Mode=Standby (Offset=2K), the message is triggered only when 24.1°C is exceeded.
- If the controller is OFF, no messages are issued.
- Monitoring remains active if the controller changes the mode to a greater offset e.g. from Comfort to Standby or from Standby to Night.
- If the controller changes the mode to a smaller offset e.g. from Night to Standby or Standby to Comfort, monitoring remains inactive as long as the temperature remains in the range below the minimum and above the maximum.

Monitoring a Control Characteristic

To check only the deviations of a controlled system, leave the fields Min and Max empty. The minimum and the maximum temperature of T1 is then recorded.

Activating/Deactivating Monitoring

Monitoring is switched on and off in the field "Monitoring"

General Report

A central message on the screen is issued in the case of every overshooting of the last minimum and/or maximum temperatures. This can be switched On or Off in the field "General Report".

Report Sorting

Every incoming message is written into the lowest line of the report, consequently the report is sorted according to date and time. To sort this list according to controller addresses, click with the mouse on [Sorting]

Printing Report

The list "Report" is printed by a mouse click on [Print] on a Windows standard printer.

Deleting Report

The report is deleted with [Delete all]. The temperature monitoring remains further active.

Menu Exit

If monitoring is on, the button [Minimal] appears. To exit from the menu screen without terminating monitoring, click on this button. After a click on the minimized display (in the lower line of the screen), the menu is displayed again.

If monitoring is off, the button [Exit] appears. The menu is terminated by a mouse click on this button and the messages in the list "Report" are deleted.

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