TABLE OF CONTENTS

1. GENERAL 6

2. PROGRAMS 7

2.1. GENERAL 7

2.1.1. Prodex IC 7

2.1.2. Prodex Set-up 7

2.2. SET-UP 8

2.3. REMOVING PROGRAMS 13

3. CONNECTION 15

4. THE PRODEX PROGRAM 16

4.1. PROGRAM START 16

4.1.1. Obtaining licence code 16

4.1.2. Load project 17

4.1.3. Create new project 19

4.2. CHOOSING SERIAL PORT 22

4.3. CHOOSING LANGUAGE 22

4.4. TRANSPARENT MODE 23

4.5. PROGRAMMING 23

4.5.1. General 23

4.5.2. Unlocking RAM protection 24

4.5.3. Locking the RAM 25

4.5.4. Setting date & time 25

4.5.5. Transferring all prodex data 27

4.5.6. Transferring data from/to Prodex 27

4.5.7. Loop cards 28

Loop card type 28

Polling state 28

Line state 28

Programmed name 29

Stop polling 29
Start polling 29
Initialize + Start polling 29
4.5.8. Points *30*
Points technical view 30
Point number 30
Programmed zone number 30
Programmed point name 31
Programmed point type 31
24h calibration 31
Prodex point state 31
Actual state value 33
Data field 1 33
Data field 2 33
Data field 3 34
E-value 34
Contamination level 34
Close 34
Accept types 34
Update state manually 34
Update state automatically 34
Reset zero level 34
Points programming 34
Point number 35
Programmed zone number 35
Programmed point name 35
Programmed point type 36
Programmed input 36
Programmed output 36

Type of base 37
Options 40
Zone disablement 42
Confirmation 42
Alarm disabled 42
Pre-alarm disabled 42
Blink 43
Map page 43
Point state 43
Prodex state 45
Update state manually 45
Update state automatically 45
4.5.9. Input configuration 46
Input number 47
Input function 47
Target 48
Input state 48
Update state manually 48
4.5.10. Output configuration 49
Output number 49
Output function 49
Output function 50
Target 53
Output state 53
Update state manually 53
4.5.11. General configuration 54
Panel text 55
Panel serial number 55
Access level code 55

Main board inputs 55
Main board relay outputs 55
Main board BELL / EXT outputs 55
Extout8 boards 56
Daylight savings 56
Points calibration 56
Battery service 57
Special features 57
Delays 57
Fire protection output 58
Indicate service faults 58
4.5.12. Checksums *59*
ROM check 59
Correct checksum 59
Read 60
Current checksum 60
Update ROM checksum value 60
RAM check 60
Main board RAM checksum state 60
Update RAM checksum value 60
Check loops 60
Loop checksum state 60
4.6. USE 61
4.6.1. Status *61*
Led status 61
Reset 63
Prodex date & time 63
Update rate 63
Main board inputs 64
Main board outputs 64

Checksums 64
Access levels 65
4.6.2. Pre-alarms *66*
4.6.3. Faults *67*
Fault types 68
Point faults / states 69
4.6.4. Disablements *71*
4.6.5. Transaction memory *72*
4.6.6. Alarm memory *73*
4.6.7. Version checking *75*
4.6.8. Configuration history *76*

1. General

This is the programming instructions for the Prodex system. The programming of the system can only be done with a PC.

The communication between the set-up program and the Prodex system is trough a RS232 serial port.

The PC requirements are; a Pentium based processor running on a 32-bit Windows operating system of the following type.

- Windows 95.
- Windows 98.
- Windows NT.
- Windows 2000.

The installation requires 10 MB of free disk space.

Each system, which is programmed with the PC, will be stored. Each system can then be reopened and viewed at a later time.

The system can also be pre-programmed without physical connection to the Prodex system. All programmed data will be stored on the PC in a specified filename. This program can then be uploaded to the Prodex system.

2. Programs

2.1. General

The Prodex CD-rom includes 2 programs, which are used to set-up the system. To use these programs you must run a set-up program, which installs all necessary files to the operating system.

2.1.1. Prodex IC



This program is a interface program with which you can access the loop cards directly trough the Prodex main board.
The program is used within the prodex set-up, from the transparent mode menu.

The use of this program is explained in a different instruction.

2.1.2. Prodex Set-up



This program is the actual set-up program with which you program the system.
This programming instruction will explain the use of this program.

2.2. Set-up

The set-up of the program is done with E.g. the explorer program. Browse the CD-rom for the Prodex Set-up program folder. The set-up-program is located in this folder. Before running the set-up program, close all open applications.

Launch the set-up program by double clicking the icon with the left mouse button.



Fig. 2-1

The set-up program starts up.

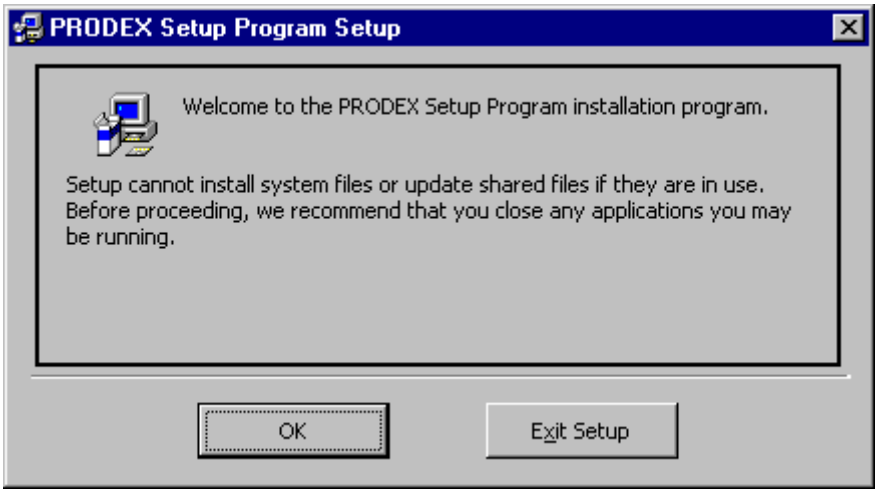


Fig. 2-2

- Make sure that no other applications are running.
- Continue set-up by pressing OK.

- If you want to exit set-up, press ”Exit Set-up”.



Fig. 2-3

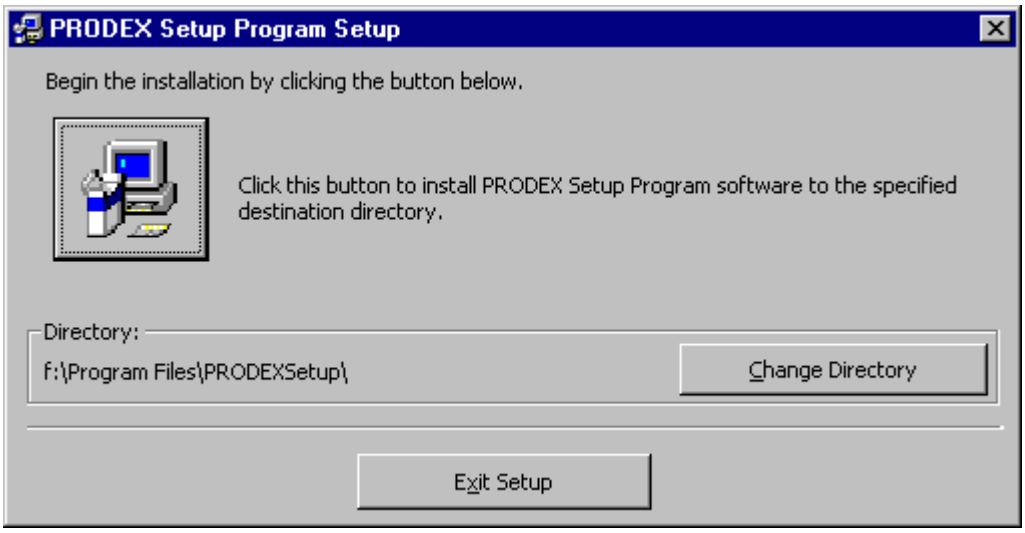


Fig. 2-4

- The set-up starts with copying temporary files needed for the set-up.
- The set-up automatically suggests the program files folder.
- If you want to install the program in the default directory, press the PC-button.

- If you want to specify another directory press the ”Change Directory” button.
- If you want to exit set-up, press ”Exit Set-up”.

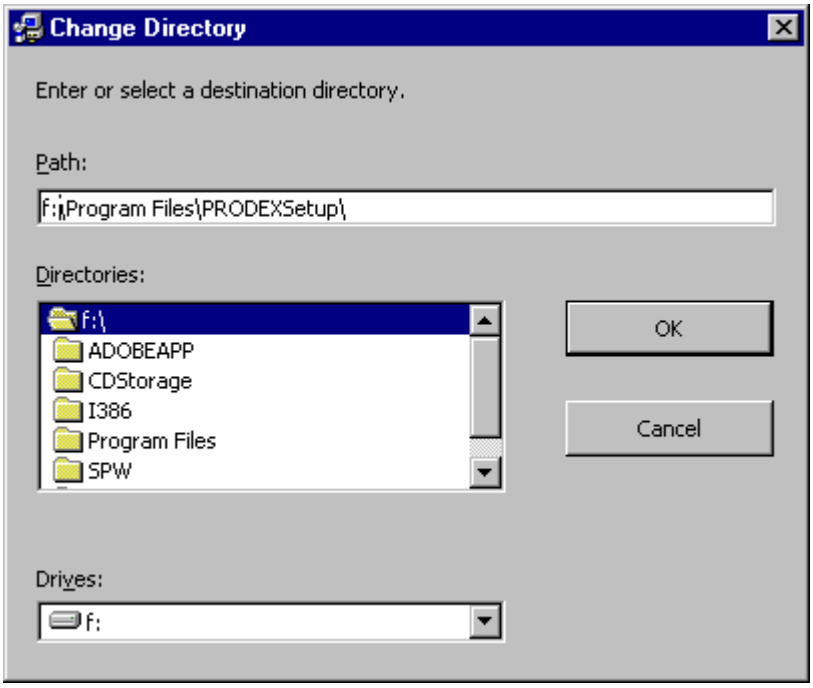


Fig. 2-5

- Specify a new directory, writing it to the path, or browse a new directory.
- Confirm by pressing OK.
- If you want to cancel, press Cancel.

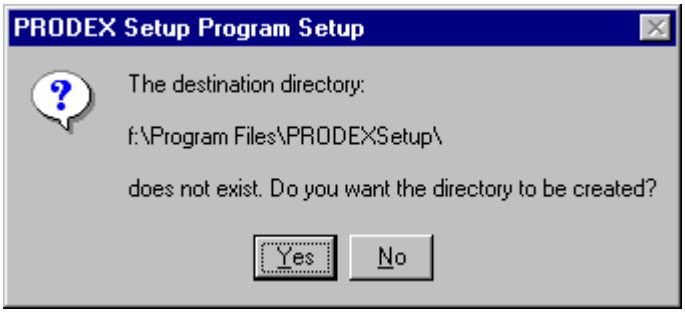


Fig. 2-6

- If you specified a directory which didn’t exist, the program will ask if this directory is to be created.
- Create the directory by pressing OK.
- Cancel by pressing Cancel.

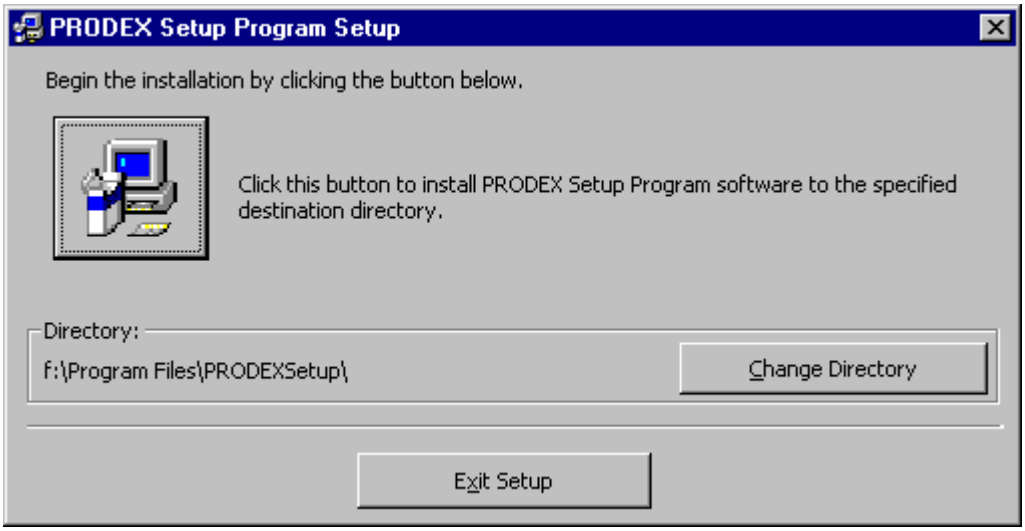


Fig. 2-7

- To install the program to the specified directory, press the PC-button.
- If you want to specify another directory press the ”Change Directory” button.
- If you want to exit set-up, press ”Exit Set-up”.



Fig. 2-8

- The set-up will create a program group for the software.
- You can accept the suggested group name by pressing ”Continue”.
- You can also specify a own group name, by entering it to the ”Program group” field.
- If you want to cancel set-up, press ”Cancel”.

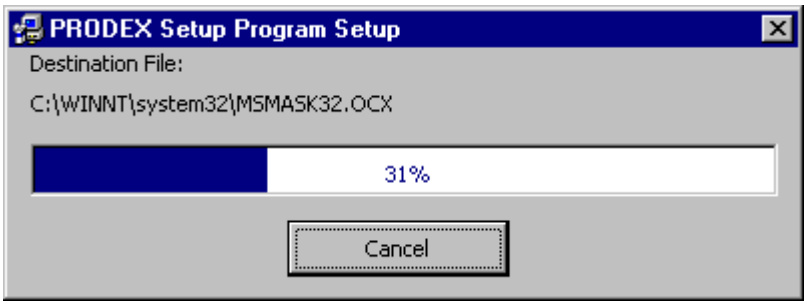


Fig. 2-9

- The set-up will now copy all necessary files to the system.
- If you want to cancel the set-up, press Cancel.

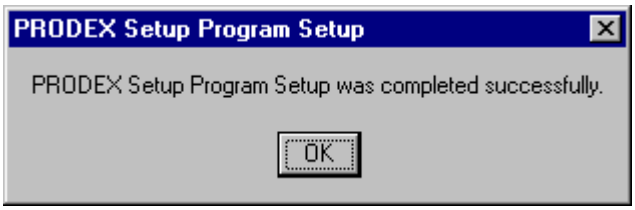


Fig. 2-10

- When the set-up is competed the program will inform you.
- Press OK.

The program shortcut can now be found by pressing Start -> Programs -> Prodex Fire Panel.

2.3. Removing programs

The program set-up can be removed from the control panel's add/remove programs.

- Press Start -> Settings -> Control Panel.

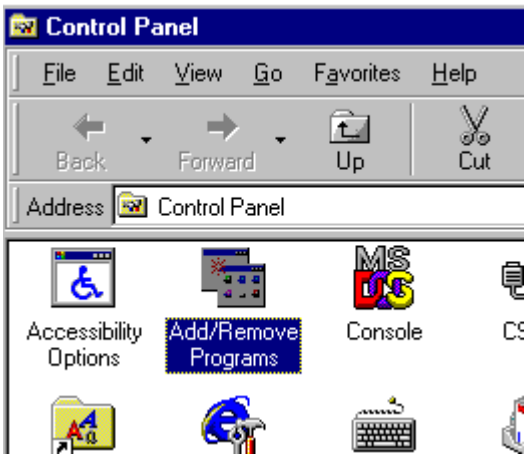


Fig. 2-11

- Select the Add/Remove Programs icon.
- Open the program by double clicking the icon with the left mouse button.

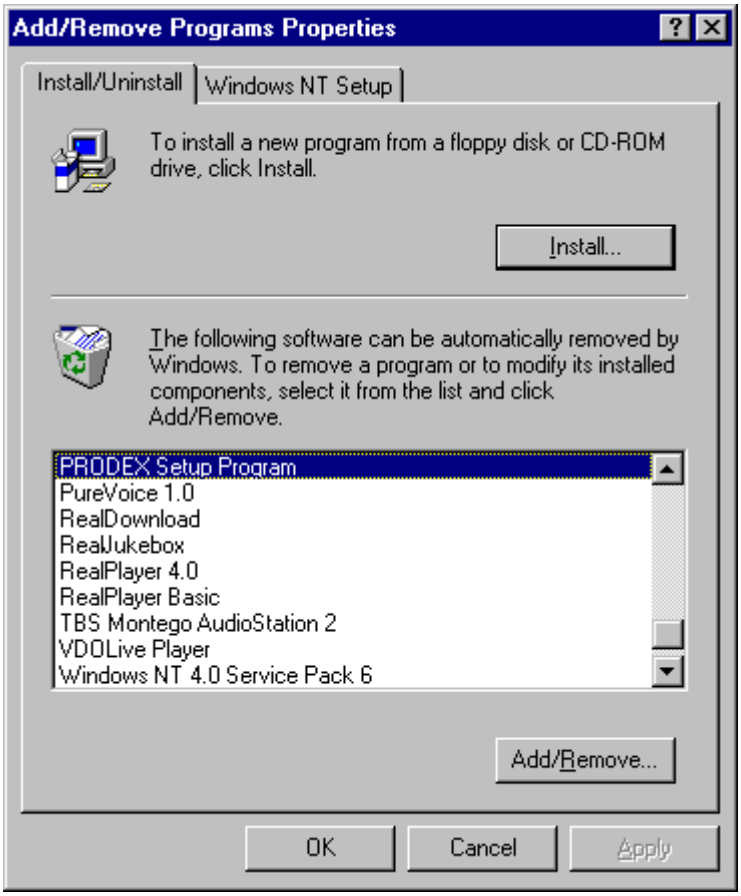


Fig. 2-12

- Browse the Prodex set-up program from the list of installed programs.
- When you have selected the Prodex-program by pressing the name with the left mouse



Fig. 2-13

button (blue highlighted), press the Add/Remove button.

- Continue by pressing Yes.
- If you want to cancel, press No.

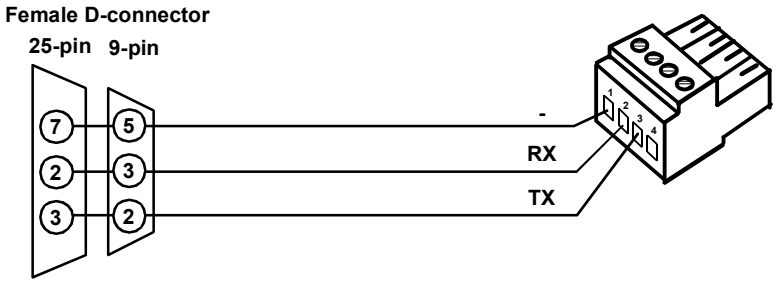
When all program components has been removed the system will inform you.



Fig. 2-14

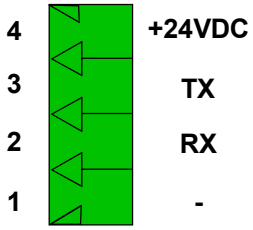
3. Connection

The connection between the PC and the Prodex system is:



Picture 3-1

The Prodex PRG-port settings are:



Picture 3-2

- Speed 9600 bps.
- Data bits 8.
- Parity None.
- Stop bits 1.

The Prodex PRG-port works only when the control panel cover is open.

Communication with the PC-software trough the PRG-port:

- Connect the PC-cable plug to connector PRG.
- Start the Prodex Set-up PC-program.
- Choose system file to open, or create a new system.
- To program the system you must unlock the system by sending the unlocking code from the programming software.
- When reading or sending data the PRG-port leds RX and TX should blink alternately.

4. The Prodex program

4.1. Program start



Clicking the icon with the left mouse button starts the Prodex set-up program. The shortcut to the program is found by pressing Start -> Programs -> Prodex Fire Panel -> Prodex set-up program.

4.1.1. Obtaining licence code

You must register the prodex set-up program to be able to run it. Hedpro Security gives the licence. You must report the PC-serial number reported by the prodex-program.

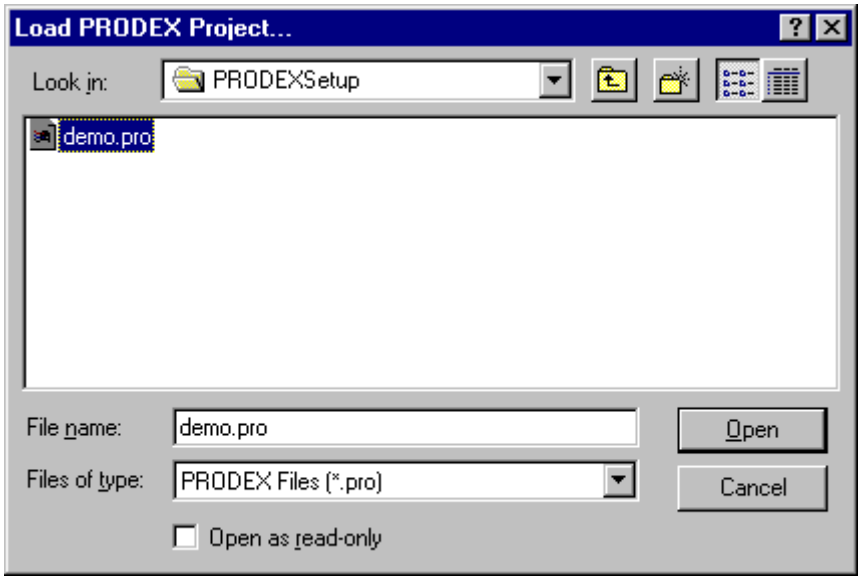


Picture 4-1

Enter the given License number and the user name. Press Update / Exit.

If the license code was entered correctly the software should open.

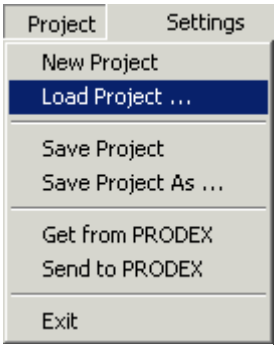
4.1.2. Load project



Picture 4-2

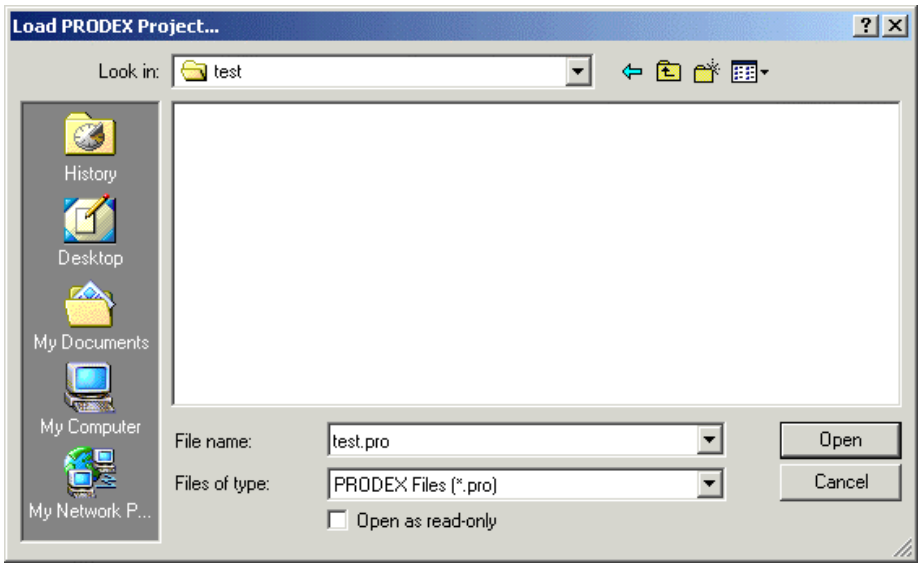
- The program starts, asking to load a prodex project file (*.pro).
- Select the project you want to open, by pressing the project with the left mouse button (blue highlighted).
- Press Open.
- If you want to create a new project press Cancel.

You can also load a new project from the Project menu.



Picture 4-3

- Select Load project.
- Enter or browse for the file you want to load.

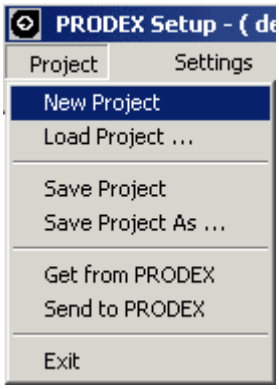


Picture 4-4

When the file name you want to load is in the “File name” field press the Open-button.

4.1.3. Create new project

- Create a new project by opening the Project menu, and by selecting ”New project”.



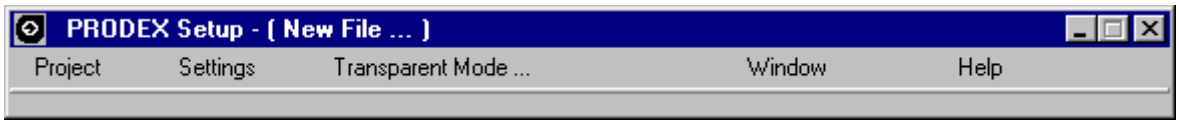
Picture 4-6



Picture 4-5

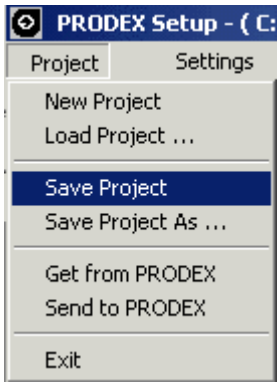
- If there was another project open, the program will ask if you want to save the open project.
- If you want to save the project press Yes.
- Press No if you don’t want to save the changes.

- Press Cancel to cancel the operation.

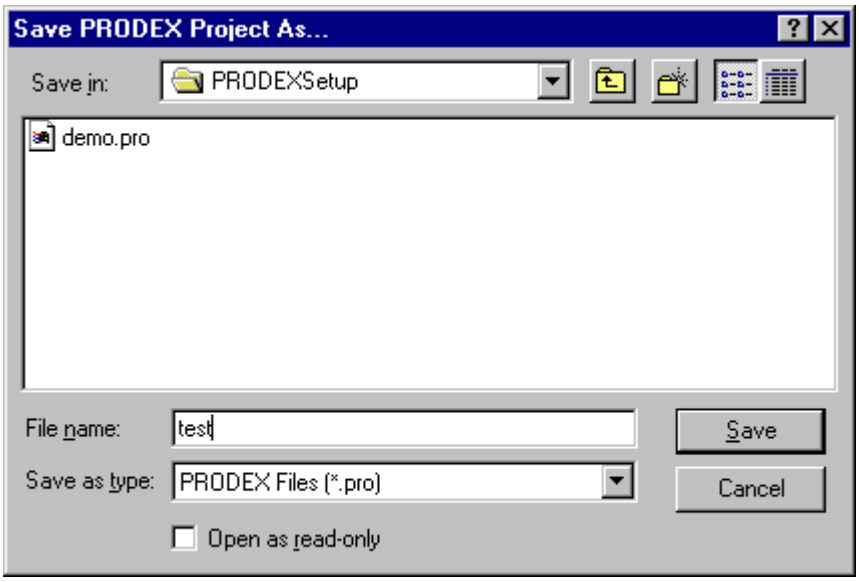


Picture 4-7

- Start by saving the new project, giving the project a name. Open the Project menu, and select ”New project”.



Picture 4-8



Picture 4-9

- Enter a name for the new project in the ”File name” field. You are not required to write this name with the file type .pro.
- Press Save to save the new project to the specified name.
- If you want to cancel the operation, press Cancel.

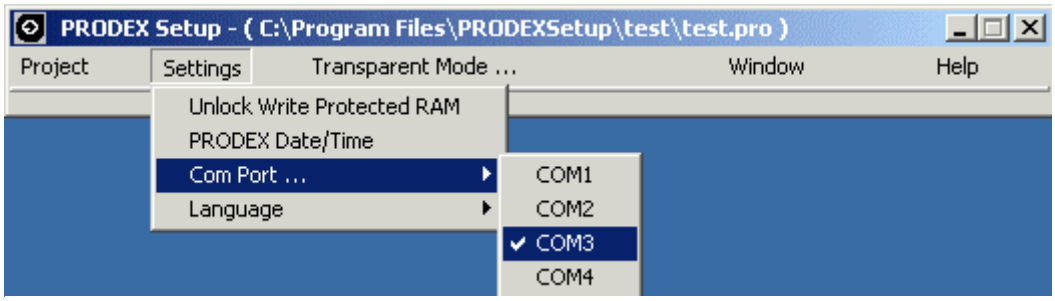


Picture 4-10

- The name of the new project is now displayed in the menu of the program, e.g. F:\program files\ProdexSet-up\test.pro.

4.2. Choosing serial port

When you have created a project you must select the serial port from which the communication to the prodex system is done.



Picture 4-11

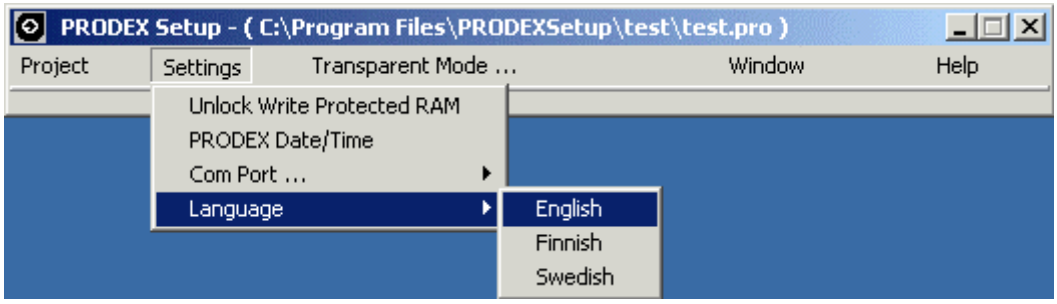
- Open the settings menu.
- Press ”Com Port”.
- Select the com port which is used for communication.
- The window will automatically close, after selection.

4.3. Choosing language

The default language is English. The language can be selected from this menu.

The possible language selections are:

- English.
- Finnish.
- Swedish.



Picture 4-12

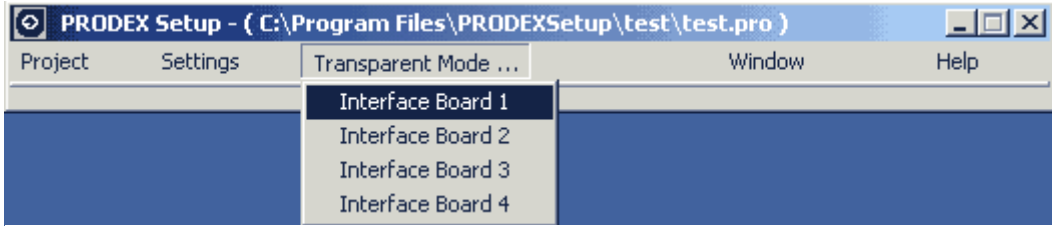
Open the settings menu.

- Press ”Language”.
- Select the desired language.
- The window will automatically close, after selection.
- All menus and text will now be shown in the selected language.

4.4. Transparent mode

This is a mode where the selected interface board (loop / line card) is accessed directly. All state changes from the card that is in transparent mode are inhibited.

Select the interface board, which you want to look more closely at.



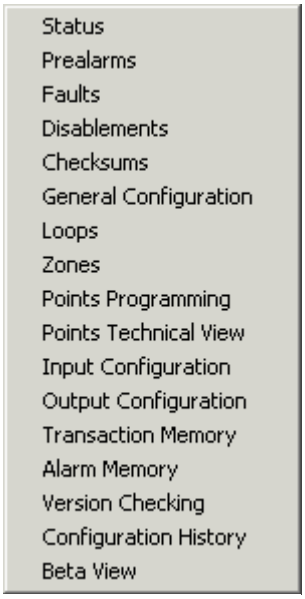
Picture 4-13

The interface mode starts a separate program, which is explained in a different instruction manual.

4.5. Programming

4.5.1. General

The programming menu is located under the window-menu.



Picture 4-14

Each of these sub menus can be opened.

You can have several sub menus opened at the same time. All open submenus are shown in this list with a check before the sub menu text.

The programming of the system is done from the following menus:

- Checksums.
- General configuration.
- Loops.
- Zones.
- Points programming.
- Input configuration.
- Output configuration.

Viewable menus:

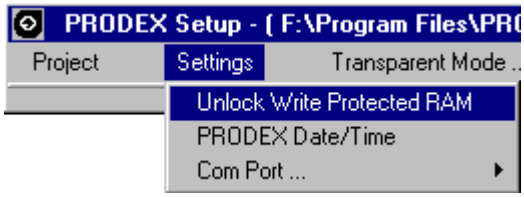
- Status.
- Pre-alarms.
- Faults.
- Disablements.
- Checksums.
- Point's technical view.
- Transaction memory.
- Alarm memory.
- Version checking.
- Configuration history.

4.5.2. Unlocking RAM protection

The prodex system doesn't allow any programming before the RAM memory has been unlocked. When the unlocking has been made the system remains unlocked thus programmable until the control panel door has been closed.

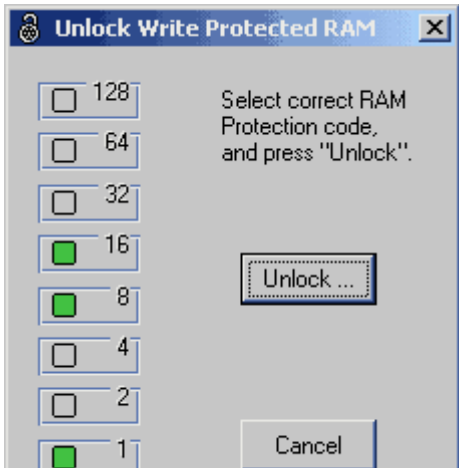
The unlocking menu is located in the Settings -> Unlocking write protected RAM.

The unlocking is indicated with the test mode led on the MUP. Make sure that this led is switched off when you have finished the programming.



Picture 4-15

- Set the correct code (green = ON) to unlock the system.



Picture 4-16

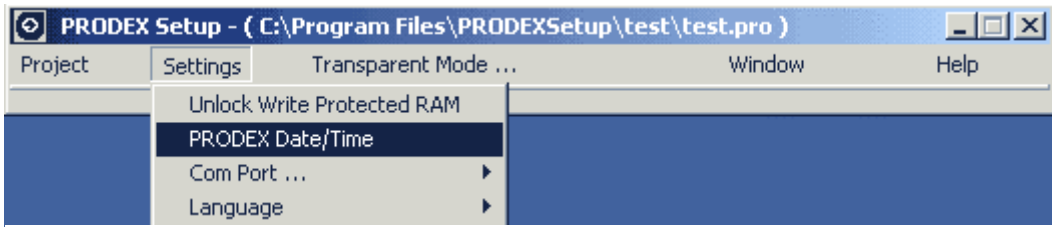
- The code must be the same as on the prodex processor card. If these codes don't match the unlocking isn't done.
- Press "Unlock" to send the code to the prodex system.
- Close the window by pressing the x in the right hand upper corner of the window.
- The unlocking is successful if the yellow led on the prodex processor card is switched on.
- The test mode led on the MUP shows that the system is unlocked.

4.5.3. Locking the RAM

The prodex system RAM must be locked when the programming has been done. Closing the control panel door does the locking.

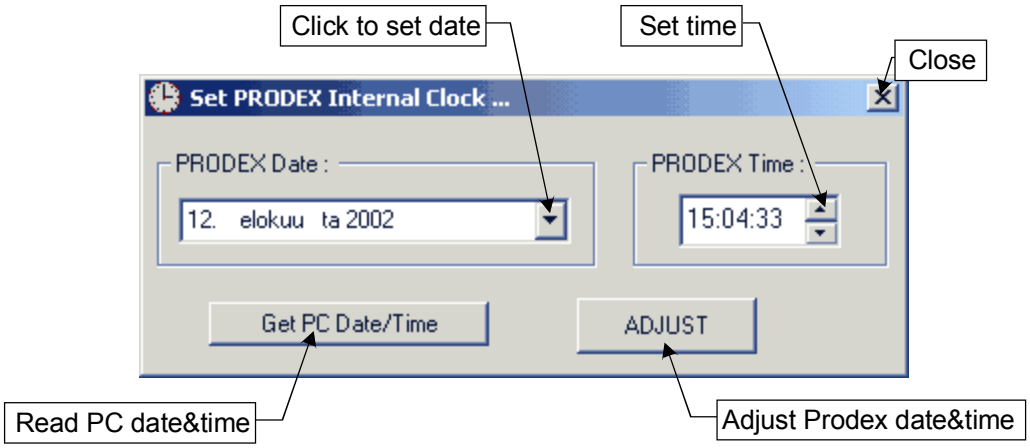
4.5.4. Setting date & time

The prodex date & time is set from this menu.



Picture 4-17

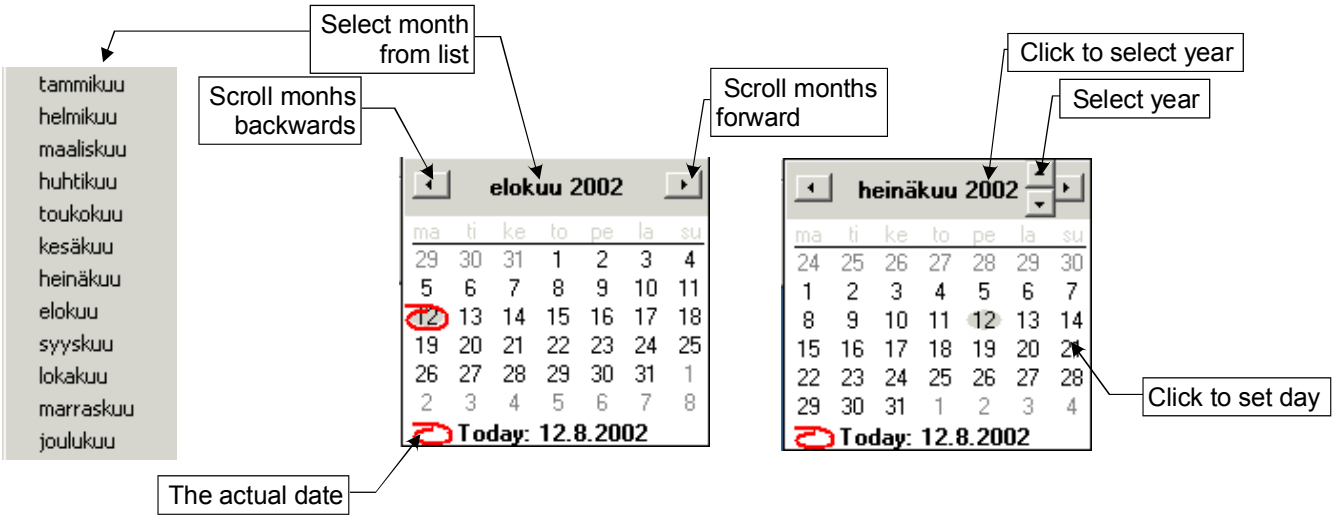
Open the settings menu, press "PRODEX date/time".



Picture 4-18

To set date:

- Press the "Click to set date" button".



Picture 4-19

Select the desired day, month and year from the window.

- Clicking the "select month from list" you are able to select the month from the popup list, which is shown. Select the month by clicking the desired month from the list.
- You can also scroll months forwards and backwards with the appropriate buttons.
- Set the year by clicking the "click to select year" field. When you click the field the program shows the controls for the year setting, beside the year field. Change year by clicking up / down.
- Select the day of month by clicking on the wanted day, which then becomes grey.
- The window is automatically closed when you double click the wanted day.

To set time:

- The time is set by clicking the time field, and selecting the hours, minutes or seconds. When you select one it becomes blue highlighted. Now set the new value with the controls beside this field. You can also use the keyboard to set the time.

Read PC date & time:

- By clicking this button you copy the actual PC date & time to the fields.

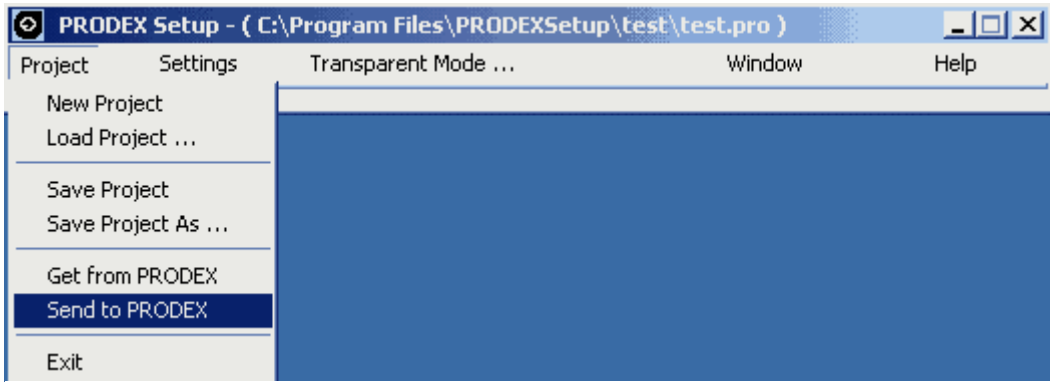
Adjust Prodex date & time:

- When you click this button the date & time shown in the fields are sent to the prodex system.

4.5.5. Transferring all prodex data

You can create projects as stand alone, without any physical contact to the actual system. Just save the project on your PC. When you then want to send this data to the system you can use this menu.

When you want to read all data from the prodex system to a new project file. First create a new project. Then read all data from the prodex system to this project file. Save the project file to the PC.



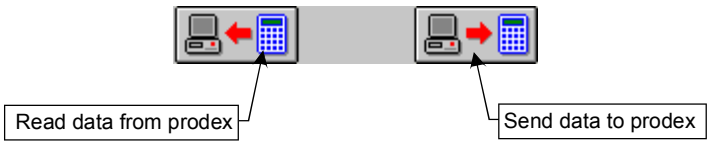
Picture 4-20

- Select “Get from PRODEX” if you want to read all prodex data.
- Select “Send to PRODEX” if you want to send all prodex data from the project file.

Remember that you have to save the read data to the project.

4.5.6. Transferring data from/to Prodex

The programming, which you make on the PC, is not automatically updated to the prodex system. You must always send / read data to / from the prodex system to update.



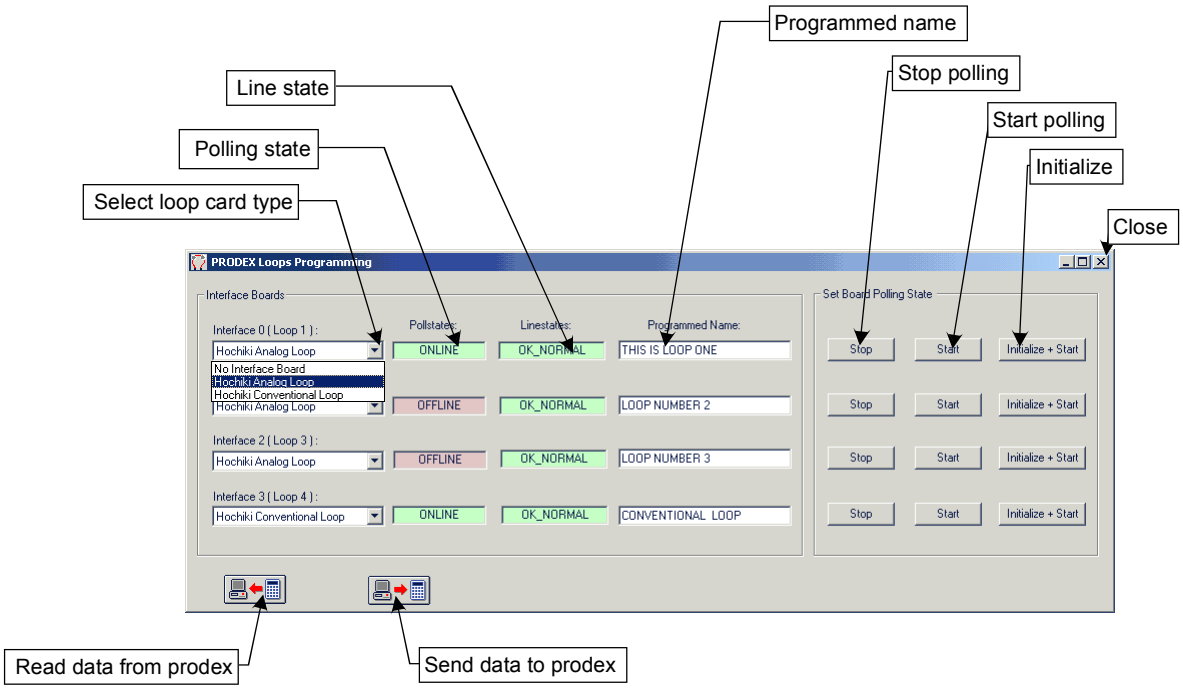
Picture 4-21

When you send or read data to / from the prodex system you must remember: In all menus where the data is displayed on separate rows you must select the rows, which you want to transfer. Painting (selecting) the row numbers does the selection.

If you are transferring only one data row you must paint the whole row not only the row number.

4.5.7. Loop cards

Before you are able to program any points you must program the type of the loop cards attached to the system.



Picture 4-22

Loop card type

Select the correct loop card type for the interface slot 1-4.

- HOAN, Hochiki analog loop card.
- HOCO, Hochiki conventional line card.
- No interface board, no card present.

Polling state

Shows the current state of the communication between the motherboard and the interface board. Green colour indicates normal state. Red colour indicates abnormal state.
The different states are:

- OFFLINE, the card has been programmed but the communication fails or is switched off.
- ONLINE, the card is present and active.
- DELAYED, this is a power save mode, which is not in use at the moment.
- INIT TO OFFLINE, the card is being initialized.
- INIT TO ONLINE, the card is being initialized.
- INIT TO DELAYED, the card is being initialized.
- PRODEX_DISBLED, the card is not programmed to the system.

Line state

Shows the current state of the loop card line. Green colour indicates normal state. Red colour indicates abnormal state.
The different states are:

- OK_NORMAL, the loop / line is ok.
- DSHORT = drive voltage too low, <36V.
- RSHORT = return voltage too low, <36V.
- DOVER = drive voltage too high, >42V.
- ROVER = return voltage too high, >42V.
- D_UNKNOWN, the drive side is faulty. For additional information open transparent mode the loop card.
- R_UNKNOWN, the return side is faulty. For additional information open transparent mode the loop card.
- MBROKEN = negative loop conductor broken, >150Ω.
- MTOOLONG = negative loop conductor too long, >80Ω.
- PBROKEN = positive loop conductor broken, >150Ω.
- PTOOLONG = positive loop conductor too long, >80Ω.
- UNKNOWN, the loop state is faulty. For additional information open transparent mode the loop card.

Programmed name

You can program a 20-character name for the interface card. This programmed name is shown in the loop display. If the interface is faulty or disabled, the name is shown in the fault or disablement windows.

Stop polling

If needed you can stop the interface card polling of the points. The communication between the motherboard and the interface card is still active. No point states can be received.

Start polling

If needed you can restart the interface card polling of the points. The interface card starts to poll the points on the loop / line without switching the power off.

Initialize + Start polling

If needed you can initialize the interface card and restart the interface card polling of the points. The interface card is restarted, all data between the motherboard and the interface board is exchanged. The power from the loop / lines is switched off and then on. This is a total reset for the points.

All changes, which are made, must be sent to the prodex system. Press send to prodex if you want to send the programmed data.

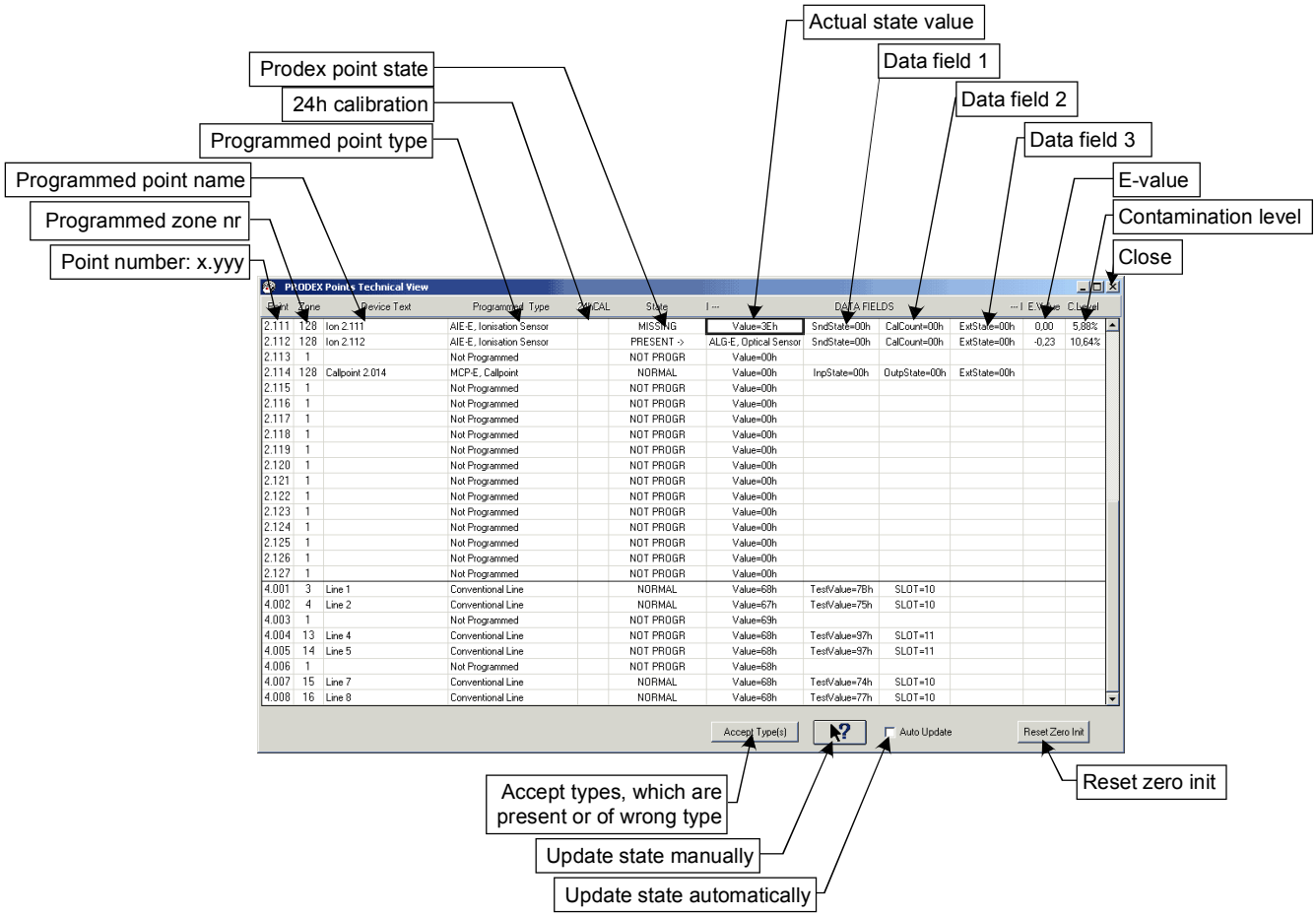
Press read from prodex, if you want to read the data from prodex or if you want to update the interface card states.

4.5.8. Points

Points technical view

This menu is designed to help with the programming of the system. Here you can view the actual state of the loop / line points.

E.g. when you are programming the system you can view all the present detector types. You can also see the state of inputs and outputs of the point modules.



Picture 4-23

Point number

The point number is presented as: x.yyy, where;

X : Loop number.

YYY : Point number / address on loop.

Programmed zone number

The points programmed zone number.

Programmed point name

The points programmed name (20 characters).

Programmed point type

The points programmed type.

The following types are supported:

- ACA-E, multi sensor (heat + smoke)
- AIE-E, optical smoke sensor
- ALG-E, ionisation smoke sensor
- ATG-E, heat sensor
- CHQ-B, bell module
- CHQ-BS, wall sounder
- CHQ-MZ, mini zone module, 1 conventional slave line
- CHQ-R, relay module
- CHQ-S, switch module
- CHQ-SIO, single input output module
- CHQ-Z, dual zone module (for 2 conventional slave lines.)
- MCP-E, call point

- Conventional line. This type is chosen regardless of conventional detector type.

24h calibration

If you have defined that the system makes a calibration of all analog points each 24h, then this shows the status of the calibration. If this 24h is checked it means that this point is currently being calibrated.

Prodex point state

Point state of the prodex control panel. The following states are possible:

Text:	Information:	Cause / Action:
NORMAL	The point is OK	-
ALARM	The point is in alarm state.	
PRE ALARM	The point is in pre alarm state.	
NOT PROGRAMMED	No programmed point. No point found at the address.	-
RECOVERED	The faulty point has recovered	No fault anymore
RECOVERING… (xx)	The point is recovering from a fault	The point is recovering from an abnormal state.

	fault.	
MISSING	The point has been programmed but can no longer be located on the loop.	Wrong address set, faulty programming.
WRONG TYPE	The point has another type then the programmed type.	Wrong programmed type. Wrong address.
DOUBLE ADDRESS	Two or more points with the same address on the loop.	Faulty address programming.
CALIBRATION ERROR	The contamination level has exceeded to a level above which the calibration can no longer be made.	The sensor, chamber must be replaced.
INTERNAL FAULT	The point has a internal fault	The sensor, chamber must be replaced.
RESET FAILS	The point could not be reset	No actual fault, too much smoke or heat
PRESENT	A point which hasn't been programmed is detected on the loop	Not indicated as a fault. Program the point. Remove the additional point. Indicated with the call service led!
FIRE TEST FAILS	The point has failed the fire test, which is carried out by the program each 24 hours.	Replace the sensor.
EXTERNAL FAULT	The point has a base sounder which is faulty. This can also be a module, which has a fault on the slave lines.	Module: Slave line fault. Inputs or outputs faulty. Sensor: The base sounder of the sensor is faulty.
DUMMY	The point type is being detected.	
INIT CHECK	The point has answered	
INIT CHECK TYPE	The point type is verified	
INIT CALIB ZERO	The points zero point level is	

	calibrated	
INIT CALIB CLOSE	The calibration is tested	
TEST INTSET	Test alarm is set	
TEST INTALARM RESET	Test alarm is reset	

Actual state value

This field shows has different purposes depending on type and state of the point.

- In normal cases the point's hexadecimal value is shown here.
- If no type has been programmed or the type is wrong the program shows the actual type here.
- If the point is being calibrated the status of the calibration is shown here.

Data field 1

Sensors:

- Points with base sounder: sndstate=01h.
- Points without base sounder: sndstate=00h.

Modules:

This is the actual state of the inputs within a module.

- 00 = Input 1 / 2 Close. State OK.
- 01 = Input 1 Open. State OK.
- 02 = Input 1 Short circuit. State faulty.
- 03 = Input 1 Short or open circuit. State faulty.
- 04 = Input 2 Open. State OK.
- 08 = Input 2 Short circuit. State faulty.
- 0C = Input 2 Short or open circuit. State faulty

Data field 2

Sensors:

This field shows the calibration count for smoke and heat sensors. The calibration count indicates how many times the sensor calibration has failed. If the calibration fails the program tries to calibrate the sensor again 2 times before the new calibration time elapses. If the calibration fails 9 times in a row the system will indicate a point contamination fault. The call service indicator and the possible output are activated.

Modules:

This field shows the actual state of the outputs within a module.

- 00 = Output 1 / 2 OFF. State OK.
- 01 = Output 1 ON. State OK.
- 02 = Output 1 blink. State OK.
- 04 = Output 2 ON. State OK.
- 08 = Output 2 blink. State OK.
- 10 = Output 1 OPEN. State OK (Bell module).
- 20 = Output 1 SHORT, State faulty (Bell module).
- 40 = Output 2 OPEN. State OK (Bell module).

- 20 = Output 2 SHORT, State faulty (Bell module).

Data field 3

Sensors:

If the point has a base sounder mounting base the state of that sounder is shown here.

Modules:

The slave line state of a module (CHQ-Z, GHQ-MZ) is given here.

Faults on the base sounder mounting base is reported here.

E-value

This engineer-value is the actual level read by the sensor.

- For smoke sensors this value is smoke density in % / m.
- For heat sensors this value is the temperature in °C.

Contamination level

The contamination level of a smoke sensor is reported here. If the level exceeds 85% the system turns the call service led on. Outputs programmed as “call service” outputs are also activated.

Close

Pressing this button closes the menu.

Accept types

If you want to accept the new found types for present or wrong type detectors, you select the rows that you want to accept and press the button. A row is selected by “painting” the point number column with the mouse.

Update state manually

You can update the state of the points shown on the display by pressing this button.

Update state automatically

Check this option if you want that the states of the points on the display are updated automatically every 1.5s.

Reset zero level

Points programming

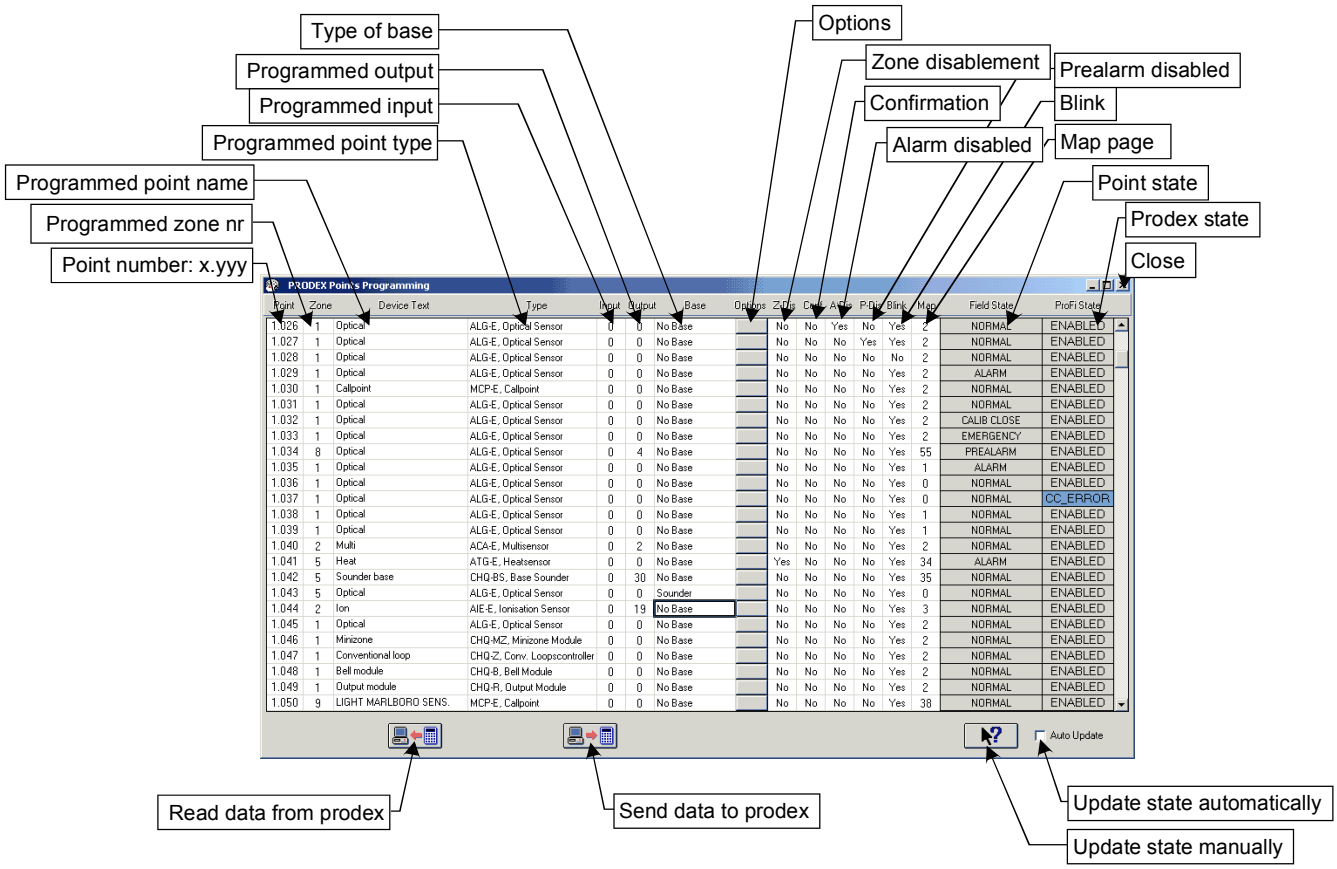
In this menu you program all points for the system. These points are located on loop cards.



The maximum point count for an analog system is 508.
The maximum point count in a conventional system is 512.

The analog loop card points are numbered from 1 to 127.

If you have a conventional line card in the system, it has only 8 programmable points. In this case these points are conventional lines, which can have up to 32 detectors for each line.



Picture 4-24

Point number

The point number is presented as: x.yyy, where;

X : Loop number.

YYY : Point number / address on loop.

Programmed zone number

The points programmed zone number, possible value 1 - 128.

The point must belong to a zone.

Programmed point name

The points programmed name (20 characters).

Programmed point type

The points programmed type.

The following types are supported:

- ACA-E, multi sensor (heat + smoke)
- AIE-E, optical smoke sensor
- ALG-E, ionisation smoke sensor
- ATG-E, heat sensor
- CHQ-B, bell module
- CHQ-BS, wall sounder
- CHQ-MZ, mini zone module, 1 conventional slave line
- CHQ-R, relay module
- CHQ-S, switch module
- CHQ-SIO, single input output module
- CHQ-Z, dual zone module (for 2 conventional slave lines.)
- MCP-E, call point

- Conventional line. This type is chosen regardless of conventional detector type.

Programmed input

Also see chapter input configuration.

For Each module with an input you can define an input number, which has a programmed function. If the module has 2 or more inputs the number defined is the function for the first input. The inputs following that one will automatically have the function of the following input table functions. E.g. you have defined that input 1 is “extinguishers activated “input and input 2 is” ventilation stopped”. You use a CHQ-S, switch module, which has 2 inputs. You define number 1 as the programmed input for the module. The module input nr 1 now indicates “extinguishers activated” and input nr 2 indicates “ventilation stopped”. Possible values between 1 and 255 are allowed.

Programmed output

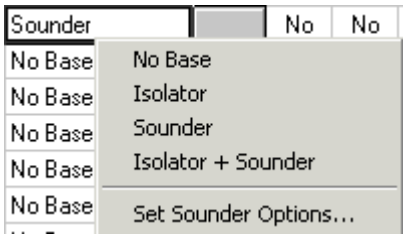
Also see chapter output configuration.

If the sensor has a sounder mounting base you define the function of the base sounder here. Define an output function number between 1 and 255. The output number refers to the output configuration table

For Each module with an output you can define an output number, which has a programmed function. If the module has 2 or more outputs the number defined is the function for the first output. The outputs following that one will automatically have the function of the following output table functions. E.g. you have defined that output 1 is “general fault” output and output 2 is “alarm from zone”. You use a CHQ-R, relay module, which has 2 outputs. You define number 1 as the programmed output for the module. The module output nr 1 now indicates “general fault” and output nr 2 indicates “alarm from zone”. Possible values between 1 and 255 are allowed.

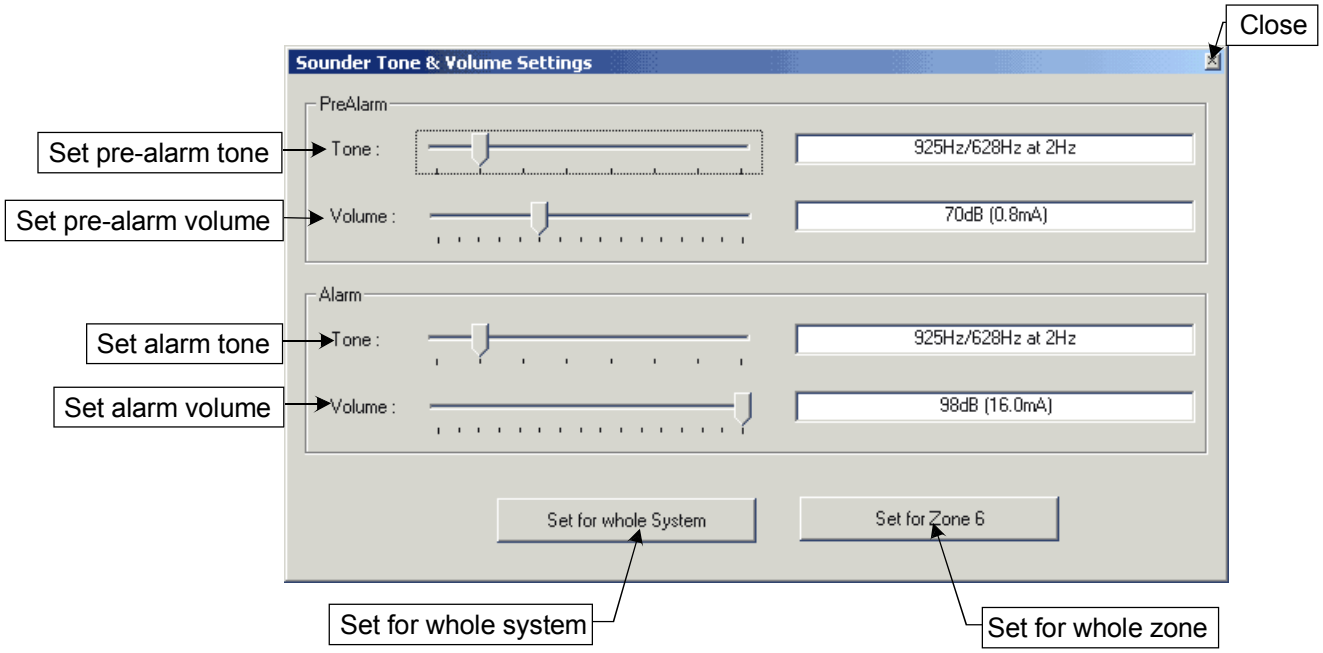
Type of base

For each analog sensor you can define a base. The base types are:



Picture 4-25

- No base, which means a normal mounting base.
- Isolator, which means a short circuit isolator base. Programming this isolator base doesn't affect the system. It's only as an indication for the programmer / user, that a short circuit isolator has been mounted here. In case of a short circuit the short circuit isolator prevents the loops other side from being short-circuited.
- Sounder, which means a base with a sounder feature. The sound and the sound level can be programmed. The programmed point output controls the base sounder, which can be activated i.e. alarm from the same zone as the point.
- Isolators+ sounder, which is a combination of the above, mentioned ones.
- Set sounder options. This opens the sounder settings.



Picture 4-26

With the sounder options you can set:

- Pre-alarm tone.
- Pre-alarm volume
- Alarm tone.
- Alarm volume.

Set tone and volume by dragging the tone and volume bars left or right. The field on the right side shows the selected tone and volume.

The selectable tones:

Tone number	Tone _& frequency
0	Sounder off
1	925Hz / 628Hz @ 2Hz
2	925Hz continuous
3	628Hz continuous
4	French 554Hz 100ms / 440Hz 400ms
5	Swedish 660Hz 150ms ON / 150ms OFF
6	925Hz 150ms ON / 600 ms OFF
7	670Hz 250ms / 845Hz 375ms

Selectable volumes:

Current [mA]	Volume (tones 2&3) [dB]	Notes
-	-	Sounder off
0,8	70	
1,5	78	
6,5	90	
2,0	80	
3,0	85	Default value
8,0	93	
4,5	88	
10	94	
11	95	
16	98	

Options

By pressing this button you can configure pre-alarm and alarm levels on analog smoke and heat sensors.

For EN54 compliance the sensor alarm thresholds should never be set out of range.

You can set pre-alarm thresholds as you like, without affecting the EN-54 compliance.

For heat sensors the fire alarm threshold level needs to be set to meet the requirements of EN54 standard. At the moment there are different standards in force depending upon the normal ambient temperature. Heat sensor fire alarm thresholds in EN54:

EN54 Part	Grade	Temperature [°C]
5	1	56
5	2	60
5	3	65
8	1	79

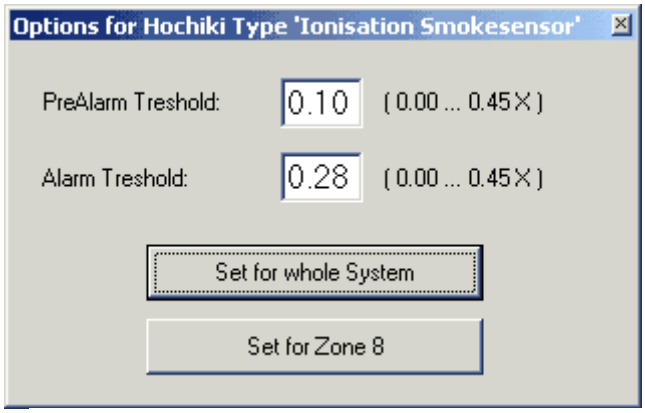
Smoke sensor fire alarm thresholds should be set to 0.28X to comply with EN54 part 7 requirements.

The threshold can be changed for:

- Only the selected sensor.
- The zone of the sensor (all sensors with the same type are affected).
- The entire system (all sensors with the same type are affected).

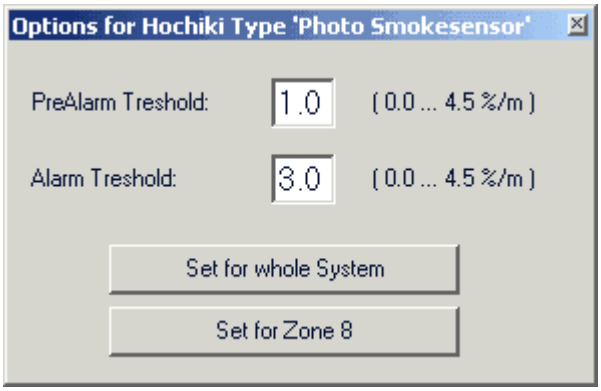
Set the wanted thresholds; press the desired button (zone or system), close window by clicking the x-button.

Changing the threshold for Ionisation smoke sensor.



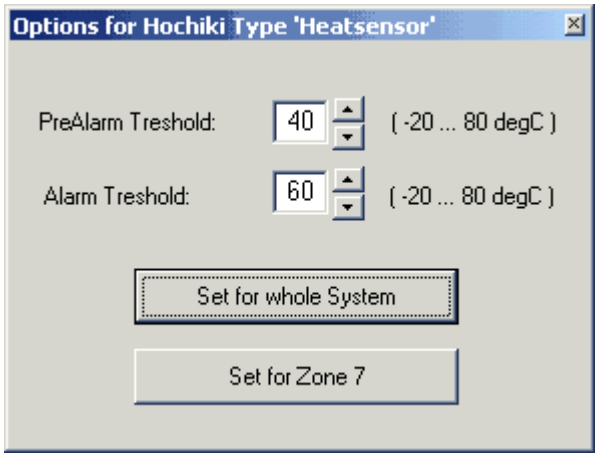
Picture 4-27

Changing the threshold for Photo smoke sensor.



Picture 4-28

Changing the threshold for Heat sensor.

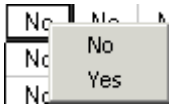


Picture 4-29

Zone disablement

This feature allows you to select if the point is disabled when the zone to which it belongs is disabled.

You can change this option by clicking the field with the right mouse button.



Select YES if you want the point to be disabled when the zone is disabled, otherwise NO.

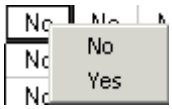
Confirmation

For Hochiki compliance you should always set this confirmation on for the sensors:

- ALG-E, optical smoke.
- AIE-E, ionisation smoke sensor.
- ACA-E, multi sensor.

This feature allows you to select if the point has an additional delay of about 10s before it changes state.

You can change this option by clicking the field with the right mouse button.

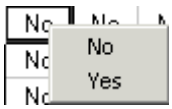


Select YES if you want the point to have an additional 10s delay, otherwise NO.

Alarm disabled

This feature allows you to disable the point's fire alarm function.

You can change this option by clicking the field with the right mouse button.

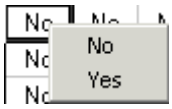


Select YES if you want to disable the point's fire alarm function, otherwise NO.

Pre-alarm disabled

This feature allows you to disable the point's pre-alarm function.

You can change this option by clicking the field with the right mouse button.



Select YES if you want to disable the point's pre alarm function, otherwise NO.

Blink

This feature selects whether the sensor leds blink or if they don't blink when polled.

This feature is not supported at the moment.

Map page

Defining a map page (coordinate) for each point helps the firemen to locate the fire. The coordinate is shown in the alarm state display of the user panel.

Possible values between 1 and 255 are allowed.

Point state

The following states are possible:

Text:	Information:	Cause / Action:
NORMAL	The point is OK	-
ALARM	The point is in alarm state.	
PRE ALARM	The point is in pre alarm state.	
NOT PROGRAMMED	No programmed point. No point found at the address.	-
RECOVERED	The faulty point has recovered	No fault anymore
RECOVERING… (xx)	The point is recovering from a fault.	The point is recovering from an abnormal state.
MISSING	The point has been programmed but can no longer be located on the loop.	Wrong address set, faulty programming.
WRONG TYPE	The point has another type then the programmed type.	Wrong programmed type. Wrong address.
DOUBLE ADDRESS	Two or more points with the same address on the loop.	Faulty address programming.

CALIBRATION ERROR	The contamination level has exceeded to a level above which the calibration can no longer be made.	The sensor, chamber must be replaced.
INTERNAL FAULT	The point has a internal fault	The sensor, chamber must be replaced.
RESET FAILS	The point could not be reset	No actual fault, too much smoke or heat
PRESENT	A point which hasn't been programmed is detected on the loop	Not indicated as a fault. Program the point. Remove the additional point. Indicated with the call service led!
FIRE TEST FAILS	The point has failed the fire test, which is carried out by the program each 24 hours.	Replace the sensor.
EXTERNAL FAULT	The point has a base sounder which is faulty. This can also be a module, which has a fault on the slave lines.	Module: Slave line fault. Inputs or outputs faulty. Sensor: The base sounder of the sensor is faulty.
DUMMY	The point type is being detected.	
INIT CHECK	The point has answered	
INIT CHECK TYPE	The point type is verified	
INIT CALIB ZERO	The points zero point level is calibrated	
INIT CALIB CLOSE	The calibration is tested	
TEST INTSET	Test alarm is set	
TEST INTALARM RESET	Test alarm is reset	

Prodex state

Normally the enabled / disabled status of the point's is shown here.

- ENABLED: The point is enabled its current state affects the system.
- DISABLED: The point is disabled its current state doesn't affects the system.

An exceptional state is indicated with blue colour.

- CC_ERROR: The point calibration has failed.

Update state manually

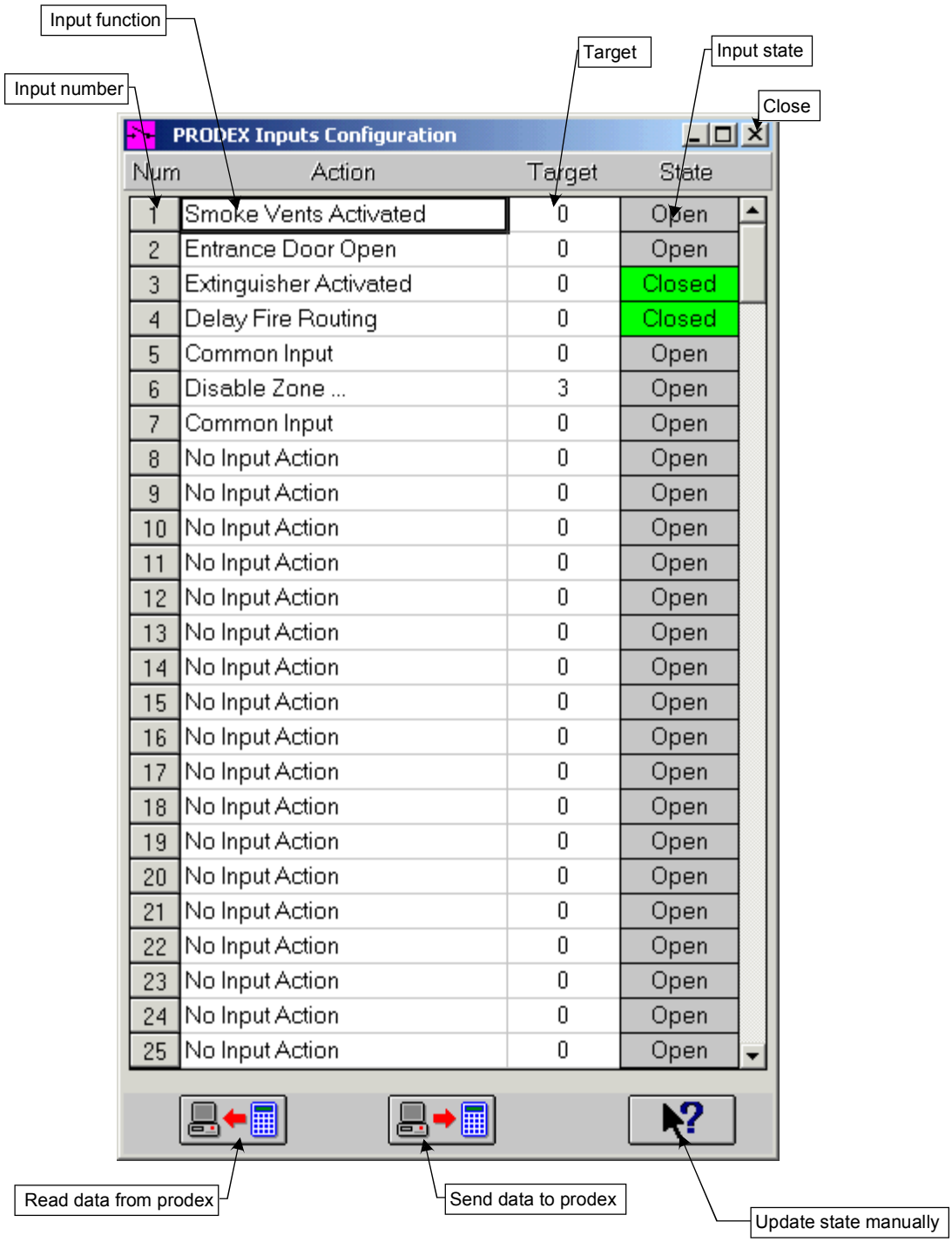
You can update the state of the points shown on the display by pressing this button.

Update state automatically

Check this option if you want that the state of the points on the display to be updated automatically every 1.5s.

4.5.9. Input configuration

You can configure up to 255 input functions, which can be bound to different inputs of the system. The inputs can activate leds and or outputs of the system. Each input will be registered in the transaction memory.

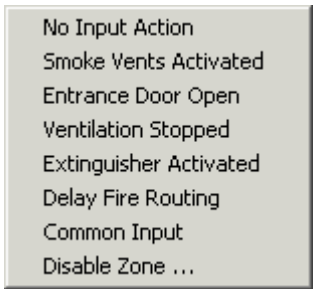


Picture 4-30

Input number

You can configure 255 different input functions. This number is referred to when you set the input for a point or the main board.

Input function



Picture 4-31

You select an input function for the selected input by clicking the field with the right mouse button. Select the function with the left mouse button.

The following types are supported:

Function:	Explanation:	Target:
No input function	The input function isn't in use.	-
Smoke vents activated	The input activates the "Smoke vents activated" led or output.	-
Entrance door lock open	The input activates the "Entrance door lock open" led or output.	-
Ventilation stop	The input activates the "Entrance door lock open" led or output.	-
Extinguishers activated	The input activates the "Extinguishers activated" led or output.	-
Delay fire routing	The input buys additional time before the fire routing device is activated. This additional delay delays the fire routing. The delay is set in the general configuration menu. Note! The zone must be delayed!	-
Common input	The input controls an output, which is programmed to	Output number 1 – 255.

	which is programmed to follow the input. The output type is named redirected input.	
Disable zone		Zone number 1 – 128.

Target

For the disable zone type input you can define a target, which means the zone number (1-128), which is disabled when the input is activated.

Enter the zone number (1-128), which you want to be disabled.

Input state

The states of the inputs are shown in this column.

- Open input: grey colour, the input isn't active.
- Closed input: green colour, the input is active.

The states of the inputs must be updated, see Update state manually.

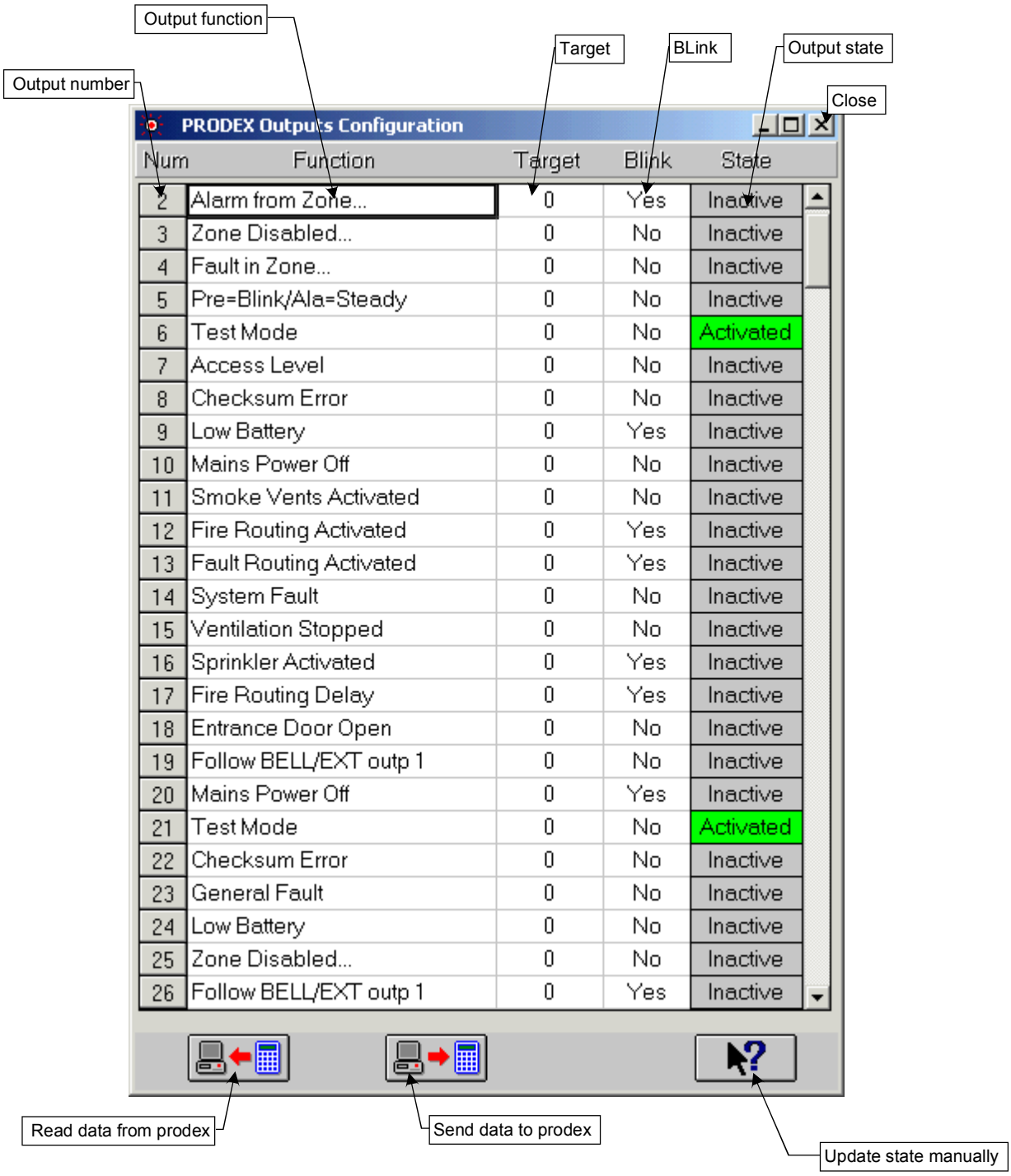
Update state manually

You can update the state of the inputs shown in the menu by pressing this button.

4.5.10. Output configuration

You can configure up to 255 output functions, which can be configured for different functions within the system. All output activations will be registered in the transaction memory.

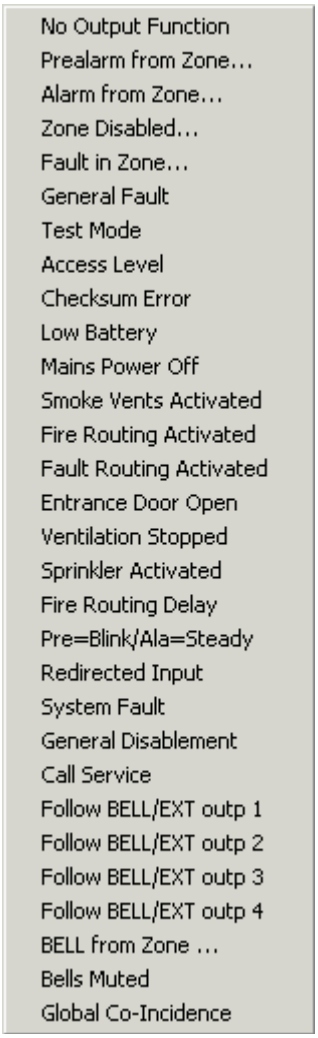
Output number



Picture 4-32

Output function

You can configure 255 different output functions. This number is referred to when you set the output for a point or the main board.



Picture 4-34

You select an output function for the selected output by clicking the field with the right mouse button. Select the function with the left mouse button.

The following types are supported:

Function:	Explanation:	Target:
No output function	The output function isn't in use.	-
Pre-alarm from zone	The output is activated when a pre-alarm from the target zone is detected.	Zone number 1 – 128.
Alarm from zone	The output is activated when a pre-alarm from the target zone is detected.	Zone number 1 – 128.
Zone disabled	The output is activated when the target zone is disabled.	Zone number 1 – 128.
Fault in zone	The output is activated when the target zone is faulty.	Zone number 1 – 128.
General fault	The output is active when the system is in fault state.	-
Test mode	The output is active when the system is in test mode.	-
Access level	The output is active when the target access level is active	Access level 1 – 4.
Checksum error	The output is activated when the system detects a checksum error.	-
Low battery	The output is active when the battery voltage is below the set level.	-
Mains power off	The output is active when the system is supplied with battery power only.	-
Smoke vents activated	The output is activated with an input, which is programmed as "smoke vents activated".	Input number.
Fire routing activated	The output is active when the system fire routing output is activated.	-
Fault routing activated	The output is active when the system fault routing output is activated.	
Entrance door lock open	The output is activated with an input, which is programmed as	Input number.

	"Entrance door lock open".	
Ventilation stopped	The output is activated with an input, which is programmed as "Ventilation stopped".	Input number.
Sprinkler activated	The output is activated with an input, which is programmed as "Sprinkler activated".	Input number.
Fire routing delay	The output is active when the system fire routing is delayed (alarm active, but still delayed).	-
Pre=blink / ala=steady	The output is active when the system is in pre-alarm (output blinks) or in alarm state (output is steady).	-
Redirected input	The output follows an input, which is programmed as "common input" is activated".	Input number.
System fault	The output is active when the system is in "system fault" state.	-
General disablement	The output is active when something in the system has been disabled.	-
Call service	The output is active when the call service led is on.	-
Follow BELL / EXT output 1	The output follows the BELL/EXT 1 output.	-
Follow BELL / EXT output 2	The output follows the BELL/EXT 2 output.	-
Follow BELL / EXT output 3	The output follows the BELL/EXT 3 output.	-
Follow BELL / EXT output 4	The output follows the BELL/EXT 4 output.	-
BELL from zone		Zone number 1 – 128.
Bells muted	The output is active when the bells have been silenced.	Zone number 1 – 128.
Global co-incidence	The output is active when a co-incidence detection has occurred.	-

All outputs are reset when the state, which they follow, is normalized.

Target

For the certain output types you can define a target. See table. E.g. the target can be a zone number (1-128) or an input number. Enter the number (1-128), which you want the output to follow.

Output state

The states of the outputs are shown in this column.

- Inactive output: grey colour, the output isn't active.
- Activated output: green colour, the output is active.

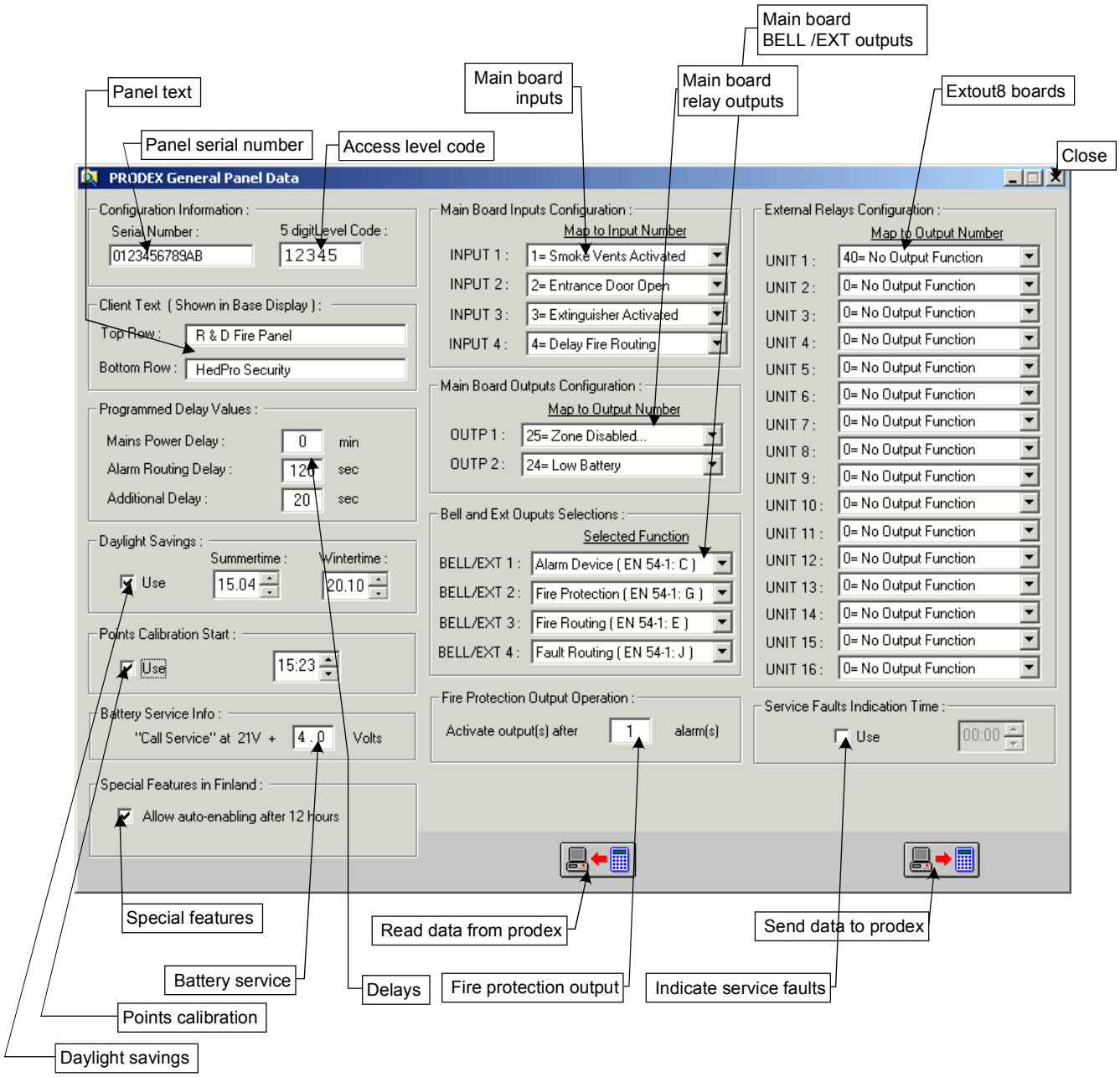
The states of the outputs must be updated, see Update state manually.

Update state manually

You can update the state of the outputs shown in the menu by pressing this button.

4.5.11. General configuration

In this menu you configure the general data of the system. This includes; delays, different variables, main board inputs and outputs, access code etc.



Picture 4-35

Panel text

The panel text is the 2-row text, which is shown in the base display on the user panel. You can configure maximally 20 character long texts on each of the rows.

Panel serial number

This shows the panel serial number. The serial number is set at the factory and cannot be changed from this program.

The format of the serial number is:

MMYYTTTT.XXX

Where;

- MM = production month.
- YY = production year.
- TTTT = type, e.g. S500 (standard prodex 500 control panel).
- XXX = running serial number for each production month.

Access level code

You must define an access level code, which is used when the user wants to disable monitoring, disable routing devices, perform tests etc.

The code must be 5-digits long.

Main board inputs

The main board has 4 NO (normally open) inputs, which can be programmed.

Select the function of the main board inputs by pulling down the menu and selecting the wanted function. The input functions have been made in the input configuration menu, see Input configuration.

Select “no input action” if you don’t use the input.

Main board relay outputs

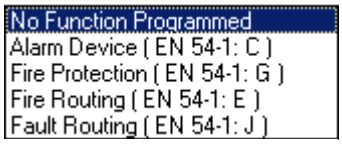
The main board has 2 programmable relay outputs, which can be configured either NO (normally open) or NC (normally closed).

Select the function of the main board relay outputs by pulling down the menu and selecting the wanted function. The output functions have been made in the output configuration menu, see Output configuration.

Select “no output function” if you don’t use the output.

Main board BELL / EXT outputs

The main board has 4 24V voltage outputs, which can be configured.



Picture 4-36

The following types are possible:

Function	Explanation	Note
No function	The output is disabled	No EOL device is needed.
Alarm device (EN54-1 C)	Normal bell / sounder output	EOL device is needed.
Fire protection (EN54-1 G)	E.g. for extinguishers, sprinklers etc.	Must be used with Prodex-OPCO. Activation time, alarm count can be set.
Fire routing (EN54-1 E)	If	Must be used with Prodex-OPCO.
Fault routing (EN54-1 J)		Must be used with Prodex-OPCO.

Extout8 boards

You can connect maximally 16 EXTOUT-8 relay cards to the system. This relay card consists of 8 potential free relays, which can be configured separately either normally open (NO) or normally closed (NC).

Select the function of the each relay card by pulling down the menu and selecting the wanted function.



You set the function for the first relay on each card only. The next relays on that card will follow the seven next functions defined in the output configuration table.

The output functions have been made in the output configuration menu, see Output configuration.

Select “no output function” if you don’t use the relay card.

Daylight savings

This feature is used to automatically change summertime / wintertime.

Check this feature, and set the dates from summertime / wintertime changes.

The clock is automatically set forward or backwards at 3.00 AM or 4.00AM depending if the change is to or from summertime.

Points calibration

To achieve Hochiki compatibility it is recommended that the points be calibrated each 24h. The calibration time should be set to a time when no outside disturbances (ambient smoke or heat) influence the calibration. The time when the calibration starts can be set with this function.

Check this feature and set the time when you want the calibration to start.

The calibration routine calibrates one point from each loop at the same time. When that point has been calibrated the system moves on to the next point in the loop. This goes on until all points have been calibrated. The calibration

Battery service

The system gives a battery fault at 21V. When only batteries power the system it will work for 1 hour after this fault indication. After this the system is powered down automatically to prevent permanent battery damage.

You can set the battery voltage level at which the “call service” led is switched on. This level can be set to 21V + x.x V.

Enter the additional voltage level when you want the “call service”-led to be switched on.

This “call service” can be routed to an output of the system.

Special features

This special feature is specially designed for Finnish use.

When checked, this function will automatically enable the routing device outputs of the system when they have been disabled for 12h.

Delays

These delays can be configured:

Function	Use	Notes
Mains power delay	This defines the delay of the fault routing outputs when only batteries power the system.	The time is set in [min]. The maximum delay is 30min.
Alarm routing delay	This defines the delay for the delayed zone of the system. The alarm routing device is delayed the set delay time. An alarm from another not delayed zone will action the output immediately.	The delay is set in [s]. The maximum delay is 600s.
Additional delay	This is the additional delay, which can be accessed from the user panel. When a delayed zone is in alarm state and the alarm routing output is delayed, you can delay the output furthermore to a total maximum of 600s (alarm routing delay + additional delay). Each pressing of the delay-button delays the output with the additional delay time.	The delay is set in [s]. The maximum delay is 60s.

Define the delays by clicking the fields with the mouse and enter the wanted value.



The system checks the values, which are entered. If they are off limits the value in the field is automatically set to 0.

Fire protection output

The fire protection output (EN54 type G), if defined can be configured so that it won't be switched on when the first alarm occurs. This prevents the building from being damaged in case of a mistake (only one point has alarmed).

Define the alarm count after which you want the fire protection output to be switched on by clicking the fields with the mouse and enter the wanted value.

The possible values are 1 – 9.

Indicate service faults

The call service indication is switched on when a point is contaminated or when the battery voltage is below the call service level.

This allows you to set the time when you want the system to indicate the call service.

Define the time after which you want the call service to be indicated by clicking the field with the mouse and enter the wanted time.

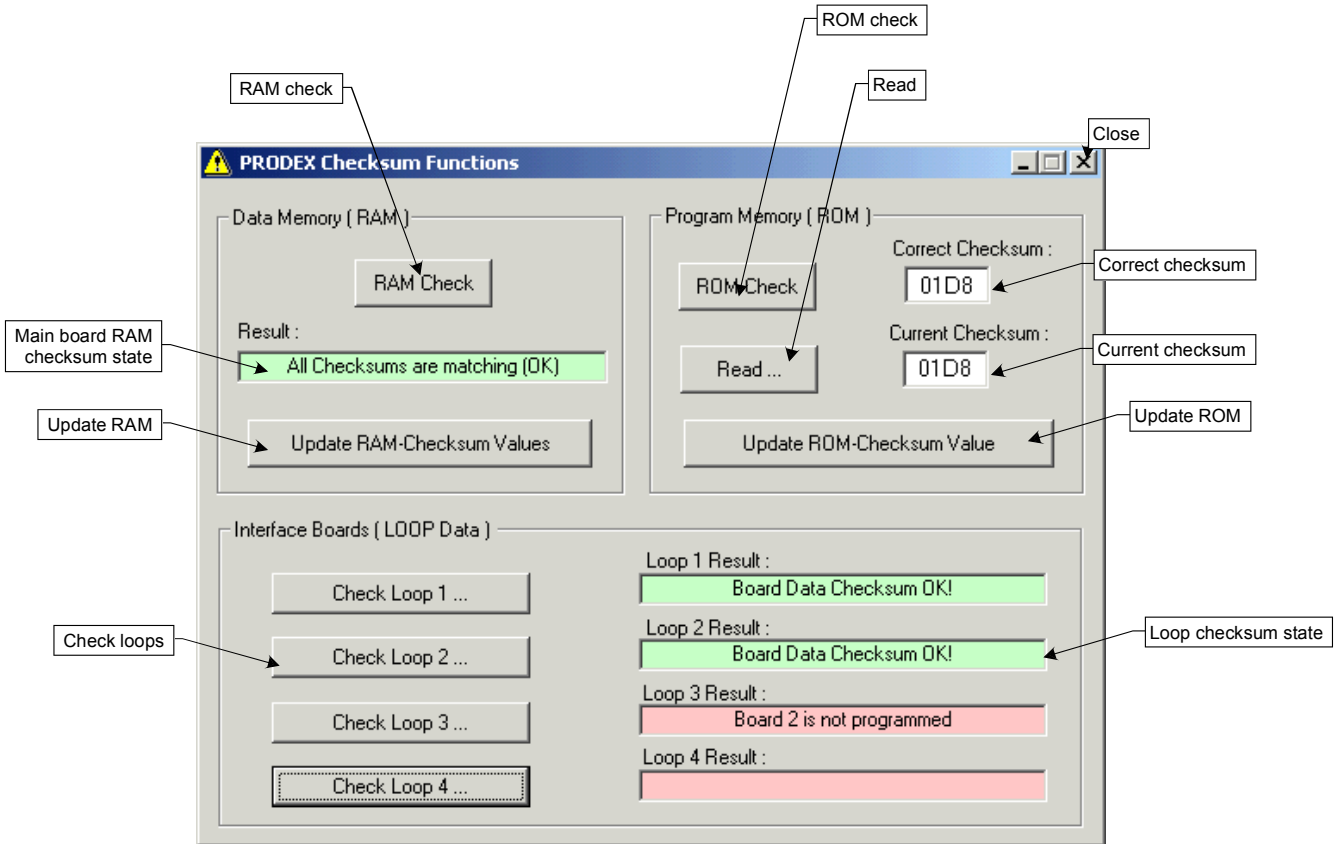
4.5.12. Checksums

When you change program versions or make changes in the programming you must always update the checksums.

The system calculates the checksums each hour automatically.

This menu shows the state of the checksums of the system. Here you can also update checksums and force the checksum calculation.

Every time when you make changes to the programming of the system you must update the checksum. If you don't update the checksum the system will detect a checksum error within 1 hour. This checksum error activates the fault routing outputs of the system.



Picture 4-37

ROM check

Pressing this button activates the function, which returns the main board ROM checksum, calculated from the ROM memory. This function also compares this checksum against the stored checksum. If these two checksums doesn't match a fault is indicated. This function is automatically preformed each hour.

Correct checksum

This window shows the correct ROM checksum read from the main board.

Read

Pressing this button activates the function, which returns the stored checksum. This stored checksum is compared against the calculated ROM checksum.

Current checksum

This window shows the current stored ROM checksum.

Update ROM checksum value

Pressing this button updates the current checksum to the correct checksum. This checksum is stored as the correct checksum.



The checksum is stored in the RAM-memory. Therefore you have to update the RAM-checksum when the ROM checksum has changed.

RAM check

Pressing this button activates the function, which returns the main board RAM checksum, calculated from the RAM memory. This function also compares this checksum against the stored checksum. If these two checksums doesn't match a fault is indicated. This function is automatically preformed each hour.

Main board RAM checksum state

This window shows the state of the RAM checksum.

- Green, "All checksums are matching (OK)". This indication is shown if the checksums are OK.
- Red, "Bad checksum at misc data block". This indication is shown if the calculated and the stored checksums don't match. The message in the box tries to explain which data checksum is wrong. E.g. "Bad checksum at zone 1.

Update RAM checksum value

Pressing this button updates the current checksum to the correct checksum. This checksum is stored as the correct checksum.

Check loops

Pressing these buttons activates the function, which returns the loop card ROM/RAM checksums, calculated from the loop card memory. These functions also compare this checksum against the stored checksum. If these two checksums doesn't match a fault is indicated. This function is automatically preformed each hour.

Loop checksum state

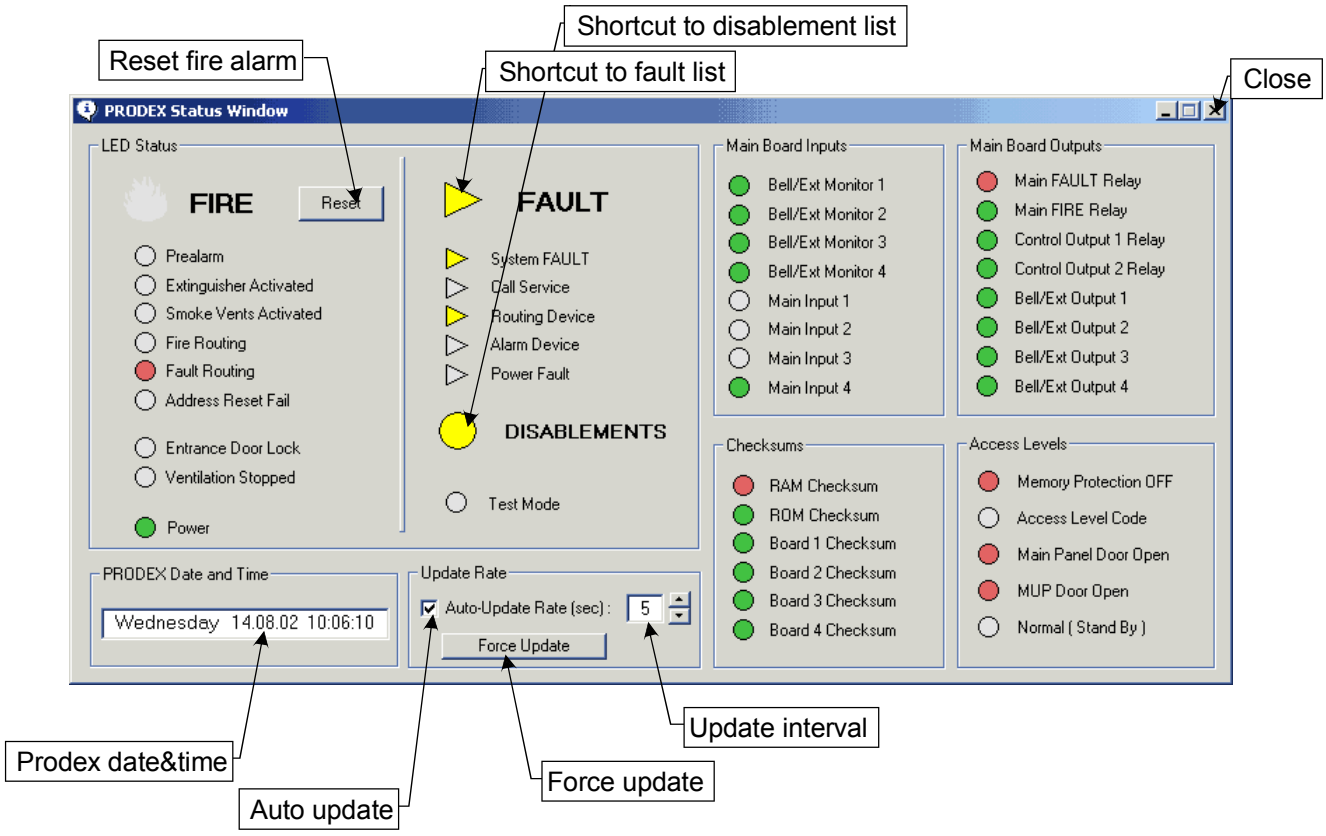
This window shows the state of the interface card checksums.

- Green, "All checksums are matching (OK)". This indication is shown if the checksums are OK.
- Red, "Checksum fault". This indication is shown if the calculated and the stored checksums doesn't match

4.6. Use

4.6.1. Status

This display shows the current status of the prodex system. The display can be compared to the view from the user panel.



Picture 4-38

Led status

These are the leds, which are located on the user panels of the system. These indicators show the actual state of the leds on the user panels.

The active state is indicated with a colour (red, yellow or green colour) depending on the function.

The indications are:

Fire (red/yellow):
This led indicates a fire alarm. The led blinks as long as the fire alarm state is active.

Pre-alarm (red):
This led indicates a pre-alarm state. The led is on when a point is in pre-alarm state. The led is automatically switched off when the state returns to normal.

Extinguisher activated (red):

This led indicates that an input, which monitors the extinguisher activation, has been activated.

Smoke vents activated (red):
This led indicates that an input, which monitors the smoke ventilation activation, has been activated.

Entrance door lock open (red):
This led indicates that an input, which monitors the entrance door, is activated.

Ventilation stop (red):
This led indicates that an input, which monitors the stopping of the ventilation, has been activated.

Fire routing activated (red):
This led indicates that the fire routing relay has been activated.

Fault routing activated (red):
This led indicates that the fault routing relay has been activated.

Power (green):
This led indicates that the system is supplied with power (either both mains and battery or any of these).

More alarms (red):
This led indicates that there is more alarms, which haven't been, browsed trough.

Fault (yellow):
This led is the general fault indicator. The led starts to blink when the system enters fault state or when a new fault occurs (if the old ones have been acknowledged). The led blinks until the fault(s) has been successfully reset.
Clicking this led opens the fault list menu. See Faults.

System fault (yellow):
This led indicates by blinking that a system fault has occurred. The led can be on for the following reasons:
- Bad program memory checksum (ROM).
- Bad site data memory checksum (RAM).
- Bad interface board (LOOP1-LOOP4) data checksum.
- Panel warm reset applied (watchdog or external).
- Interface board(s) couldn't be programmed at start up.
- Interface board(s) warm reset (watchdog or external).
- User panel communication fault.

The led starts to blink when the system enters the above-mentioned faults or when a new fault occurs (if the old ones have been acknowledged. The led blinks until the fault(s) has been successfully reset.

Call service (yellow):
This led indicates by blinking that a fault which requires service / maintenance has occurred. E.g. RAM / ROM checksum error, present not programmed sensor etc.

Routing device (yellow):
When the led blinks it indicates that the fire/fault routing are faulty. When the led is steady on, it indicates that the fire/fault routing has been disabled (The level code has been entered or the control panel door is open and the system is being programmed from the PC.).

Alarm device (yellow):

When the led blinks it indicates that the alarm device output is faulty. When the led is steady on, it indicates that the alarm device outputs have been disabled.

Address reset failure (yellow):
This led indicates that the resetting of a point fault has failed.

Power fault (yellow):
This led indicates a power fault. The led is constantly on if any power source is faulty (mains, battery, F1 – F3 outputs).

Disablement (yellow):
This led is the general disablement indicator. The led is switched on when any device or function has been disabled. The led is on until all disablements have been removed. Clicking this led opens the disablement list menu. See Disablements.

Test mode (yellow):
This led indicates that the system is in test mode (set from the PC / control panel processor card), testing fire routing, fault routing, zones or other outputs from the user panel. The led is constantly on as long as the system is in test mode.

- Alarm:
- Pre alarm:

Reset

This button activates the reset function. This button resets the fire or fault states.



If both fire and fault states are active only one state at a time is reset.

Prodex date & time

This window shows the actual date & time of the prodex system. The date & time shown is delayed by the update interval. If now automatic update is set the date & time shown isn't correct.

Update rate

This function automatically updates the status window as long as the window is open.



The automatic update delays the use of other menus, so if you have several menus open at the same time it's preferable to disable the automatic update for fast access.

The Auto-update checkbox must be checked for automatic update. The update rate is set on [s] seconds. The update rate can be set between 1 and 30 s.

Pressing the "force update" button manually updates the status window.

Main board inputs

This display shows the state of the inputs located on the main board of the system. Each of the inputs are active only if the have been programmed.

The input states are indicated with colours:

- Red; the input is faulty.
- Grey; the input is inactive.

The indicated inputs are:

- BELL/EXT monitor 1. This indicator shows the EOL state of the BELL/EXT 1 output.
- BELL/EXT monitor 2. This indicator shows the EOL state of the BELL/EXT 2 output.
- BELL/EXT monitor 3. This indicator shows the EOL state of the BELL/EXT 3 output.
- BELL/EXT monitor 4. This indicator shows the EOL state of the BELL/EXT 4 output.
- Main input 1.
- Main input 2.
- Main input 3.
- Main input 4.

Main board outputs

This display shows the state of the outputs located on the main board of the system. The activation of the outputs is dependent on the programming of the outputs.

The output states are indicated with colours:

- Red; the output is active.
- Green; the output is inactive.

The indicated outputs are:

- Main fault relay.
- Main fire relay.
- Control output 1st relay. This output is programmable.
- Control output 2nd relay. This output is programmable.
- BELL/EXT output 1. This output is programmable.
- BELL/EXT output 2. This output is programmable.
- BELL/EXT output 3. This output is programmable.
- BELL/EXT output 4. This output is programmable.

Checksums

The display shows the actual state of the checksum checks.

The checksum state is indicated with colours:

- Green; Checksum is OK.
- Red; Checksum is wrong.

The following checksum checks are indicated:

- Main board RAM.
- Main board ROM.
- Interface board 1.
- Interface board 2.
- Interface board 3.

- Interface board 4.

Access levels

This display shows the current access level of the system.

The access level is indicated with colour. An active access level is indicated with green colour.

The following access levels are possible:

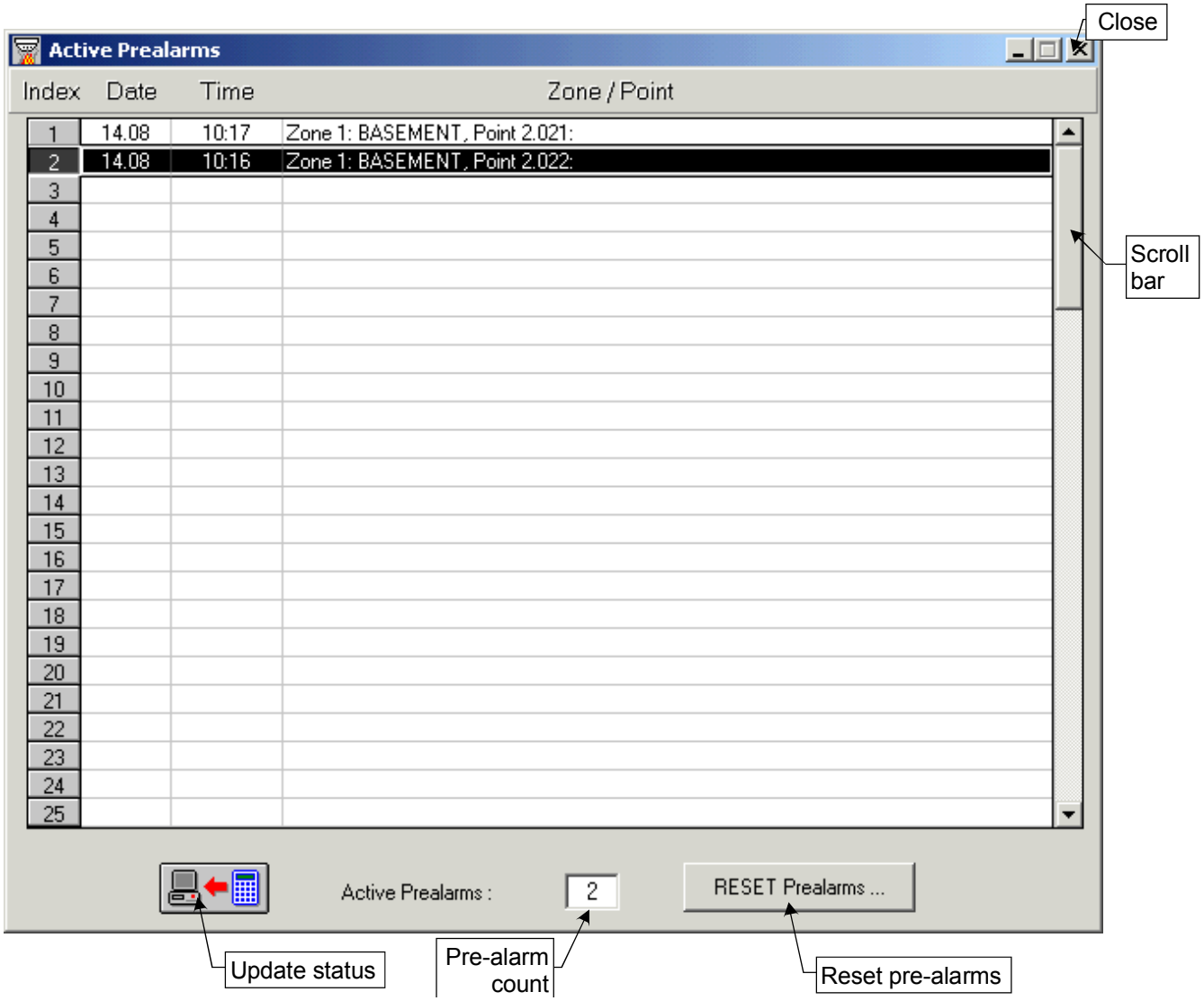
- Memory protection OFF. The RAM protection has been unlocked from the PC-program. Programming of the system is possible (Writing data to RAM). The control panel door must be open.
- Access level code. The access level code has been entered from the user panel. Functions and monitoring can be disabled. Tests can be preformed from the user panel.
- Main panel door open. The control panel door is open. The system can communicate with the PC-software.
- MUP door open. The user panel door is open. The user panel keys are working; you are enabled to use the user panel.
- Normal (stand by). The system is in stand by mode. You cannot operate the user panel nor the PC-software.

4.6.2. Pre-alarms

The pre-alarm menu shows the active pre-alarms listed. The pre-alarms are listed in chronological order, the oldest first. The system can show maximally 100 pre-alarms.

The program automatically updates the pre-alarm list when you open the menu. If the window remains empty (no transaction rows) there are no active pre-alarms.

The listing of the pre-alarms shows the transaction date and time and the zone / point information of the pre-alarms.



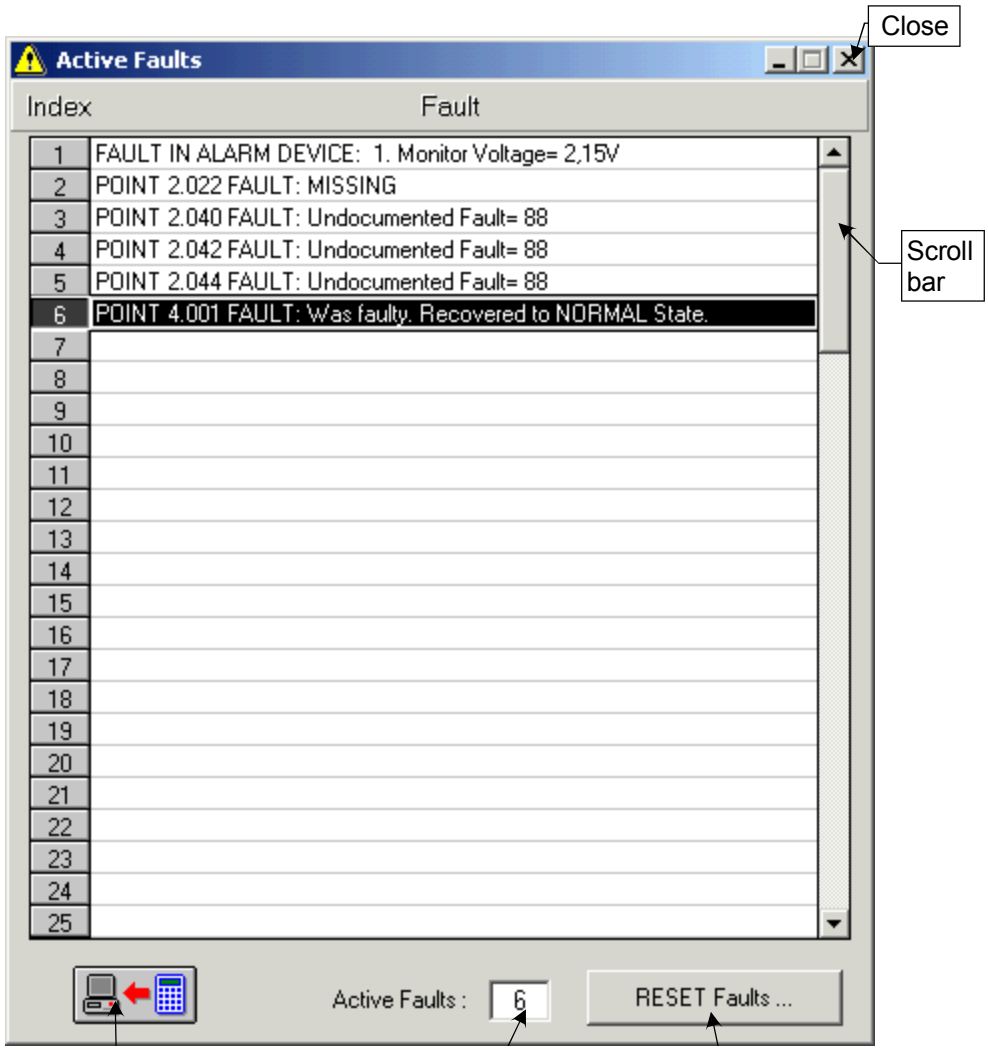
Picture 4-39

- Press the “update status” button to update the pre-alarm state.
- The pre-alarm count is shown in the “Pre-alarm count” window.
- You can reset the pre-alarm by pressing the “Reset pre-alarms” button. After reset you need to update the status to see if all pre-alarms have been reset.
- If there are more pre-alarms that don’t fit into the view you can scroll the view up and down from the scroll bar on the right side.

4.6.3. Faults

The fault menu shows the active faults listed. The faults are listed in importance order, the most important first. The system can show maximally 100 faults.

The program automatically updates the fault list when you open the menu. If the window remains empty (no transaction rows) there are no active faults.



Picture 4-40

- Press the “update status” button to update the fault state.
- The fault count is shown in the “Fault count” window.
- You can reset the faults by pressing the “reset faults” button. After reset you need to update the status to see if all faults have been reset.
- If there are more faults that don’t fit into the view you can scroll the view up and down from the scroll bar on the right side. You can also scroll with PGUP and PGDN buttons on the keyboard.

Fault types

The different faults are (sorted in ascending order):

Importance:	Text in the display	Extra information:	Possible cause of fault
Most important	LOW BATTERY VOLTAGE: xx Volts	The battery voltage [V]	Fuse broken, Poor battery condition, The mains power is off
	BROKEN FUSE(S) XX VOLT= xx V	Fuse nr, measured voltage	The power outputs are over loaded
	MAINS POWER OFF. BATTERY: xx.x Volts	The battery voltage [V]	Fuse broken, power failure
	DCA VOLTAGE U.PANEL(S): xx.x V	Voltage [V] at the user panel.	Cable conductors broken / to big power loss in the cabling
	DCB VOLTAGE U.PANEL(S): xx.x V	Voltage [V] at the user panel.	Cable conductors broken / to big power loss in the cabling
	LOOP xx VOLTAGE OFF LIMITS: xx.x Volts	The voltage on the loop [V]	The loop is over loaded
	EARTH FAULT. MEASURED: xx.x Volts	The voltage [V]	A conductor is grounded at the false place, a exterior voltage is connected to ground
	NO DATA FROM INT. BOARD(S): xx	Loop card x doesn't respond.	Loop card isn't connected, the card is defective, the program execution has stopped
	USER PANEL(S) REMOVED: xx	MUP x doesn't respond	The user panel isn't connected; any of the data line conductors is broken (A/B). The user panel is defective
	FIRE ROUTING RELAY: MONITORED x.x V	FIRE relay coil monitoring, voltage [V].	Relay is faulty (the coil is defective).
	ALARM DEVICE	Device: BELL 1/2/3/4 Monitored voltage	No end of line device, cable shorted / open
	BAD ROM CHECKSUM. REPORTED: xxxx	Control panel HEX value	Fault in ProDex/PROG or ProDex-CSEL memory
	BAD RAM CHECKSUM. REPORTED: xxxx	Control panel HEX value	Checksum hasn't been updated after programming

	REPORTED: xxxx		programming
	BAD CHECKSUM, INT. BOARD(S): xx	Loop card HEX value	Different data in loop card then in the motherboard memory, communications fault
	LINE FAULT, INT. BOARD(S): xx	The loop state at the card.	Loop resistance too high, current too high, voltage too low, Drive / Return open etc.
	PANEL EXTERNAL OR WATCHDOG RESET!	Control panel program re-stared.	Start up using reset switch, Outside disturbance, Program fault.
	UNEXPECTED RESET, BOARD(S): xx	Loop 1 – 4 restarted	Outside disturbance, Program fault.
	COULD NOT START BOARD(S): xx	Loop 1 – 4 program doesn't respond.	Loop card fault, program fault.
Least important Sorted in ascending order	POINT	Point number Fault. type	See point faults list.

Point faults / states

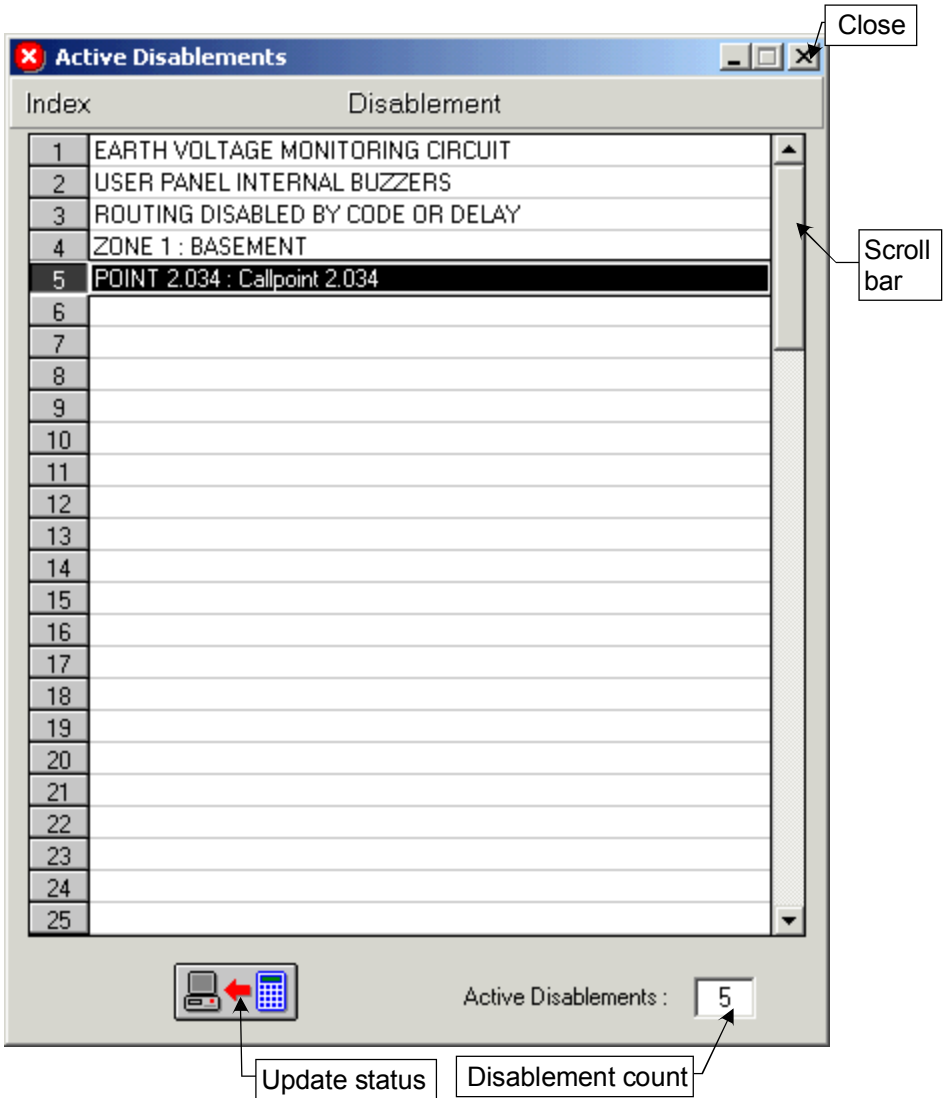
Text in the display:	Information:	Cause / Action:
RECOVERED	The faulty point has recovered	No fault anymore
RECOVERING… (xx)	The point is recovering from a fault.	The point is recovering from an abnormal state.
MISSING	The point has been programmed but can no longer be located on the loop.	Wrong address set, faulty programming.
WRONG TYPE	The point has another type then the programmed type.	Wrong programmed type. Wrong address.
DOUBLE ADDRESS	Two or more points with the same address on the loop.	Faulty address programming.
CALIBRATION	The contamination	The sensor, chamber must be

ERROR	level has exceeded to a level above which the calibration can no longer be made.	replaced.
INTERNAL FAULT	The point has a internal fault	The sensor, chamber must be replaced.
RESET FAILS	The point could not be reset	No actual fault, too much smoke or heat
PRESENT	A point which hasn't been programmed is detected on the loop	Not indicated as a fault. Program the point. Remove the additional point. Indicated with the call service led!
FIRE TEST FAILS	The point has failed the fire test, which is carried out by the program each 24 hours.	Replace the sensor.
EXTERNAL FAULT	The point has a base sounder which is faulty. This can also be a module, which has a fault on the slave lines.	Module: Slave line fault. Inputs or outputs faulty. Sensor: The base sounder of the sensor is faulty.

4.6.4. Disablements

The disablement menu shows the active disablements listed. The disablements are listed in importance order, the most important first. The system can show maximally 100 disablements.

The program automatically updates the disablement list when you open the menu. If the window remains empty (no transaction rows) there are no active disablements.



Picture 4-41

- Press the “update status” button to update the disablement state.
- The disablement count is shown in the “Disablement count” window.
- If there are more faults that don’t fit into the view you can scroll the view up and down from the scroll bar on the right side. You can also scroll with PGUP and PGDN buttons on the keyboard.

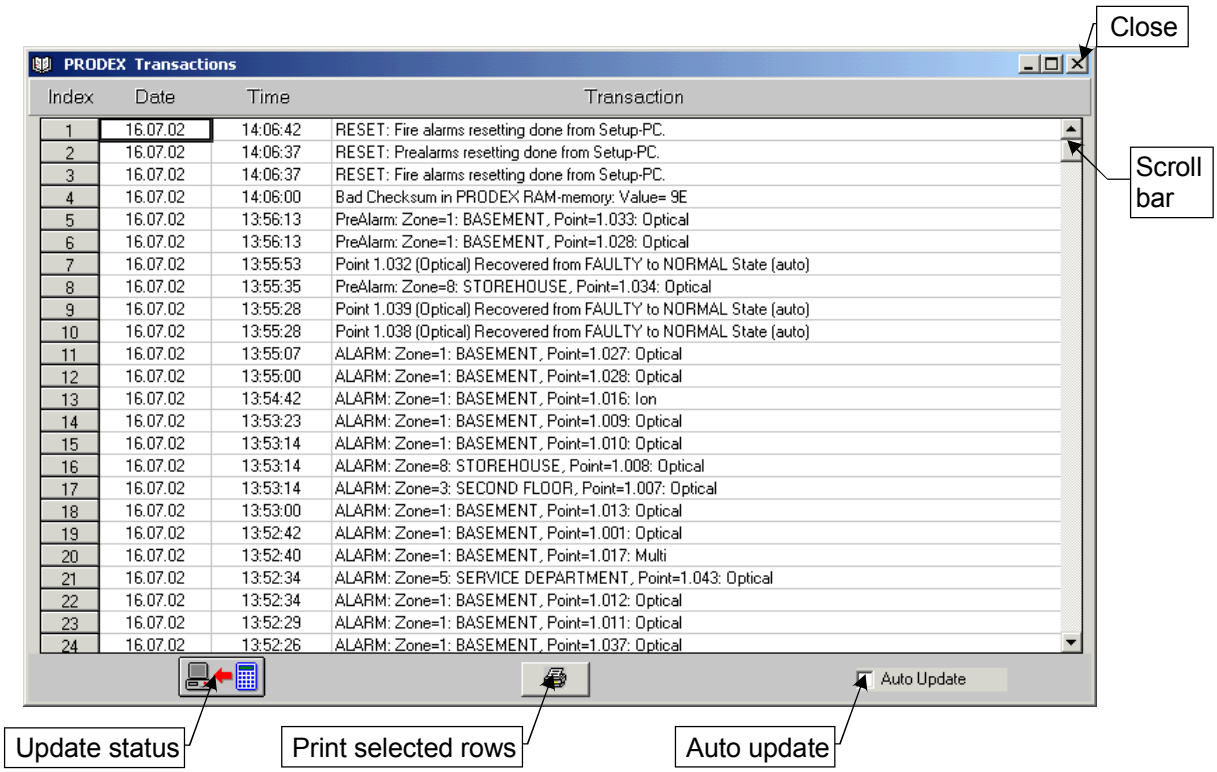
4.6.5. Transaction memory

The transaction memory menu shows the system transaction memory contents. The transaction memory content is listed in chronological order the newest first. The system keeps the 500 last transactions in memory.

In this menu you have to select the rows, which you want to update from the system. Painting the wanted rows with the mouse makes the selection. You can also have the transactions auto updated. You can adjust the window height suitable. E.g. Adjust the window height 5 rows high, so that only the 5 latest transactions are read from the system.

You can also make a printout of the selected rows to the windows default printer.

The listing of the transaction memory shows the transaction date and time and the transaction information.



Picture 4-42

- To update transaction memory contents select the rows you want to update by painting them. Press the “update status” button. The program now updates the selected rows. If you haven’t selected any rows the program will show the following error message. Click OK to clear this message.



Picture 4-43

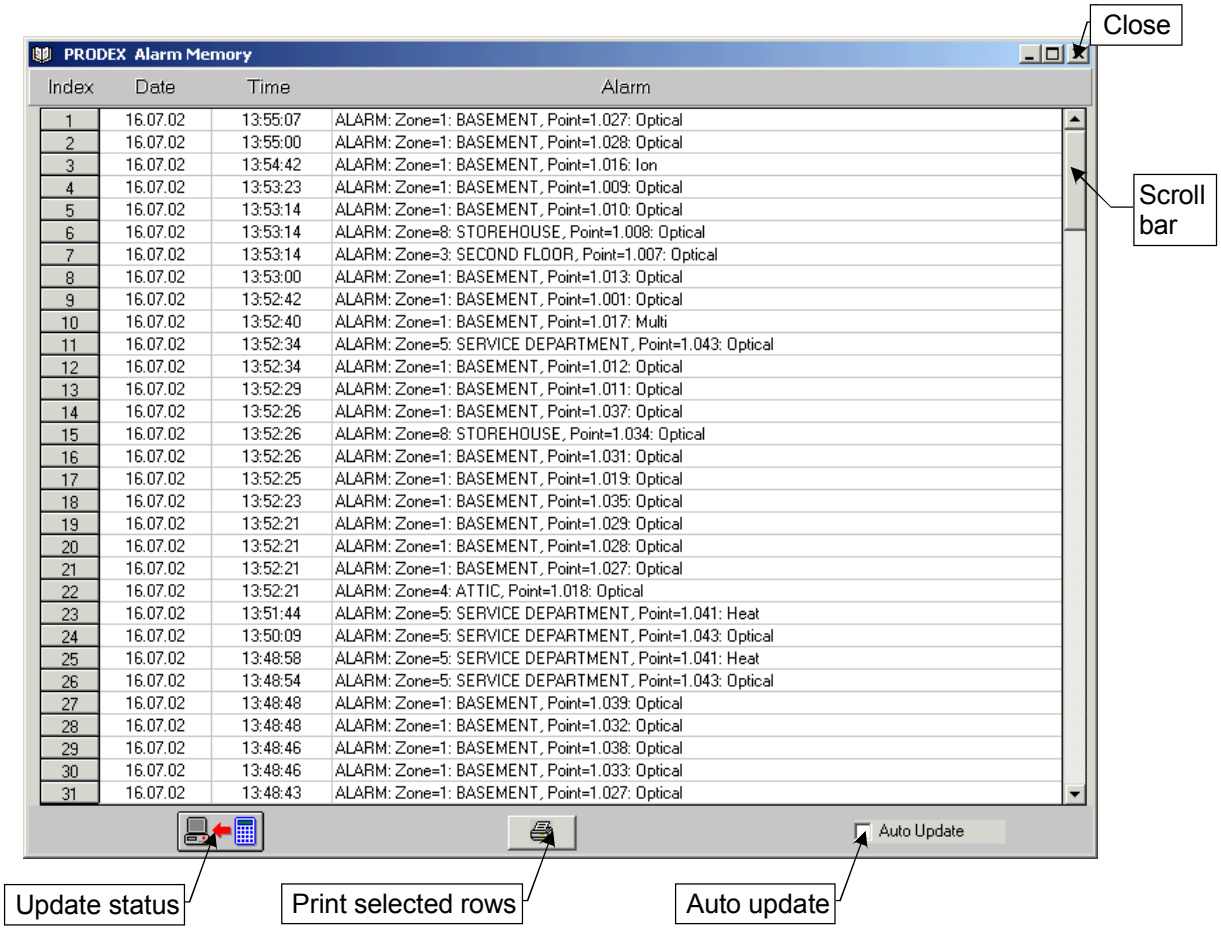
- To print transaction memory contents select the rows you want to print by painting them. Press the “print selected rows” button. The program now prints the selected rows to the windows default printer.
- You can also auto update transaction memory contents. If you check the “auto update” box the program automatically updates the transactions to the PC. The updating interval is 3 s. Only the transactions memory addresses, which are viewed at the moment, are updated.
- If you want to view more transactions you can scroll the view up and down from the scroll bar on the right side. You can also scroll with PGUP and PGDN buttons on the keyboard. Then update those rows. If the auto update is checked these transactions will be updated automatically.

4.6.6. Alarm memory

The alarm memory menu shows the system alarm memory contents. The alarm memory content is listed in chronological order the newest first. The system keeps the 200 last alarms in memory.

The program automatically updates the alarm memory list when you open the menu. You can also have the alarms auto updated each 3s. You can adjust the window height suitable. E.g. Adjust the window height 5 rows high, so that only the 5 latest alarm transactions are read from the system.

You can also make a printout of the selected rows to the windows default printer.



Picture 4-44

- To update alarm memory contents press the “update status” button. The program now updates the alarm memory rows, which are viewed at the moment.
- To print alarm memory contents select the rows you want to print by painting them. Press the “print selected rows” button. The program now prints the selected rows to the windows default printer. . If you haven’t selected any rows the program will show the following error message. Click OK to clear this message.

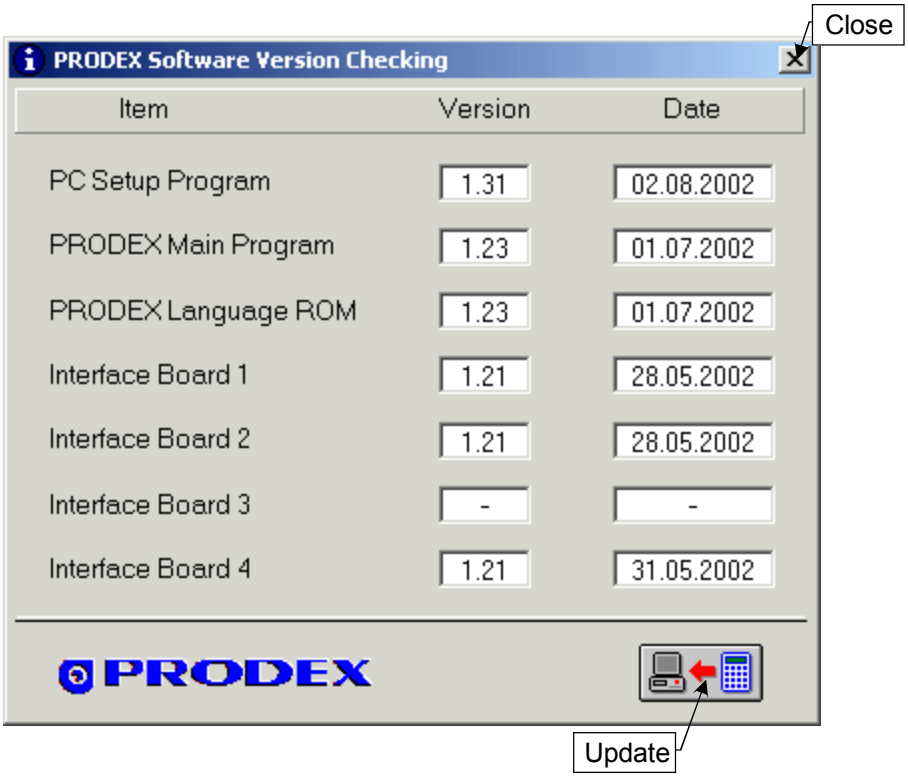


Picture 4-45

- You can also auto update alarm memory. If you check the “auto update” box the program automatically updates the alarm memory to the PC. The updating interval is 10 s. Only the alarm memory addresses, which are viewed at the moment, are updated.
- If you want to view more of the alarm memory contents you can scroll the view up and down from the scroll bar on the right side. You can also scroll with PGUP and PGDN buttons on the keyboard. Then click the “update status” button to update those rows. If the auto update is checked these alarm memory addresses will be updated automatically.

4.6.7. Version checking

In this menu you can check the prodex system program versions and creation dates of them.



Picture 4-46

Click the “update” button to read the program versions from system.

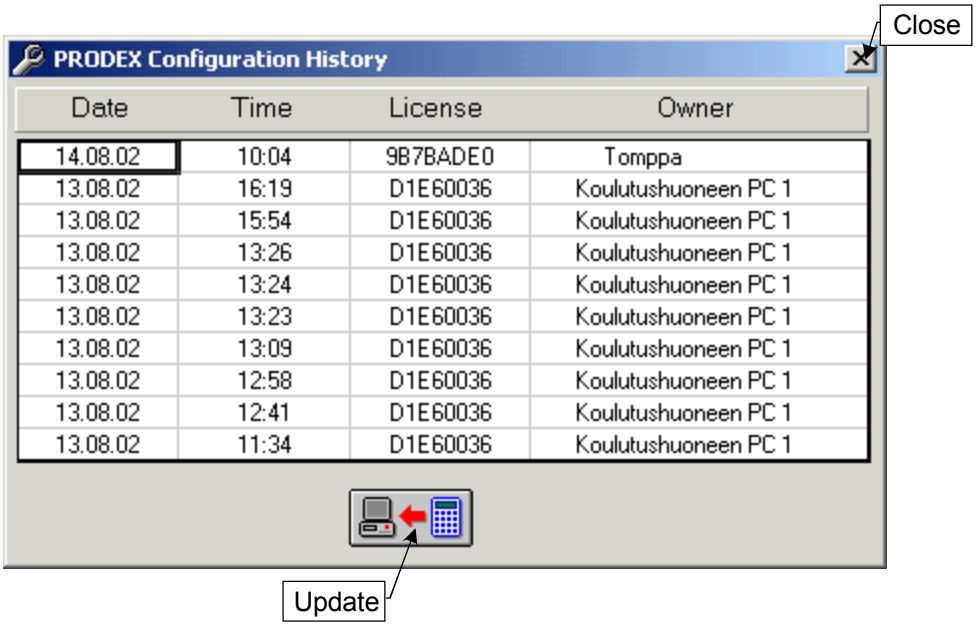
The menu shows the program version for the following units:

- PC set-up program.
- Prodex main board program. Prodex-PROG.
- Prodex main board language ROM. Prodex-CSEL.
- Interface board 1. Prodex-HOAN analog loop card or Prodex-HOCO conventional line card.
- Interface board 2. Prodex-HOAN analog loop card or Prodex-HOCO conventional line card.
- Interface board 3. Prodex-HOAN analog loop card or Prodex-HOCO conventional line card.
- Interface board 4. Prodex-HOAN analog loop card or Prodex-HOCO conventional line card.

The user panel program versions can be obtained only from the user panels test menu.

4.6.8. Configuration history

This menu shows the stored configuration history of the system. The system stores the last 10 configuration events.



Picture 4-47

Click the “update” button to read the system configuration history.

This menu contains the following configuration information:

- Date. When configuration has begun.
- Time. When configuration has begun.
- License of the PC-program used.
- Owner of the PC-program license.