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1 CONTROL OF RUNTIME

1.1 MENU

This chapter deals with all basic information about all operations that can be done in Runtime.

Reliance runtime	
<u>S</u> ervices <u>H</u> elp	
S. 🖳 遇 🛃 😓 🔶 刘 🛅 🗟	15:40:58

After the start of Runtime the Main Menu appears which contains menu **>** *Services* and **>** *Help*. There is also the toolbar with the following buttons:

\$₀	Logon user	Serves to User Logon.
2 -	Logout user	Serves to User Logout.
	Show archived mess	age list
_		Shows the window with all archived messages.
3	Show current messag	ge list
		Shows the window with current messages.
4	Previous window	Shows next window.
⇒	Next window	Shows previous window.
	Connected trends	Shows the list of graphs connected to the computer.
	Connected reports	Shows the list of reports connected to the com-
		puter.
3	Connected print repo	orts
		Shows the list of print reports connected to the

computer.

1.1.1 Menu Services



►	Logon user	Connects a new user to the Runtime.						
►	Logout user	Disconnects an active user from the Runtime.						
►	Current message list	Show the window with current messages						
►	Archived message list	Show the window with all archived messages						
▶	Connected trends	Shows archived data in graphical form.						
•	Connected reports	Enables the viewing of the data stored in data-bases.						
•	Connected print reports							
Þ	Connected recipes	Shows the window for working with pre-defined recipes.						
•	System information	Informs about system connection, related PLCs, databases, variables and network connection.						
•	User manager	Enables to add or delete a user to/from the list of users or to change properties of various users.						
►	Exit	Terminates the runtime module.						

1.1.2 Menu Help

Menu **Help** offers basic information about Runtime program and module.



By clicking the mouse on **)** *Information*, the following window appears:



Here you can find information about the version of program Runtime, type of Runtime module, maximal number of used variables and availability of computer's memory.

1.2 USER'S LOGON AND LOGOUT

The whole program is protected against unauthorised users by the system of authorisation privileges. Before running the visualisation program the user must logon, which can be done in two ways:

By means of the system of users' names and passwords

The window for entering the user's name can be called from the menu → Services → Logon user, or by the clicking on the icon Logon user on the toolbar.

The user who wants to logon enters his name and password here and confirms it by the clicking on the OK button. (Security system will show the password as several asterisks.)

Logon user	×		
Name:	admin	Warning	×
Password:	жжжжя		User 'administrator' not found.
	OK Cancel		OK

In case of incorrectly entered User's Name the warning message appears on the screen.

The window will show the incorrect User's Name. After the clicking on the *OK* button, you can logon again via the button Logon User.

If the password has been entered incorrectly, the information window with the message about it appears. To protect the user, the incorrect password does not show. After the clicking on the OK button it is possible to logon again via the button Logon user.

To logout the current user, select the menu item \rightarrow **Services** \rightarrow **Logout user** or click on the Logout user button on the toolbar.

By means of the magnetic card reader

Each employee gets his or her own magnetic card (key). If they want to logon to the system, they put the card to the reader connected to the PC. Program will read the employee's Code and logs them to the system (the logon is accompanied by a beep). Logout from the system is done in the same way (and is also signalled by a beep.)

1.3 LIST OF CURRENT STATUS MESSAGES

Informs about error messages, users' logins and logouts, starting and finishing of Runtime, data reversion during the database transfer to a different directory and so on.

Each message can have several states that are distinguished by various colours:

Red background	Message	is	still	valid	and	has	not	been	acknowl-
	edged.								

Yellow background Message is still valid and has been acknowledged.

Icon with the exclamation mark

Message is not valid any more and has not been acknowledged.

Icon with the check mark

Message is not valid any more and has been acknowledged.

Current me	Current message list											
Ac <u>k</u> now- ledge	Acknow- ledge <u>a</u> ll	Show details	Show window	? Explain	Kessage note	j <u>C</u> lose						
Message	e text					Origin da	te O	rigin time	End date	End time	Station	Acknowl
📃 🗈 🗛 🔽	ater tempe	rature has	exceeded	he upper v	warning limit.	10.2.200	3 1	5:31:22			Tecomat1	No
🕨 💽 🔺 🔽	ater tempe	rature has	exceeded	he upper o	critical limit.	10.2.200	3 1!	5:31:04	10.2.2003	15:31:12	Tecomat1	No
1 • • •	'ater tempe	rature has	exceeded	he upper v	warning limit.	10.2.200	3 1	5:31:04	10.2.2003	15:31:12	Tecomat1	No
• • • • • •	as pressure	has exce	eded the up	per critica	l limit.	10.2.200	3 1	5:30:44			Tecomat1	No
🗌 🕗 🔺 🔂	🗌 🖸 🖨 Gas pressure has exceeded the upper warning limit.						3 <u>1</u> !	5:26:31			Tecomat1	Yes
Date: 10.2.2	003 Time: 15	5:31:04	Message sta	us: inactive	· has not been	acknowledg	ed	Message	e count: 5	Unacknov	vledged messag	ge count: 4

Acknowledge Acknowledges (confirms) the selected message from the list. After the acknowledgement the icon by the message changes from the exclamation mark to the check mark.

- Acknowledge all Acknowledges (confirms) all the messages from the list. After the acknowledgement the icon by all the messages change from the exclamation marks to the check marks.
- Show details Shows the window with detailed information about the event (Comment to the message, Type of Message, Event, Priority of the Message, Variable

and the connected *PLC*, *Levels of Authorisation* and so on).

- Show window Shows the window connected to the selected message.
- *Explain* Shows the explanatory comment to the selected message (if chosen in Message Manager).
- Message note Shows the window for entering comments and information to the selected message.

1.4 LIST OF ALL ARCHIVED MESSAGES

Shows the window with the list of all existing messages that are stored in the database. Messages from the current database can be shown (into which the latest messages are stored) or from the selected archive database. (The database after the data reversion.) The showing of the records can be limited by means of time or user's filter, it can be exported to text format, printed and so on.

Each message can have several states that are distinguished by various colours:

Red background Message is still valid and has not been acknowledged.

Yellow background Message is still valid and has been acknowledged.

Icon with the exclamation mark

Message is not valid any more and has not been acknowledged.

Icon with the check mark

Message is not valid any more and has been acknowledged.

Status mes	Status messages - alarms														
III Display	™ Filter	X Cancel filter	5 Update	©pen database	¥	Export	Beport	Ac	≪ know- edge	Sho winc	ow low	? Exglain	Message note	L Close	
Message	e text						Origin da	te	Origin	time	End	date	End time	Station	Aı 🔺
📃 🗈 🔶 🔽	ater tempe	rature has	exceeded	the upper w	vari	ning limit.	10.2.200	3	15:31	22				Tecomat1	N
📃 🗈 🔶 🛶	ater tempe	rature has	exceeded	the upper c	riti	cal limit.	10.2.200	3	15:31	:04	10.2	.2003	15:31:12	Tecomat1	N
📑 🚹 🚺 🖬	s pressure	has excee	ded the up	oper critical	l lin	hit.	10.2.200	3	15:30	44				Tecomat1	N
📃 🛃 🛉 Ga	s pressure	has excee	ded the up	oper critical	l lin	nit.	10.2.200	3	15:26	31	10.2	.2003	15:30:41	Tecomat1	Ye
📃 🛃 🗛 🔂	s pressure	has excee	ded the up	oper warnin	g li	imit.	10.2.200	3	15:26	31				Tecomat1	Ye
📃 🔁 📥 🛶	ater tempe	rature has	exceeded	the upper c	riti	cal limit.	10.2.200	3	15:26	26	10.2	.2003	15:30:51	Tecomat1	Ye
📃 🔁 🗛 🛶	ater tempe	rature has	exceeded	the upper w	varı	ning limit.	10.2.200	3	15:26	26	10.2	.2003	15:30:51	Tecomat1	Ye
📃 🕗 🔶 🛶	ater tempe	rature has	exceeded	the upper c	riti	cal limit.	10.2.200	3	15:22	20	10.2	.2003	15:23:01	Tecomat1	Ye
📝 🛉 Water temperature has exceeded the upper warning limit.						10.2.200	3	15:22	20	10.2	.2003	15:23:01	Tecomat1	Ye	
📝 🛉 Water temperature has exceeded the upper critical limit.						10.2.200	3	15:21	36	10.2	.2003	15:22:15	Tecomat1	Ye	
Þ 🔁 🗛 🚾	ater tempe	rature has	exceeded	the upper w	vari	ning limit.	10.2.200	3	15:21	36	10.2	.2003	15:22:16	Tecomat1	Y

Display	After pressing the button, the menu for the selec-
	tion of the visualised reports appears. The first
	three items determine which reports will be
	shown and for each of the report types can be
	individually set <i>Time</i> or <i>User's Filter</i> .
► Faults	The list of Error Messages will appear.

- Commands The list of Command Messages will appear.
- System Messages The list of System Messages will appear.
- ▶ Fields Shows the window for the Selection of Fields which should appear in the Report and for the arrangement of the records in the table (see 1.4.1 SELECTION OF FIELDS).
- Defined Status Messages

Shows the window with the list of all defined messages (they are defined in Message Manager). Detailed information can be shown with different messages, messages can be enabled or disabled. See 1.4.2 DEFINED STATUS MESSAGES.

- *Time Filter* Shows the window for the selection of date and time interval defining which messages will be shown. See 1.4.3 TIME FILTER.
- User's Filter Shows the window for the definition of your own filter of the defined messages. See 1.4.4 USER'S FILTER.

Cancel Filter Cancels User's or Time Filter and shows all messages in the opened database.

Update If an active database (to which messages are recorded) is opened, the list of messages is updated.

Open Database Shows the window for opening an archive database. If an archive database is already shown, the program first asks you, whether you want to reopen the archive database or whether you want to go back to the active database (to which messages are recorded). See 1.4.5 SELECTION OF ARCHIVE.

Export	Exports messages from the list that are shown to a text file. See $1.4.6\ \text{Export}.$
Report	Enables printing of the document with messages shown in the list.
Acknowledge	Acknowledges (confirms) a message in the list. After acknowledgement the icon by the message changes from the exclamation mark (!) to check mark (\checkmark).
Show Window	Shows the window connected to the selected message.
Explain	Shows an explanatory note to the selected mes- sage (if previously chosen in Message Manager).
Message Note	Shows the window to enter notes to the selected message.

1.4.1 Selection of Fields

Shows the window for Selection of Fields that should appear in the list of messages and for the arrangement of records in the table.



Displayed Fields

In the list check (\checkmark) the names of the fields which you want to appear in the message list. By means of Up and Down Buttons you can change the order of the displayed fields. (In that order the columns will appear in the table.)

By the field *Column Width* you can alter the width of the columns in the table.

Sorting

In the list check (\checkmark) the names of the fields according to which you want to order messages in the list. By means of Up and Down Buttons you can change the priorities of the arranged items. The records will be arranged according to the first chosen item, then the second, third and so on.

In the field *Order* you can decide whether the records should be sequenced *incrementally* or *decrementally*.

1.4.2 Defined Status Messages

Shows the window with the list of all PLCs connected to the PC. After the selection of the PLC, the list of all defined messages for the chosen PLC will appear. The buttons in the upper part of the window are used during the processing of the messages.

Defined status	s messages									×
III Display	€_ <u>U</u> р	<mark>⊉↓</mark> <u>S</u> ort	(Dis mes	D able ssage	∑ Enable message	1	L Close	Disa mesi	ble online pri sages	inting of
 Water Water Gas pr Gas pr 	temperature h temperature h essure has ex essure has ex	as exceeded the as exceeded the ceeded the uppo ceeded the uppo	e up e up er wa	per warn per critic arning lin itical limi	ing limit. al limit. nit. it.					
Comment: Message ty	vpe:	alarm	ī	Occurr	ence:		upper w	varning limit	Priority:	0
Variable:	\ \	Water_Temperature		Archive	e: uledament :	200000	Yes	Acknowl	edge:	Yes
jatadon:		recomaci		ACKNO	weuginent a	access	ngnts:		Commor	r alann ack

Display After pressing this button, menu with the following items will appear: PLC List Shows the list of PLCs connected to the PC. Message List Shows the message list defined for the se-۲ lected PLC. Enabled Messages These messages are enabled in the list. Disabled Messages These messages are disabled in the list. Switches to the PLC list, if the list is displayed. Up Sort After pressing of the button the menu for the arrangement of the messages in the list. Messages can be arranged according to *Type*, *Event*, *Priority* and Text.

- Disable Message The chosen message is disabled. These messages are not stored in database nor displayed in all lists. Disabling of the message must be allowed in Message Manager (Global Parameters). It is possible to set the level of User's Authorisation who can then disable the message.
- Enable Message The chosen message is enabled. These messages start to be stored in database and displayed in all lists. Enabling of the message must be allowed in Message Manager (Global Parameters). It is possible to set the level of User's Authorisation who can then disable the message.

Disable Online Printing of Messages

Disables online print of all messages from all PLCs. To enable and to disable online print, the user has the same authorisation as for *enabling* and *disabling messages*.

1.4.3 Time Filter

Shows the window for the selection of date and time interval for the displaying of records. For different messages (*Errors, Commands, System messages*) it is possible to set separate time filters. If you set the dates that are out of the interval of active or archive database, the program will try to use the filter for also for the archive databases.

Time filter	×
Filtered fields:	Origin date, Origin time
From: Date: 5.2.2003	Time:
Till: Date: [9.2.2003	Time:
	OK Cancel

From:

Serves to set the *Date* and *Time* from which messages will be shown in the table.

Till:

Serves to set the *Date* and *Time* until which messages will be shown in the table.

1.4.4 User Filter

In this window a user can create his own filter, to choose already existing one or to store a newly created filter for the messages to be shown. There are buttons in the upper part of the window for creation and editing of a filter. The left part of the window contains the list of variables that can be used in the statement, the right part contains the created statement itself.

Logical statements created by choosing the variables from the list are entered into the filter's field by pressing the button *Add Item*. Then by setting the value of the variable (by pressing the button *Set Value*). The relation between the chosen variable and the set value is done by means of the buttons (< Less than, > Greater than and = Equals to).

If a statement contains more logical substatements, they can be connected by means of logical *and* and *or*. Each of the logical substatements should be within parentheses.

Filter editor	- Filter: non	ame									×
™ <u>F</u> ilter	a <u>n</u> d or	(Left	Add field	K Legs) <u>G</u> reater	— Equal	Enter value) <u>B</u> ight	<u>었</u> Change value	<u>D</u> elete last	+ <u>B</u> ack
Origin date Origin time Message text Occurrence Priotity Station Variable Computer User Acknowledge Acknowledge Acknowledge Acknowledge Macknowledge Acknowledge Macknowledge Macknowledge End time Receipt date Receipt date	ent access rig d nent date rent time rent time rent time	hts	[Origin date	> 19.5.1999) and (Origin	date < = 20.5.	1999) or (Prior	ity = 1)			
			🗖 Include	archive				[OK		Cancel

Filter Shows the menu for working with user filters:

- New Create a new User Filter.
- ➤ Select Shows the window with all defined filters, from the list you can chose a filter which you want to use or modify.

> Save	Saves the defined filter in the list.								
Save As	Shows the window for saving a filter under a new name.								
and	Logical <i>and</i> operator will be inserted into the statement string. It is used to connect more logical substatements.								
or	Logical <i>or</i> operator will be inserted into the statement string. It is used to connect more logical substatements.								
Left Parenthesis (Inserts this symbol. If a filter is created with more logical conditions, it is recommended to put the separate conditions into parentheses.								
Add Field	Adds the selected item from the list in the left part of the window to the created statement.								
Less than <	Inserts this symbol.								
Greater than >	Inserts this symbol.								
Equals to $=$	Inserts this symbol.								
Enter Value	Shows the window for setting the value of the variable from the list.								
Right Parenthesis)	Inserts this symbol. If a filter is created with more logical conditions, it is recommended to put the separate conditions into parentheses.								
Change Value	Shows the window for changing of the value of the variable from the list.								
Delete last	Erases the last entered variable, value or character from the created statement.								
Back	Returns before the lastly taken action.								
Include archive	The Filter will be applied also to archive database. If you select this option certain restrictions for work with messages will become valid Messages can not be acknowledged and no comments can be attached to them.								

The List of Variables (Items)

Date of Origin	Date when the message originated.							
Time of Origin	Time when the message originated.							
Text of the Message	Text, which appears when the message originates (only the beginning or a part of the text can be required).							
Event	The event which creates the message (<i>Change of a value, Ascending Edge, Descending Edge, Lower</i> and <i>Upper Limits</i>).							
Priority	Number showing the priority of the message.							
PLC	The name of PLC for which the message is defined.							
Variable	The name of the variable to which the messages are attached.							
PC	The name of the PC.							
User	The name of the user.							
Acknowledge	The message is or is not to be acknowledged.							
The Access rights for	Acknowledgement The access rights necessary for the acknowledge- ment of the message.							
Acknowledged	The messages that have or have not been ac-knowledged.							
Date of Acknowledge	ement The date when acknowledgement was done.							
Time of Acknowledge	ement The time when acknowledgement was done.							
User of Acknowledge	ement The name of the user who did the acknowledge- ment.							

Example of the creation of User Filter

Suppose we want to show the messages that originated between 19.05.99 (opened) and 20.05.99 (including) with the priority = 1.

The statement includes three logical conditions, each of them will be put into parentheses.

- Press the button *Left parenthesis*, in the list of variables check the item *Date of Origin* and press the button *Add Item*, then press the button *Greater than* and by means of the button *Set Value* you bring the window for the setting of date. Then enter "19.05.1999" and close the window. Logical statement must be closed with *Right parenthesis* button. Thus the first part of the statement has been defined (all messages that originated after 19.05.1999).
- Press the button to insert logical *and* (and at the same time) and, in a similar way, you can enter the following part of the statement. Press the button *Left parenthesis*, enter the variable *Date of Origin*, by means of the buttons enter *Less Than* and *Equals to*. Into the space for the date enter 20.05.1999 and close the statement with the *Right Parenthesis*. Thus you have defined the second part of the statement (Messages originated before and on 20.05.1999).
- By means of *or* button you can insert logical conjunction between the substatements. Select *Left Parenthesis*, choose from the list of variables the item *Priority*, insert the sign *Equals to* and in the space for value enter 1. Then the statement must be closed with *Right Parenthesis*.
- The statement is complete now. You can then test the filter by pressing *OK*.

1.4.5 Selection of Archive

Shows the window for opening archive databases. The largest part of the window is covered by the list that is divided into several levels. In the first level user chooses *Year* of which the archives should be shown. The second level selects *Month* of the selected year (Syntax of the items is *year_month* e.g. 1999_05). The last level shows the list of databases for opening.

Select archive]
E Up	
Brr_2003_02_10_01.db	1
Err_2003_02_10_02.db	
🖯 Err_2003_02_10_03.db	
🖯 Err_2003_02_10_04.db	
Cr_2003_02_10_05.db	
Err_2003_02_10_06.db	
1	
Open OK Cancel	

Up	Switches to the list of the previous level.
Open	Opens the selected database. The database is shown in the message window and in the fore- ground remains the window for selection an ar- chive with a different database.
Ok	Opens the selected database and closes the window for selection.
Back	Closes the window for selection of archive with- out opening archive database.

1.4.6 Export

Provides export of shown messages or tables to a formatted text file (useful for further data processing by means of other programs).

Export status messages	×
Target file:	1
New file	
C Existing file	
Item separator	
C Space	
C Tab	
🔿 Comma	
Semicolori	
C Another	
OK Cancel	

Target Exported File

Determines whether the export should be done to a *New file* (if the file already exists, it will be overwritten) or whether the data will be appended to an *Existing file*.

Items Separator

Defines a separating character (*Space*, *Tabulator*, *Comma*, *Semicolon* or *Other* user-defined character).

1.4.7 Status Message Report Editor

Shows the window for setting parameters of Reports. The window is divided into two parts. The first is *Report Elements* which defines parameters of separate parts contained in the Report. The second part is *Report Rows* which defines print parameters (messages) of the Report.

Status message report editor				×
Report elements Report rows				
Report elements: Report header Page header V Column header Page footer	Properties Height Text: Alignment C Left	30 🛬	C Right	Fort
		Printer setup	ОК	Cancel

Report Elements

Defines which parts should Report include and their parameters.

Report Header	Is printed in the upper part of the first page of the Report.
Page Header	Is printed in the upper part of each page of the Report.
Column Header	Is printed under the <i>Page Header</i> on each page of the Report.
Page Footer	Is printed in the lower part of the last page of the Report.
Properties	
Height	Defines the height of the selected part of the Report (in printer's units).
Text	Text that should be printed in the selected part of the Report.
Flush	Defines the placement of the text in the selected item of the Report.
Left	Text will be flushed to the left margin of the Report.
Center	Text will be centred in the Report.
Right	Text will be flushed to the right margin of the Report.
Font	Font button will show the window for setting the type, size and style of the character set used for displaying the text.
Report Rows	
Height	Defines the height of the selected part of the Report (in printer's units).
Font	Font button will show the window for setting the type, size and style of the character set used for displaying the text.
Grid	Determines whether grid lines are to be printed. Printing of <i>Vertical</i> and <i>Horizontal</i> lines can be selected separately.

1.5 GRAPHS

Graphs enable viewing of data stored in databases. By choosing from menu \blacktriangleright *Services* \blacktriangleright *Graphs*, the list of available graphs will appear. By the left mouse button click on Graph from the list and by confirmation on the *Graph* button, the graph will be displayed.

The upper part of the window contains buttons for work with the graph. In the largest part of the window the graph itself is displayed. On the left margin of the graph there is the vertical scale of measured values, which changes according to the type of the axis. In the lower part of the window there is time scale with date and time.

When the left button of the mouse is clicked on the graph, a new vertical axis (*Ruler*) appears by the nearest value and also a new window called **Clue** (unless already shown). In the clue window will be displayed names of the different diagrams (distinguished by colours) and by each diagram there is displayed the value defined by the position of the ruler.

Description of different graphic control features



Trend Move

Single arrows	-	shift the graph $1/2$ step forward or backward
Double arrows	-	shift the graph 1 step forward or backward.

Ruler

By the left mouse button click on the area of the Graph, the ruler with measured value axis will appear. The ruler can be shifted on the area of the Graph, by means of arrows forward or backward or by mouse clicking on a different place of the Graph.

3D imaging

If 3D is active, the Graphs will be shown in 3D environments and by arrows you will be able to change the depth of 3D imaging.

Display Legend Clue can be displayed or hidden by mouse clicking on this feature. If the option is active you can view precise values of the variables according to the position of the ruler on the graph.



Change Date Shows the window for setting the date and time from which the Graph is to be plotted.

Properties Brings up the window of Graph parameters enabling you to alter the Graph.

Properties of trend 'Tecomat1'	×
Chart Series	
Series General Axis Titles Legend Panel Paging	Walls
Series Title	
🖾 🗹 — Gas_Pressure	
💆 🖳 Water_Temperature	<u>A</u> dd
	Delete
	∐itle
	Cjone
	<u>C</u> hange
]	
	Close

Print

By clicking here you get the window for Print control of the Graph.

1.6 **REPORTS**

By means of Reports it is possible to view and print data stored in databases. By choosing \rightarrow *Services* \rightarrow *Connected reports* in the menu, you can see the list of available Reports. By the left mouse button click on the appropriate Report and its confirmation with *OK* button, the Report viewer appears.

The upper part of the window contains buttons for processing the Report. The largest part of the window is covered by the data of the Report.

Data source: C	:\r3_en	J\Projec	ts\Eni	DocPr	oject\D	ata\t	с1_ххх	x.dbf						
🕅 🏹 🖞	% 🖻	; 🕞	6	5	≣کر	¥.	Σ	Ĩ.	Close					
	Tecomat1													
Date		Time		Gas_Pr	essure	Wat	er_Tem	peratur	e					
10.2.2003	-	6:49:56		14	4		56							
10.2.2003	-	6:50:01		14	4		56							
10.2.2003	-	6:50:31		144			56							
10.2.2003	-	6:50:36		14	4		56							
10.2.2003	-	6:50:41		144			56							
10.2.2003	-	6:50:46		14	4		56							
10.2.2003	10.2.2003 16:50:51			14	4		56							
10.2.2003	-	6:50:56		14	4		56							
10.2.2003	-	6:51:01		14	4		56							
10.2.2003		6:51:06		14	4		56							
10.2.2003	-	6:51:11		144			56							
10.2.2003	03 16:51:16			14	4		56							-
Record count: 11	Pecord count: 116 C:\r3_enu\Projects\EnuDocProject\Data\tc1_xxxx.dbf													

Alter	It is used to set the width of the columns and parameters of the print of the Report. See 1.6.1 PARAMETERS OF REPORT.
Filter	Is used to the selection (filtering) of the data from database. See 1.6.2 FILTER OF THE REPORT.
Disable Filter	Disables the filter and shows all data from the Report.
Open Archive	Opens the archive file whose data can be viewed in the Report.
Export the Report	Exports the data of the Report to a text file. See 1.4.6 EXPORT.

Print	Switches to the Print window which is used to set
	the print parameters. Print Enabling is set in Us-
	ers' Parameters.
Print Preview	Clicking here shows the Report as it is to be printed.

1.6.1 Parameters of Reports

Shows the window for setting parameters of the Report.

Keport parameters	X
Columns Report footer Print	
Date Time Gas Pressure Water_Temperature	 ✓ Visible Width 100 ♀ Summary calculations ✓ Minimum ✓ Maximum ✓ Sumi ✓ Average
ŪK	Cancel Apply

Width of Columns

Defines the width of the displayed columns of the Report.

Columns

In the list choose the title Columns, the width of which you wish to set. In numeric filed you set the new column's width (which is defined in screen pixels).

Print

Defines the global parameters of the Report print.

Print on White Background

If selected, all columns and parts of the Report (*Report Header, Page Header, Column Header* and *Page Footer*) will be printed on white background no matter what background is set for the separate parts.

1.6.2 Filter of Report

Click on the button *Filter* in the Report window and you will see the window *Choice of Filtered Columns*, where you mark the columns according to which the filtering is to be done. After the click on the *OK* button the window *Set the Filter* appears in which you can set conditions for filtering values, limits and placement of values.

Filter settings	×
Relationship between columns filte © Concurrent meeting all condition © Meeting at least one condition	er conditions ms
Column name: Gas_Pressu	ue 💌
Range limits Minimum: 140	Maximum:
Value position Inside range Include range limits	C Outside range
	OK Cancel

Relationship Between Column Filter Conditions

	With active option <i>Concurrent Meeting All Condi-</i> <i>tions</i> logical AND is done on conditions for each of the columns. With active option <i>Meeting at</i> <i>Least One Condition</i> logical OR will be performed.
Column Name	Selects the column from the Report to be filtered.
Range Limits	Sets the <i>Minimum</i> and <i>Maximum</i> limits for filtering.
Value Position	Serves to determine the position of values that should meet filter's conditions.
Inside Range	The values which are inside <i>Range Limits</i> are accepted.

Outside Range	The va	lues whic	ch are	outside	Rang	e l	Limits
	are acc	epted.					
Include Range Limits	Determines	whether	Range	Limits	are	to	meet
	filter's cond	itions.					

1.7 RECIPES

Serve to arrange different variables and their values to *Recipes*. Recipes of similar types can be grouped into *Subgroups* and subgroups into logical entities called *Groups*. The values of these variables can be stored on disk or transferred back to PLC by reading the data from the disk.

Connected recipes		×
Folders	Connected recipes	Stored recipes
Root folder	A010	A010_Rec1 A010_Rec3 A010_Rec3 A010_Rec4 A010_Rec5
Comment:	Comment:	Image: marked bit
		Close

Load into stations	Transfers the values from the selected Recipe to PLC.
Save	Shows the window for storing the Recipe on the disk. The recipe can be stored under a new name or it can rewrite an existing recipe in the list.
Rename	Shows the window for renaming of the selected recipe.
Delete	Deletes the selected recipe from the list.

1.8 USER MANAGER

Use User manager to add or delete users from the list or to change properties of different users. Only the users who have the privilege of a User administrator can do the editing of the List of Users. The window User manager can be called from the menu \rightarrow Services \rightarrow User manager.

User manager User list Manager Admin	×
Operator1	Add
Operator3 Operator4	Edit
Operator5	Delete
OK Cancel	Save changes

Add	Adds a new user to the List of Users.
Edit	Shows the window <i>User Properties Editor</i> which serves to change the properties of the marked user.
Delete	Deletes the marked user.

User Properties Editor

User properti	es editor	×
User propertie	S Access rights Access restrictions	
Name:	Admin	
Password:	×××	
Confirm password:	жж	
HW code:		
User numb	er: 2	
Active	user	
Registe	ir logon	
Registe	ir logout	
User ad	Iministrator	
Comment		
System admi	nistrator	
	OK Cancel	

In the window **User Properties Editor** must be with any new user stated his Name, Password, Code and set his Access rights (limits of Control of Runtime). Also it is possible to set whether the user is Active (the user can logon), whether his Logon and Logout to Runtime should be recorded and whether he has the privilege of User administrator. With an existing user it is possible to change all the parameters.

Access Rights

Use the Access rights tab to edit the access rights of the user.

Access Restrictions

Access Restrictions prevent user's access to the system and other programs. Each user can be enabled or disabled to print messages, graphs and reports.

Example of Access Restrictions Usage:

With inactive option *Disable Runtime main window moving* can a logged-on user in Runtime mode shift the main window of the runtime module. It is possible to catch the upper bar with the left mouse button and shift it sideways. Then he has the access to the "Start" menu and to the icons of the desktop. When the option *Disable Runtime main window moving* is active, the shift is forbidden.