



VariableBase Editor

Manual

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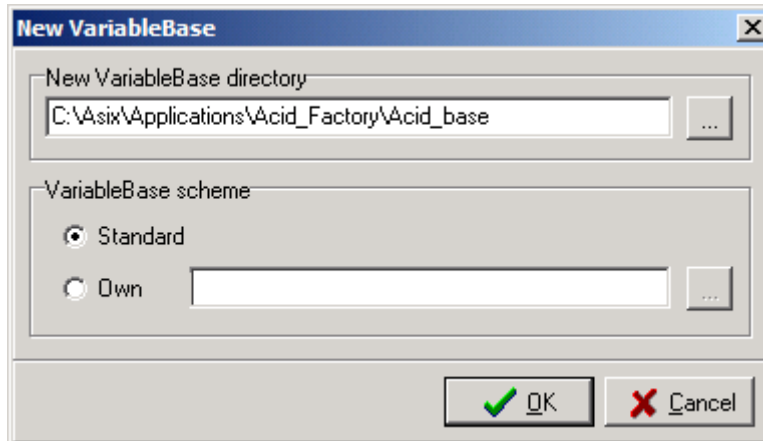


ASKOM Sp. z o. o., ul. Józefa Sowińskiego 13, 44-121 Gliwice,
tel. +48 (0) 32 3018100, fax +48 (0) 32 3018101,
<http://www.askom.com.pl>, e-mail: office@askom.com.pl

1. VariableBase

1.1. Creating a New VariableBase

To create a new VariableBase, select *New* from *VariableBase* menu. The following dialog window appears:



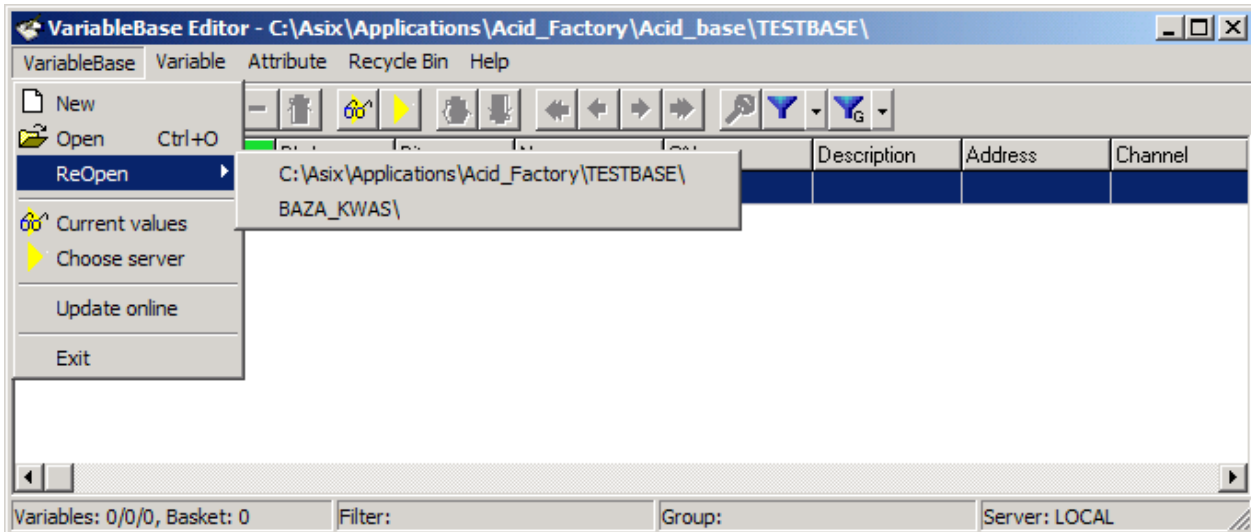
In *New VariableBase Directory* field, enter the name of directory the new VariableBase is to be created. Clicking on the button on the right of field you can display the list of directories, which the destination directory may be selected from.

Standard VariableBase is created by default. The base enables using the attributes of variables defined in **SchematEBZ.txt** VariableBase structure file that can be found in directory, where **asix** system was installed. In order to create a VariableBase using own VariableBase structure created by a designer, check *Own* box in *VariableBase Scheme* field and write full access path to the scheme file.

1.2. Opening an Existing VariableBase

To open a VariableBase, select *Open* from *VariableBase* menu or press *Ctrl+O* keyboard shortcut. This will display a list of directories. Select the directory containing the required VariableBase.

The names of recently used VariableBases are stored in *VariableBase* menu. To display a list of bases, select *ReOpen* from *VariableBase* menu. Selecting the name of required Variable Database opens it.



In addition, when the program is started the most recently used Variable Database is always opened.

1.3. Main Window

Main window includes:

- title bar,
- menu,
- tool bar,
- table,
- status bar.

Name	C&I	Description	Address	Channel	ElementsNumber	Sort
Kw_A032_HH	TRZAH-62a	H2S temperature before furnace - limit HH	ED113.160	SINEC_AC	1	
Kw_A032_L	TRZAH-62a	H2S temperature before furnace - limit L	ED113.164	SINEC_AC	1	
Kw_A032_LL	TRZAH-62a	H2S temperature before furnace - limit LL	ED113.166	SINEC_AC	1	
Kw_A032_S	TRZAH-62a	H2S temperature before furnace - measurement damage	ED111.32	SINEC_AC	1	
Kw_A036	TRZAH-63a	Vapours temperature before furnace	ED110.36	SINEC_AC	1	
Kw_A036_H	TRZAH-63a	Vapours temperature before furnace - limit H	ED113.182	SINEC_AC	1	
Kw_A036_HH	TRZAH-63a	Vapours temperature before furnace - limit HH	ED113.180	SINEC_AC	1	
Kw_A036_L	TRZAH-63a	Vapours temperature before furnace - limit L	ED113.184	SINEC_AC	1	
Kw_A036_LL	TRZAH-63a	Vapours temperature before furnace - limit LL	ED113.186	SINEC_AC	1	
Kw_A036_S	TRZAH-63a	Vapours temperature before furnace - measurement damage	ED111.36	SINEC_AC	1	
Kw_A046	TRCAHL-16a	Acid gases temperature	ED110.46	SINEC_AC	1	
Kw_A046_H	TRCAHL-16a	Acid gases temperature - limit H	ED113.232	SINEC_AC	1	
Kw_A046_HH	TRCAHL-16a	Acid gases temperature - limit HH	ED113.230	SINEC_AC	1	
Kw_A046_L	TRCAHL-16a	Acid gases temperature - limit L	ED113.234	SINEC_AC	1	
Kw_A046_LL	TRCAHL-16a	Acid gases temperature - limit LL	ED113.236	SINEC_AC	1	
Kw_A046_S	TRCAHL-16a	Acid gases temperature - measurement damage	ED111.46	SINEC_AC	1	
Kw_A048	TRC-21a	Flue gases temp. between I & II pl.	ED110.48	SINEC_AC	1	
Kw_A048_H	TRC-21a	Flue gases temp. between I & II pl. - limit H	ED113.242	SINEC_AC	1	
Kw_A048_HH	TRC-21a	Flue gases temp. between I & II pl. - limit HH	ED113.240	SINEC_AC	1	
Kw_A048_L	TRC-21a	Flue gases temp. between I & II pl. - limit L	ED113.244	SINEC_AC	1	
Kw_A048_LL	TRC-21a	Flue gases temp. between I & II pl. - limit LL	ED113.246	SINEC_AC	1	
Kw_A048_S	TRC-21a	Flue gases temp. between I & II pl. - measurement damage	ED111.48	SINEC_AC	1	
Kw_A050	TRC-22a	Flue gases temp. between II & III pl.	ED110.50	SINEC_AC	1	

Variables: 33/293/293, Basket: 0 Filter: Group: Server: LOCAL

The title bar displays the name of the program and the name of directory of the currently loaded base. The table contains attribute values of variables contained in a VariableBase. The status bar displays additional information for the user.

One of the attribute columns in the table is always distinguished with the header color. This distinguished column contains the attribute according to which the base was sorted. Green color means that the VariableBase is sorted in ascending order, while blue color refers to descending order.

No	Name	Description
2	Kw_A004	Sulphuric acid temperature
2	Kw_N02_P	Control valve of inflowing sulphu
3	Kw_A008	Warm water temperature
3	Kw_N03_P	Control valve of sulphuric acid fl
4	Kw_N04_P	Control flap valve of level in sulp
5	Kw_N05_P	Control flap valve of temperature
6	Kw_N06_P	Control flap valve of temperature
7	Kw_N07_P	Control flap valve of temperature
9	Kw_A032	H2S temperature before furnace
9	Kw_N09_P	Control flap valve of air flow to fu
10	Kw_A036	Vapours temperature before furn
10	Kw_N10_P	Control flap valve of H2S flow to
11	Kw_N11_P	Control flap valve of vapours flo
12	Kw_A046	Acid gases temperature

Variables: 45/293/293, Basket: 0 Filter:

No	Name	Description
15	Kw_N02_Z	Control valve of inflowing sulphu
15	Kw_A052	Flue gases temp. between III & I
14	Kw_A050	Flue gases temp. between II & II
13	Kw_A048	Flue gases temp. between I & II
12	Kw_A046	Acid gases temperature
12	Kw_N12_P	Control flap valve of coke-oven
11	Kw_N11_P	Control flap valve of vapours flo
10	Kw_A036	Vapours temperature before furn
10	Kw_N10_P	Control flap valve of H2S flow to
9	Kw_N09_P	Control flap valve of air flow to fu
9	Kw_A032	H2S temperature before furnace
7	Kw_N07_P	Control flap valve of temperature
6	Kw_N06_P	Control flap valve of temperature
5	Kw_N05_P	Control flap valve of temperature

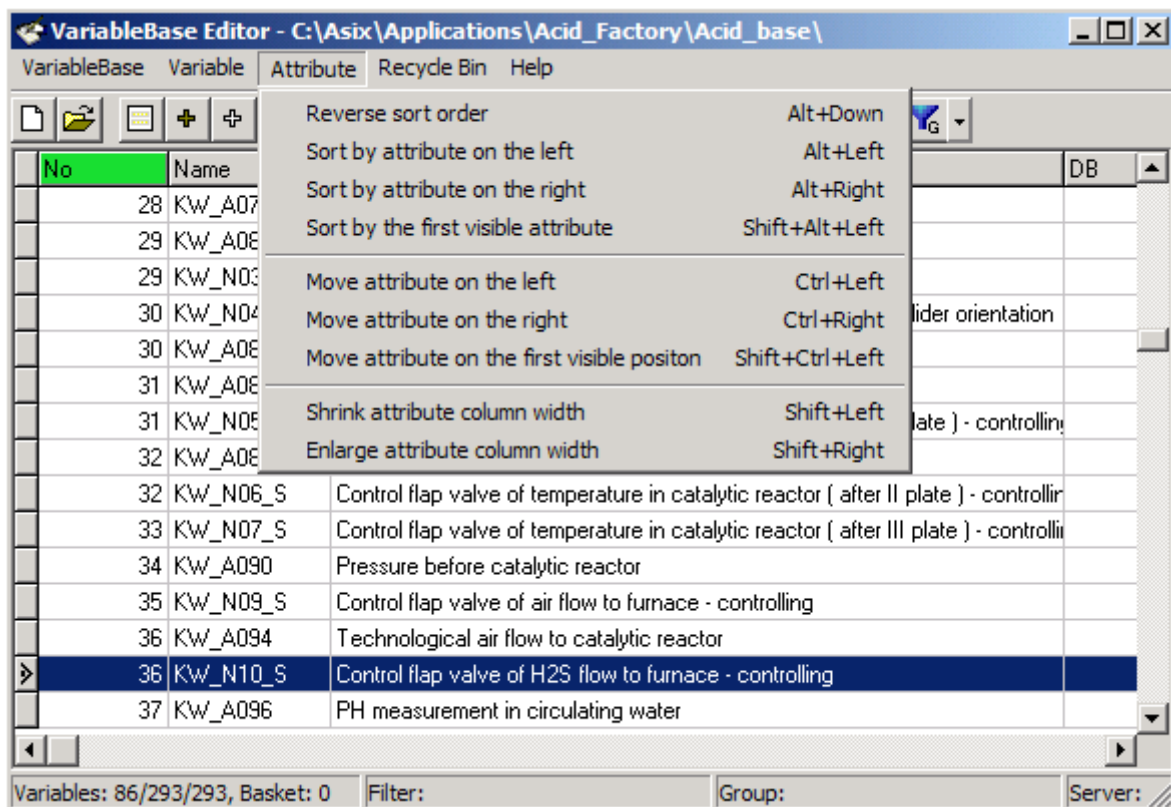
Variables: 243/293/293, Basket: 0 Filter:

In order to change the attribute according to which the VariableBase is sorted, click on the header of any other attribute column. With the keyboard this attribute can be replaced by the attribute from adjoining column by selecting *Sort by attribute on the left* (shortcut *Alt+←*) or *Sort by attribute on the right* (shortcut *Alt+→*) from *Attribute* menu.

Clicking on the header of distinguished column reverses the sorting order. The sorting order can be changed with the keyboard by selecting *Reverse Sort Order* from *Attribute* menu (shortcut *Alt+↵*).

In order to change the order of attribute columns, drag the column header with a mouse to the right or to the left. The column order can be changed with the use of keyboard by selecting *Move attribute on the left* (shortcut *Ctrl+←*) or *Move attribute on the right* (shortcut *Ctrl+→*) from *Attribute* menu.

In order to change the column width, drag the right edge of a column with the mouse to the right or to the left. The column width can be changed with the use of keyboard by selecting *Shrink attribute column width* (shortcut *Shift+←*) or *Enlarge attribute column width* (shortcut *Alt+→*) in *Attribute* menu.



The order of attribute columns, their width and sorting order are maintained after the program is closed; the information is stored independently for each VariableBase.

Information displayed in the status bar is divided into four panels. The first one displays statistical information concerning the VariableBase. Total number of variables available for **asix** system and total number of variables in dustbin is always displayed. In addition, for the currently displayed VariableBase, number of the active variables and number of variables displayed after filtration are displayed. The second panel of the status bar

displays a template used to filter a VariableBase. Clicking on this panel displays a field to enter a filtration template. The third panel of the status bar displays the name of the group used to filter a VariableBase. Clicking on this panel displays a field to enter group name. The fourth panel displays the name of **asix** server used to get the current variable values. Clicking on this panel displays the server selection window.

1.4. Displaying Current Variable Values

To display the current variable values, select *Current Values* from *VariableBase* menu. After this command is selected, a new column titled *Current Value* appears on the right. This column contains the current variable values.

The current values can be displayed in any of the following three colors. Green color means the value status is good. Yellow color means the value status is uncertain. Red color means the value status is bad or that some problems with communication with the data sever have occurred.

Current data are retrieved from the current data server recently selected by the user. If a server has never been selected, the server selection window is displayed. The name of the currently selected server of current data is displayed in the status line.

No	Name	Description	Current value
22	KW_N09_Z	Control flap valve of air flow to furnace - setting position	Data server in ASIX
23	KW_N10_Z	Control flap valve of H2S flow to furnace - setting position	Data server in ASIX
24	KW_N11_Z	Control flap valve of vapours flow to furnace - setting position	Data server in ASIX
25	KW_N12_Z	Control flap valve of coke-oven gas flow to furnace - setting position	Data server in ASIX
26	KW_A074	Flue gases temperature in atmospheric condenser	Data server in ASIX
26	KW_N13_CP	Work time of air fan	Data server in ASIX
27	KW_A076	Flue gases temperature in atmospheric condenser	Data server in ASIX
27	KW_N01_S	Acid gas temeprature flap valve - controlling	Data server in ASIX
28	KW_N02_S	Control valve of Inflowing sulphuric acid concentration - controlling	Data server in ASIX
28	KW_A078	Furnace lining temperature	Data server in ASIX
29	KW_A080	Sulphuric acid concentration - inflow	Data server in ASIX
29	KW_N03_S	Control valve of sulphuric acid flow - controlling	Data server in ASIX
30	KW_N04_S	Control flap valve of level in sulphuric acid circulating tank - slider orient	Data server in ASIX
30	KW_A082	Sulphuric acid flow	Data server in ASIX
31	KW_A084	Level in sulphuric acid circul. tank	Data server in ASIX

Variables: 71/293/293, Basket: 0 Filter: Group: Server: LOCAL

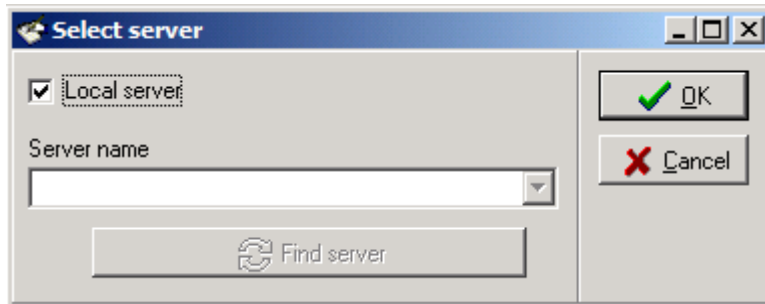
REMARK:

Before connection to the local server, you should remember to activate the **asix** application first and only then select *Current Values* from *VariableBase* menu.

1.5. Selecting asix Current Data Server

To select **asix** current data server, select *Choose server* in *VariableBase* menu.

The following pop-up dialog window appears:



The *Local server* is checked by default. It means the current data will be retrieved from **asix** local server. In order to get data from any server available in the LAN, uncheck *Local Server* field and enter **asix** server name in *Server Name* field. Instead of entering it, you can click on **Search** button and then select required name from the list of found servers.

1.6. Updating a VariableBase Online

If the **asix** application running on a local PC retrieves the definitions of variables from VariableBase, it is possible to modify these definitions without necessity to stop and restart the application. For this purpose, load the application's VariableBase in VariableBase Editor and, after modification of variable definitions, select *Update Online* from *Variable Database* menu.

NOTE:

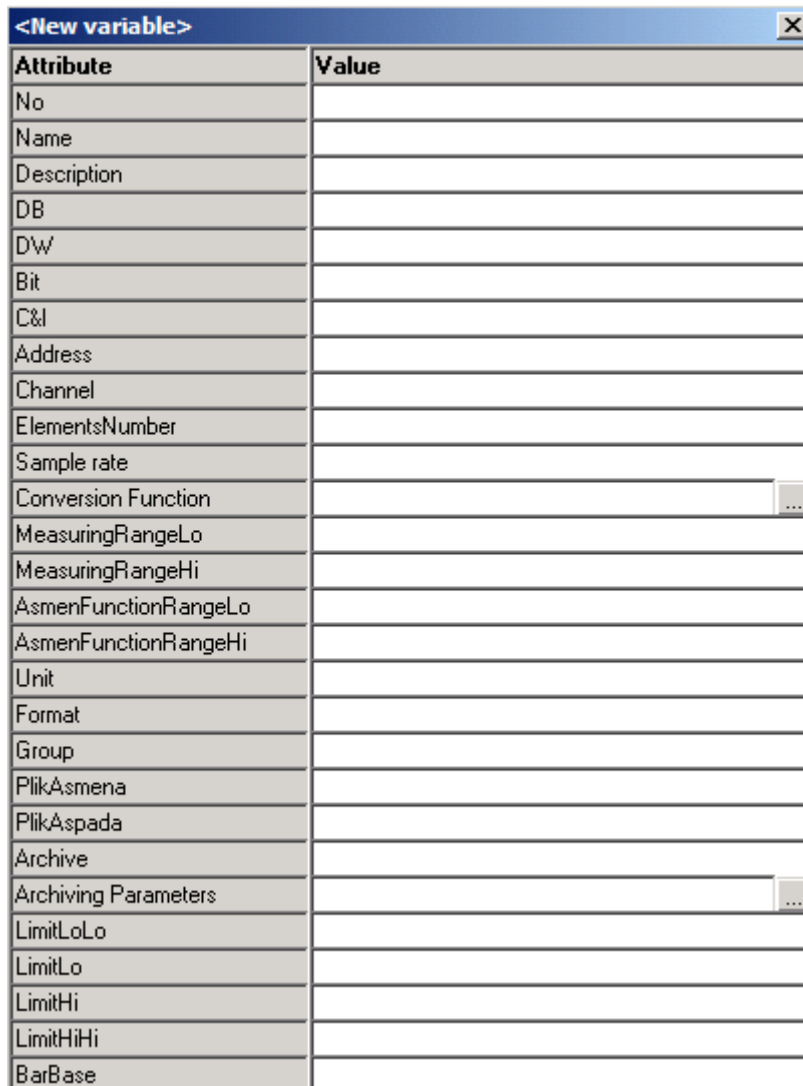
The term 'Definition modification' refers to adding or deleting variables and modifying existing variable definitions.

Some modifications cannot be loaded without restarting **asix** application.

2. Variable

2.1. Adding a New Empty Variable

To add a new empty variable to a VariableBase, select **Add Empty** from **Variable** menu (you can do the same by **Ctrl + Ins**). A pop-up dialog window, which contains the names of attributes, will appear but all the variable attribute values will be empty.



Attribute	Value
No	
Name	
Description	
DB	
DW	
Bit	
C&I	
Address	
Channel	
ElementsNumber	
Sample rate	
Conversion Function	...
MeasuringRangeLo	
MeasuringRangeHi	
AsmenFunctionRangeLo	
AsmenFunctionRangeHi	
Unit	
Format	
Group	
PlikAsmena	
PlikAspada	
Archive	
Archiving Parameters	...
LimitLoLo	
LimitLo	
LimitHi	
LimitHiHi	
BarBase	

2.2. Adding a New Variable

To add a new variable to the VariableBase, select **Add** from **Variable** menu. A pop-up dialog window, which contain the names of attributes and current variable attribute values, will appear. Suggested attribute values will be the same as attributes of currently highlighted variable.

Attribute	Value
No	
Name	
Description	Cubicle power supply control
DB	45
DW	0
Bit	0
C&I	
Address	EB45.0
Channel	SINEC_AC
ElementsNumber	1
Sample rate	1
Conversion Function	NOTHING_BYTE
MeasuringRangeLo	
MeasuringRangeHi	
AsmenFunctionRangeLo	
AsmenFunctionRangeHi	
Unit	
Format	
Group	AC_binary
PlikAsmena	
PlikAspada	
Archive	
Archiving Parameters	
LimitLoLo	

2.3. Editing a Variable

To edit the current variable, select *Edit* from *Variable* menu. A pop-up dialog window, which contains the names of attributes and current variable attribute values, will appear.

Attribute	Value
No	8
Name	KW_A008
Description	Warm water temperature
DB	110
DW	8
Bit	
C&I	TI-31a
Address	ED110.8
Channel	SINEC_AC
ElementsNumber	1
Sample rate	1
Conversion Function	ANALOG_FP
MeasuringRangeLo	0
MeasuringRangeHi	100
AsmenFunctionRangeLo	0
AsmenFunctionRangeHi	1000
Unit	°C
Format	%5.1f
Group	AC_measurement
PlikAsmena	
PlikAspada	
Archive	ACID
Archiving Parameters	M, 30s., 10s
LimitLoLo	KW_A008_LL
LimitLo	KW_A008_L
LimitHi	KW_A008_H
LimitHiHi	KW_A008_HH
BarBase	0
K...	

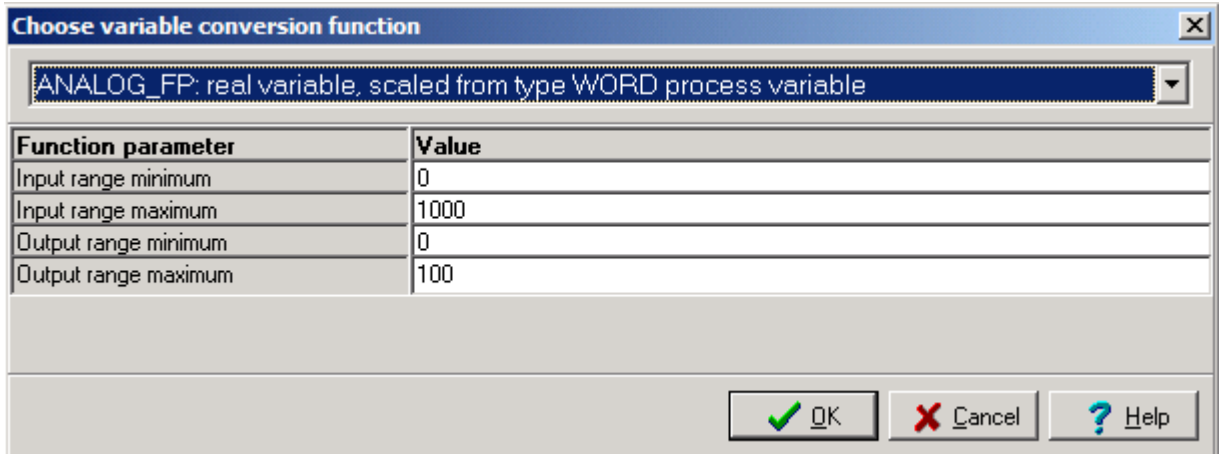
2.4. Variable Edit Window

The variable edit window contains the names of attributes and values of the current variable attribute.

KW_A008	
Attribute	Value
No	8
Name	KW_A008
Description	Warm water temperature
DB	110
DW	8
Bit	
C&I	TI-31a
Address	ED110.8
Channel	SINEC_AC
ElementsNumber	1
Sample rate	1
Conversion Function	ANALOG_FP
MeasuringRangeLo	0
MeasuringRangeHi	100
AsmenFunctionRangeLo	0
AsmenFunctionRangeHi	1000
Unit	°C
Format	%5.1f
Group	AC_measurement
PlikAsmena	
PlikAspada	
Archive	ACID
Archiving Parameters	M, 30s.,10s
LimitLoLo	Kw_A008_LL
LimitLo	Kw_A008_L
LimitHi	Kw_A008_H
LimitHiHi	Kw_A008_HH
BarBase	0

The attribute values are modified directly in the pop-up dialog window. The exception is **Conversion Function** and **Archiving Parameters** attributes, as they have their own pop-up dialog windows used to edit them. In order to display these windows, highlight required attribute and press F2.

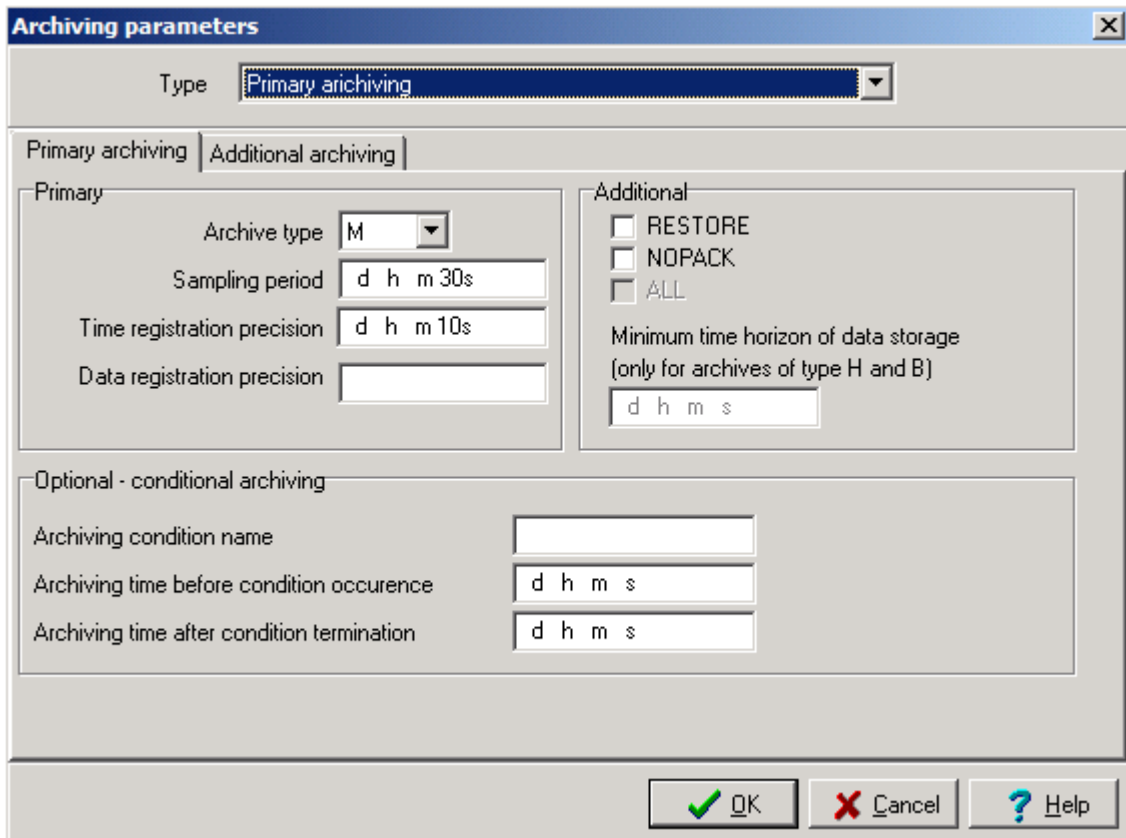
The pop-up dialog box designed for editint the conversion function takes the following form:



Function parameter	Value
Input range minimum	0
Input range maximum	1000
Output range minimum	0
Output range maximum	100

In drop-down menu, select one of the available conversion functions (function defines a variable type). Appropriate parameters should be passed depending on a function.

The pop-up dialog box designed for archiving parameters takes the following form:



The most important parameters to be entered in, if the variable is to be archived are the archive type and variable sampling period. Details on the remaining parameters are included in **asix** system documentation.

2.5. Deleting a Variable

To delete any variable from the VariableBase, select *Delete* from *Variable* menu.

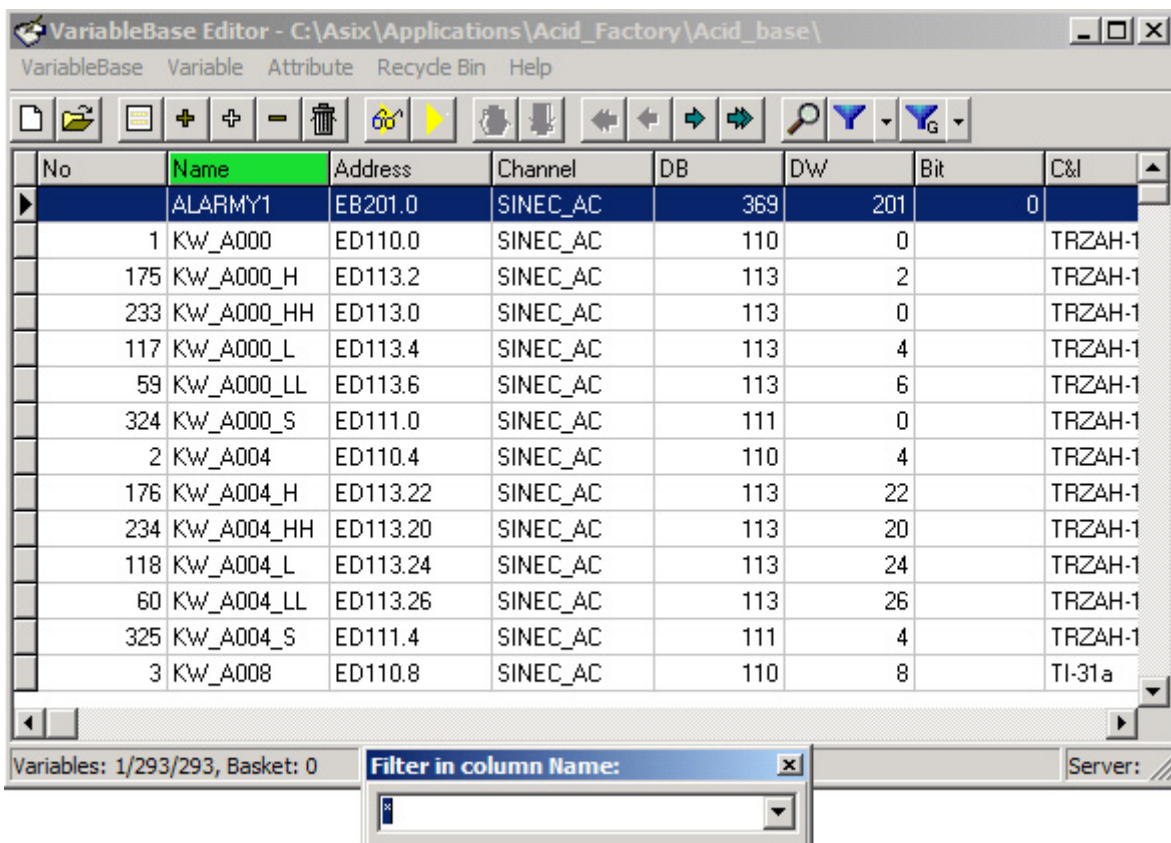
2.6. Searching a Variable

To search for a variable in a VariableBase, select **Search** from **Variable** menu. At the bottom of the main window a field will appear where attribute template for searched variable should be entered. As successive characters are entered, the first variable that fits the template will be searched for. The template is always compared to the attribute according to which the VariableBase is sorted.

Special characters can be used in template. “?” (question mark) replaces any letter, while “*” (asterisk) replaces any sequence of letters (including empty sequence). More than one special character may be used in one template.

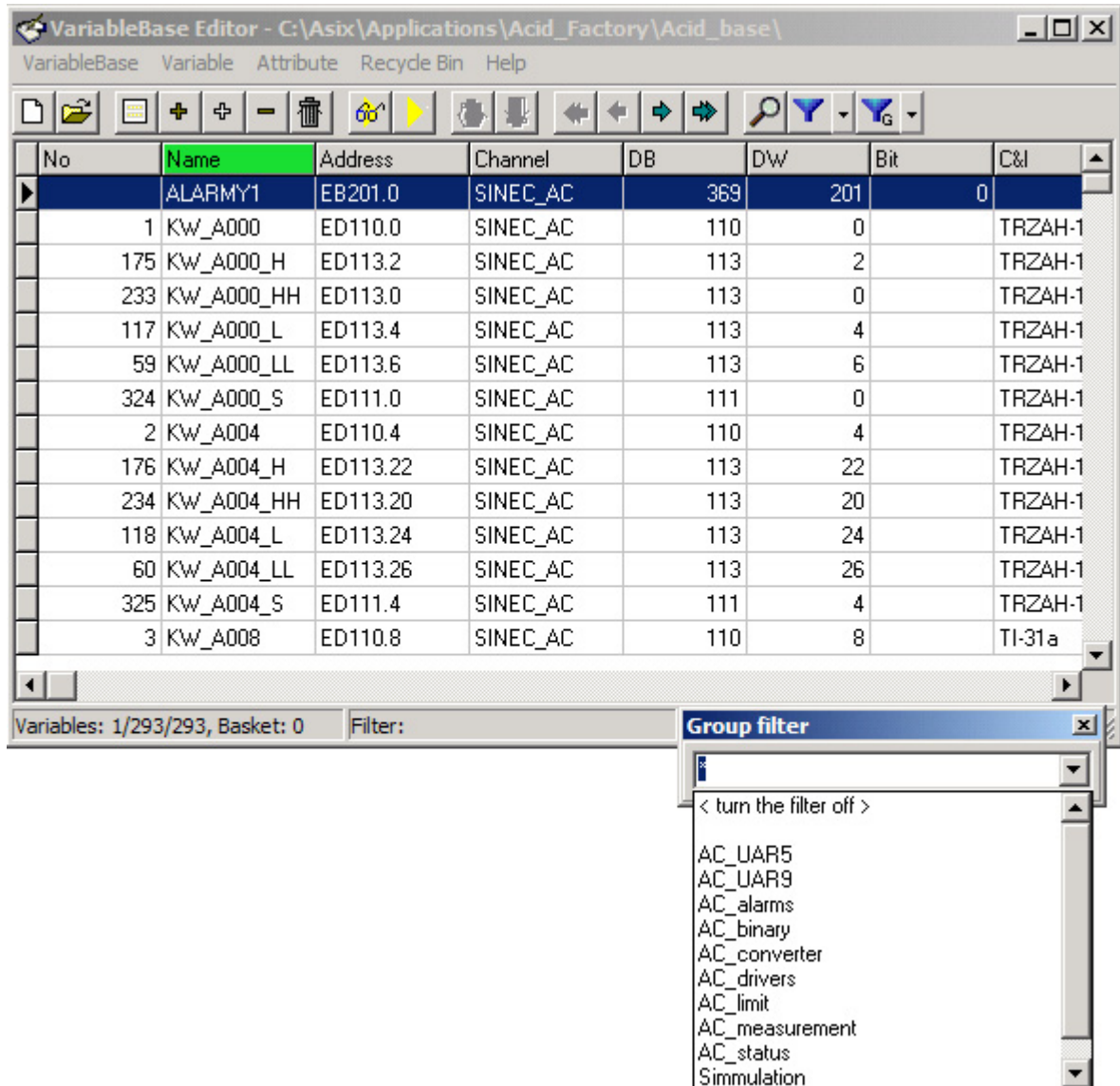
2.7. Filtering the Variables

To filter variables in a VariableBase, select **Filter** from **Variable** menu. At the bottom of the main window a field will appear where attribute template should be entered. The template will be compared to one attribute of each variable from a VariableBase, i.e. the attribute according to which variables are currently sorted. After the template is entered, the variables, which attribute matches to the template, will only be displayed.



Special characters can be used in template. “?” (question mark) replaces any letter, while “*” (asterisk) replaces any sequence of letters (including empty sequence). More than one special character may be used in one template.

You can also make filtering by selecting one of the variable groups. In order to set this filtration method, select **Filter Group** from **Variable** menu. At the bottom of the main window a field with drop-down list will appear. The list contains the names of all groups used in the base. After one of the groups is selected, the variables that belong to this group will only be displayed.



In order to reset the filtration by template, select **Turn Filter Off** from **Variable** menu. In order to reset filtration by groups, select **Turn Filter Group Off** from **Variable** menu.

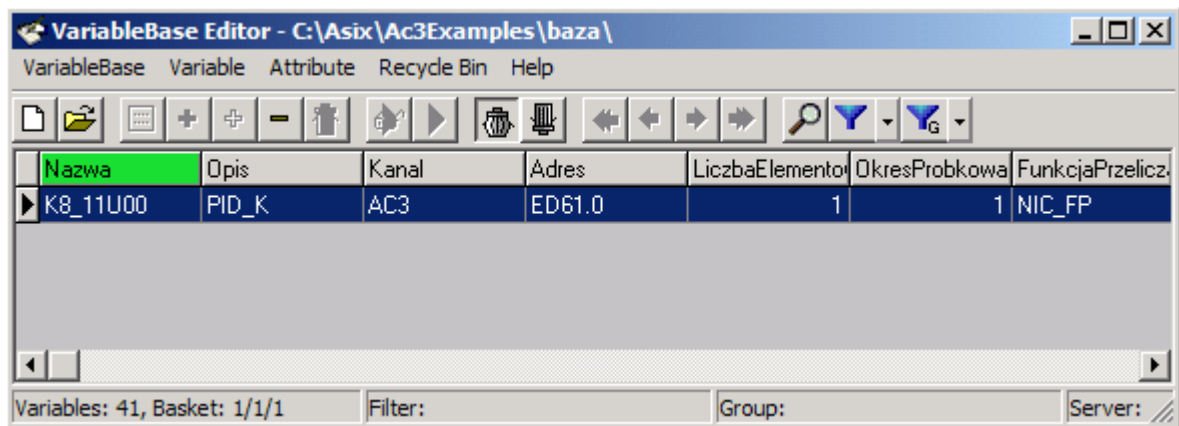
Filtration by template and by groups can be set and reset independently of each other.

3. Recycle Bin

3.1. Showing the Recycle Bin

Recycle Bin is a part of VariableBase. It contains variables unavailable for **asix** application. The application regards any transfer of variable into the bin as deleting the variable, while retrieving a variable from the bin – as adding a new variable.

You can show the basket contents by selecting the *Show* from *Recycle Bin* menu.



3.2. Moving the Variables into the Recycle Bin

To move one or more variables into the bin, select required variables and then select *Move to Recycle Bin* from *Recycle Bin* menu. There is also *Move All to the Recycle Bin* command available – it is used to move all visible variables into bin. This command should be called up only when variable filtration by template and/or by groups is set.

3.3. Removing the Variables from the Recycle Bin

To retrieve one or more variables from the bin and add them to a normal VariableBase, select these variables and then select *Remove from the Recycle Bin* from *Recycle Bin* menu. The *Remove all from the Recycle Bin* command is used to move all visible variables from the bin to the VariableBase.

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