

Mnemonic elements library of the user interface

<i>Name:</i>	mnEls
<i>Founded:</i>	September 2007
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<i>State:</i>	Open (GPL)
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<i>Description:</i>	Provides the mnemonic elements library of the user interface.
<i>Address:</i>	DB in the file: SQLite.vcaBase.wlb_mnEls (LibsDB.vcaBase.db)

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About the library

The library is created to provide mnemonic elements of the user interface. The library is built on the basis [primitives of widgets](#) and [JavaLikeCalc](#) module, allowing to create calculations on the Java-like language.

It is possible to connect the library of mnemonic elements of user interface to the project of the OpenSCADA station by downloading the attached file of the database, placing it in in the database directory of the station's project and creating the database object for the DB module "SQLite", indicating the database file in the configuration.

The library contains about fifty widgets, often sought after in the mnemonic schemes' formation of the user interface of process control. Names of elements are available in three languages: English, Russian and Ukrainian.

1. Elements of the pipeline without a gradient fill

Below, in Fig. 1, there is provided a list of items with which you can build a pipeline of any complexity. By default, they are filled with yellow, and their rotation angle is "0" degrees. By turning and scaling these widgets you can get all the necessary combinations.

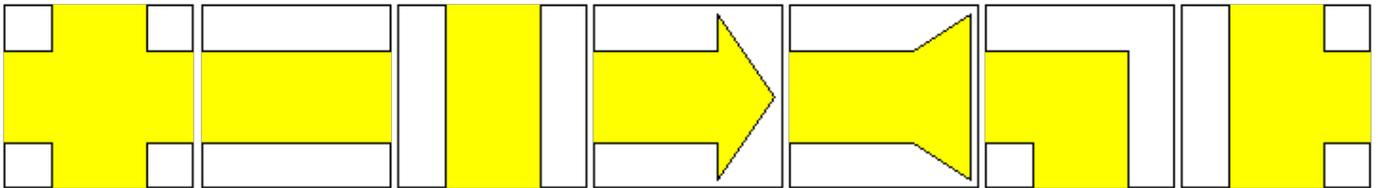


Fig.1. Elements of the pipeline from left to right: "Pipe-cross", "Line-pipe horizontal", "Line-pipe vertical", "Arrow", "Back arrow", "Pipe_Ugol", "Pipe_pipe-tee".

2. Elements of the pipeline with a volume filling

Below, in Fig. 2, there is provided a list of items with which you can build a pipeline volume of any complexity. By default, they are filled with yellow and semitransparent gray-scale images, and their rotation angle is "0" degrees. Widgets are presented in four variants in accordance to the different rotation angles.

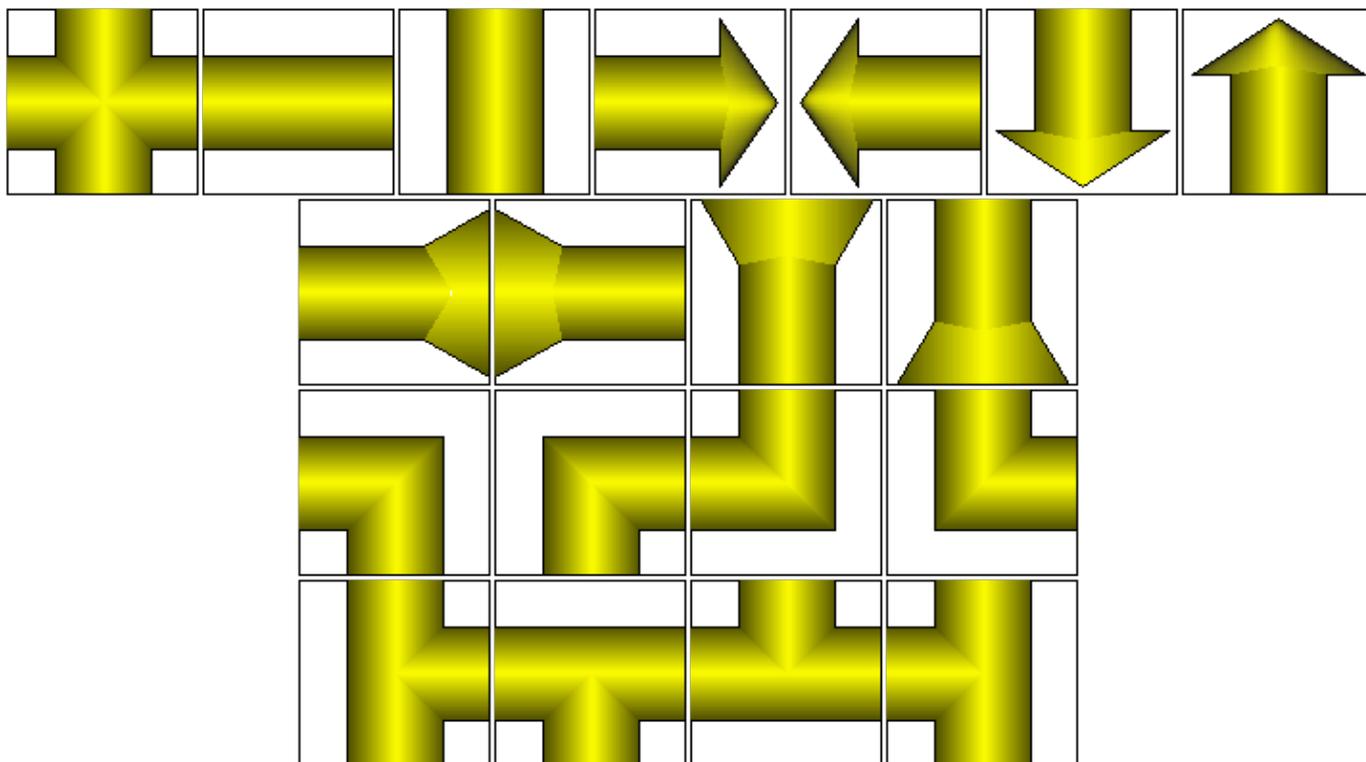


Fig.2. Elements of the pipeline from left to right and top to bottom:
 "Pipe-cross(volumed)", "Line-pipe horizontal(volumed)", "Vertical pipe line(volumed)",
 "ArrowHR(volumed)", "ArrowHL(volumed)", "ArrowVB(volumed)", "ArrowVT(volumed)", "Back
 arrowHL(volumed)", "Back arrowHR(volumed)", "Back arrowVB(volumed)", "Back
 arrowVT(volumed)", "Pipe-angleBL(volumed)", "Pipe-angleBR(volumed)", "Pipe-angleTL(volumed)",
 "Pipe-angleTR(volumed)" "Pipe-teeVR(volumed)", "Pipe-teeHB(volumed)", "Pipe-teeHT(volumed)",
 "Pipe-teeVL(volumed)".

3. Elements, representing various technological devices

Below, in Fig. 3, there is provided a list of elements - images of technological devices, commonly used in the construction of mimics of various technological processes. Some of them contain a script that describes their actions. Most widgets have a square shape, allowing easy turning and scaling them if necessary, the rotation angle of all the widgets is "0" by defaults.

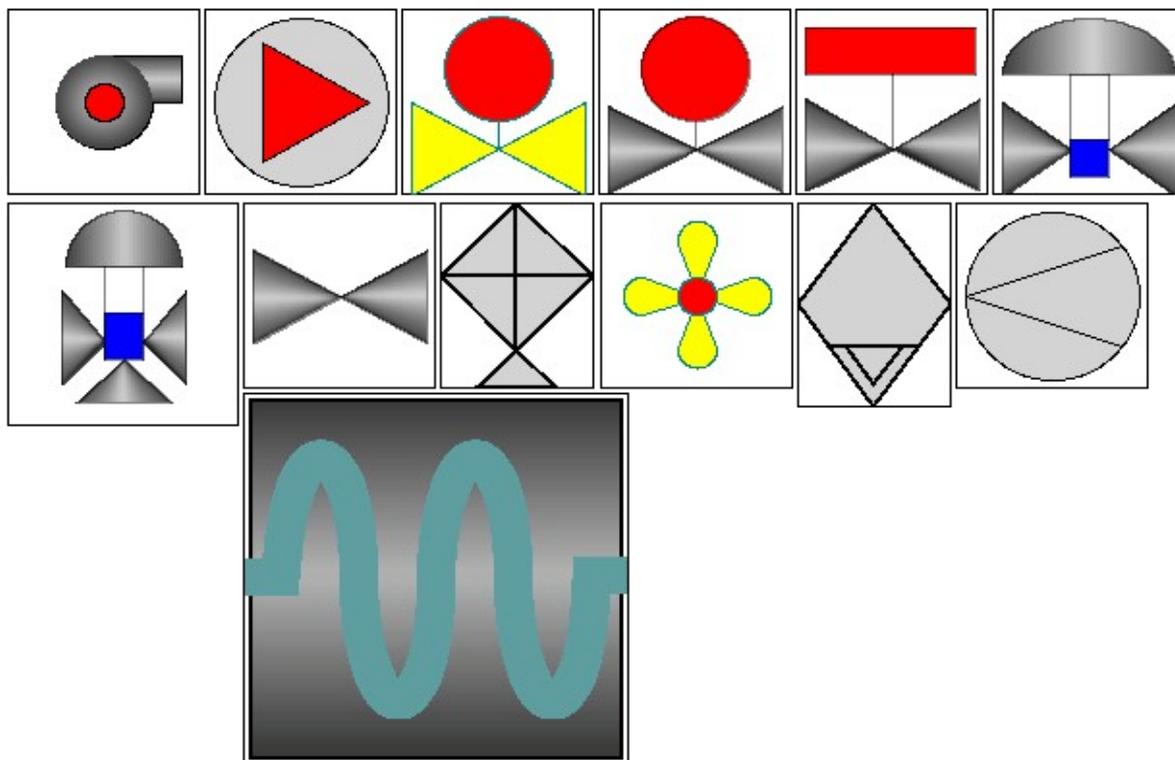


Fig.1. Elements representing technological devices from left to right and top to bottom: "Compressor", "Compressor 1", "Bolt", "Crane", "Ball crane", "Crane and position", "Three-positioned crane", "Valve" "Cooler", "Cooler", "Separator", "Diaphragm", "Zmejev_hor".

Linking parameters for the "Ball crane" widget:

ID	Parameter	Data type	Config	Config template	Description
<i>"Ball crane" widget (El_Kran_Sh)</i>					
com	Command	Boolean	Full link	Parameter com	Open/close command.
shifr	Code	String	Full link	Parameter NAME	Parameter's name.
st_close	State - "Closed"	Boolean	Full link	Parameter st_close	Closed state.
st_open	State - "Opened"	Boolean	Full link	Parameter st_open	Opened state.
<i>"Crane and position" widget (El_Kran_polozh)</i>					
out	Position	Real	Input link	Parameter out	Open/closure degree.
<i>"Three-positioned crane" widget (Kran_3_pos)</i>					
out	Position	Real	Input link	Parameter out	Open/closure degree.
<i>"Compressor" widget (Compressor)</i>					
com	Command	Boolean	Full link	Parameter com	Start/stop command.

The widgets "Ball crane", "Crane and position", "Three-positioned crane" have the processing, which is to call the widget "Element cadr" when you press the left mouse button on the any fill from [main elements library of the user interface](#) in the place of the control panel to make the control actions with the parameter, which is linked to the one of those widgets.

4. The remaining elements, which can hardly be referred to a particular group

Below, in Fig. 4, there is provided a list of remaining items in the library, they also can often be needed in the construction of mimics. Some of them contain a script that describes their actions. Most widgets have a square shape, allowing easy turning and scaling them if necessary, the rotation angle of all the widgets is "0" by defaults.

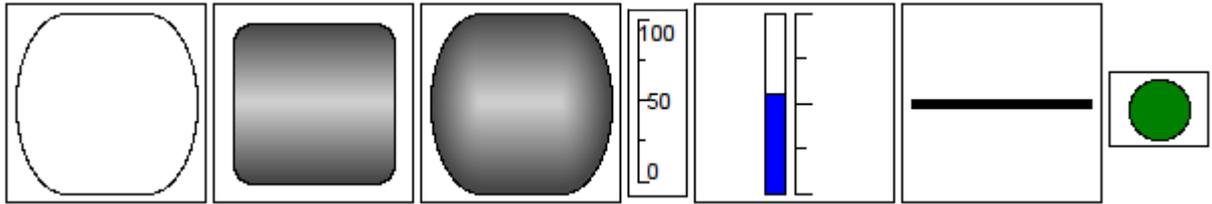


Fig.4. Elements from left to right and top to bottom:
 "Rounded rectangle", "Rounded rectangle (variant 2)", "Rounded rectangle(valuable)", "Scale",
 "Level", "Line", "Alarming".

Linking parameters for the "Level" widget:

ID	Parameter	Data type	Config	Config template	Description
max	Maximum	Real	Input link	Parameter max	Maximum scale.
min	Minimum	Real	Input link	Parameter min	Minimum scale.
var	Value	Real	Input link	Parameter var	Level value.