UI Component library

D2000 Components serve for fast and effective creation of visualization, basic overview of a status, values, process, devices, measurements, regulation, process status and provide basic pointers for a user/operator.

- Component is a scheme used for embedding design and functionality of a graphic object
- Easy repeated use
- Data binding is parameterized from the parent scheme
- Support of unlimited introduction of components
- Categorization of components

Use of components

Selection of the component object and insertion into the scheme

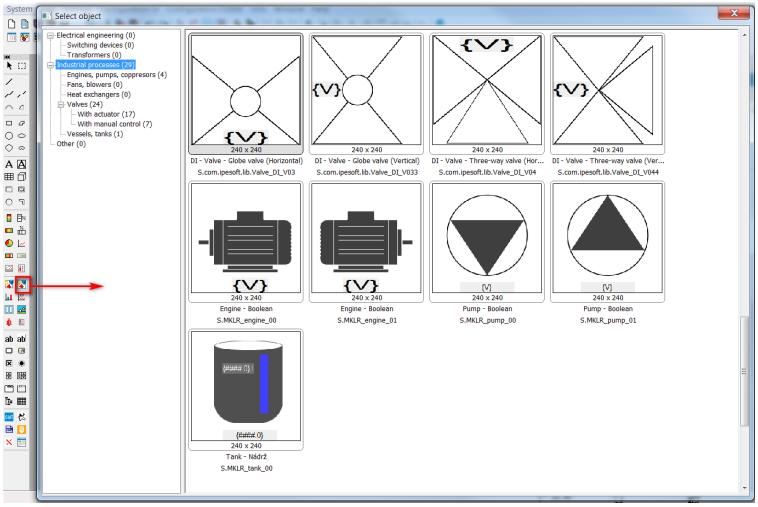


Figure 1 *– Selection of the component object*

Use of components in the scheme and parameterization

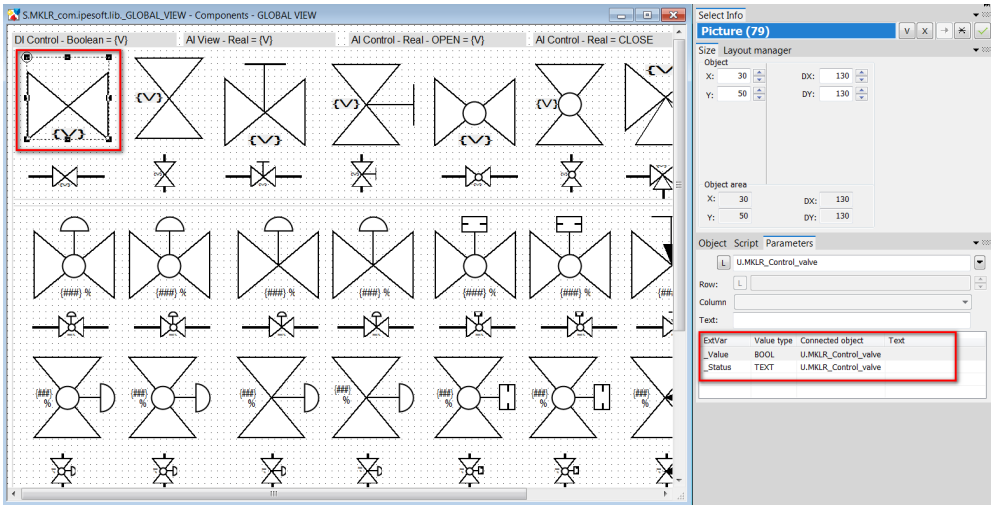


Figure 2 *– Use of components in the scheme – Parameters ExtVar*

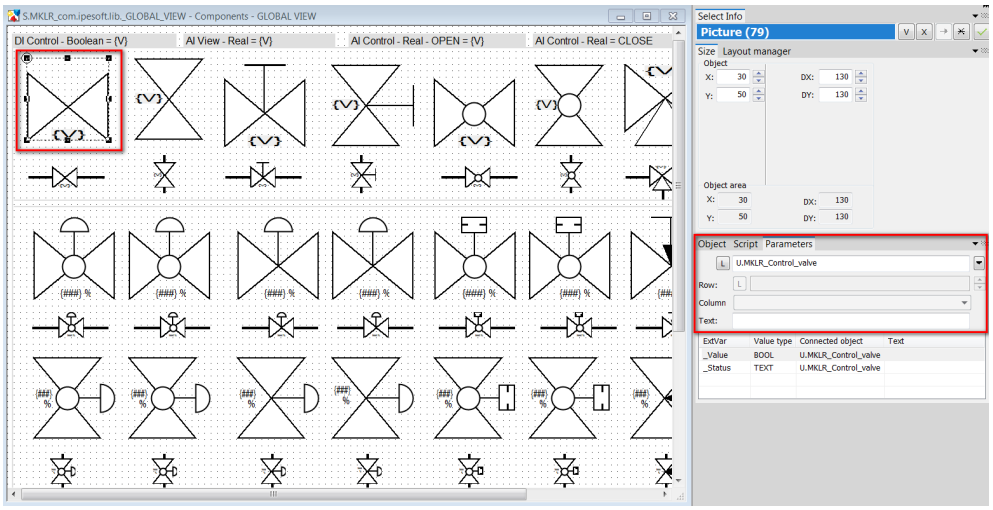


Figure 3 *– Use of components in the scheme – Parameters ExtVar*

Parameterization of local variables of the "EXTERNAL" type

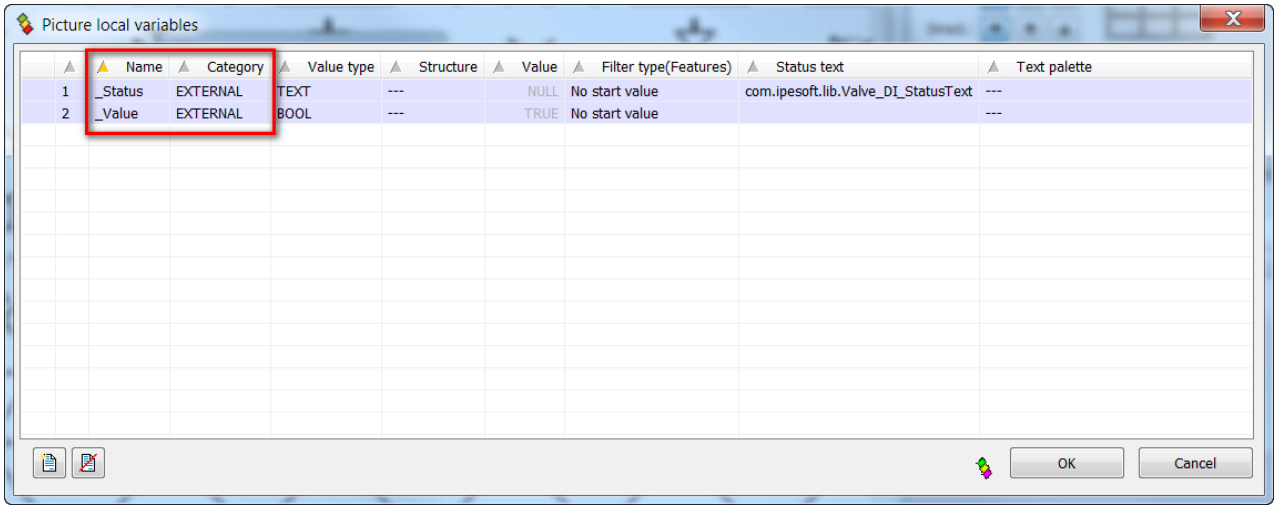


Figure 4 *– Definitions of local variables of the EXTERNAL type*

After inserting component scheme into parenting scheme, it is possible to bind external variables of the component to variables of the parenting scheme or to D2000 objects.

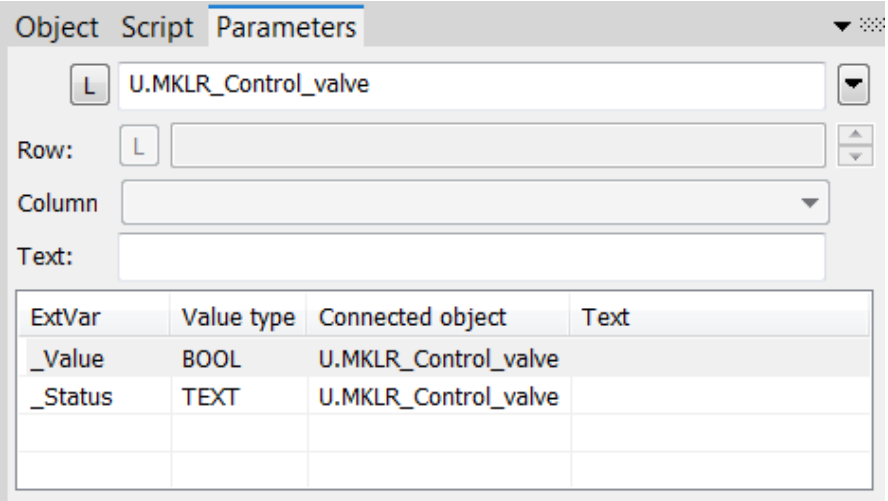


Figure 5 *– Binding of external variables of the component*

Categorization of components

In scheme parameters, it is possible to edit component groups and put the scheme into a component group.

It is possible to create component groups, to rename and delete them by selecting an item from the context menu, which is opened by a right-click.

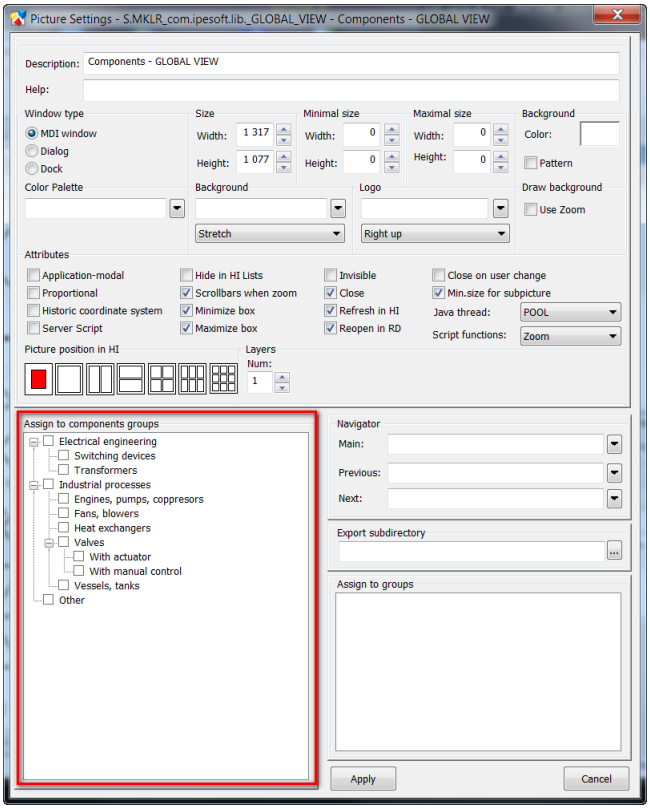


Figure 6 *– Categorization of components*

Sharing and distribution of components

It is possible to move component schemes, same as other D2000 objects, among applications using D2000 XML export/import.

We recommend to choose such name convention for components as to prevent conflicts of names with potential existing schemes and other objects. Components supplied by the IPESOFT company have the prefix com.ipesoft.lib in their name.

- A prefix in names of components/D2000 objects

– S.**com.ipesoft.lib.**Valve

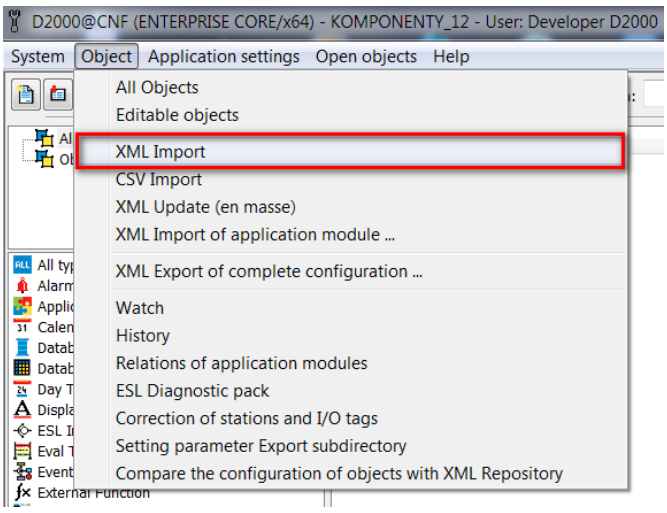
– **com.ipesoft.lib.**Valve_Coloring.PAL

– **com.ipesoft.lib.**Valve_StatusText

- A prefix as a root of the category hierarchy of components
- A simple XML import of components

Meno objektu	Popis objektu
com.ipesoft.lib.Valve_AI_Coloring.PAL	AI - Valve - Coloring
com.ipesoft.lib.Valve_DI_Coloring.PAL	DI - Valve - Coloring
com.ipesoft.lib.Valve_DI_StatusText	DI - Valve - Status Text
com.ipesoft.lib.Valve_DI_TW_Coloring_P01.PAL	DI - Valve - Coloring - Three-way valve P01
com.ipesoft.lib.Valve_DI_TW_Coloring_P02.PAL	DI - Valve - Coloring - Three-way valve P02
com.ipesoft.lib.Valve_DI_TW_Coloring_P03.PAL	DI - Valve - Coloring - Three-way valve P03
com.ipesoft.lib.Valve_DI_TW_Horizontal_StatusText	DI - Valve - Status Text - Horizontal Three-way valve
com.ipesoft.lib.Valve_DI_TW_Vertical_StatusText	DI - Valve - Status Text - Vertical Three-way valve
S.com.ipesoft.lib.Valve_AI_V01	AI - Valve - Control valve with manual actuator (Horizontal left input)
S.com.ipesoft.lib.Valve_AI_V011	AI - Valve - Control valve with manual actuator (Horizontal right input)
S.com.ipesoft.lib.Valve_AI_V0111	AI - Valve - Control valve with manual actuator (Vertical up input)
S.com.ipesoft.lib.Valve_AI_V01111	AI - Valve - Control valve with manual actuator (Vertical down input)
S.com.ipesoft.lib.Valve_AI_V02	AI - Valve - Ball valve with pneumatic actuator (Horizontal left input)
S.com.ipesoft.lib.Valve_AI_V022	AI - Valve - Ball valve with pneumatic actuator (Horizontal right input)
S.com.ipesoft.lib.Valve_AI_V0222	AI - Valve - Ball valve with pneumatic actuator (Vertical up input)
S.com.ipesoft.lib.Valve_AI_V02222	AI - Valve - Ball valve with pneumatic actuator (Vertical down input)
S.com.ipesoft.lib.Valve_AI_V03	AI - Valve - Ball valve with single acting pneumatic actuator (Horizontal left input)
S.com.ipesoft.lib.Valve_AI_V033	AI - Valve - Ball valve with single acting pneumatic actuator (Horizontal right input)
S.com.ipesoft.lib.Valve_AI_V0333	AI - Valve - Ball valve with single acting pneumatic actuator (Verticall up input)
S.com.ipesoft.lib.Valve_AI_V03333	AI - Valve - Ball valve with single acting pneumatic actuator (Verticall down input)
S.com.ipesoft.lib.Valve_AI_V04	AI - Valve - Gate valve with pneumatic membrane actuator (Horizontal left input)
S.com.ipesoft.lib.Valve_AI_V044	AI - Valve - Gate valve with pneumatic membrane actuator (Horizontal right input)
S.com.ipesoft.lib.Valve_AI_V0444	AI - Valve - Gate valve with pneumatic membrane actuator (Vertical up input)
S.com.ipesoft.lib.Valve_AI_V04444	AI - Valve - Gate valve with pneumatic membrane actuator (Vertical down input)
S.com.ipesoft.lib.Valve_DI_V01	DI - Valve - Gate valve (Horizontal)
S.com.ipesoft.lib.Valve_DI_V011	DI - Valve - Gate valve (Vertical)
S.com.ipesoft.lib.Valve_DI_V02	DI - Valve - Gate valve with manual actuator (Horizontal)
S.com.ipesoft.lib.Valve_DI_V022	DI - Valve - Gate valve with manual actuator (Vertical)
S.com.ipesoft.lib.Valve_DI_V03	DI - Valve - Globe valve (Horizontal)
S.com.ipesoft.lib.Valve_DI_V033	DI - Valve - Globe valve (Vertical)
S.com.ipesoft.lib.Valve_DI_V04	DI - Valve - Three-way valve (Horizontal left input)
S.com.ipesoft.lib.Valve_DI_V044	DI - Valve - Three-way valve (Vertical down input)

***Figure 7** – A prefix of components' names*



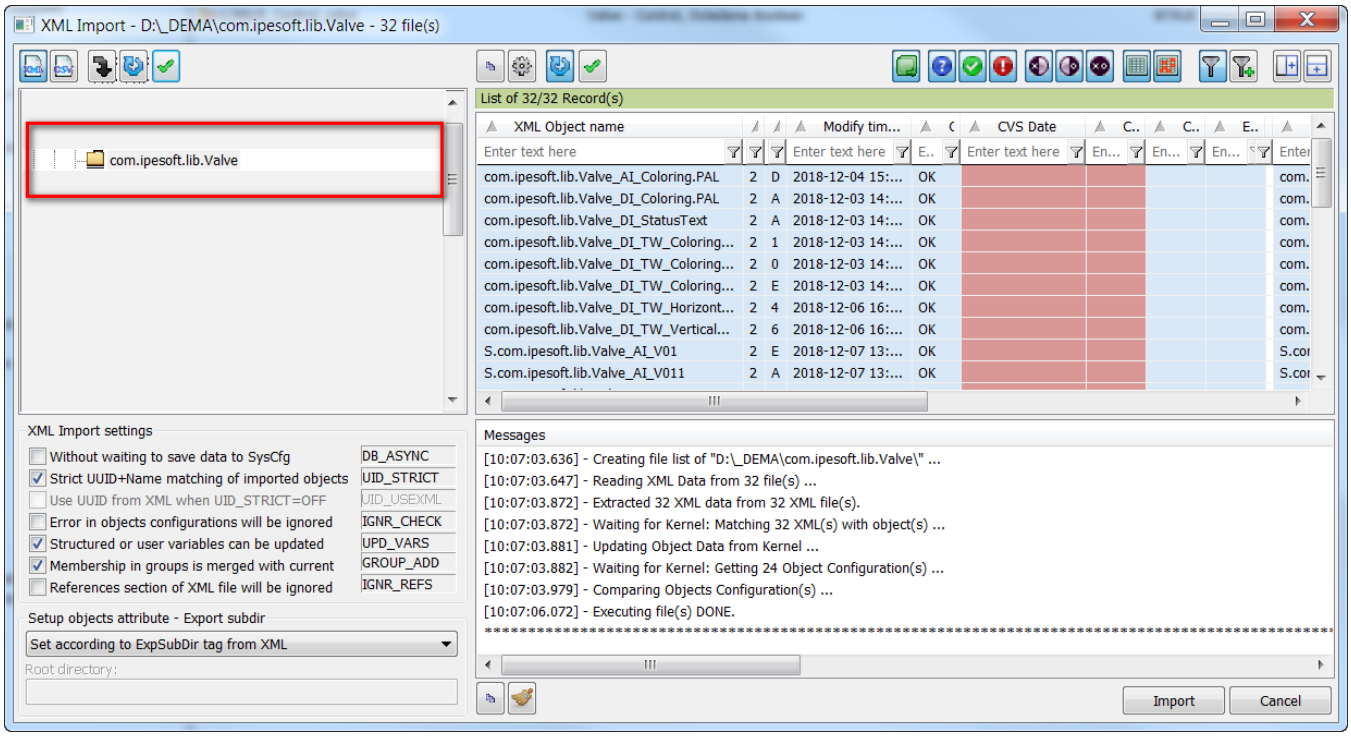


Figure 8 *– (CNF) XML Import of components*

Process of a component import supplied by the IPESOFT company

- unzip a package in the form of a zip file (com.ipesoft.lib.Valves.zip) into prepared directory
- choose an item ***XML Import*** in the ***CNF*** process in the objects menu (see *Figure 8 – (CNF) XML Import of components*)
- choose a directory where we have unzipped the component package in the directory structure
- execute **Import**

after a successful import, imported components will display in the process of graphic editor in the corresponding category (see Figure *1 – Selection of the component object)*