|  |
| --- |
| **Project window setting** |
| **Purpose**  Project window setting options are intended for comfortable visualization of project window components in the **Diagram window** as well as for obtaining additional information on current state of the project.  The project window is controlled by means of the following tools and options:  - scroll bar;  - status bar;  - project tree;  - message box;  - editor mode tabs;  - tabs;  - always on top;  - tool bars:  a) layers;  b) edit.  The current project “Dynamic model of nuclear reactor ACS” is used to demonstrate **Diagram window** setting options.    **“Scroll bars” option**  **Diagram window** work area sizes sometimes exceed the screen work area size. Thus, it can happen that units and links of the project, the user works with, will not entirely fit even in full-screen window. To browse the project in this case scroll bars (up-down, left-right) shall be used along with zooming-in (-out) of the image (for example, by means of the mouse wheel).  Select **“Scroll bars”** switch in **“View”** menu item of the project **Diagram window** to activate the option.  As a result the scroll bars will be presented on the project **Diagram window** screen. Sometimes the scroll bars have to be removed, i.e.: during preparation of video frames, control panels or for making screenshots.  **“Status bar” option**  Status bar of SimInTech environment contains information on the cursor position in the project **Diagram window** and on the mode of operation of the window.  It is always positioned in the bottom line of the project **Diagram window** and divided into four zones:   * position of the cursor in the **Diagram window** and scale of the project; * total number of objects in the project **Diagram window** and number of currently selected objects; * current state of **“Grid”** state – on/off; * current state of **“Snapping”** switch – on/off;   Select **“Status bars”** switch in **“View”** menu item of the project **Diagram window** to activate the option.  As a result, the status bar will appear in the bottom part of the project **Diagram window**.  **“Project tree” option**  **“Project tree”** option is intended to facilitate the navigation over the structure of the project.  **Project tree** contains information on the structural position and properties of the following types of project objects:   * units; * communication links; * decorative components; * sub-models.   Select **“Project tree”** switch in **“View”** menu item of the project **Diagram window** to activate the option.  As a result the tree shall appear in the left part of the project **Diagram window**.    **Recommendations for work with the project tree:**   1. To display the **Project tree** in the **Diagram window** select a required component in the project tree, press the mouse right button and select **“Show on Diagram”** menu item.     As a result the required element will be displayed in the **Diagram window** – **Aperiodika** named as **IntegrAperiodika3** in our case.     1. Besides, properties of each project object can be displayed using the **Project tree**. To this end, select a required object in the Project tree, press the right mouse button and select **“Properties”** menu item.     As a result, “Properties” window for **Aperiodika** named as **IntegrAperiodika3** will appear on top of the project Diagram window.       1. To display a group of components in the **Project tree** relevant settings shall be done.   To this end, select any object of the Project tree, press the right mouse button and select **“Options”** menu item.    On selection of “Options” menu item **“Project tree setting”** window will appear on top of the project **Diagram window**.    To display required components in the **Diagram window** the following types of tree components shall be ticked: **“Units”**, **“Communication links”**, **“Decorative components”**, **“All sub-models”**  Besides, diagram objects in the project tree can be displayed as: **Name** (of object), **“Help”**, **“Component type”** and **“Signature”**.    Besides, settings of the project tree also allow types and names of components to be filtered in alphabetic order, or as per an algorithm described by the user in the filter setting window for component type and name.    **“Message box” option**  **“Message box”** option serves for additionally informing the user on current state of the project in the **Diagram window**: on errors available during execution of the project, on status of project calculation, etc.  Select **“Message box”** switch in **“View”** menu item of the project **Diagram window** to activate the option.    After **“Message window”** switch is on the information box first is not displayed. Press **“Start”** key of the project to view information displayed by the **Message window**.  As a result of correct execution of a command and termination of counting the **“Message box”** will appear in the bottom of the **Diagram window** informing that “Terminal time has been reached”. In case of any errors or remarks in the project there can be other messages displayed.    **“Editor mode tabs” option**  **“Editor mode tabs”** option serves to switch over from the **“Project Diagram”** to the **“Parameters”** window and back.  **“Diagram”** editor mode is used for plotting functional block-diagram, process flow and project charts for corresponding codes, or for preparation of video frames and control panels, i.e., the structure of block-modular dynamic system of any complexity.  **“Parameters”** editor mode is used for entering global variables of the project and/or a script in built-in programming language.  Select **“Editor mode tabs”** switch in **“View”** menu item of the project **Diagram window** to activate the option.    When **“Editor Mode tabs”** option is on, switch of modes of operations of **“Parameters”** and **“Diagrams”** editor will appear on the **Diagram window** screen.    Detailed operational options for **“Diagram”** and **“Parameters”** editor are described in item Simulation Properties.  **“Tabs”** option  **“Tabs”** option is used for fast navigation over the project containing a large number of components.  Select **“Tabs”** switch in **“View”** menu item of the project **Diagram window** to activate the **“Tabs”** option.    Let us demonstrate the possibility of application of **“Tabs”** options using “SPSC – standard power supply controller” project as an example. As it can be seen in the figure three tabs “bru13”, “Main Page”, “bsd5” will be displayed on the project **Diagram window** as a result of switch-on of the option.    To select a required tab, e.g., **“Main Page”** tab, navigate the mouse cursor against the tab and click it with the right button.  As a result the main page of the project will be displayed in the project **Diagram window**.  To generate a new tab navigate cursor against a desired representation of the **Diagram window** and press the mouse right button. As a result auxiliary window will be displayed on the screen. Select **“Add Tab”** command on the auxiliary window.    New tab named **“Tab 4”** will be added in the tab fields.If required, the tab name can be changed for a more informative one.    **“Always on top”** option  **“Always on top”** option allows the project window to be kept always on top of all other windows. When this option is enabled the project window will be always visible for the user.  Select **“Always on Top”** switch in **“View”** menu item of the project **Diagram window** to activate the option.    **“Tool bar”** option  **“Tool bar”** option of the **Diagram window** is intended for executing the following functions:   1. *setting of project layers:*  * return from a sub-model, i.e., transfer from the project sub-model level to the level of project **Diagram window**; * setting of project calculation parameters (final time of calculation and its pitch, calculation method, project calculation re-start conditions, synchronization with real time, setting of modules of project bases, etc.); * setting of visual layers of the project.  1. *correction of the project* ***Diagram window****, execution of the following commands:*  * cut the object; * copy the object; * paste the object; * delete the object; * set the object properties; * undo; * redo.   Select **“Layers”** or **“Correction”** switch in **“View” “Tool bar”** menu item of the project **Diagram window** to activate **“Layers”** or **“Correction”** option. |