

PRADIS

THE POSTPROCESSOR

**THE SOFTWARE FOR SIMULATION OF NON-STATIONARY
PROCESSES IN MECHANICAL SYSTEMS AND SYSTEMS
OF OTHER PHYSICAL NATURE**

VERSION 4.2

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Destination of the postprocessor

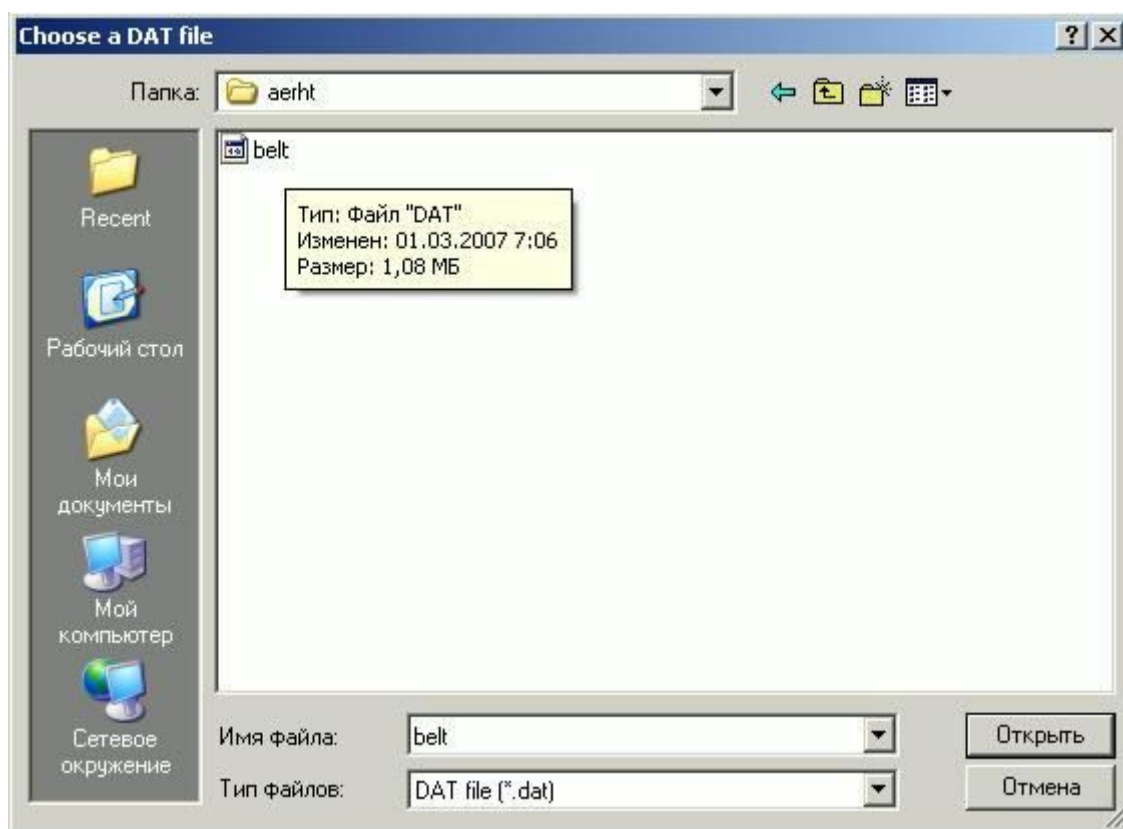
The postprocessor is intended for following:

- animation of simulation results in a real and model's time scale;
- plots of graphs of output variables, including phase ones;
- creation of tables of results with an opportunity of their subsequent export to tabulated processors and in the postprocessor directly.

Start of the postprocessor

Start of the postprocessor is made by double click on an icon post on a desktop or by means of a file postprocessor.exe (it is situated in folder DINAMA \post) \.

For reading results of modelling it is necessary to open a DAT-file containing results of calculation of your model (File - Open).



If in the job for calculation some human controllers of a task execution for the first human controller outcomes will be stored in file TEST.DAT, for the subsequent – accordingly TEST1.DAT, TEST2.DAT ... Here TEST – a name of a file of the job are specified.

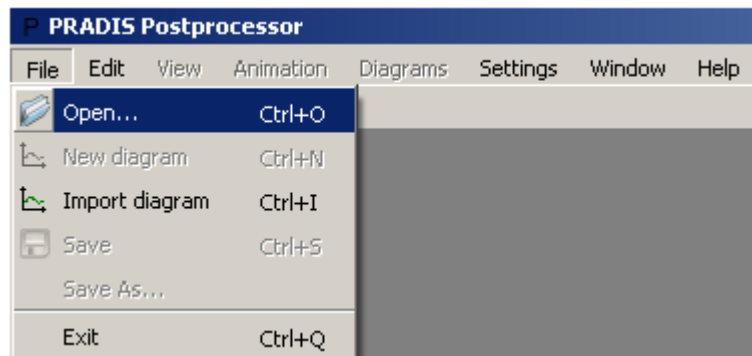
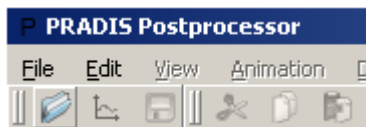
For the further work with a DAT-file there is the detailed description of functions of the postprocessor below.

The description of functions of the postprocessor.

Here is the brief description of items of the whole menu.

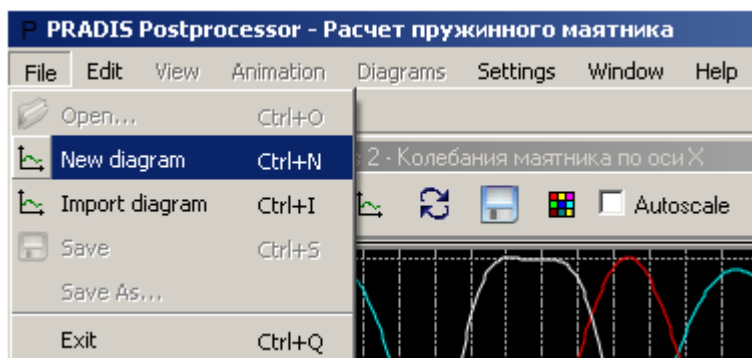
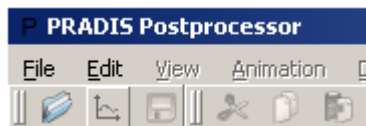
File

File → *Open*



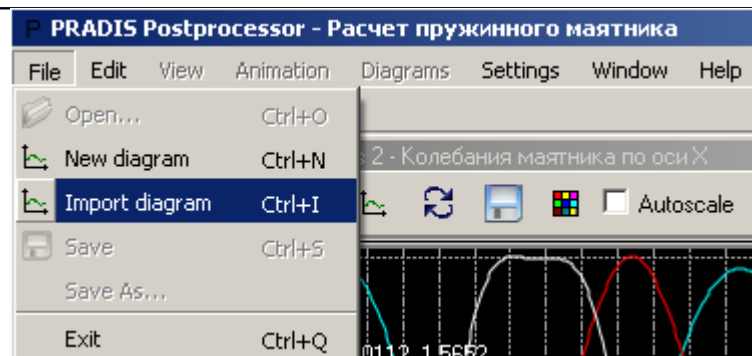
Allows to choose and to open a file of results of the calculation.

File → *New diagram*



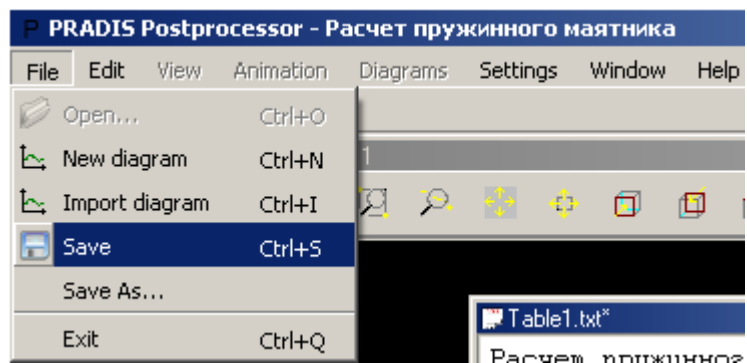
Opens a new window of the diagram.

File → *Import diagram*



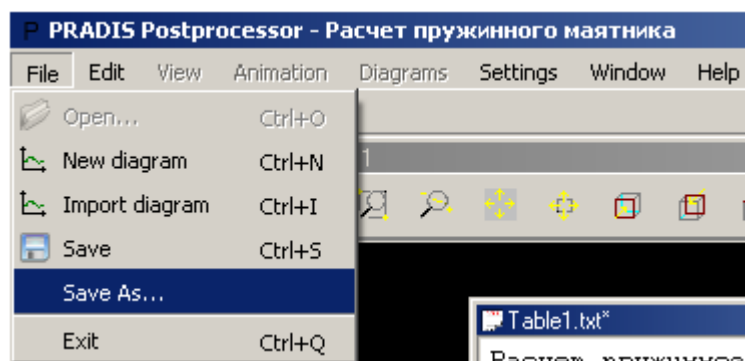
Opens a new window of diagrams with the graphs set like a table in a text file.

File → *Save*



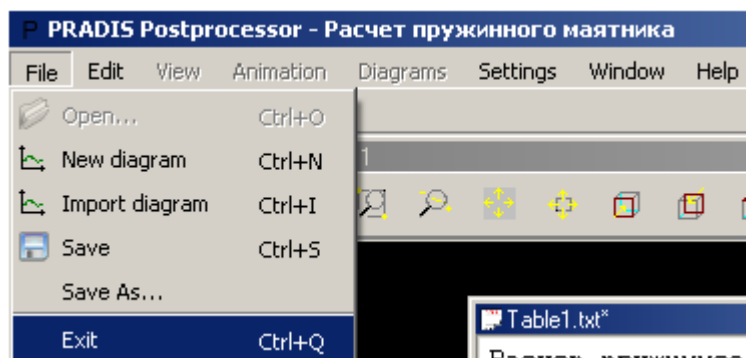
Saves tabulated data of graphs in a file.

File → *Save As*



Saves tabulated data of graphs in a file with the specified name.

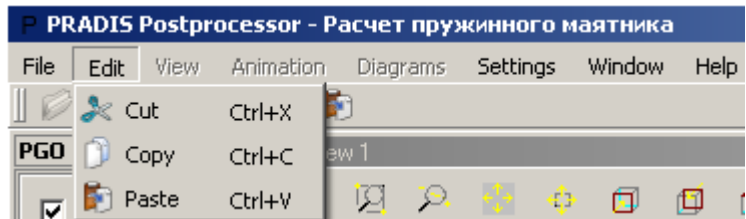
File → *Exit*



Quit from the postprocessor.

Edit

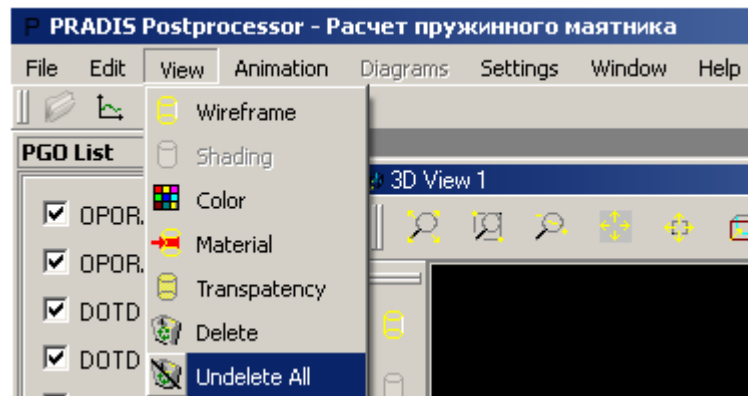
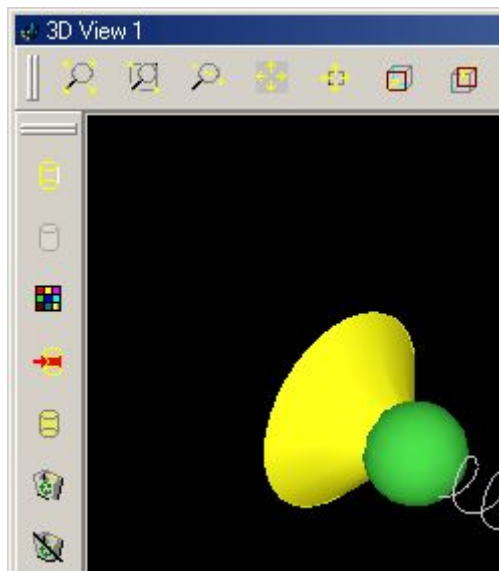
Edit



This menu contains three standard commands: *Cut*, *Copy* and *Paste*. They are used in work with tabulated data of graphs. Also for these commands there are buttons on the panel of tools.

View

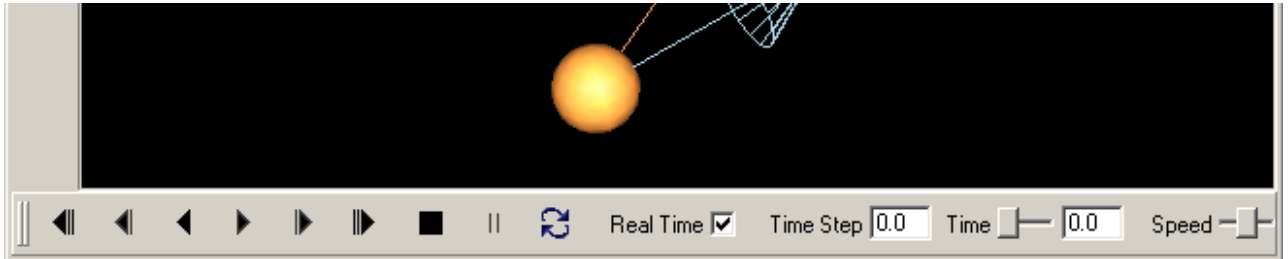
View



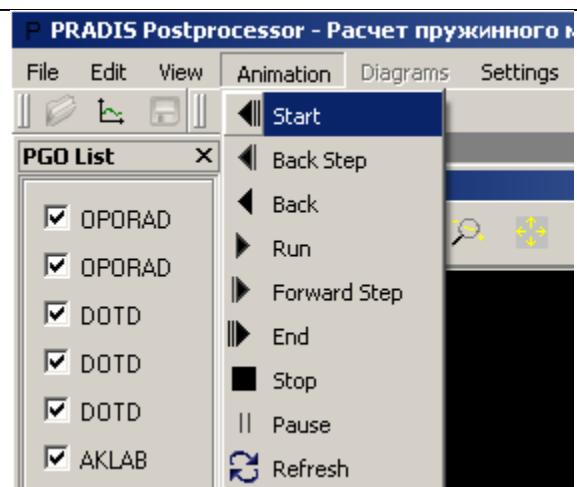
This is the menu, where items (except for the last) become accessible at allocation of any object in a window of viewing. This menu has its own panel of tools (at the left in a window of viewing):

Animation

This menu it is intended for management of the animation in a window of viewing. It has its own panel of tools in the bottom part of a window of viewing.

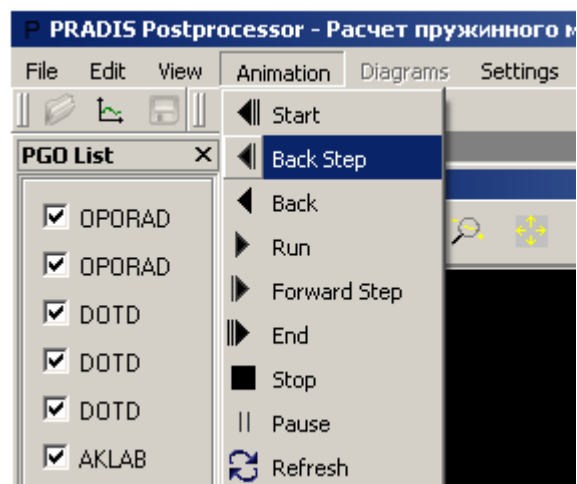


Animation → *Start*

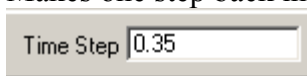


Establishes viewing for the initial moment of time.

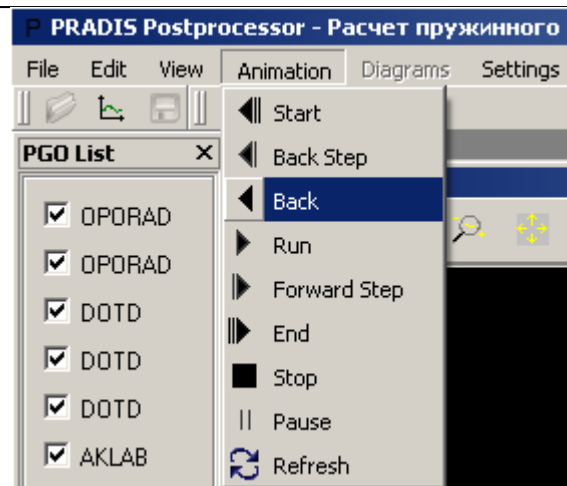
Animation → *Back Step*



Makes one step back in time for the size specified in field Time Step on the panel of tools:

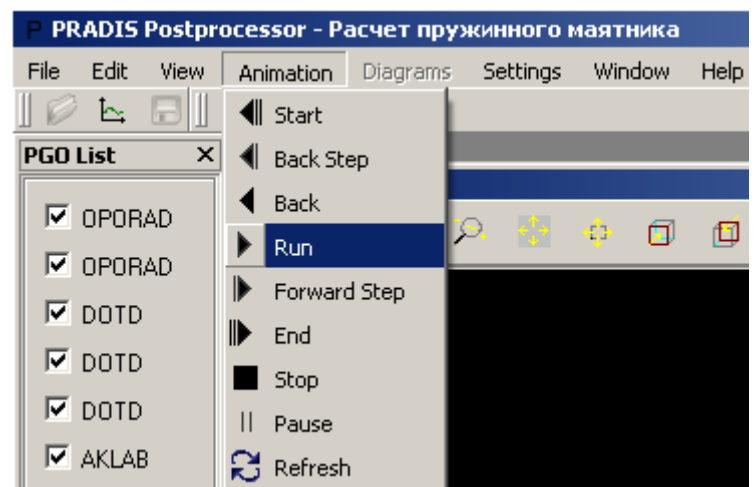


Animation → *Back*



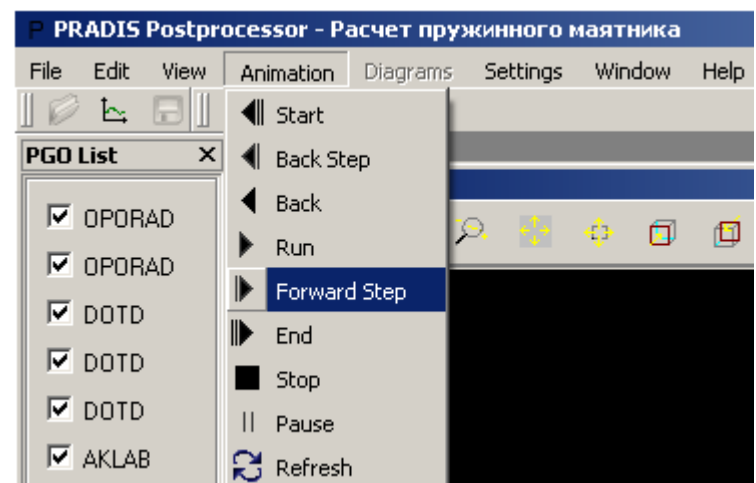
Starts animation back on time.

Animation → *Run*



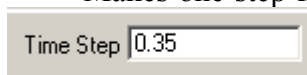
Starts animation.

Animation → *Forward step*

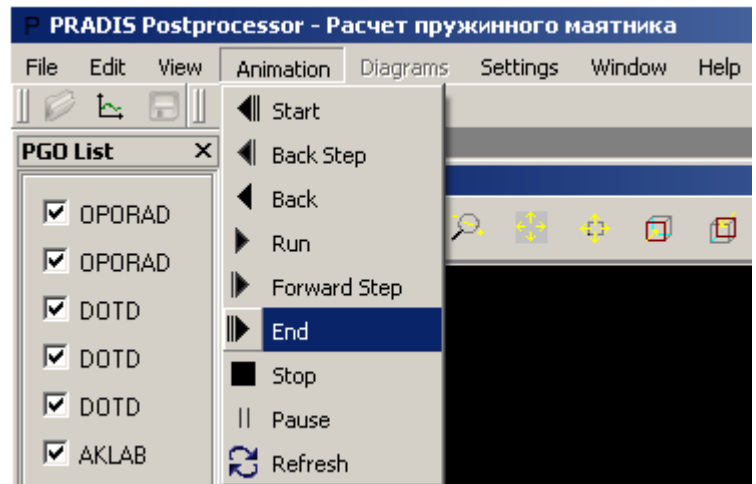


Starts animation.

Makes one step further in time for the size specified in field Time Step on the panel of tools:

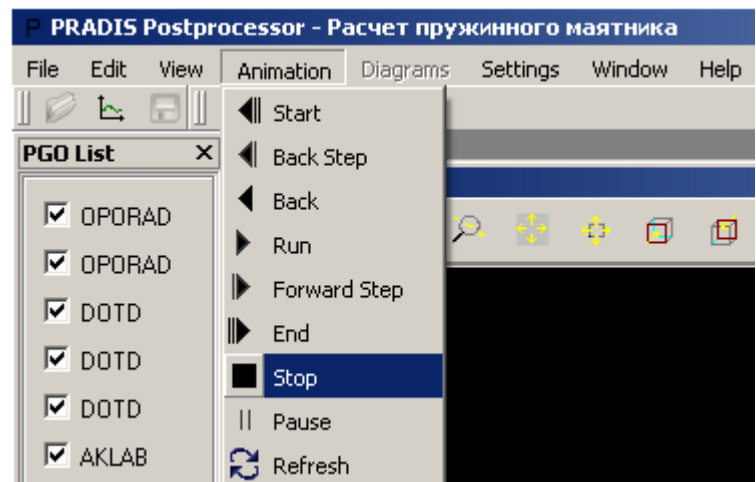


Animation → End



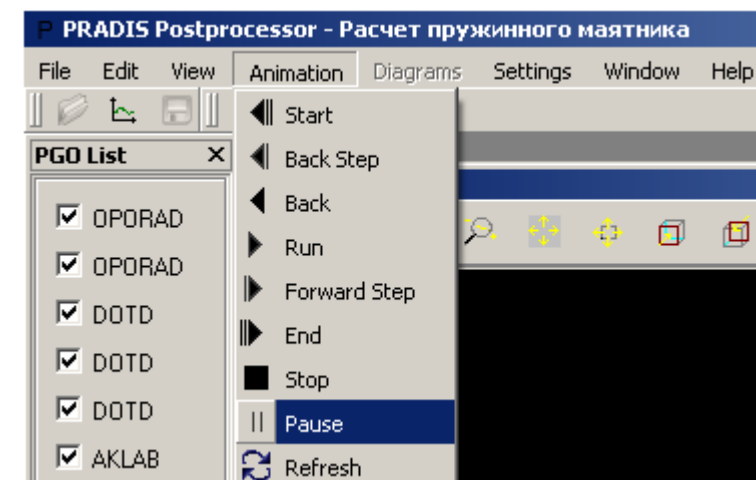
Establishes viewing for the final moment of time.

Animation → Stop



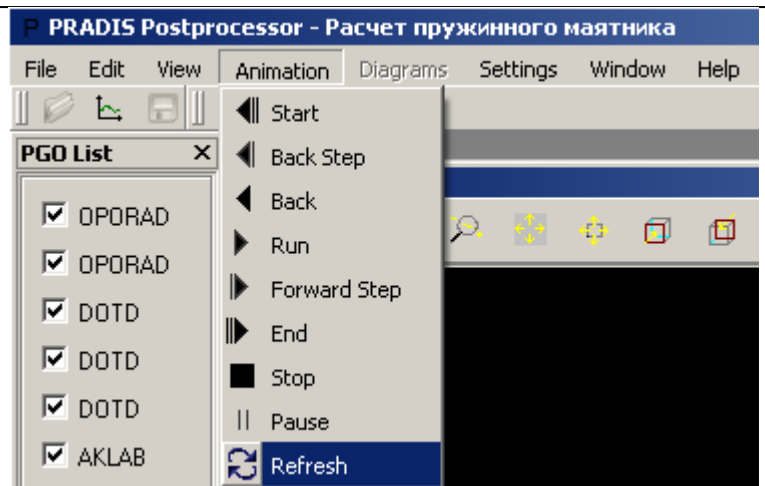
Stops animation and returns to the initial moment of time.

Animation → Pause



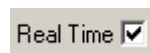
Stops animation.

Animation → Refresh



The same as *Stop*. If calculation is not finished then loads new data.

Also on the panel of tools there are 3 undescribed objects.



When it is turned on, animation is made in a real time. When it is disconnected, on calculation pitches. That is at switched on, the animator passes what that pitches, or on the contrary stretches to synchronise real and an estimated time. And when it is off the animator simply shows all calculated steps successively.



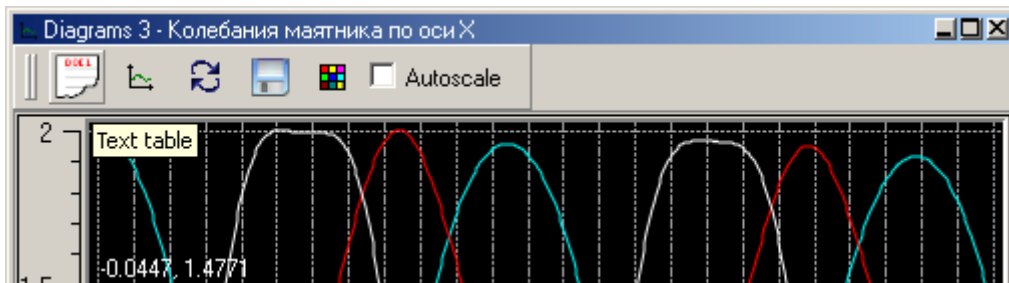
Бегунок it is possible to displace on any necessary instant. The picture of animation varies according to position of slider. Also it is possible to set the moment of time precisely from the keyboard.



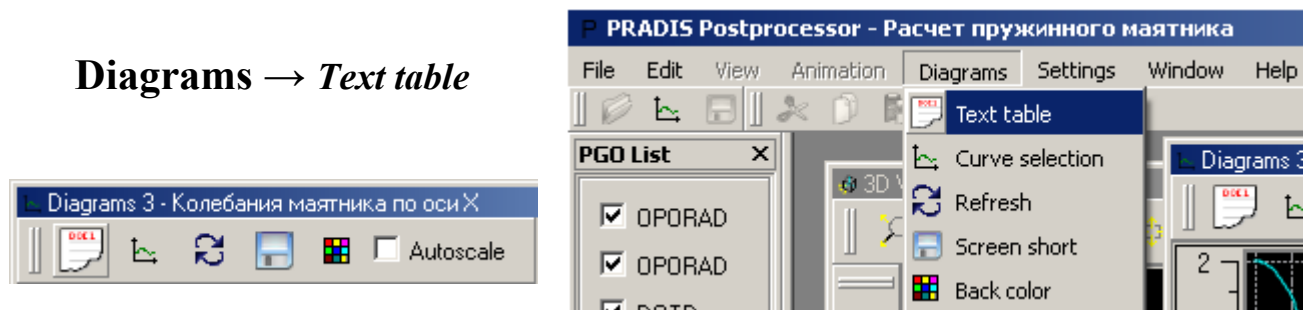
This slider regulates speed of animation.

Diagrams

This menu is intended for work with diagrams. It has a control panel in the top part of a window of the diagram.



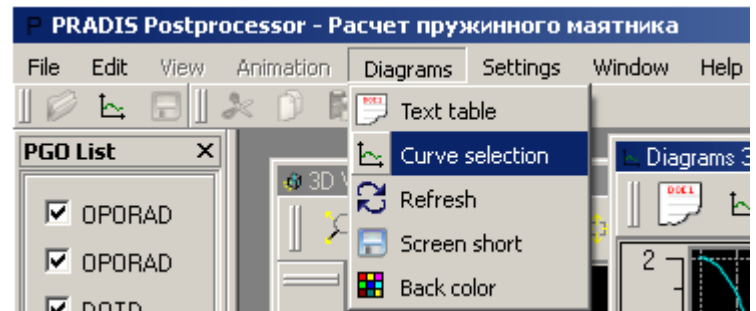
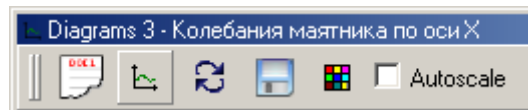
Diagrams → Text table



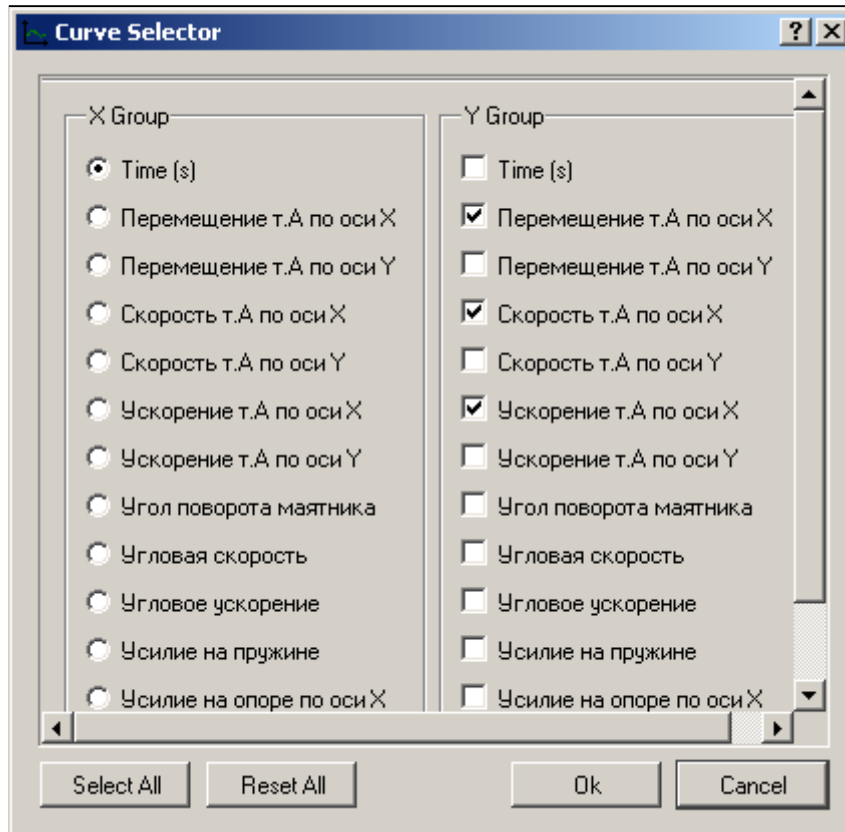
Opens a window with tabulated data of graphs represented in a window of the diagram.

Расчет пружинного маятника	
Time (s)	Перемещение м.А по оси
0.00000010	-0.00000010
0.00000010	-0.00000010
0.00000010	-0.00000010
0.00005410	-0.00000010
0.00040810	-0.00000010
0.00125610	-0.00000310
0.00265810	-0.00001710
0.00489010	-0.00005710
0.00963210	-0.00021410
0.01851410	-0.00078910
0.02851410	-0.00187110
0.03851410	-0.00341310
0.04851410	-0.00541810
0.05851410	-0.00788610
0.06851410	-0.01082010
0.07851410	-0.01422110
0.08851410	-0.01809310
0.09851410	-0.02243710
0.10851410	-0.02725810
0.11851410	-0.03255710
0.12851410	-0.03833910
0.13851410	-0.04460710
0.14851410	-0.05136410
0.15851410	-0.05861510

Diagrams → *Curve selection*



Calls a dialogue window.

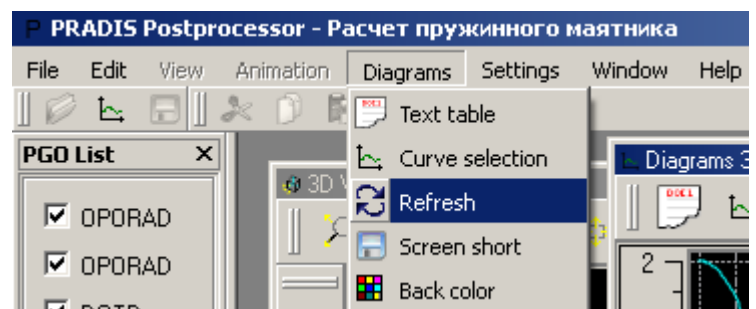
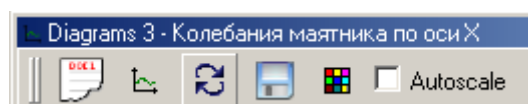


In Curve Selector it is possible to choose what graphs to show (*Y Group*) and what variable to mark on axis X (*X Group*). Thus there is an opportunity to look through phase graphs.

Button *Select All* chooses all items in group *Y Group*

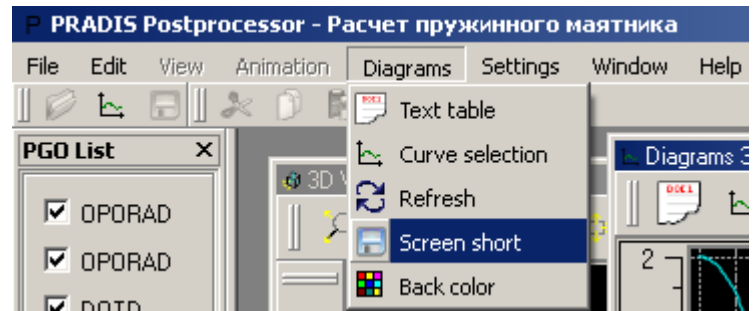
Button *Reset All* cleans ticks in all items of group *Y Group*.

Diagrams → *Refresh*



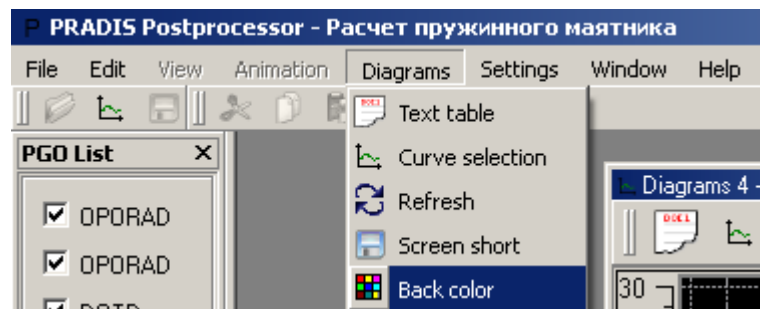
Updates graphs on the diagram. So it replots them taking into consideration all last data (if calculation has not been ended). Also this command can be used if for any reasons the image on the diagram became incorrect.

Diagrams → *Screen short*

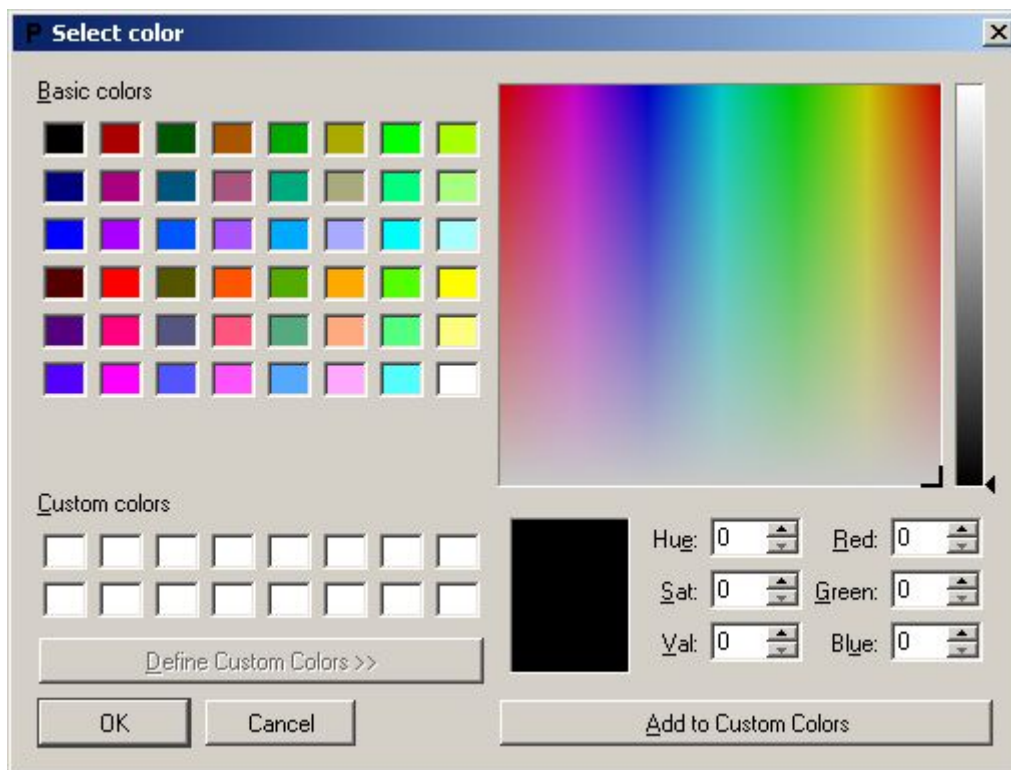


Keeps a picture of graphs in a file.

Diagrams → *Back Color*



Calls a dialogue window for change of color of a background.

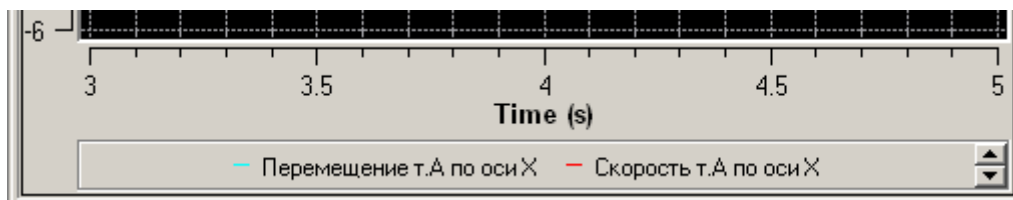


As on a board of instruments there is one more installation AutoScale:

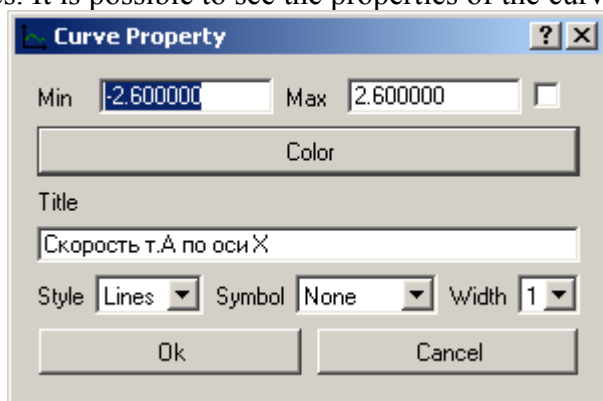


When AutoScale is switched on, all curves are drawn in real scale. When it is switched-off, curves without minimum and maximum assigned are drawn as before, and curves assigned minimum and maximum are drawn in the set limits, but normalized from zero.

In the bottom of a window of the diagram it is shown what color is each curve.



If there are more than two graphs this list can be leafed through to see names of all drawn curves. It is possible to see the properties of the curve having pressed its name.

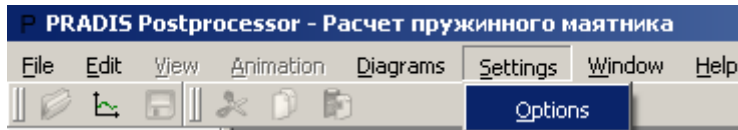


Parameters Min and Max set a minimum and a maximum of the graph on axis Y if the tick to the right of them is established. So they allow to scale the graph.

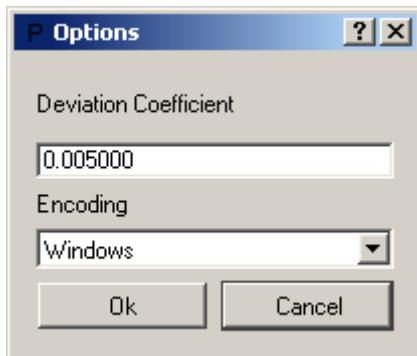
Button Color allows to choose color for the graph.

Also it is possible to change the name, style and thickness of the line. If several windows with diagrams are opened and in several of them there is the same graph then if to change the properties of this graph on one diagram, they will automatically vary on others. *But it is possible to see it only by pressing Refresh on the panel of tools of that window in which you wish to see these new properties of a curve.*

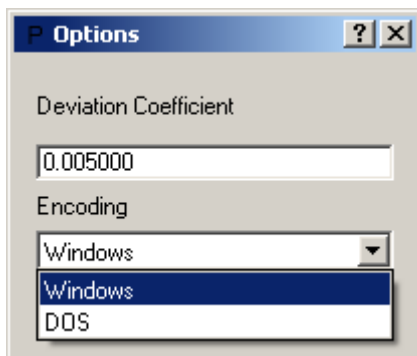
Settings



This menu contains only one point *Options*. It calls a dialogue window:

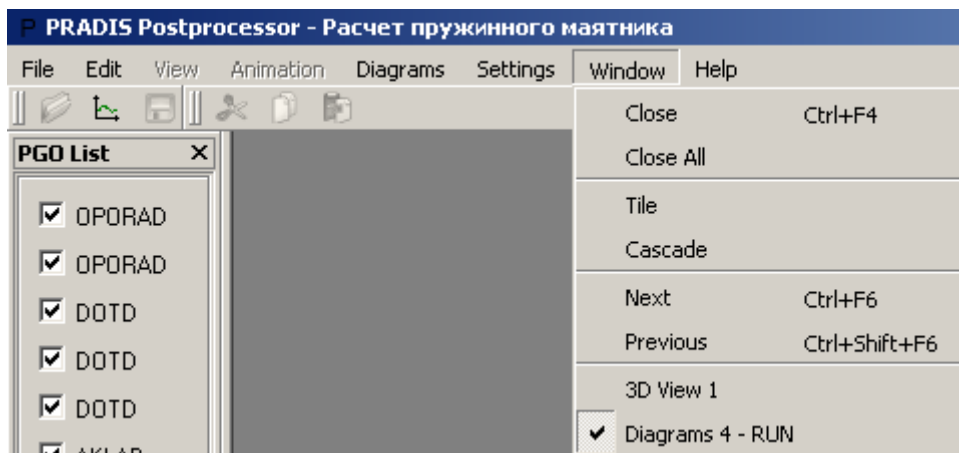


Here you have an opportunity to change the coding of software in the field *Encoding*: Windows or DOS.



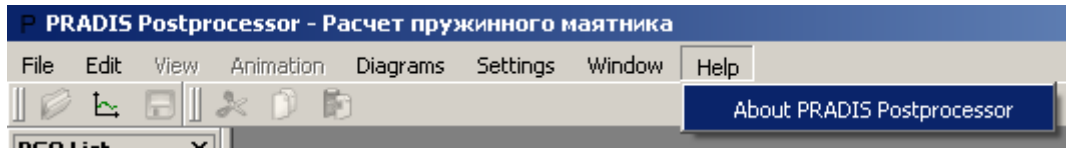
The field Deviation Coefficient defines the smoothness of drawing of all elements of surfaces of the second order and superior ones. For example, ellipses and spheres. The less is the coefficient, the more beautifully and the more smoothly the object is drawn. Limits of change: from 0.0001 up to 0.1. The worse is the quality of drawing, the higher is the productivity.

Window



This is the standard menu for management of windows.

Help



This menu contains only one point. It shows the information about software.



This menu is about software.

PGO List

Except all enumerated software has one more possibility, control of the GIP. In a right member of the principal window of software daughter window *PGO List* is had.

In the right part of the main window of software the affiliated window *PGO List* is located.

It allows to choose what GIP to display in a window of viewing.

Button *Update View* displays chosen GIP and removes the others.

Button *Select All* chooses all GIP.

