

PRADIS
Pre-post processor PRADIS32

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

Contents

Support.....	4
1. Instance of operation with Pradis32.....	4
1.1. Design creation.....	4
1.2. Preparation of the design for the solution.....	7
1.2.1. Adding of alternative of changeable parametre.....	7
1.2.2. Adding of a new gang of parametres (Duplicating of node Variant) ..	8
1.3. The problem solution.....	9
1.4. Representation of outcomes.....	9
1.4.1. Sampling of alternatives of calculation for representation.....	9
1.4.2. Creation of glow irises.....	10
1.4.3. Ringing 3D visualisation.....	10
1.5. Acquaintance with Pradis32 Document.....	10
1.5.1. Operations with deed pages.....	11
1.5.2. Editing of installations.....	11
1.6. Change and mask renewal.....	12
1.6.1. Mask change.....	12
1.7. And again representation of outcomes.....	12
1.8. Representation of outcomes of several alternatives of calculation... 	13
2. Types of files Pradis32.....	14
2.1. Types of deeds.....	14
2.1.1. Design Pradis32.....	14
2.1.2. The deed.....	14
2.1.3. Deed mask.....	15
2.2. File of control of outcomes of calculation.....	15
2.3. Files of data.....	16
2.4. Import scenarios.....	16
2.5. Initial files of model.....	16
2.6. Files with a graphic information.....	16
3. Possibilities Pradis32 as COM-server.....	16
4. Additional means for operation with great volumes of data.....	17
4.1. Curves with the linked data.....	17
4.2. Thinning out at copying.....	18
5. The enumeration of commands of menu Pradis32.....	18
5.1. File.....	18
5.1.1. New, Open, Close, Save, Save As.....	18
5.1.2. Change Template.....	18
5.1.3. Overwrite Template.....	18
5.1.4. Import.....	18
5.1.5. Metafile.....	20
5.1.6. Print, Print Preview, Print Setup.....	20

5.1.7. Translate PRADISLang.....	20
5.2. \$ RUN :.....	21
5.2.1. New.....	21
5.2.2. Sequential.....	21
5.2.3. Show Diagrams.....	21
5.3. Edit.....	23
5.3.1. Switch Page Format.....	23
5.3.2. Cut Copy Paste.....	23
5.3.3. Clear.....	24
5.3.4. Page.....	24
5.3.5. Properties.....	24
5.3.6. Embed/Reduce.....	24
5.3.7. Duplicate Node.....	25
5.3.8. Rename Node.....	25
5.3.9. Reset Content.....	25
5.4. View.....	25
5.4.1. Toolbar.....	25
5.4.2. Project Bar.....	26
5.4.3. Zoom.....	26
5.4.4. Animate.....	26
5.4.5. Mouse Mode.....	26
5.4.6. Show Content.....	26
5.4.7. Change Order.....	26
5.4.8. Run Visualizer.....	27
5.5. Window.....	27
5.5.1. Next Page, Prev Page.....	27
5.6. Options.....	27
5.6.1. Customize.....	27
6. Control of disposing of glow irises on deed page.....	29
6.1. As disposing of glow irises on page is defined.....	29
6.2. Instance: disposing of curves and glow irises on page for the test swing..	30

Support

The purpose of the given description, at first, to give initial representation about working methods with Pradis32, and secondly, to ensure the user in exhaustive volume of help information.

Chapter — some kind of introductory holding with Pradis32 in which all sequence of acts from creation of model before scanning and editing of outcomes is given.

Chapter gives the enumeration and the description of all types of files which user Pradis32 will meet in the course of operation.


In chapters and the attention is directed to extremely important possibilities of the program: functionality of a COM-server and a possibility of operation with great volumes of data.

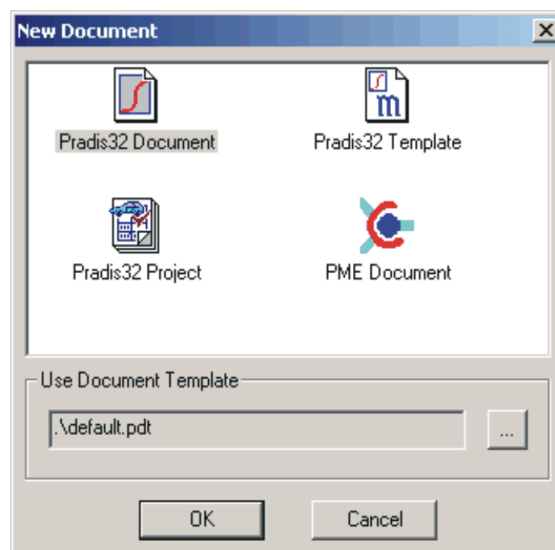
Chapter — a short reference administration on commands Pradis32.

1. Instance of operation with Pradis32

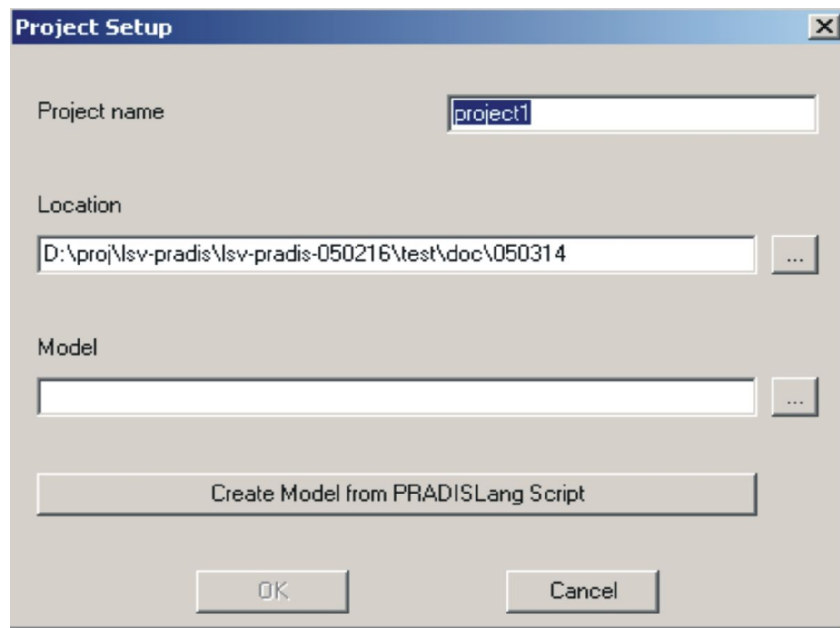
1.1.Design creation

After start of program Pradis32 by the first step there should be a discovery of the existing design or creation new. The Pradis-project is under construction on the basis of existing VAR and TRN-files from which it gains all initial informations about model structure. By means of Pradis32 it is possible to broadcast the text description of model in language PradiSLang in VAR and TRN-files. For creation of the new design follows:

1. To choose in the principal menu point **File→New** (to take advantage of the button on  a board of instruments or accelerator Ctrl+N). Dialogue **New Document** As a result will open, offering to choose, what type of the deed is required to create ().
2. Now Pradis32 can create deeds of four types (item see):
 - a. **Pradis32 Document** — the deed for representation of outcomes of calculations in the form of graphs.
 - b. **Pradis32 Template** — the deed mask, allowing to save customisations of representation of graphs and to use them at creation of new deeds.



Drawing 1



Drawing 2

- c. **Pradis32 Project** — the model Design.
- d. **PME Document** — the Deed of the editor of models.

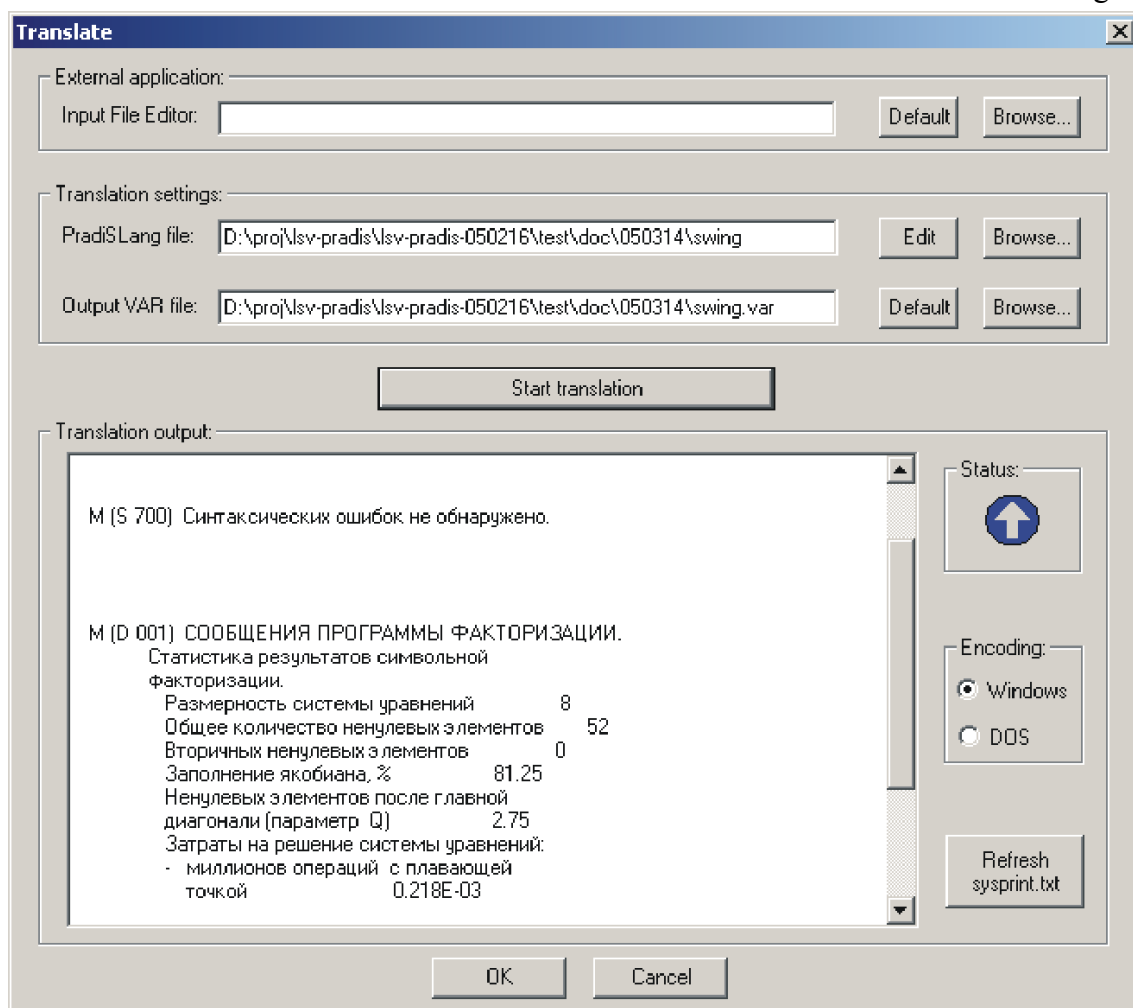
Text window **Use Document Template** present at dialogue sets a mask matching to the created deed. At creation of the new design it is possible to leave the name offered by default: the mask is required only at a stage of representation of outcomes. Besides, it can be replaced at any moment already for the existing deed. As our purpose — creation of the new design it is necessary to choose type of deed Pradis32 Project and to push OK.

Creation of the new Pradis-design demands the job of additional customisations. After closing of dialogue **New Document** there is dialogue **Project Setup**, allowing to link with the new design all necessary files and catalogues. In it are set:

- e. Name of the new design (**Project Name**).
- f. The catalogue, in which it should be placed (**Location**) (is admissible the job of the nonexistent catalogue: if necessary it will be created).
- g. Model name (**Model**). This name of a VAR-file which will be used in the design. It is supposed, that near to a VAR-file file TRN matching to it lays.

If at the moment of creation of the design the computational model exists only in the form of the text in language PradiSLang, it is possible to take advantage of the button “Create model from PRADISLang script” for text translation in files VAR and TRN. After pressure the button there will be a dialogue “Translate”.

3. In dialogue it is necessary to choose a path to an input file (PradiSLang file). For path sampling to output files ("Output VAR file") it is possible to take advantage of button "Default" opposite to a matching field. Thus the path to an output file will be installed as a path to input + ".VAR". After sampling of paths for a translation ringing it is required to push the button "Start translation". At successful translation the icon "Status" will look as in drawing



Drawing 3

above. If translation has not passed, it is necessary to edit initial text PradiSLang for purification proceeding from a contained leading-out ("Translation output") and to iterate a ringing "Start translation".

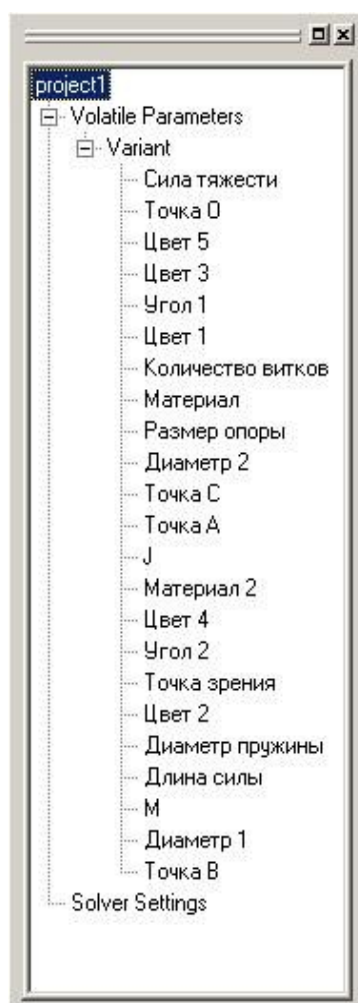
4. For text editing it is possible to take advantage of button "Edit" to the right of a field "PradiSLang file". Thus the model text will be opened in the text editor installed in the field "Input File Editor". If the field is empty – it will be offered to choose the program for editing. In the field Input File Editor "it is possible to instal the editor of text files by default, having pushed on button" Default "to the right of a field. After end of editing the file in the editor should be saved, not changing his name.
5. After successful translation of model it is necessary to enclose dialogue "Translate" on "OK". Thus in the field "Model" dialogue **Project Setup** the path to VAR to a file created in dialogue "Translate" will automatically hit.

For creation of the new design in dialogue **Project Setup** it is necessary to specify all demanded paths: while though one field empty, button OK is inaccessible.

By pressure on OK Pradis32 creates, if it is necessary, catalogue Location. In catalogue Location take places, at first, a file of the new design, secondly, the catalogue of outcomes with the same name. In the catalogue of outcomes model files (VAR and TRN) are patterned. On it process of creation of the design is completed.

1.2.Preparation of the design for the solution

After successful creation of the design in a window at the left there is a line with a name of the design which on double click of the mouse is uncovered in a model tree (). This tree is initial contains two nodes: a gang of parametres Volatile Parameters and customisations of procedure of solution Solver Settings. Node Volatile Parameters contains one поддерево Variant in which all are enumerated accessible in the given model changeable parametres. Basically the model is ready at once for calculation execution. As it contains only those data that it was possible to read from a VAR-file in it one alternative of calculation defined by a current gang of changeable parametres contains only. Singularity Pradis32 is the possibility of the automized execution of multivariate calculation. For this purpose it is required to add demanded alternatives in the design. It is provided two modes of adding of new alternatives: creation of new node Variant and adding of alternative of changeable parametre.



Drawing 4

1.2.1.Adding of alternative of changeable parametre

For alternative adding it is necessary to choose the demanded parametre, let it will be **the Gravity**, and to make active its double click of the mouse or Enter th. To the right of a model tree there will be a window with the table of parametre values. The table always contains in just created design one line: from a VAR-file one alternative arrives only. The table as follows is edited:

1. Modification of values of a mesh.

- a. Gate out a demanded mesh and push a white space. The mesh will go into an editing. The same effect can achieve if doubly to click on a mesh the mouse.
- b. Inject new value.
- c. For acknowledging of injected value push Enter: the mesh will get out an editing, having remembered new value. For cancelling of feeding into instead of Enter it is necessary to push Esc: the mesh will get out an editing, having rebuilt a reference value.

2. Adding of a line.


For adding of a line simply push Insert: the new line will be put in before current line (containing the gated

Точка 0			
0	0		
1	1		

Drawing 5

out mesh). For adding of a line in the extremity it is necessary to gate out a mesh last, not used line.

3. Removal of a line.

For removal of a line choose in the menu command **Edit→Clear**, the button on a board of instruments or  simply push Delete: the current line will be deleted.

Note 1. If the table contains only one alternative, that is only one line with values this line cannot be deleted. The closing empty line also cannot be deleted.

Note 2. The number of measurements in each parametre is defined from a VAR-file and further cannot be changed. Therefore adding of columns in the table is not provided.

So, we will add new alternative in parametre **the Gravity**. The table for this parametre will look as, for example, on 5. Now to parametre **the Gravity** there match two values, and the design contains two alternatives of calculation. Analogous operation we will execute for parametre **the Point About** (). Now the design contains 4 alternatives of calculation. At adding of new values of changeable parametres the assemblage of alternatives of calculation is product of ranges of parametres. Such mode of customisation of multivariate calculation, is convenient, apparently, when it is necessary to vary value of one or several parametres and for each alternative to gain the solution. When it is required to count a little basic various alternatives, more preferable there is a duplicating in model of node Variant.



-20	
-15	

Drawing 6

1.2.2.Adding of a new gang of parametres (Duplicating of node Variant)

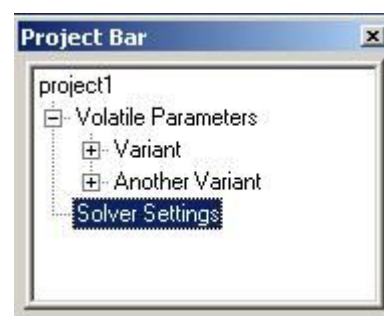
It is necessary for duplicating of node **Variant**

- 1.To gate out node **Variant** in a model tree.
- 2.To call from the principal or context-sensitive menu command **Duplicate Node** or to take advantage of accelerator Alt+Insert.

As a result in a tree there will be second node **Variant**. A gang of parametres and their value precisely same, as in an initial node: a new node — its exact duplicate.

As now the tree contains two nodes **Variant** in order to avoid confusion the new alternative is desirable for renaming. For this purpose it is necessary

1. To gate out a demanded node.
2. To click on it repeatedly the mouse or to call point of menu **Rename Node** (procedure is analogous to renaming, for example, a file in Windows Explorer).
3. To set a new name of a node, for example, **Another Variant**.



Drawing 7

As a result the tree of model will become, as is shown in . In model two independent assemblage of alternatives of calculation was organised: **Variant** and **Another**

Variant. In both alternatives of the table of parametres can be edited separately as it has been displayed in item . In the present model if node **Variant** has been converted, as to item , contains 4+4=8 calculation alternatives, and these two gangs are identical.

Let's assume, that it is necessary for us, except a gang of the calculations set in **Variant**, to make scalings and for an initial gang of parametres, that has been read from a VAR-file. However both alternatives **Variant** and **Another Variant** are contained by the

changed data. For sweeping deriving of initial data it is the most convenient to make the following:

1. To gate out demanded alternative, for example, **Another Variant**
2. To call from the menu command **Edit→Reset Content** (Ctrl+D).

If now to open tables of parametres **the Gravity** and **the Point About** in **Another Variant** instead of tables on initial tables of parametres . At the command of **Reset Content** all structure of parametres and their value have been anew rebuilt from model. We will note, that command **Reset Content** can be applied to any of nodes of a tree of model (except nodes of outcomes which while in a tree generally are not present). About its behaviour in each concrete case it will be told later.

1.3.The problem solution

So, the model is generated and contains 5 alternatives of calculation (4 in Variant and 1 in Another Variant). The problem solution is started by command **Run→New**, thus all alternatives sequentially pay off. In menu **Run** point **Sequential** — calculation prolongation contains also, but in our case it is inaccessible: the problem still never dared.

At calculation start appear, at first, dialogue **Solution Progress** indicating, what share of a problem already decided and allowing to discontinue the solution, secondly, a window with process animation. Solution process can be retarded with the help слайдера in the lower part of a window animations ().

The window of animation in the course of the solution can be enclosed: the solution will proceed without animation. At any moment the window can be rebuilt c the help of



Drawing 8

command **View →Animate**. Visualisation will begin with a current stage of the solution (Animate it is accessible only in the course of the solution).

After calculation end in the catalogue of an output information there are 5 rsl-files, each of which contains outcomes of scalings for one alternative.

In a model tree there was new node **Results** with outcomes of calculation and now it is possible to pass to their representation.

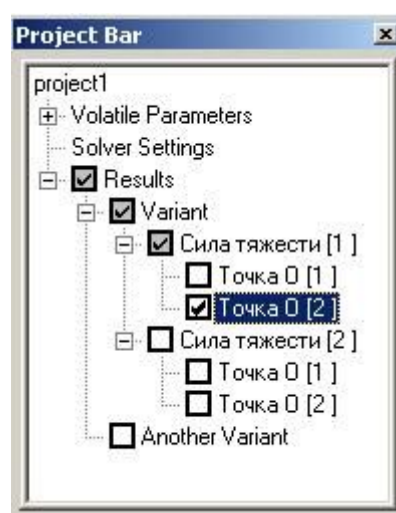
1.4.Representation of outcomes

1.4.1.Sampling of alternatives of calculation for representation

Process of sampling of alternatives is extremely simple: it is necessary to mark with ticks interesting nodes in a model tree. And the status modification поддрева leads to an automatic modification of the status of its branches.

Let it is necessary to represent the alternative matching to the first parametre value **the Gravity** and second — **the Point About** in поддрева Variant. Having gated out an interesting node, we will gain a picture . Now in the menu command **Run →Show Diagrams** (if, of course, the focal point is installed on a model tree) is accessible→.

Note In this point we have gated out only one alternative of calculation. When it is required to gate



out some alternatives, figured on can appear inconvenient. For example, selection of all alternatives for a parametre value the Gravity [1] demands only one act, and for analogous operation with the Point About [1] them it is required already two. Complexities will essentially increase at magnification of number of parametres or parametre alternatives. For simplification of selection of alternatives command Change Order is provided, allowing to change a sequence of parametres in a tree of outcomes (see).

1.4.2. Creation of glow irises

Command **Show Diagrams** calls import dialogue (**Import Settings**), allowing:

1. To see a gang of the curves containing in chosen files.
2. To choose, what of them should be displayed.
3. To arrange the chosen curves under glow irises.

Dialogue **Import Settings** consists of three backfillings, **Placement**, **Template** and **Variants**. On backfilling **Placement** three lists are had:

1. The list of input curves (**Input Channels**). In it the curves containing in an open file (ah) are enumerated. The list has three regimes of representation, the regime is set in combo box **Show Channels**.
2. The list of glow irises (**Existing Diagrams**). These are glow irises which will be created by pressure on OK.
3. The list of curves in the current glow iris (**Active Diagram**). It is the list of curves in the gated out glow iris (that on which there is a cursor in list **Existing Diagrams**).

The detailed explanation of possibilities of dialogue **Import Settings** and working methods with it is beyond the first acquaintance with Pradis32 (item more in detail see and), therefore we will be restricted to most simple case: we will display all outcomes as offers dialogue **Import Settings**. By default he suggests to display all curves on separate glow irises that is visible from list **Existing Diagrams**: it contains 12 entries. Now it is possible to push on OK and to get down to machining of outcomes.

1.4.3. Ringing 3D visualisation

Except two-dimensional graphs of output variables, pradis32 during calculation saves the information allowing by means of a player to scan 3D of a scene of behaviour of model at calculation. For a ringing of a player and show of a scene after the calculation termination it is necessary:



- To gate out left кликом mice (not simply to mark with a tick!) in поддереве outcomes **Project Bar** one of the lower nodes, that is one alternative of multivariate calculation for show. In the menu becomes active **View-> Run Visualizer** (if, the focal point is installed on a model tree);
- To call the menu **View-> Run Visualizer**. The player Thus should open and load a matching scene.

1.5. Acquaintance with Pradis32 Document


As it was spoken in item , Pradis32 supports deeds of 3 types: the design, the deed and a mask. At closing of dialogue Import Settings has been created Pradis32 the deed serving for representation of glow irises and submitting wide sampling of means for their editing.

1.5.1. Operations with deed pages


1.5.1.1. Paging of pages






The gained deed is dissected into pages and the first is initially visible only. On a board of instruments the button is at the moment active,  by pressure on which the program displays the following page. In total in their deed it was gained 6. At passage to the following page there is active a button,  allowing to return on the previous. The same effect can achieve by means of keys Page Up and Page Down.

1.5.1.2. Modification of a format of page

At the moment in the menu command Edit→Switch Page Format is accessible,  allowing to change a format of page with book on альбомный and is inverse. For this operation accelerator Ctrl+W is provided.

1.5.1.3. Representation change of scale

Initially at creation the deed is displayed in scale 100 % that can appear not always convenient. In the menu command View→Zoom with which help dialogue of customisation of a scale of representation Zoom is called is provided . Except the predetermined scales the user can inject own value over the range 5–2000 %.

Regime Box Zoom which is switching on by means of command View→Mouse Mode  or the button on  a board of instruments in which the user can gate out with the mouse an arbitrary rectangle on sheet is besides provided  and the page scale will vary so that this rectangle has appeared inscribed in an active window. Double click of the mouse in this regime leads to restoration of a scale of 100 %. Cutting off of regime Box Zoom: sampling in menu View→Mouse Mode of other regime (is better — Select) or pressure of buttons ( Select) or ( Scale).

1.5.2. Editing of installations

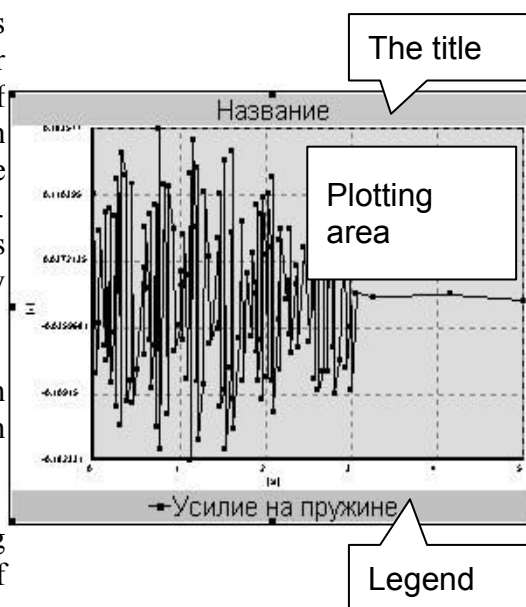
All glow irises on page, and also its constituents, can be gated out and their properties can be changed. For selection of installations it is necessary to click on them the mouse. It is possible to gate out some installations if thus to keep pushed Shift. Over the gated out installations operations (the set of operations is defined by installation type) are possible:

1. Copying Cut/Copy/Paste
2. Removal without copying in Clipboard and restoration possibilities (Clear)
3. Editing of properties.

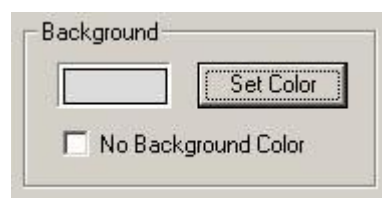
The glow iris consists of following installations (). Certainly, customisations of the curve and all glow iris bodily also can be changed, is simple in drawing they are not signed.

In the capacity of the elementary exercise it is possible to change a hum noise of the first glow iris. For this purpose click the mouse on Plotting Area in the first glow iris on the first page doubly.

On the shield there was dialogue Diagram Space Properties. Choose backfilling Appearance and instal



Drawing 10



Drawing 11

any other colour by means of button Set Color in group Background, or generally remove a hum noise, having installed flag No Background Color. After pressure on OK the glow iris will change colour of a hum noise to the chosen.

Let's assume, that editing of glow irises on it is completed. The created deed with glow irises should be saved. For this purpose it is possible to take advantage of commands File→Save (Save As). Both of them will give equal effect — will display dialogue Save As as the deed is saved for the first time. Save the deed under a name, for example doc1 (it is required to us further).

1.6.Change and mask renewal

Let's create on the basis of just saved deed a mask. Mask use allows to adjust once parametres of the deed and then on its sample to create the new.

1.6.1.Mask change

While we possess only one mask — default.pdt (item see). On its fundamentals the deed also has been created.

1. Not enclosing just created deed, choose command File→New and open already known dialogue New Document (item see).
2. Choose type of deed Pradis32 Template and push OK. The new deed-mask forms at once; creation of a new mask — most simple operation in New Document.
3. Choose File→Save. The program will display dialogue Save As. Also will suggest to save a mask in some catalogue DocTemplates. That for the catalogue, it is possible to learn it in item . To change the catalogue it is not recommended: masks should be saved in DocTemplates. Set a name of a new mask, for example, template1, push OK.
4. Enclose just created mask.
5. For the source document doc1 call point of menu File→Change Template. In the opened dialogue two files are visible: default.pdt and template1.pdt. Choose template1.pdt and push OK.
6. Now at the deed doc1 a mask is template1. It, generally speaking, does not influence the deed in any way: the mask is necessary at import. Besides, both masks default and template1 — empty. However mask change allows to update sweepingly contents template1. Call from the menu command Overwrite Template. It has not led to any exterior modifications, however all contents doc1 have been copied in template1. Thus, on the fundamentals doc1 the mask template1, being its exact duplicate has been created.

1.7.And again representation of outcomes

Let's return now to point .

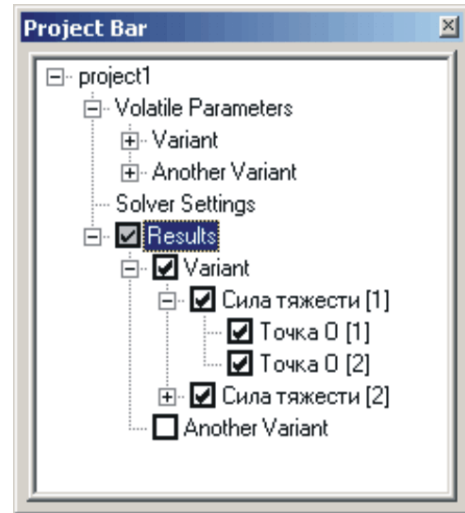
1. Choose any other alternative of calculation, for example, Another Variant and execute all acts from item .
2. When there will be dialogue Import Settings, pass to backfilling Template and push button Browse.
3. In the appeared dialogue choose besides template1 and push OK. Creation of glow irises will happen the same as and for doc1, but the new mask will be used.
4. Push OK in dialogue Import Settings. There was a deed with data from other alternative of calculation, but its graphical customisations are identical doc1.

Use of masks sometimes can essentially save a time on formatting of glow irises.

1.8.Representation of outcomes of several alternatives of calculation

In subitem and we represented outcomes of unit alternative of calculation. Pradis32 submits possibilities for simultaneous representation of outcomes of several alternatives.

1. Return to item and mark with a tick node **Variant** bodily. Now the program will represent outcomes of scalings from all поддерева **Variant**.
2. Call dialogue **Import Settings** by means of command **Show Diagrams** (item sm).
3. The content of backfillings **Placement** and **Template** has not varied: it common for all alternatives (all alternatives of calculations of one model in Pradis32 contain an equal gang of curves). On backfilling **Template** again instal a mask default.pdt.
4. Pass to backfilling **Variants**.
5. In list **Parameter Set** choose a gang of parametres **Variant**. The list will contain on the right parametres of this gang (the Gravity and the Point).
6. Instal a tick in column **Is Running** for both parametres.
7. Be convinced of that flag **Place every variant into separate page (s)** is installed.
8. Push OK.



Drawing 12

Creation of the deed with glow irises will be outcome of these acts. The amount and a disposition of glow irises in it is completely analogous to that has been gained in the deed saved earlier doc1. However now in each glow iris are collected on 4 curves from all alternatives.

It is one of possible scenarios of representation of multivariate calculation. For detailed acquaintance to the included possibilities it is necessary to address to the description of commands **Import** (item), **Show Diagrams** (item) and **Change Order** (item).

2. Types of files Pradis32

Table 1. Types of files with which works Pradis32

Expansion	The short description
ppj	Design Pradis32
pd	The deed for representation of glow irises
pdt	Deed mask
pme	The deed of the editor of models (it is presented in a separate administration)
rsx	The information on outcomes of multivariate calculation
rsl	File with outcomes of calculation
sci	File with import customisations
var, trn	Initial files of model
pgo	Graphic information about behaviour of model at calculation

2.1.Types of deeds

2.1.1.Design Pradis32

The given type of the deed is used for computational model creation. Creation of such deed explicitly is presented in item . Files VAR are necessary For design creation and TRN which are patterned in the catalogue of a leading-out matching to the design. In the present version the leading-out catalogue forms in the same place where also the file of the design and has the same name, as the design and expansion output. The design remembers a relative path to the leading-out catalogue so the design together with this catalogue can be patterned easily. After calculation in the leading-out catalogue there is a gang of RSL-files with outcomes of calculations and the RSX-file with the same name with the design. If at calculation the graphic information leading-out (see , subparagraph) with everyone RSL the file with the same name with expansion PGO will form by a file at calculation, a containing graphical leading-out of behaviour of model has been installed. Files of designs have expansion ppj. For representation of structure of the design in the form of a tree special window Project Bar is provided. Simultaneously one design can be opened only. At creation or discovery of the new design the program will suggest to enclose the current design beforehand.

2.1.2.The deed

Pradis32 Supports also special type of the deed for representation of outcomes of calculation in the form of glow irises. Such deed can be created, at first, explicitly, at the command of menu File→New, secondly, at representation of outcomes of calculation as it is presented in . If the new deed is created by means of command New glow irises in it can be added, at first, by copying (Cut/Copy/Paste or Drag&Drop) from other deed, secondly, by means of import from a RSL-file (item see). In the latter case at creation of new glow irises the mask — special variety of the deed for saving of graphical customisations is used.

The major singularity of the pd-deed — a support for it an embedding possibility (item see).

Files of deeds Pradis32 have expansion pd.

2.1.3.Deed mask

As, for example, in Word, any pd-deed in Pradis32 is grounded on a mask. The information from a mask is used at creation of the deed and at import. Per se a mask — the usual deed admitting all those operations that are allowed for the pd-deed, but:

1. It has no mask. Therefore commands Change Template and Overwrite Template (item 5 see) for it are inapplicable.
2. For saving of masks Pradis32 creates special subdirectory `ctm_mod/Pradis32/DocTemplates` in the system catalogue of current user Application Data (it is set by a variable of environment APPDATA).

For defined notion masks:

1. Application template by default `default.pdt`. It is analogue `Normal.dot` in Word. If the application does not discover it in the standard catalogue of masks (`%APPDATA %/ctm_mod/Pradis32/DocTemplates`), it forms anew.
2. Current mask. On the basis of a current mask there are new deeds. The name of a current mask can be seen at discovery of dialogue New Document. The Same dialogue allows to replace a current mask.
3. Deed mask. The given mask is used at import and adding of pages to the deed. At deed creation in the capacity of a deed mask the current mask is installed. Change of a mask for already existing deed is possible by means of a command of menu `File→Change Template`.

Program response in cases when it is impossible to discover or open a mask is defined:

1. It is impossible to open a mask by default (`default.pdt`). In this case the application simply oscillates it anew. It refers to as to a case when the mask file is not discovered, and to a situation when the file is recorded in an incorrect format. In the second case the file is transcribed. The program also tries to create the standard catalogue of masks if it is absent. In case of failure by the standard catalogue the catalogue in which is `pradis32.exe` appears. Mask Stock-taking `default.pdt` is made at each start of the program.
2. It is impossible to open a current mask. At start and at the moment of a ringing of dialogue New Document the program musters presence and correctness of a format of a current mask and in case of an error instal in the capacity of leaking a mask by default. If the user has chosen a mask with an incorrect format by pressure on OK the diagnostic message for an error and dialogue will be given out will not be enclosed.
3. It is impossible to open a deed mask. Check of a format of a mask of the deed is made directly ahead of execution of the operation, demanding a mask (import and adding of pages). In case of an error the user is offered to assign other mask. Files of masks have expansion `pdt`.

2.2.File of control of outcomes of calculation

Simultaneously with creation of a file of the design in the leading-out catalogue there is a file of control by outcomes with expansion `RSX`. In it all data necessary for show of graphs from `RSL`-files of last multivariate calculation (names and number of alternatives of changeable parametres) and current customisations of import of data are saved. By means of data from this file the program discovers all `rsl`-files belonging to the current design.

2.3.Files of data

In the capacity of files of data rsl-files Pradis are used. A format singularity (it is necessary to tell — an unpleasant singularity) is necessity to use a matching VAR-file at data reading. Pradis32 can open rsl-files, if

1. Nearby the VAR-file with the same name lays. It is traditional for old Pradis the circuit design of operation which is supported for compatibility. Such mode of generation of rsl-files in Pradis32 is unacceptable, as cannot combine with multivariate calculation when near to one VAR-file the whole set of files rsl should place.
2. Near to a rsl-file the VAR-file which name can be gained transformation of a name of a file rsl lays. At the solution of problem Pradis32 oscillates a gang of the rsl-files which names are organised by a rule:

(A design name) # (a VAR-file Name) # (identifier).rsl

From such name Pradis32 takes a name of a VAR-file and has an opportunity to read a file rsl. It is clear, that old visualisation tools of calculations Pradis immediately cannot read such file.

Data from files rsl can be represented in pd-deeds (or in pdt). For this purpose it is necessary or to start procedure of representation of outcomes of calculation (item see), or to execute import from a rsl-file (item see). In the second case not necessarily that the file rsl belonged to any design Pradis32, the main thing that near to it the matching VAR-file (link of names of files was can be both 1st, and 2nd aspect).

2.4.Import scenarios

Optional files with expansion sci are used for saving of a condition of dialogue Import Settings (item see) and its sweeping loading at the subsequent sessions of import.

2.5.Initial files of model

Initial files of model VAR and TRN are necessary for normal operation Pradis32 of the design and are put to it in correspondence immediately at creation. For Pradis32 these files — an input information and it never edits them.

2.6.Files with a graphic information.

These files form at calculation together with files of data (). They have the names coinciding with names RSL of files (files RSL with the same name and PGO match to calculation with an equal gang of parametres) and expansion PGO. These files contain in a text format (simplified XML) the information on visual behaviour of model at calculation. Files are supposed to be opened after calculation by a player, for scanning 3D scenes of behaviour of model at calculation.

3. Possibilities Pradis32 as COM-server

The developed application is full-server th OLE, i.e. can be started both as the separate application and as the editor of firmware Pradis32-installation. The deed with glow irises, that is the pd-document can be firmware. — an instance of such deed. If at you it is already installed Pradis32 it can be opened and edited.

Operation with firmware installation is possible in two regimes: in-place editing and editing in a separate window. The first regime, apparently, is most convenient at editing of the firmware deed with a variable format of page, especially if the deed consists of one-two glow irises. In MS Word installation discovery in-place is executed by command Edit→Object→Edit. In the second regime appearance of the user interface is as much as possible approached to stand alone to a regime (discovery of the independent deed) and it is represented convenient for editing of the big installations, in particular, firmware deeds with the fixed format of page. In MS Word installation discovery in a separate window is executed by command Edit→Object→Open.

To build in Pradis32-installation in OLE the container it is possible:

-Having copied data from the deed through clipboard (cut/copy/paste or drag&drop);

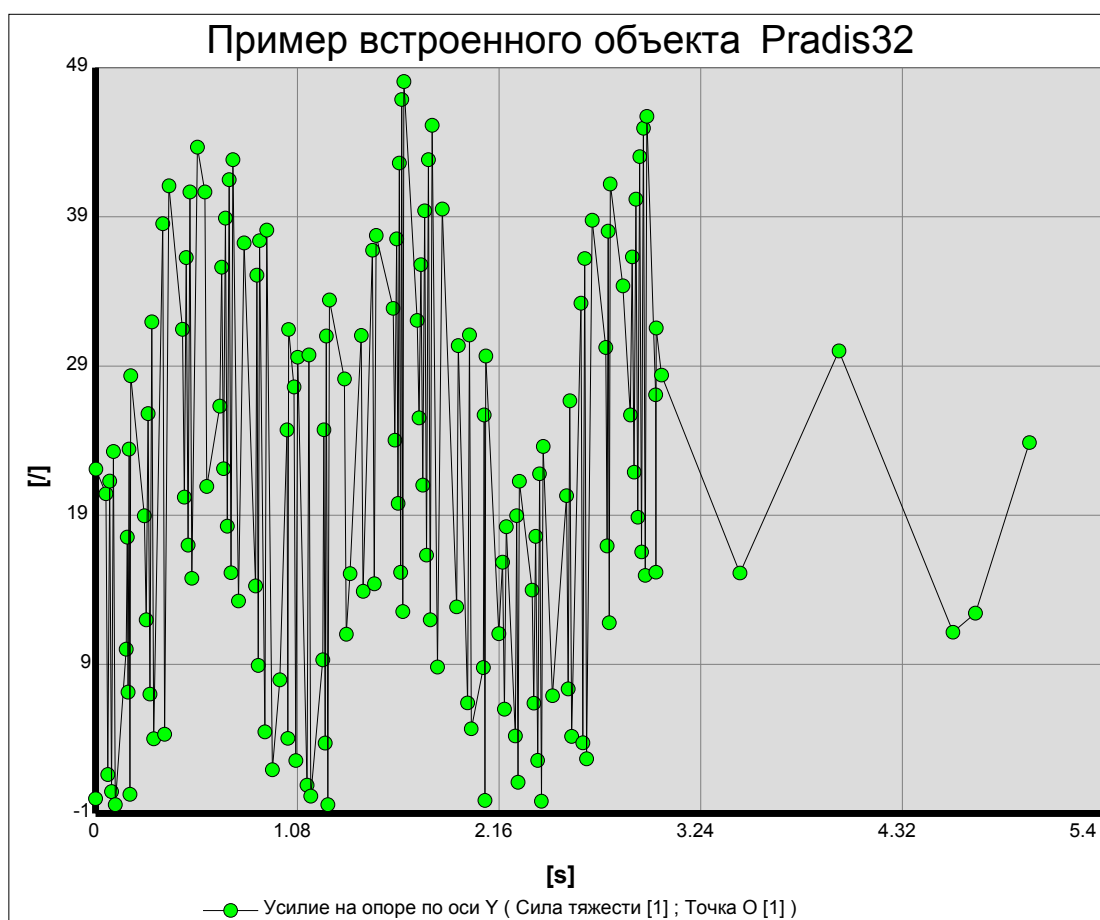
By means of command Insert Object in the application-container (in Word it Insert→Insert Object). The title of demanded deed Pradis32 Document.

4. Additional means for operation with great volumes of data

Pradis32 Allows to represent curves, to which match big enough (theoretically — unlimited) volumes of data. For this purpose in it are provided:

1. Possibility of use of the linked data.
2. Thinning out of data before drawing.

4.1. Curves with the linked data



Drawing 13

At import curve data are usually patterned in the deed and become its part. In this case the initial file of data after import is not necessary any more. However it can lead is

inadmissible to the big file sizes of the deed. In Pradis32 the mechanism with which help the deed is provided remembers only the reference to a file of data. In this case in the deed the relative path to a file of data is remembered, therefore they can be patterned together and to transfer on other computer: the deed will not lose working capacity. The mode of embedding of data in the deed is defined at import (item see), the linked data if necessary can be built in the deed in further (item see).

Note. Operation with the linked data is admissible only for the separate deed. The firmware deed always stores in itself all data (item see).

4.2.Thinning out at copying

At drawing of curves the program uses not all points. Specially designed mechanism beforehand creates the thinned out sequence of points, sufficient for representation of a curve with demanded quality. Quality of thinning out can be adjusted from dialogue Customize (item see).

5. The enumeration of commands of menu Pradis32

5.1.File

5.1.1.New, Open, Close, Save, Save As

These standard commands for a Windows application realise creation, discovery, closing and saving of deeds.

5.1.2.Change Template

The command allows to replace the mask linked with the deed, and it is accessible only to the deed (pd) and the design (ppj). An accelerator — Ctrl+T.

5.1.3.Overwrite Template

This command allows to update contents of the mask linked with the deed (actually executes Save Copy As in a current mask of the deed). The command is accessible only to the deed (pd-file) (the mask has no mask, and it is necessary to the design (a ppj-file) only for creation of pd-deeds) and only in stand-alone a regime (the firmware deed though has a mask, but never it uses). An accelerator — Alt+S.

5.1.4.Import

This command is accessible to deeds and masks (pd and pdt-files) and realises import from an exterior file of data in the deed. At first the user is offered to choose a file of data from which import will be carried out. After file sampling dialogue Import Settings the representing list of channels containing in a file and allowing is called:

1. To define, what channels should be used at import.
2. To assign amount of glow irises and distribution of curves under glow irises.
3. To define a sequence of glow irises.
4. To define a sequence of curves in the glow iris.
5. To assign a mask of the deed which will be used at import.
6. To save the created scenario of import in a file of the scenario (.sci-file)
7. To execute import according to customisations in a sci-file.

Dialogue Import Settings is executed in the form of the list of properties (property sheet) and consists of two pages.

5.1.4.1. Page Template

Page Template allows

1. To choose a deed mask with which help import will be executed. This mask becomes leaking for the deed (if, of course, import is executed in the deed (a pd-file), instead of in a mask (pdt): the mask does not have mask)
2. To instal desirable number of glow irises on page. At installed flag Place as in Template the set numbers of lines and columns are used only as a last resort, for example, when the matching page of a mask at all does not contain glow irises. At the removed flag indicator of the glow iris are upbuilt how it is set by the user, the information on a disposition of glow irises in a mask is ignored.

5.1.4.2. Page Placement

On this page customisation of disposing of curves in glow irises is executed. On page three lists are put:

1. Input channels.
2. Existing glow irises.
3. Curves of the active glow iris.
4. The list of input channels has three regimes of representation:
5. All. All input channels are represented.
6. Unused. The channels which have been not switched on in one of existing glow irises are represented.
7. Suitable. It, at first, not used channels, secondly, suitable for an insertion in the active glow iris (have the same dimensions of a quantity of axes).

The glow iris which has been gated out in the list of glow irises is active. If it is not gated out any glow iris, or some glow irises are gated out, the active glow iris is not defined also the list of curves of the active glow iris is inaccessible. If for input channels regime Suitable in this case the list of input channels also will be empty is installed. By sight the list of input channels in regimes of representation All and Unused presence or lack of the active glow iris does not influence.

To lists of glow irises and curves of the active glow iris there match steams of buttons Up and Down. These buttons allow to change a sequence of glow irises and curves in the glow iris.

Flag Embed Data Into Document had in the bottom of dialogue defines, whether should given be built in in the deed (is installed) or it is necessary to create references to a file (is removed).

When it is not required to adjust manually disposing of each curve, it is possible to take advantage of the additional dialogue Standard Placement called by means of the button with the same name on page Placement. This dialogue is analogous to old dialogue of import and allows easier, than by means of the basic dialogue:

1. To gate out for each chosen curve the separate glow iris
2. To sort curves under glow irises according to dimensions of a quantity of axes.

5.1.4.3. Saving and scenario application

The current condition of customisations of dialogue Import Settings can be saved in a file of the scenario (sci-file) by means of button Save. In the subsequent the scenario can be loaded from a file by means of button Load. It can appear useful in a case when it is necessary to put in into the deed data from several files with an equal gang of curves: import can be adjusted once and in the subsequent to apply the saved scenario.

Import is impossible in the firmware deed and the command is accessible only in stand-alone a regime. An accelerator matching to a command — Ctrl+I.

5.1.5.Metafile

Saves the image of current page in a metafile. The user is offered to choose a metafile name. To assign expansion to a file name not necessarily: expansion matching to a chosen format in case of need will be automatically added. Metafile saving in formats emf and wmf is possible.

5.1.6.Print, Print Preview, Print Setup

Printing stereotyped commands. Now the current page is typed only. For printing альбомной pages it is necessary to instal a demanded format in menu Print Setup.

5.1.7.Translate PRADISLang

Calls dialogue "Translate" intended for translation of the description of a computational model in language PradiSLang in binary files of model.VAR and.TRN. This operation is necessary, as the design pradis32 can be created only on the basis of binary files. Dialogue "Translate" also can be called at design creation to create binary files from text PradiSLang, and then on their fundamentals to create the design. Here (in the menu) dialogue is called separately, on a case if it is necessary simply оттранслировать text PradiSLang in binary files, not creating from them the design.

5.1.7.1.Dialogue "Translate".

Dialogue contains three blocks of customisations:

- External application
- Translation Settings
- Translation output

And also buttons "Start translation", "OK", "Cancel".

External application

The block the foreign editor whom the input file from a field "PradiSLang file" will be opened, presents sections "Translation output" by pressure button "Edit". The Entry field "Input File Editor" contains a path to an executed file of the editor. By button "Browse" it is possible to choose a path on a disk. Button "Default" will instal in the field of feeding into a path to the editor associated in Windows with text files by default.

Translation Settings

The block presents translation customisations:

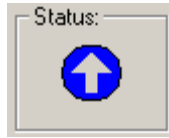
- The entry field "PradiSLang File" contains a path to the model text. Button "Browse" it is possible to discover a path on a disk. Button "Edit" creates a file from entry field in the foreign text editor for editing. The path to the editor is set in the block "External Application". If it is not installed, by pressure on "Edit" the standard window Windows will be called, allowing to choose this editor from the program list.
- The entry field "Output VAR File", sets a path to output files to outcomes of translation. The path to VAR to a file is in the field set. File TRN will form in a course трансляции near to VAR by a file. His name will be same, as at VAR a file (expansion differs). Кнопка "Browse" allows to choose an output path on a disk. Button "Default" will instal in the field of feeding into the same path, as in the field "PradiSLang File", but with expansion adding ".VAR".

Translation output

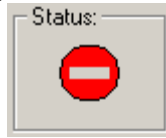
The block contains a leading-out of outcomes of translation.

- The field "Translation output" represents a leading-out of modules pradis32, created during translation (a file sysprint.txt in the same directory, as output VAR a file).

- The icon “Status” displays, whether there has successfully passed last translation. -



it is successful, -



it is not successful.


- Wireless button "Encoding" allows to choose the coding in which it is necessary to perceive a file sysprint.txt at representation (Windows/DOS).
- The button “Refresh sysprint.txt” allows to re-read sysprint.txt in the field “Translation output”.

OK/Cancel/Start translation

The button “Start translation” calls translation start. After its ringing, in case of success, there will be binary files of model. In any case it will be re-read sysprint.txt and the icon “Status” will be updated. OK and Cancel enclose dialogue “Translate”. In case of OK values of customisations of dialogue will be saved and displayed at a following ringing of dialogue.


5.2.\$ RUN :

5.2.1.New

Starts new calculation of the design opened at the moment. If with model rsl-files with outcomes of the previous calculations these files **are annihilated** are linked. An accelerator — Ctrl+U. The button on a board of instruments—.

5.2.2.Sequential

Starts additional calculation for the design opened at the moment. Additional calculation is impossible if:

1. For the design new calculation (command Run→New was never called→) was not carried out→.
2. In the course of model editing there was a modification of number of alternatives of calculation.
3. It was called Reset Content for any node.
4. At additional calculation new outcomes are added in existing rsl-files. An accelerator — Alt+U. The button on a board of instruments—.

5.2.3.Show Diagrams

Starts procedure of representation of the chosen gang of outcomes of calculations. Thus in memory there is a temporary pd-deed in which glow irises are drawn. This deed in the subsequent can be saved by means of File→Save.

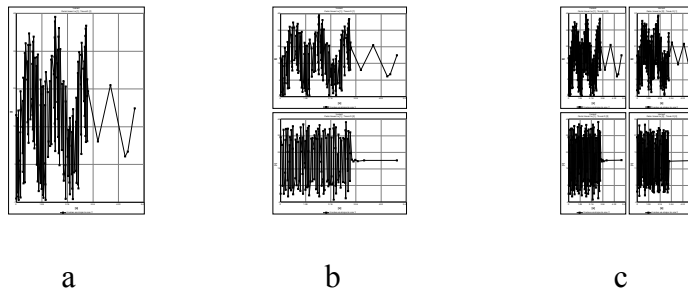
Those alternatives of calculation which are marked by a tick in a design tree (Project Bar) are chosen.

At the command of Show Diagrams dialogue Import Settings (see) is called. In this case this dialogue contains additional backfilling Variants () and allows to adjust import at once from several files of data.

5.2.3.2. Disposition of alternatives

To fathom modes of a group of alternatives, it is convenient to assume, as if import happens under the following circuit design.

1. At first consecutive import of the data matching to unit calculation is executed. The order of search of alternatives is defined under the circuit design. Formatting of glow irises for each unit calculation equal also is defined by customisations from backfillings Placement and Template. We will assume, that from each alternative one glow iris from one curve is put in. Then after that pitch for each alternative we will gain page as on, a.
2. Join of the alternatives matching to a modification of the "running" index.



Drawing 15

3. Now has come to group a time alternatives.
 - a. If it is not required, the deed will consist of pages of an aspect, a. It matches to a mode of group Place every variant into separate page (s) on backfilling Variants.
 - b. If to choose mode As a Table 1D, all alternatives matching to a modification of the most "sweeping" index (last "not running" parametre in the list) at fixed other parametres will be collected on one page (, b). For example, for a gang of parametres about the Island Point will be such index
 - c. At sampling of mode As a Table 2D alternatives will be collected in the two-dimensional table. On a vertical the index matching last, on level — to penultimate parametre in the list (,) will vary.

For a group of alternatives As a Table 1D and As a Table 2D it is necessary, that in a gang there were, at least, one and two usual ("not running") indexes accordingly.

The group mode is adjusted separately for each gang of parametres (parametre set).

5.3. Edit


5.3.1. Switch Page Format

The command changes a format of current page with book on альбомный and on the contrary. Page contents thus are proportionally scaled. A command продублирована in the context-sensitive menu, for it accelerator Ctrl+W is provided.

The command is inaccessible to firmware installation.

5.3.2. Cut Copy Paste

Execute excising, copying and an insertion of installations. Patterned installations in the program are pages, glow irises and separate curves. For copying of pages special commands Edit→Page→Cut/Copy (the following point see) are used→→. On an insertion of glow irises in the deed of limitations is not present, curves can be put in

only in the glow iris, and **dimensions of a quantity of axes of glow irises-radiants and the receiver should coincide**. The glow iris copied from the deed can be put in into the application-container as the firmware pd-deed. Paste puts in contents clipboard into the deed irrespective of, whether it has been gained by means of Cut/Copy or Page→Cut/Copy. However the insertion mode in these cases is various. In the first case data are added to contents of current page, in the second there is a new page and is put in before leaking (it truly only for the separate deed: for the firmware deed was possibly only contents join). All operations продублированы in the context-sensitive menu appearing by pressure of the right button of the mouse in a window. Buttons for Cut/Copy/Paste also are carried out on a board of instruments ()

5.3.3.Clear

Executes removal of the gated out installations without copying in Clipboard. Act depends on what deed is at the moment active. In the pd-deed was possibly removal

1. Separate curve.
2. Plotting areas. All curve glow irises in this case are deleted, the glow iris is not deleted.
3. Glow irises bodily.
4. The plural selection containing an arbitrary combination enumerated above installations.

At editing of the table of parametre in the design the command deletes a current line. In the table cannot be deleted last line with values and a closing empty line.

At editing of a tree of model the command deletes the gated out node. In the present version removal only a node of alternative of calculation is possible. Last remained alternative cannot be deleted.

Accelerator — Delete. The button on a board of instruments—.

5.3.4.Page

The submenu is intended for copying, excising and adding of pages. Commands Page→Cut/Copy excise/pattern current page in clipboard which in the subsequent can be put in by means of command Paste. Command Page→Add New calls dialogue Add Page for adding of new page to the deed. Dialogue allows to adjust parametres of new page and its rule in the deed.

Commands of submenu Page продублированы in the context-sensitive menu also are inaccessible to the firmware deed.

5.3.5.Properties

The command calls dialogue Properties for the installations gated out at the moment, allowing to edit their properties. The dialogue aspect depends on what installations are gated out at the moment. If selection contains installations of different types, command Properties is inaccessible. A matching accelerator — Ctrl+R.

5.3.6.Embed/Reduce

Calls dialogue Embed/Reduce which is intended for thinning out and embedding of data and being, apparently, the instrument for sophisticated users. He allows:

1. To build in the deed the linked data
2. To change density of points/ranges existing given (both linked, and built in).

Overhead combo box dialogue instal one of the predetermined configurations of embedding. It

1. As is. This embedding of data in the deed bodily and without thinning out use. On already firmware data this command does not render any act

2. With Current Resolution. Actually existing data are substituted by the sequences used at current drawing. Such mode of a data conversion is useful, if the deed is used in the illustrative purposes.
3. With Custom Resolution. The user is submitiven to adjust a possibility separately each of parametres.

It is important to fathom a variance between thinning out at drawing and at use of dialogue Embed/Reduce. In the first case data are not edited, the special sequence for their representation to a picture is simply shaped. In the second case editing of data occurs.

Command Embed/Reduce is executed for current selection. Thus it is possible to gate out separate curves, areas of construction of glow irises and the glow iris bodily. In last cases transformation is executed for all curves of the glow iris.

Possible orbs of application

1. Selection of fragments from the big sequence of data. Having installed With Custom Resolution, having disconnected thinning out (flag Thin Out) and having set a demanded range it is possible to "excise" a piece of a curve and to build in the deed.
2. Creation of masks. As for a mask customisations of representation of a curve, instead of data it is possible to thin out data of a mask with coarse enough permission and by that essentially to diminish a file size are important only.

The command is accessible for pd and pdt-deeds both in stand-alone, and in in-place. An accelerator — Ctrl+E.

5.3.7.Duplicate Node

Doubles gated out at the moment in Project Bar node of alternative of calculation. At invisible Project Bar is absent in the menu. An accelerator — Alt+Insert.

5.3.8.Rename Node

Makes active an editing of a name gated out in Project Bar nodes. In the present version renaming only nodes of alternatives of calculations is is possible. Is absent in the menu at invisible Project Bar. An accelerator — Ctrl+M.

5.3.9.Reset Content

Rebuilds from the VAR-file linked with the design structure and values of parametres gated out in Project Bar nodes. The outcome of act depends on to what node operation is applied:

1. Separate changeable parametre (such as the Gravity in item) or customisations решателей Solver Settings. The current table of parametre is substituted on that, that is stored in a VAR-file.
2. Node of alternative of calculation Variant. Act is equivalent to operation application to each parametre.
3. Node Volatile Parameters. All nodes of alternatives except one for which name Variant is installed are deleted. This node is treated as in the previous point.
4. All design. Nodes Volatile Parameters and Solver Settings are treated, as in the previous points, поддерево Results is deleted.
5. Accelerator — Ctrl+D.

5.4.View

5.4.1.Toolbar

Defines, whether the board of instruments is visible at the moment.

5.4.2.Project Bar

Defines, whether window Project Bar indicating structure of the design opened at the moment is visible at the moment. Some points of the menu (Edit→Duplicate/Rename Node, Reset Content) are accessible only at visible Project Bar.

5.4.3.Zoom

Calls dialogue Zoom for customisation of a scale of representation. Are possible installation of the fixed scale (200, 150, 100, 75, 50 %), by Width, Fit to Window and assignment of the user scale. The scale can vary over the range 5-2000 %.

5.4.4. Animate

Rebuilds a window of visualisation of process of the solution. The command is accessible only in the course of the solution and at the enclosed window of visualisation. An accelerator — Ctrl+A.

5.4.5.Mouse Mode

Commands of submenu Mouse Mode instal a regime in which the mouse is at the moment used. Version 030928 supports following regimes:

5.4.5.1.Select





Regime of sampling of installations. In this regime selection of installations (as mouse click th, and by means of Box Select (only for glow irises)) and drag&drop is carried out. Act on double-click: installation selection over which the cursor and a ringing of dialogue Properties is.

5.4.5.2.Box Zoom

Regime of process of scaling. Act on double click: scale reduction to 100 %.

5.4.5.3.SCALE



Glow iris process of scaling. This regime is used for a modification of a range of axes of glow irises in style Matlab. Out of glow iris area in regime Scale any acts it is not executed. Act on double-click: out of the glow iris-any of acts, in area of the glow iris-reduction of ranges of axes in condition Fit to Curves Range.

Submenu Mouse Mode продублировано in the context-sensitive menu. Regimes also can be switched by matching buttons to boards of instruments (   ).

5.4.6.Show Content

Displays the table of values for gated out in Project Bar parametres. The analogous effect is attained by pressure Enter the gated out parametre or double by click left button of the mouse.

5.4.7.Change Order


The command allows to change a sequence of parametres in a tree of outcomes and by that to facilitate process of sampling of alternatives of calculation demanded for representation. On this command dialogue Parameter Order in which names of gangs of parametres at the left are enumerated, and on the right — parametres of the gated out gang is called. The order of parametres in this list matches to tree traversal of outcomes in a direction from a radical and can be changed by means of buttons and  . As a result of reorganisation of a tree the condition check box does not vary. The command is accessible only if actively window of a tree of design Project Bar and the node from поддерева outcomes is gated out. A command продублирована in the context-sensitive menu of a window of a tree of the design.

5.4.8.Run Visualizer

In the presence of the counted outcomes allows to start a player of show animation 3D a scene visualising behaviour of model at calculation. To become active, only if in поддереве outcomes **Project Bar** the node of the lower level (represented alternative) is gated out left кликом mice, and the focal point is installed on **Project Bar**.

5.5.Window

5.5.1.Next Page, Prev Page

Instal in the capacity of leaking the following/previous page. These commands продублированы buttons on  a board of instruments. Next/Prev Page are inaccessible to the firmware deed: it always consists of one page.

5.6.Options

5.6.1.Customize

The command calls dialogue Customize, allowing to adjust some parametres of the program. This dialogue is counted for sophisticated users who should work with great volumes of data, especially, if they create deeds with references to exterior files of data. Now dialogue contains two backfillings

1. Thinning.

Defines, whether it is necessary to use thinning out at representation of curves and if follows detailing level allows to define. The there will be values Cell Count less, the copying, but, probably, at the expense of picture quality loss is more sweepingly executed. Thinning out can be disconnected generally if to remove flag indicator Enable Thinning out. In this case all points of a curve will be drawn. To work always with removed flag Enable Thinning Out it is not recommended: at drawing all volume of data in this case will be brought in memory that can lead to an unacceptable velocity of operation of the program (and even to hanging).

2. Linked Data.

Customisation defines, what volume of data is patterned on Clipboard if the initial curve uses the linked data.

- a. Whole Sequence. Together with the reference all sequence of data is patterned. This regime is not recommended to be used by default for the same reasons, as in the first point.
- b. Currently thinned sequence. Together with the reference the sequence used at drawing is patterned.
- c. Link Only. The reference to a file of data is patterned only.

These customisations are actual only in one case: when the curve with the linked data is patterned in the firmware deed. The firmware deed cannot contain references to an exterior file, therefore any data set is necessary to it. If regime Whole Sequence a new curve — an exact duplicate initial, with that only a variance, that it stores all data in the deed whereas initial — only the reference is installed. In regime Currently Thinned Sequence the new curve only looks, as initial: really it contains already thinned out data set. In the latter case in Clipboard the reference and such curve is patterned only cannot be put in, for example, in Word, or in built in in Word deed Pradis32.

It is necessary to note, that these customisations have no value at copying of curves with firmware data and a curve insertion in the independent pd-deed: in these cases data are patterned, as is, if it is firmware data, all sequence, if linked — only the reference.

3. Animation Background.

Customisation of a hum noise of a window of animation. Colour of each angle of a window is separately adjusted. Colours are saved in a file of customisations of the program and rebuilt at the subsequent starts.

4. # OUTPUT :

Customisation of a leading-out of outcomes of calculation. To switch on and off a graphic information leading-out it is possible a daw "Write PGO file". The switch "write every" will allow to choose frequency of a leading-out of the information – on each integration step, or on each Nth pitch. Flag Write TBL file defines, whether outcomes of calculation in the form of tables will be inferred. At the installed flag except a binary RSL-file for each alternative of calculation there is a text TBL-file with the same name.

6. Control of disposing of glow irises on deed page

6.1.As disposing of glow irises on page is defined

The amount and disposition of glow irises on pd-deed page at import (for example, during a ringing “Show diagrammes”, see pradisui.doc item 6.2.3) is defined by two modes:

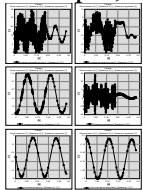
1. Disposition of glow irises in the mask chosen for import
2. The explicit job of number of glow irises for page

Sampling of a mode of distribution is carried out in dialogue Import Settings on backfilling Template (the description in pradisui.doc subitem 2.4, 2.8, 6.1.4 see, 6.2.3). If flag Place As In Template the amount and a disposition of glow irises on page will be such what is installed in a mask used for import (a mask in an exactitude is installed can be chosen also on backfilling Template). For example, if the mask page looks so:



The deed page will contain that two glow irises had similarly.

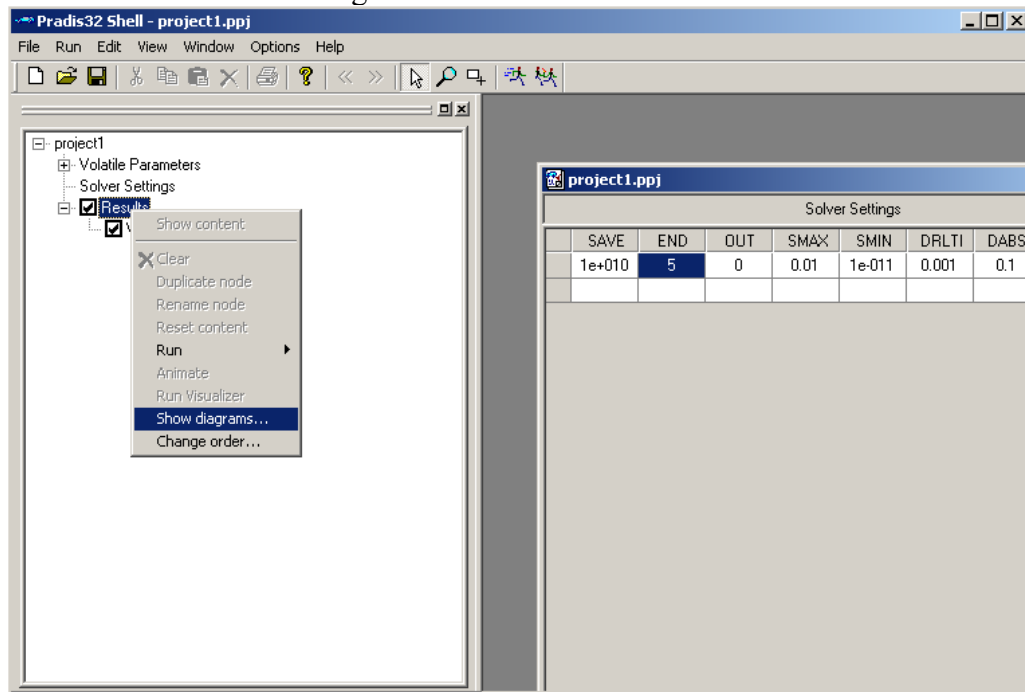
If flag Place As In Template is removed, or the used mask at all does not contain glow irises on page of the created deed of the glow iris place in the form of the table. The number of table columns is set in the field Columns, lines — in the field Rows. For example, for creation of the following page:



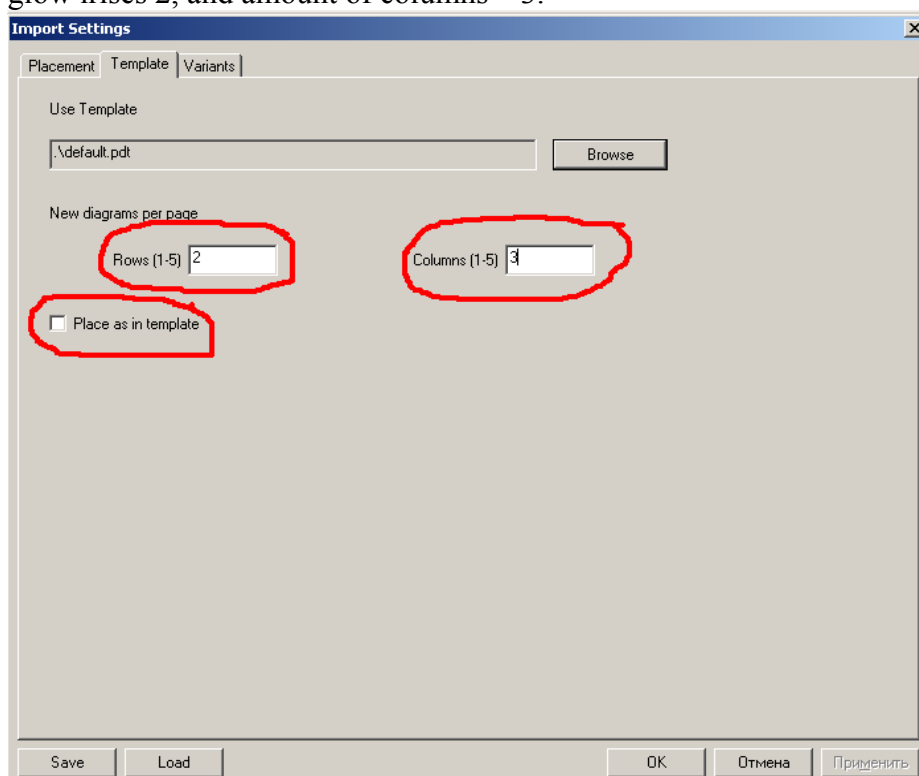
It is used: Columns = 2, Rows = 3. (Do not forget to remove flag indicator Place as in template).

6.2.Instance: disposing of curves and glow irises on page for the test swing

Let the test swing in unique alternative of calculation by default is counted. We will mark with a tick node Results in a design tree, and we will call point of the context-sensitive menu “Show diagrams”.

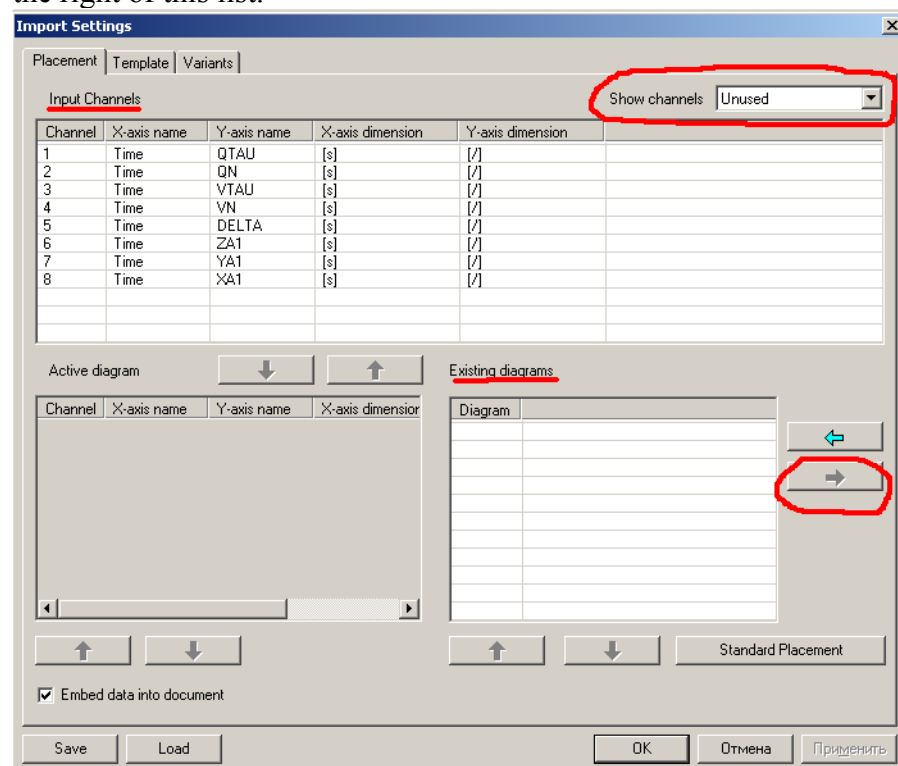


In the appeared dialogue “Import settings” we will pass to the inset “Template”, and we will disconnect a daw “Place as in template”. We will instal amount of rows (Rows) glow irises 2, and amount of columns – 3.

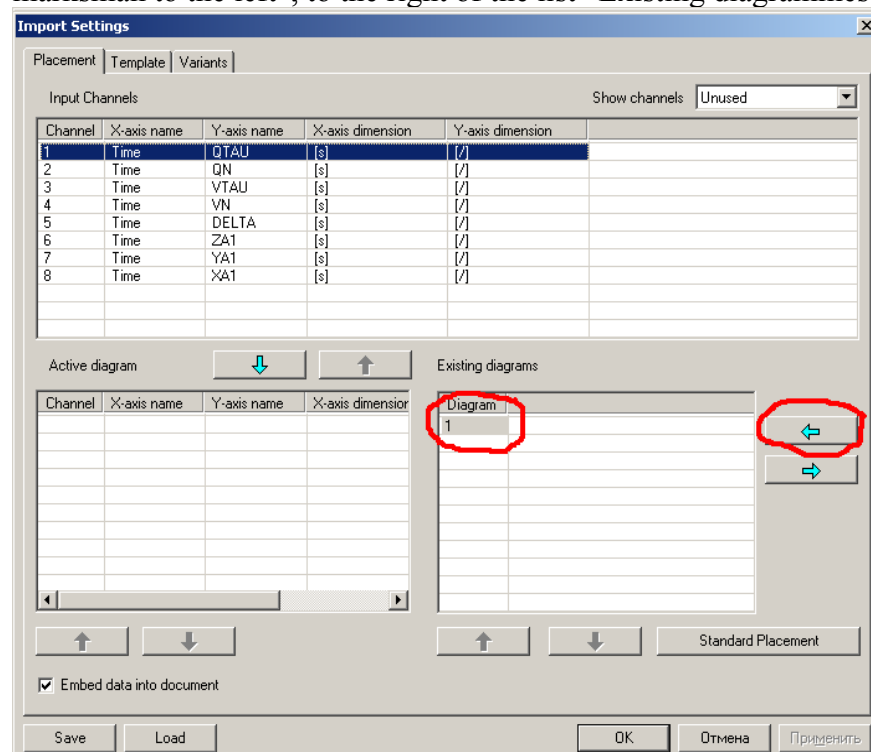


Now we will pass to the inset “Placement”. We will instal the filter for the curves which are represented in a window “Input channels” (the falling out list “Show channels”) in

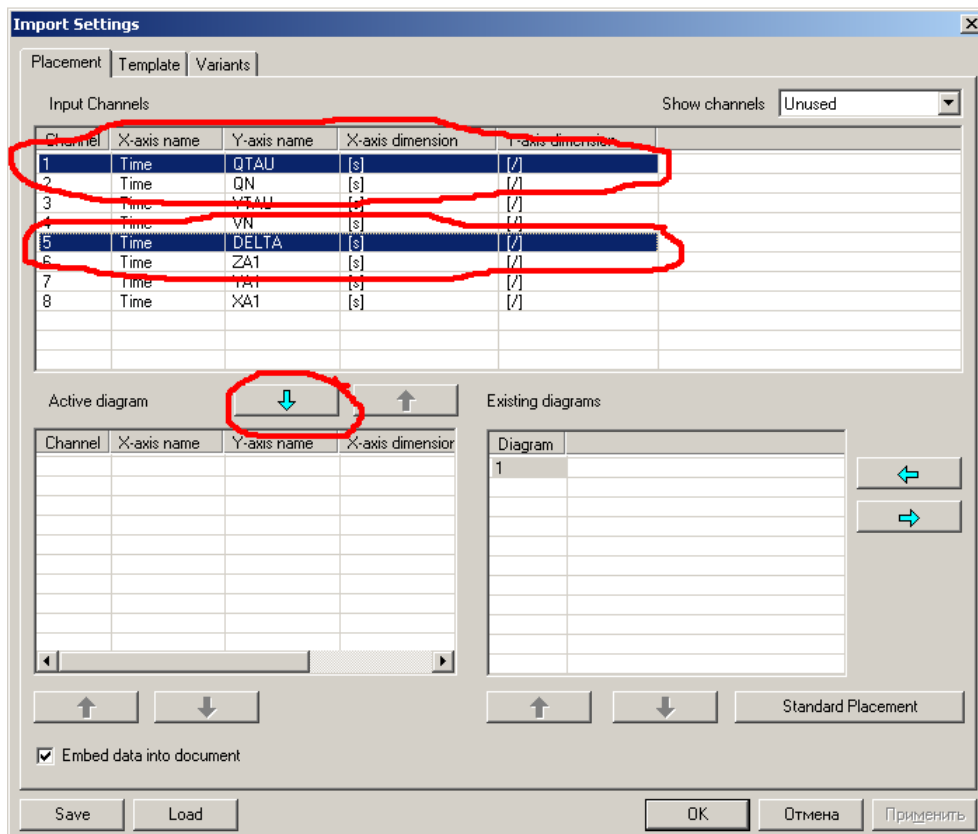
value “Unused”. Then we will delete all existing glow irises, gating out the glow iris in the list “Existing diagrammes”, and pushing the button “the marksman to the right”, to the right of this list.



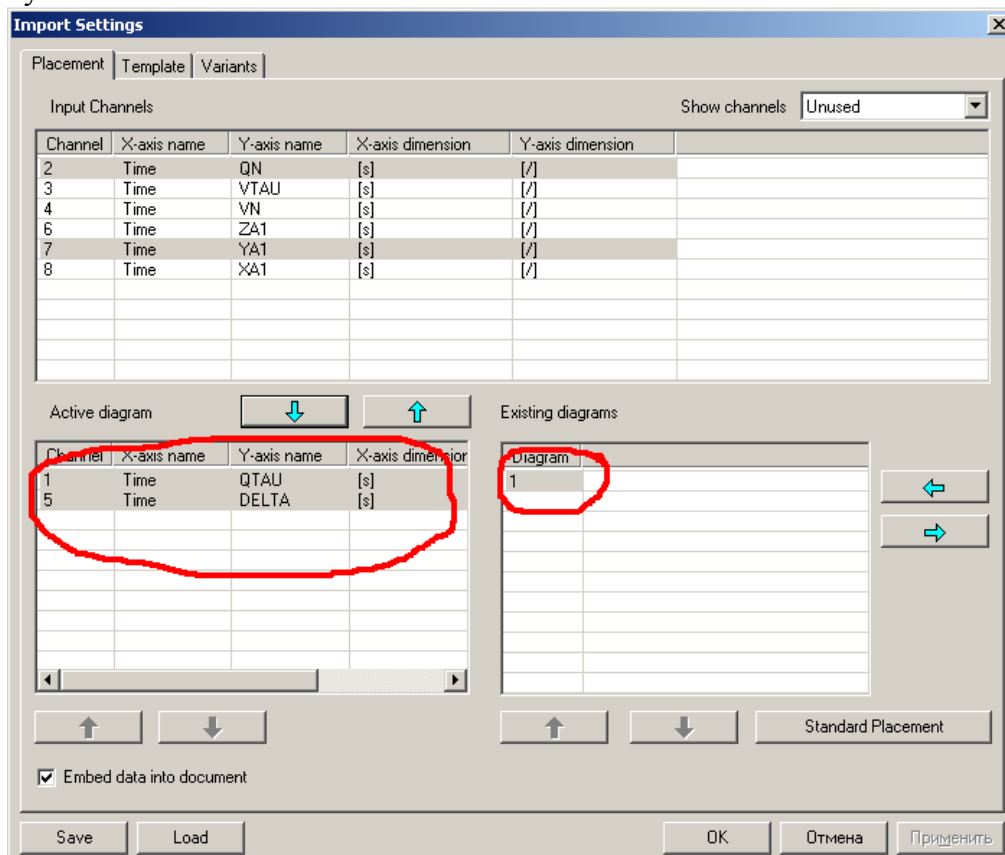
Further we will create the new, empty glow iris, having pushed on the button “the marksman to the left”, to the right of the list “Existing diagrammes”.



Now we will gate out by means of left a mouse clique at pushed “Ctrl”, curves 1 and 5 of the list “Input channels”.

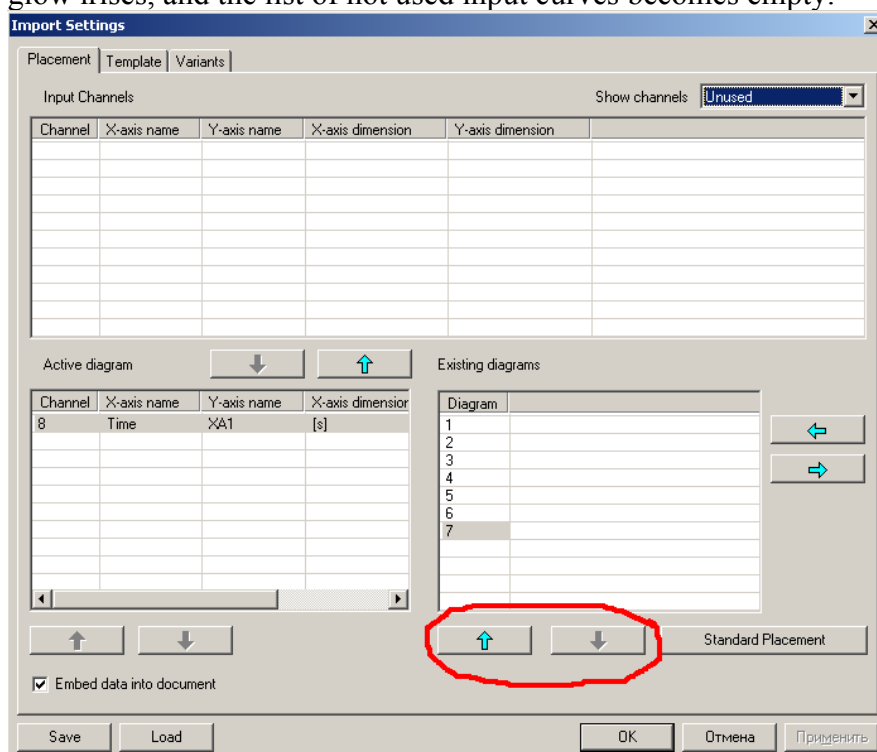


Then we will push the button “the marksman downwards”, over the list “Active diagramme”. Curves will be displaced to this list that means, that in the glow iris created by us these two curves will hit.

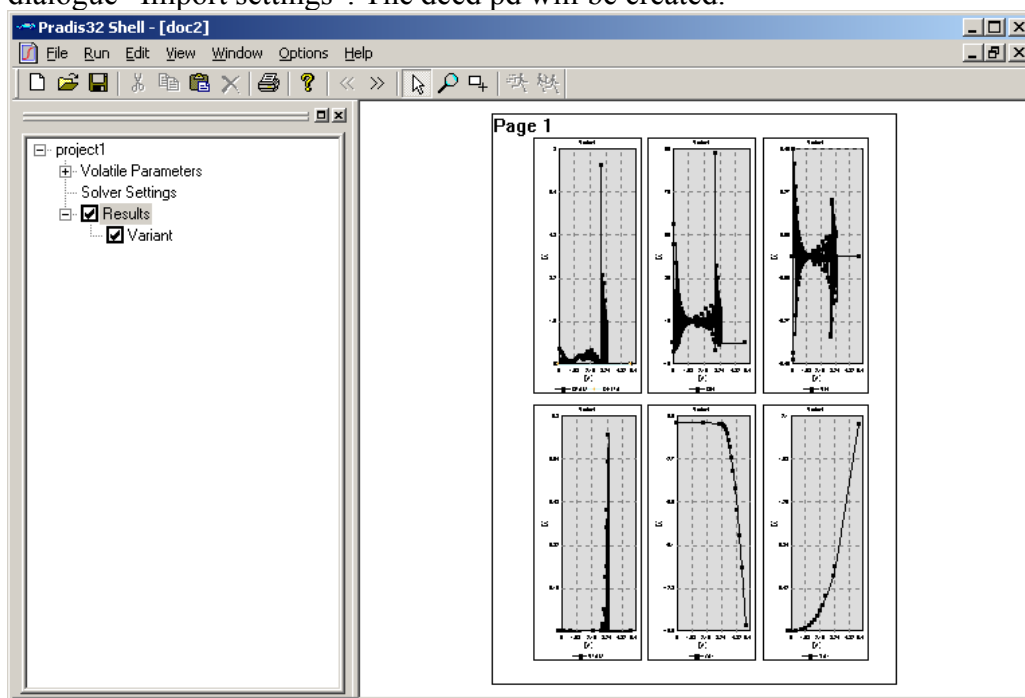


Further we will create 6 more new glow irises, pushing the button on the button “the marksman to the left”, to the right of the list “Existing diagrammes”. In each of them we will put on one curve from the list “Input channels”, gating out at first number of the

first empty glow iris in the list “Existing diagrammes”, then gating out first one after another a curve in “Input channels”, and pushing the button “the marksman downwards”, over the list “Active diagramme”. Thus, we will generate the list from 7 glow irises, and the list of not used input curves becomes empty.



After that it is possible to change an order of glow irises in the list, gating out the glow iris with certain number and displacing it in the list buttons “the marksman up” and an arrow downwards under the list “Existing diagrammes”. Now we will push on OK in dialogue “Import settings”. The deed pd will be created.



As we see, on the first page there were the first six glow irises which have been had in the two-dimensional table, according to the sizes of the table chosen in the contribution “Template” of dialogue “Import settings”. On the second page last, seventh glow iris has hitted.

The chosen strategy of disposing of curves under glow irises and glow irises on page can be saved to apply then at test calculations swing. For this purpose

1. Not enclosing the deed pd (page with graphs in the previous drawing), we will create a new mask, having called the menu File-> New, having installed in dialogue "New document" type Pradis32 Template, then having pushed OK in dialogue "New document".
2. To appear empty page with a mask. We will save the created mask, having called the menu File-> Save and having assigned a file name swing.
3. Let's enclose the created mask, having called the menu File-> Close.
4. Now again there is active a page with graphs. We will load our new mask for it, having called the menu File-> Change Template, and having opened the file created earlier swing.
5. Now we will save the strategy of disposing of glow irises on page of graphs in a mask swing, having chosen the menu File-> Overwrite template.
6. Let's enclose page with graphs through the menu File-> Close.
7. Anew we will call the context-sensitive menu "Show diagrammes" for scanning of outcomes.
8. In the appeared dialogue "Import settings" in the inset "Template" we will instal a daw "Place as in template". It is necessary to be convinced, that the mask swing in the field "Use template" is installed.
9. After pressure OK in dialogue "Import settings" on page with glow iris graphs will be placed on 6 on page in tables.
10. Let's note, that in a mask (template) the strategy of disposing of glow irises on page, but not curves under glow irises is saved only. If to interchange distribution of curves under glow irises in the inset "Placement", other glow irises will already take places on page according to a mask.
11. "Import settings" (disposing of curves under glow irises, a mask name, etc.) it is possible to save and load all customisations of dialogue into the import scenario (a file sci) by buttons Load/Save. For example, once correctly having adjusted disposing of curves under glow irises and a mask name in dialogue "Import settings", we save these customisations, having pushed on "Save", and having chosen a file swing.sci.
12. Now it is possible to enclose the program, anew to open the design swing, to count it. Then to call scanning of outcomes ("Show diagrammes") and to load by button "Load" into dialogue "Import settings" customisations from a file swing.sci.
13. After pressure on OK in dialogue "Import settings" the page with graphs will look in an exactitude, as in the previous drawing. Will be rebuilt also the strategy of disposing of curves under glow irises, and the strategy of a disposition of glow irises on page.