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# WINDOW CALCULATION SOFTWARE “LABRADOR 3D. Window dealer”

## USER MANUAL

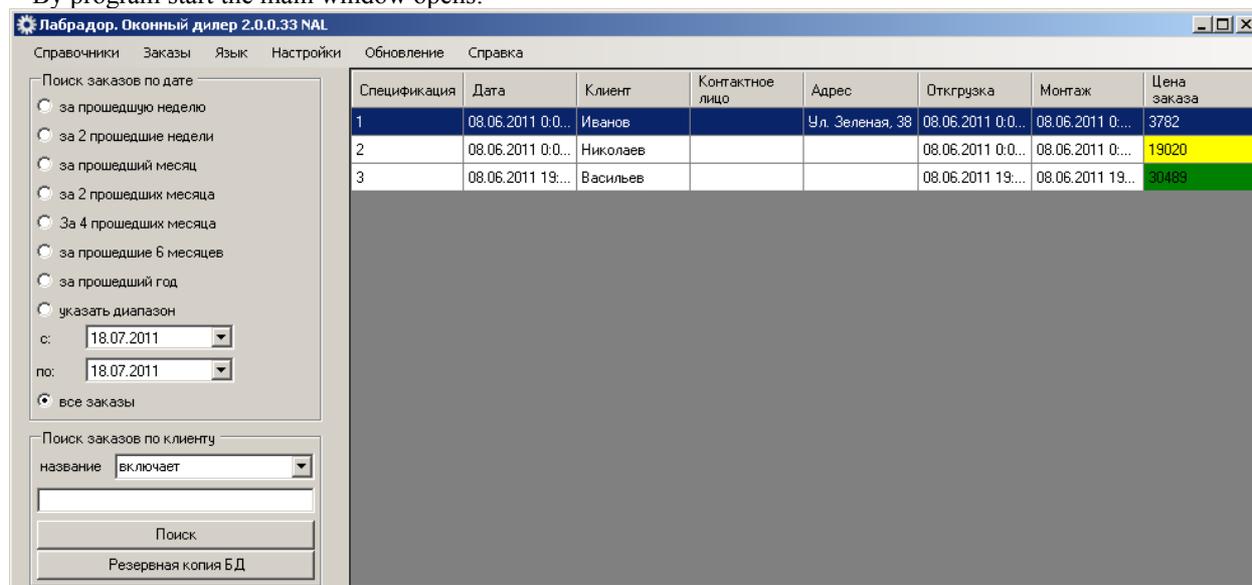
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# WORK IN THE PROGRAM

## Head 1 Program start.

By program start the main window opens:



**Pic. 1: Program main window**

The right part of the opened window includes the list of entered and saved orders.

The left part of the window includes additional panel to sort orders by date or client.

The upper part of the window includes main text menu, located above the search panel.

### .1.1 Program main menu.

Access to the program setting is available via the program main window, as well as to work with the order list and other services.

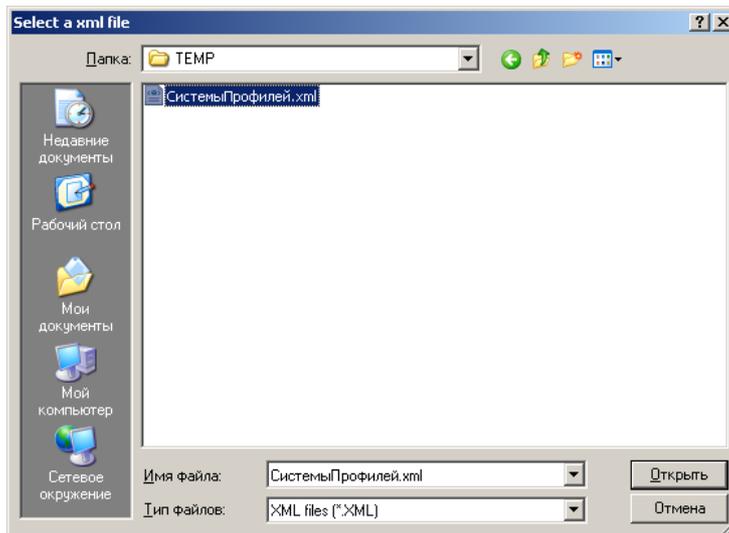
Menu buttons:

- Button “Catalogues” is used to open menu of catalogues. Menu work is described in sectionError: Reference source not found Error: Reference source not found;
- Button “Order” is used to create a new, edit or delete existing order;
- Button “Language” is used to select program interface language (Russian, German, English);
- Button “Settings” is used to enter user parameters, displayed in print documents, and to load profile system data from the external file. Select item “Settings of dealer data” in menu “Settings”, you can select path to the graphical file of \*.jpg or \*.gif in the opened form, which displays the dealer company logotype and you can enter all necessary data in the text field:



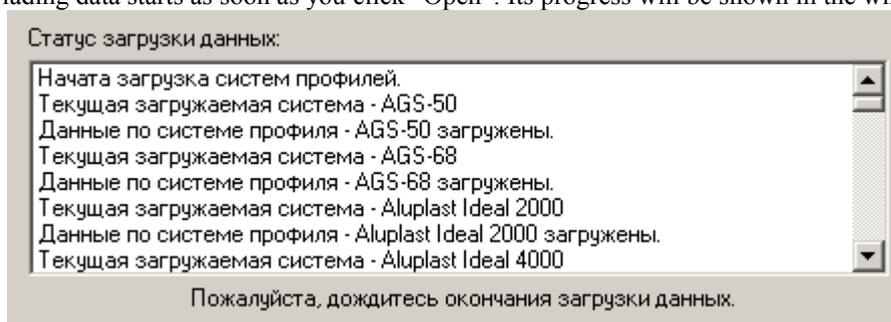
**Pic. 2: Dealer data settings.**

You can copy graphical files of logotypes in the program working folder for your more convenient use. When you enter the data, click “Save” and “Exit”. When you select “Load profile system data” the window will open, where you need to elect file of necessary data to load:



**Pic. 3: Select data to load data**

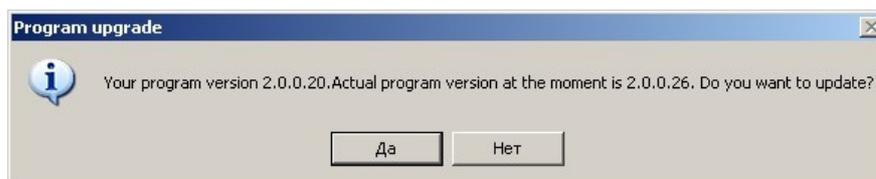
The process a lading data starts as soon as you click “Open”. Its progress will be shown in the window:



**Pic. 4: Information field a data upload.**

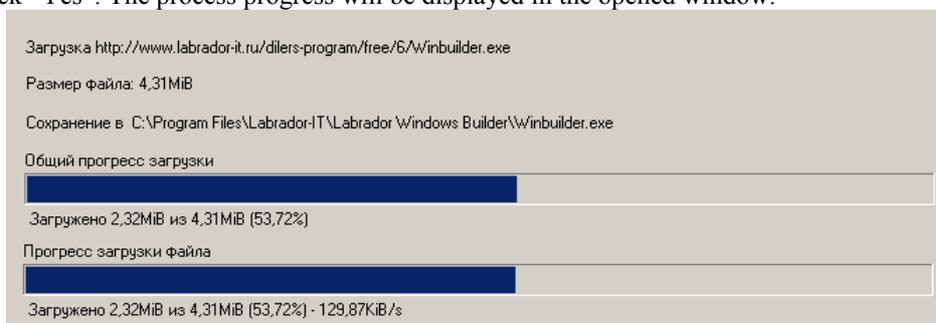
As soon as the file is uploaded, the window will be closed automatically.

- Button “Update” is used to update the program version remotely;  
If a PC has got internet access, the information window will open in the right lower corner of the screen, as soon as updates are available:



**Pic. 5: Window “Program refreshment. Actual version”.**

To confirm, click “Yes”. The process progress will be displayed in the opened window:



**Pic. 6: Window “Refreshment progress”.**

It is necessary to wait when the data downloading is over.

If the actual update version is not available, the following message will be displayed:



**Pic. 7: Window “Program refreshment”.**

- Button “Help” is used to show help file, license data and program general data;

## **.1.2 Order search and edit.**

For the easier order search, you can sort order list by clicking the left mouse button on column headlines:

Спецификация	Дата	Клиент	▲ Контактное лицо	Адрес	Отгрузка	Монтаж	Цена заказа
3	08.06.2011 19:...	Васильев			08.06.2011 19:...	08.06.2011 19:...	30489
1	08.06.2011 0:0...	Иванов		Ул. Зеленая, 38	08.06.2011 0:0...	08.06.2011 0:...	3782
2	08.06.2011 0:0...	Николаев			08.06.2011 0:0...	08.06.2011 0:...	19020

**Pic. 8: Order list sorting.**

You can select several orders from the list by selecting a time period:



**Pic. 9: Sort of orders by date.**

It is possible to select several time periods (weeks, month, year, etc.), or set the definite date range. The list will display those orders only, date of which creation belongs to the selected period.

Orders can be sorted by customer. You should select one of the search options (“includes”, “starts” or “equal”) in section “Order search by customer”, located in the left window part, and enter text in the corresponding field, by which orders should be searched and sorted:



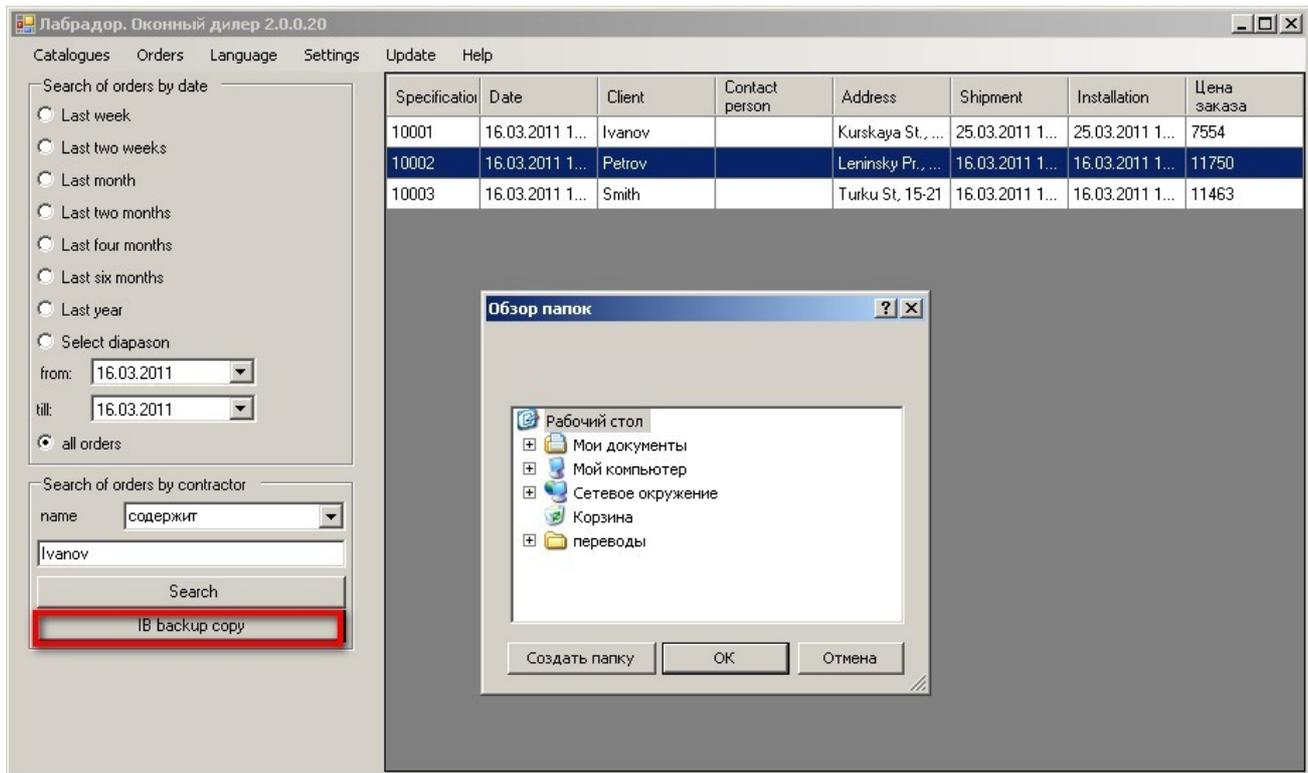
**Pic. 10: Order sort by customer.**

When you select parameters, click “Search”. The order list will include those orders only, which meet the conditions.

To edit an order, click it twice or mark the order and select menu “Orders”->”Edit order”. To delete an order, mark it and select menu “Orders”->”Delete order”.

## **.1.3 Database backup.**

To backup database, including the list of saved orders, click the button “DB backup”, located in the left part of the program main window, and select the path in the opened window to save file of the order catalogue:



**Pic. 11: Order selection by contractor.**

The program will save file “db\_orders.db3” where you selected. You can save this file backup from the work folder, where the program is saved (for example, “C:\Program Files\Labrador-IT\Labrador Windows Builder”).

Except the mentioned file, this folder includes also several other database files.

File “db.db3” – includes profile, drive gear settings and settings of product commercial calculation.

File “db\_nom.db3” – includes settings of additional nomenclature list and prices.

File “db\_orders.db3” – includes saved orders.

File “db\_templates.db3” – includes settings of the in database created product templates.

It is possible to backup these bases manually.

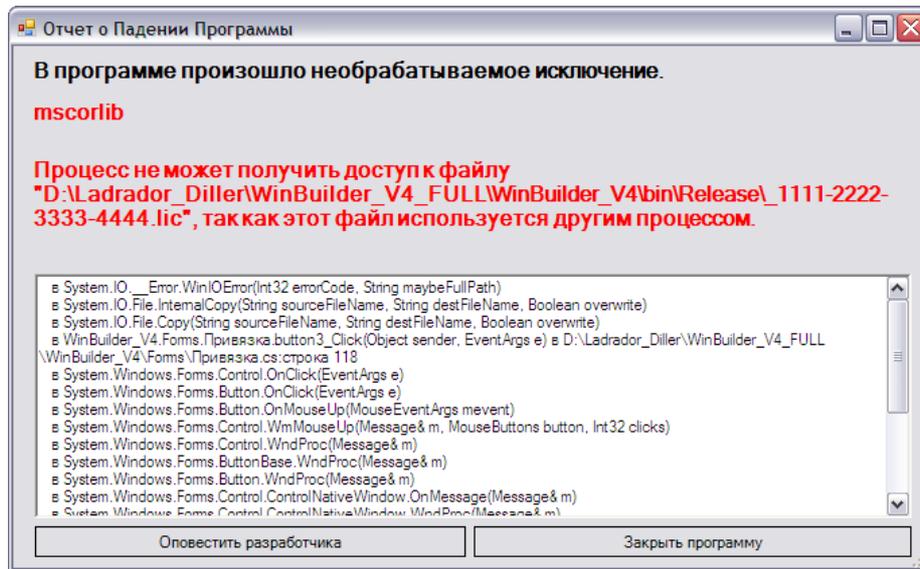
If you backup several or all the mentioned files in the working folder of program, installed on another computer, it will be possible to change settings of this program automatically, in that part, which corresponds to the copied database.

Pay attention, that structure of databases may be changed if the program version is changed, that’s why data exchange must be performed between the master and slave computers, having the same program versions.

Besides, if you select this way to update configuration, you should take into consideration the settings in both the program configurations (for example, if you export product templates by means of the substitution of the file “db\_templates.db” from one configuration to another, the program of the computer-receiver must include those profile systems, of which the templates that you copy consist to make the work correct).

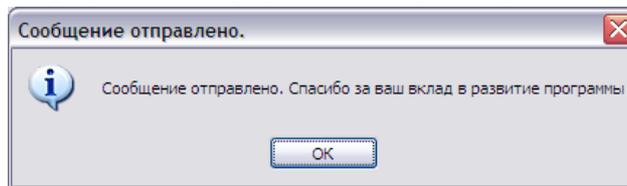
## **.1.4 Abnormal situations.**

In the process of work different situations may occur, when it is impossible to continue working or implies invalid information processing (errors of program algorithms, errors of operation system settings, RW memory errors, etc.). In these cases the program will display the service message:



**Pic. 12: Service message window.**

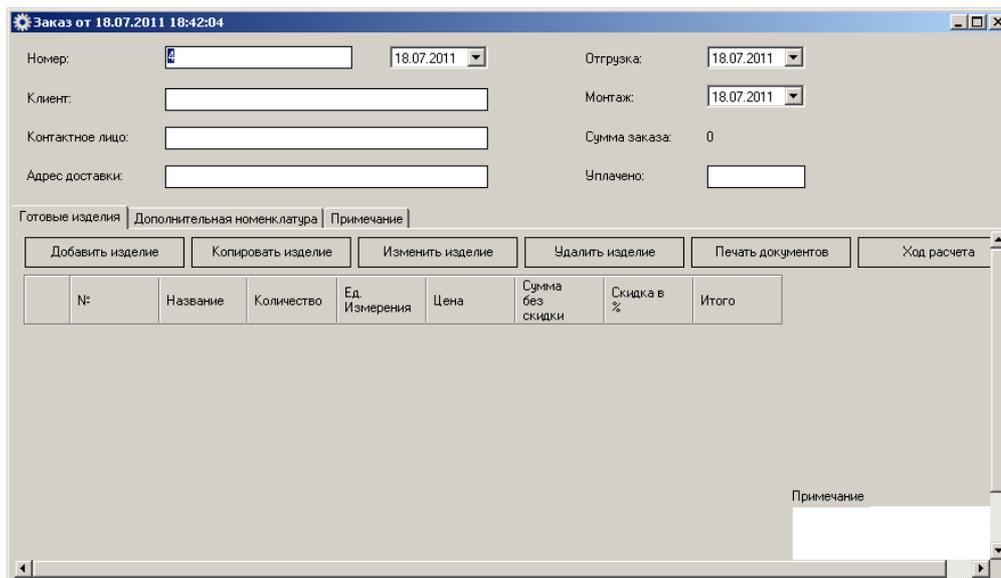
In such cases you should inform the software developer about the error and send text (marked red) and detailed information displayed in the window and ask for the ways of correcting the error. The program has got the function of automatic send of e-mails to the software developer. To resend the message you should only click “Inform developer”. If the e-mail has been successfully sent, the program will display the following message:



**Pic. 13: Window “Message sent”.**

## Head 2 Creation of order

To create a new order, select menu “Orders”-> “New order”. The window opens to create and edit the order:



**Pic. 14: Window to create and edit orders.**

To create an order it is necessary to fill the fields, containing information about order number, date, shipment and installation dates, Customer, his contact person and delivery address.

- Field “Number” will be filled automatically; the following ordinal number will be given for the order. If it is necessary, you can edit the number manually, but you must remember two things: the number must be a figure

and cannot coincide with numbers of other database order numbers. You can input any order date in the following field. By default the current date will be inserted;

- Field “Client” – input the necessary information about customer: full name, telephone number, etc.;
- Field “Contact person” – input additional information about customer if it is necessary;
- Field “Delivery address” – input the address, where the order is to be delivered;
- Field “Shipment” – select the planned date to deliver the order;
- Field “Installation” – select the date of installation start;
- Field “Order amount” – the total order amount;
- Field “Paid” – the amount, which has already been paid by customer. If the paid sum is less than the “Order amount”, the field “Order price” will be marked yellow. If the order is completely paid, the field “Order price” will be marked green.

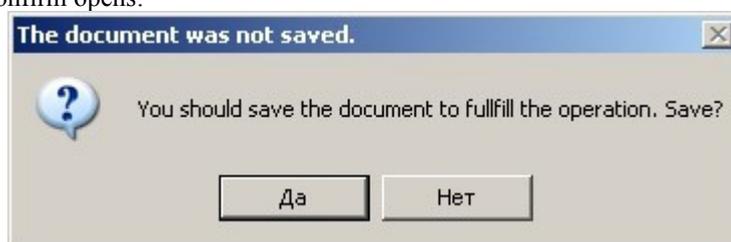
The order itself will be created in several tabs, placed in the lower part of the form.

## .2.1 Tab “Ready products”

All products are created and saved on tab “Ready products”.

### .2.1.1 Creation of a new product

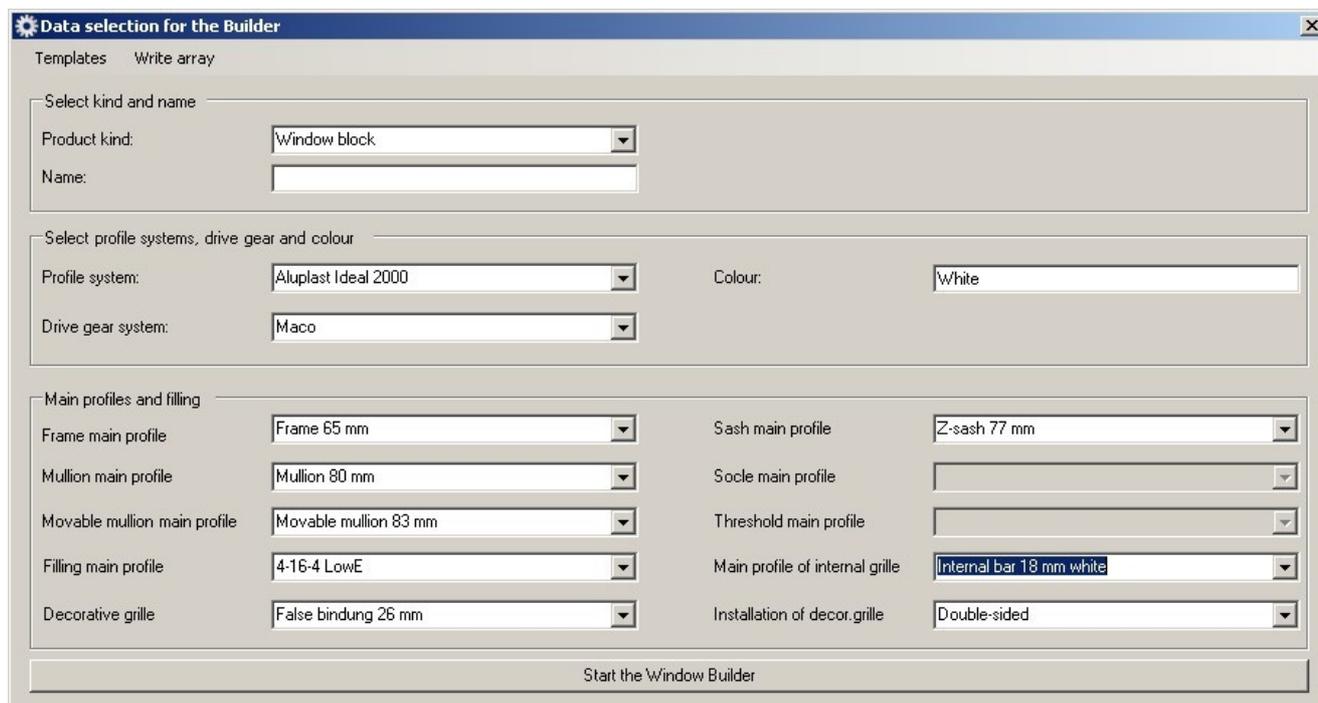
To enter a new product click “Add product” , placed in the upper part of tab “Ready products”. The window to confirm opens:



**Pic. 15: Window to confirm order**

To continue creating the order (to fill tabular parts on tabs “Ready products” and “Additional nomenclature” you should save the order in database. If you click “No”, you can close the window of order creation and exit without saving the order.

If you click “Yes” the order will be saved and the window to start Window order will open:



**Pic. 15: Start window of the builder**

Before launching the builder it is necessary to select:

- Product kind;

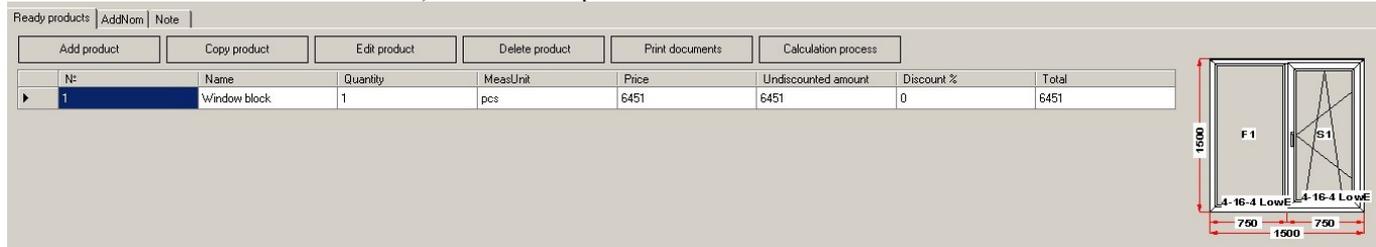
- Profile system, which will be used to build the product;
- Drive gear system, used for this product;
- Product colour;
- Main frame, sash, mullion profiles; movable mullion profile; main filling, internal grille profile; installation of decorative grilles.
- Input a name of product in the field “Name” (for example, “Window block 01” or “Balcony door 03”);

It is possible to save the created set of profiles, drive gear and other parameters to make it more convenient to work;

click the button **Write array** for that. If you select the product and profile system for the second time, the saved set of parameters will be loaded automatically.

Then click the button “Start builder”. Work with the builder is described in [“Head 2 Work with the builder”](#).

After the work with the builder is over, the new built product will be added to the order.



**Pic. 16: Tab “Ready products” with the added window block**

By clicking the mouse on cell “Quantity” we can change the number of these products for the current position. When you change the number of products, do not forget to change the number of elements of additional nomenclature, which is connected with the product (mosquito nets, etc.), if it is necessary.

We can manually change the calculating price for the product in the cell “Price”.

Set the discount percent for the calculated price in the cell “Discount %”.

You can add more products in orders in the same way.

### **.2.1.2 Work with ready products.**

To add a new line on tab “Ready products” you can copy the previous position. Mark the line and click :

N#	Name	Quantity	MeasUnit	Price	Undiscounted amount	Discount %	Total
1	Window block	1	pcs	6451	6451	35	4193,15
2	Window block	1	pcs	17001	17001	25	12750,75

**Pic. 16: Selecting of order positions**

When you select a line, click “Copy product” . The line will be copied by the program and you will only have to edit the new product.

To edit an item, you should select it in the same way, and click “Edit product” . Edit of product is analogues to the creation of a new product.

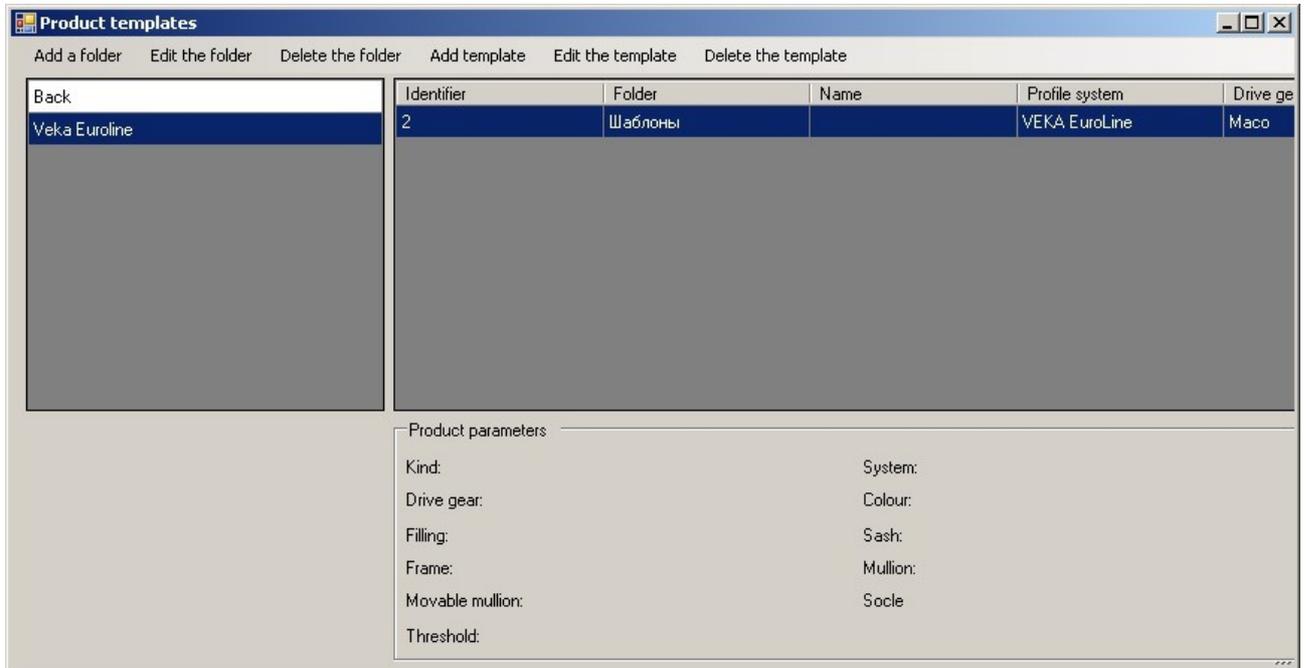
To delete a product position, select it and click “Delete product” .

When you edit an order, the changes will be automatically saved in the database, so if you close the order form, the order will be saved as well.

### **.2.1.3 Creation of products by means of templates**

Besides the above described way of creation products, it is also possible to use product templates, which have been created earlier, just by editing the templates in the builder. The way of creating templates is described in section 4.14 Catalogue “Product templates”.

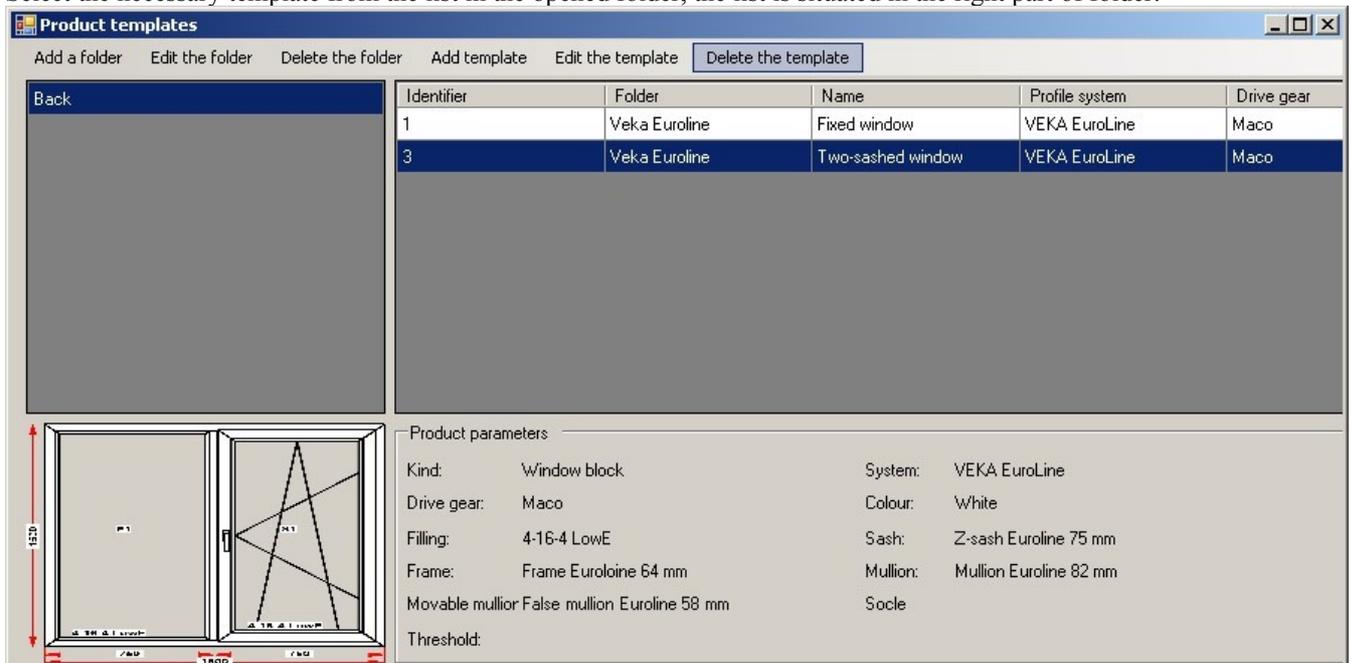
To create a product based on template, click the button **Templates** in the builder. The following window opens, which includes the folders of templates:



**Pic. 18: Window to select folder of templates.**

Select the necessary folder of templates in the left part of form.

Select the necessary template from the list in the opened folder, the list is situated in the right part of folder:

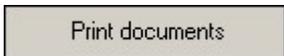


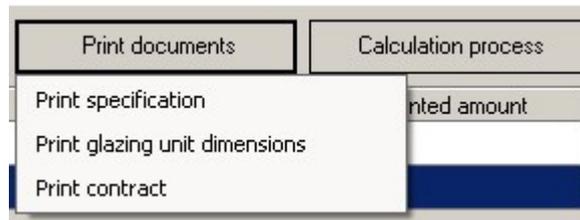
**Pic. 19: Selection of product template.**

The information concerning the marked line of template (scheme, profile system, colour, filling, etc.)

When you selected the template, the window builder will open, where you can edit, if this is necessary, some parameters (colour, filling). Launch the builder; you will get the product of desirable configuration. When you edit the dimensions of product, you can re-calculate the product and save it.

## .2.1.4 Work with reports.

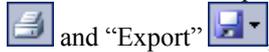
Button “Print documents”  is used to create print forms, belonging to the order in general. If you click it, the menu will open to select print forms:



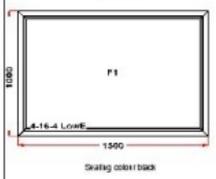
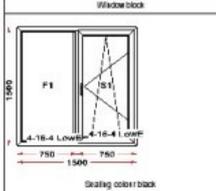
**Pic. 17: Menu of print forms.**

**Print specification.**

Select “Print specification”, now you can print order specification or save it in \*.xls or \*.pdf formats, click “Print”



and “Export”, located in the top part of the window;

Specification						2
Product view from the opening side						
№	Name	Overall dimensions, mm		Quantity	Price	Amount
		H	L			
1	Window block 	1000	1500	1	3077	3077
2	Window block 	1500	1500	1	6451	6451
3	Outside windowsill white	1500	255	1	8,415	8,415
<b>Order amount</b>						<b>9536,415</b>
Profile:		VEKA EuroLine	Drive gear:		Maco	
Filling: 4-16-4 LowE			Exter. colour: White/Glazing bead side.: White			
Contractor:			Shipment date:		27.04.2011	
Contact person:			Installation date:		27.04.2011	
Delivery address:						
<small>The Customer agrees to the user obligations in the specifications. The Customer agrees to the technical purpose of product elements. All questions, interesting for the Customer, have been clarified</small>						
<b>Note:</b>						
Supplier			Customer			
<small>Продукция по расчету системных оконных конструкций "Видраш"</small>						<small>© 2011 ООО "Видраш"</small>

**Pic. 18: Window “Order specification”.**

If the order length is the than ne page, you can view it by pages by means of .

**Print glazing unit dimensions.**

Select “Print glazing unit dimensions”, you can create the list of glazing units, installed in order products:

Glazing units of order № 3

Height	Width	Quantity	Name	Area	Total	Price	Amount	Note
1398	898	1	4-16-4 LowE	1,26	1	1527,76	1527,76	Изделие 1 F1
671	1398	1	4-16-4 LowE	0,94	1	1141,57	1141,57	Изделие 2 F1
573	1300	1	4-16-4 LowE	0,74	1	906,51	906,51	Изделие 2 S1-1
644	1398	1	4-16-4 LowE	0,9	1	1095,63	1095,63	Изделие 3 F2
523	1300	1	4-16-4 LowE	0,68	1	827,4	827,4	Изделие 3 S1-1
523	1300	1	4-16-4 LowE	0,68	1	827,4	827,4	Изделие 3 S2-1

**Pic. 19: Window “Order glazing units”.**

You can print out this report or save it in .xls or \*.pdf format.

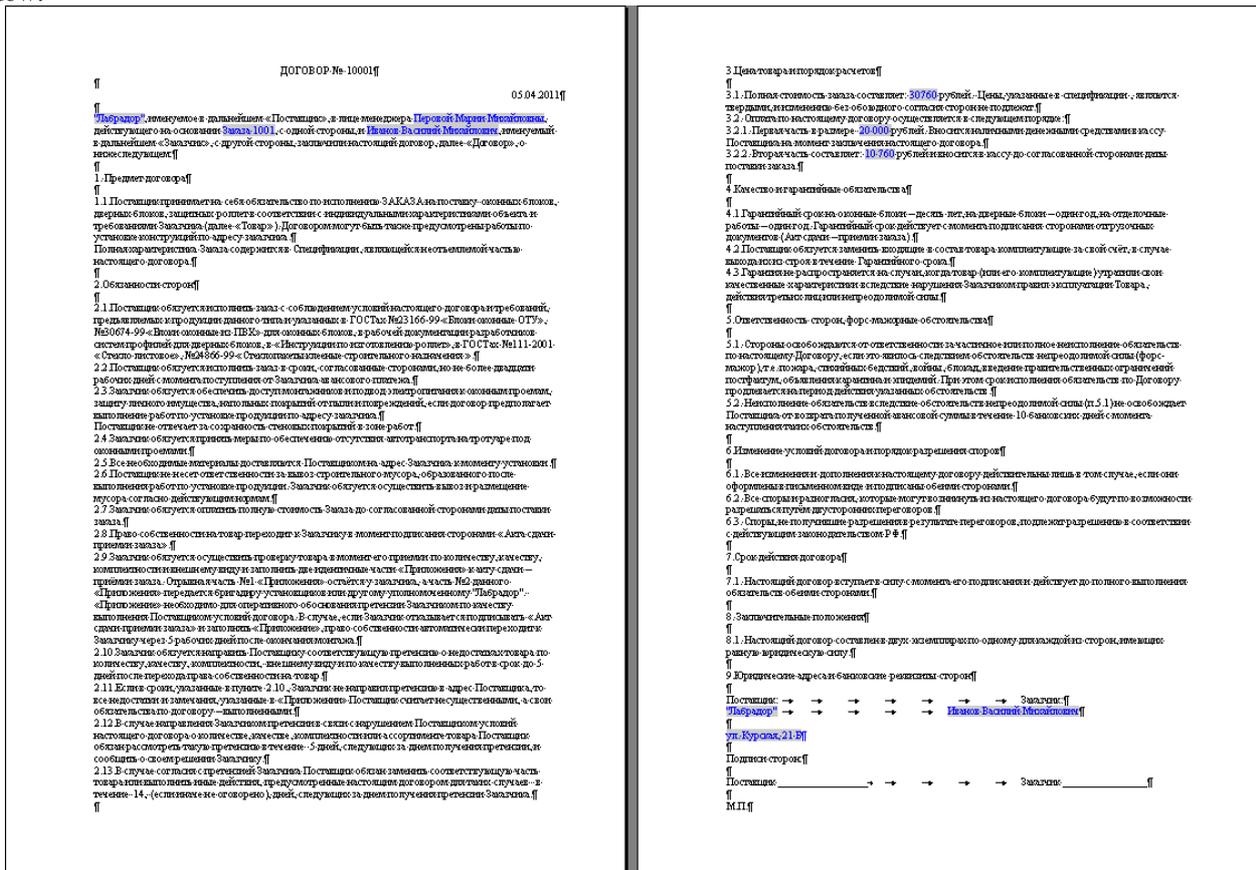
**Print contract.**

If you select “Print contract”, you can the contract text based on the template of document “Dot1.dot”, located in the program work folder. You can edit this text manually as you need, but you should not delete links, saved in the template file. When you create the document, the program will give you values, set in the program, instead of link fields. Some data will be taken from the order (contractor, contract amount). Other data will be taken from the form, which opens, when you select menu “Print contract”:

**Pic. 20: Window of form “Print contract”**

Fill in the fields of the form and click “Print”. The field values (except for the payment amounts) will be saved in a separate table in order database.

After you click “Print”, the program will create a document of format “\*.doc”, based on the above-mentioned template by filling in field links (they are marked blue in the picture) with the program data and will open this document in a new window:



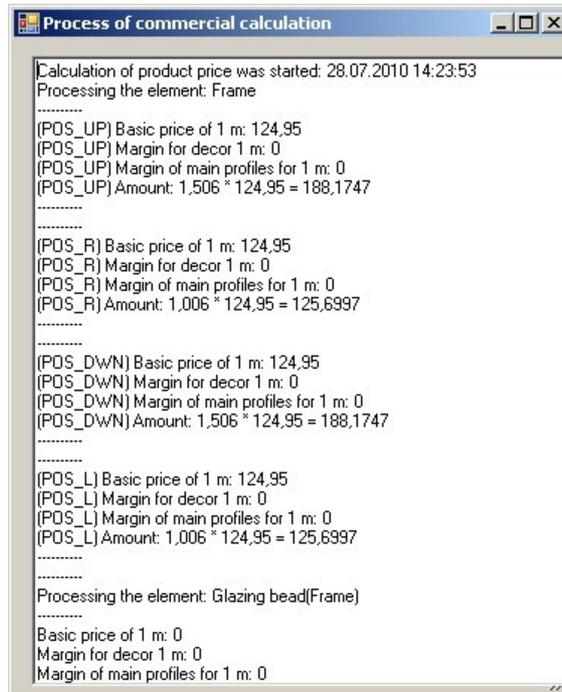
**Pic. 21: Document “Contract”**

The created document can be printed or saved on a CD.

**Print process of commercial calculation.**



Button “Calculation process” shows the process of commercial calculation of current product elements;

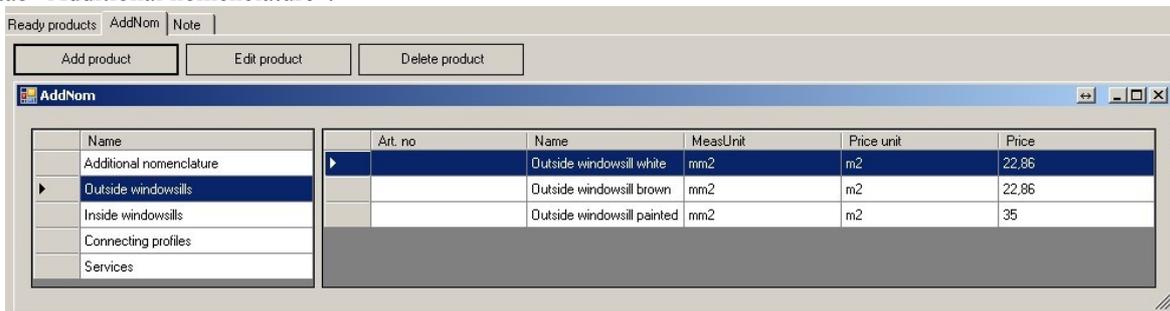


**Pic. 22: Window “Process of commercial calculation”**

To display this report, select the necessary position and click “Calculation process”.

## 2.2 Tab “Additional nomenclature”

To input additions to the order (additional profiles, inside windowsills, outside windowsills, different services etc.) go to the tab “Additional nomenclature”:

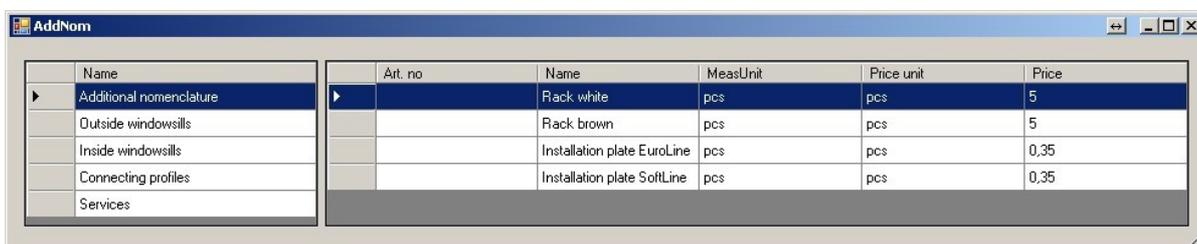


**Pic. 23: Tab “Additional nomenclature”**

To add a new item, click the button “Add product” . Simultaneously, the catalogue of additional nomenclature and services opens:



When you select the item “Additional nomenclature”, the catalogue of additional nomenclature and services will open:

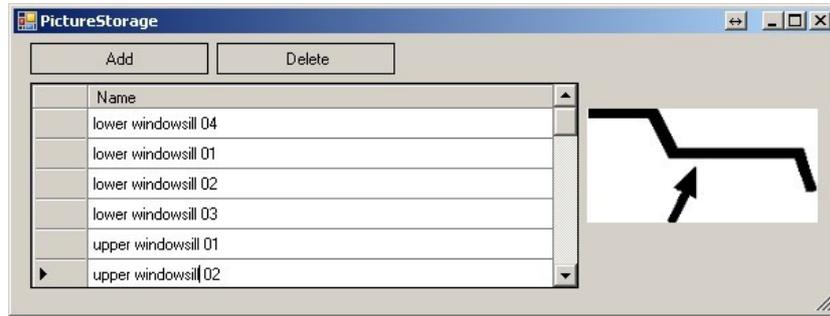


**Pic. 27: Catalogue “Additional nomenclature”**

To select a folder, click its name. The contents of the selected folder will be shown in the right part of the catalogue panel.

To select the necessary item, click it twice with the left mouse button. The item will be added to the order.

Depending on the selected item fill the fields “Length”, “Width” and “Quantity”. If it is necessary insert the discount % in the field “% Discount”, and insert any additional information about the current item in the field “Note”. You can add the scheme of outside windowsills in the field “Windowsill drawing”. Click it with the left mouse button in this field. The catalogue “Picture storage” will open:



**Pic. 28: Catalogue “Picture storage”.**

Select the necessary drawing by double click in the field “Name”.

Pay attention, that one and the same tab is used for additional nomenclature and services in the program.

To delete a line or change its contents, select this line and click “Delete product”  or “Edit product” 

Catalogue “Mosquito nets” stands apart from the general list of additional items. It can be launched if you select “Mosquito nets” from the additional menu, described earlier. Using this catalogue, we can add mosquito nets regardless the products of order.

№	Артикул	Наименование	Ед. Измерения	Ед. Цены	Условие применения
1	SWW	Москитная сетка бел.	шт	шт	GetElementUP("MosquitoGr...
2	SWB	Москитная сетка кор.	шт	шт	GetElementUP("MosquitoGr...
3	SBW	Москитная дверь бел.	шт	шт	GetElementUP("MosquitoGr...
4	SBB	Москитная дверь кор.	шт	шт	GetElementUP("MosquitoGr...

**Pic. 29: Catalogue “Mosquito nets”**

Select the necessary mosquito net and enter quantity and dimensions:

Catalogue “Roller blinds” also stands apart from the general list of additional items. It can be launched if you select “Roller blinds” from the additional menu, described earlier. Using this catalogue, we can add roller blinds regardless the products of order.

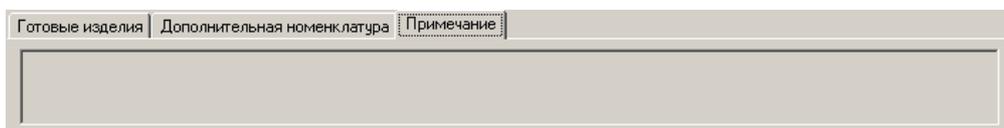
Артикул	Наименование	Ед. Измерения	Условие применения	Ед. Цены
RW	Роллета белая	мм2	м2	GetProductUP("RollerBl...
RB	Роллета коричневая	мм2	м2	GetProductUP("RollerBl...

**Pic. 24: Catalogue “Roller blinds”**

Select the roller blind, enter the quantity and dimensions:

After you calculate products, having mosquito nets or roller blinds, you should enter the quantity of mosquito nets and roller blinds.

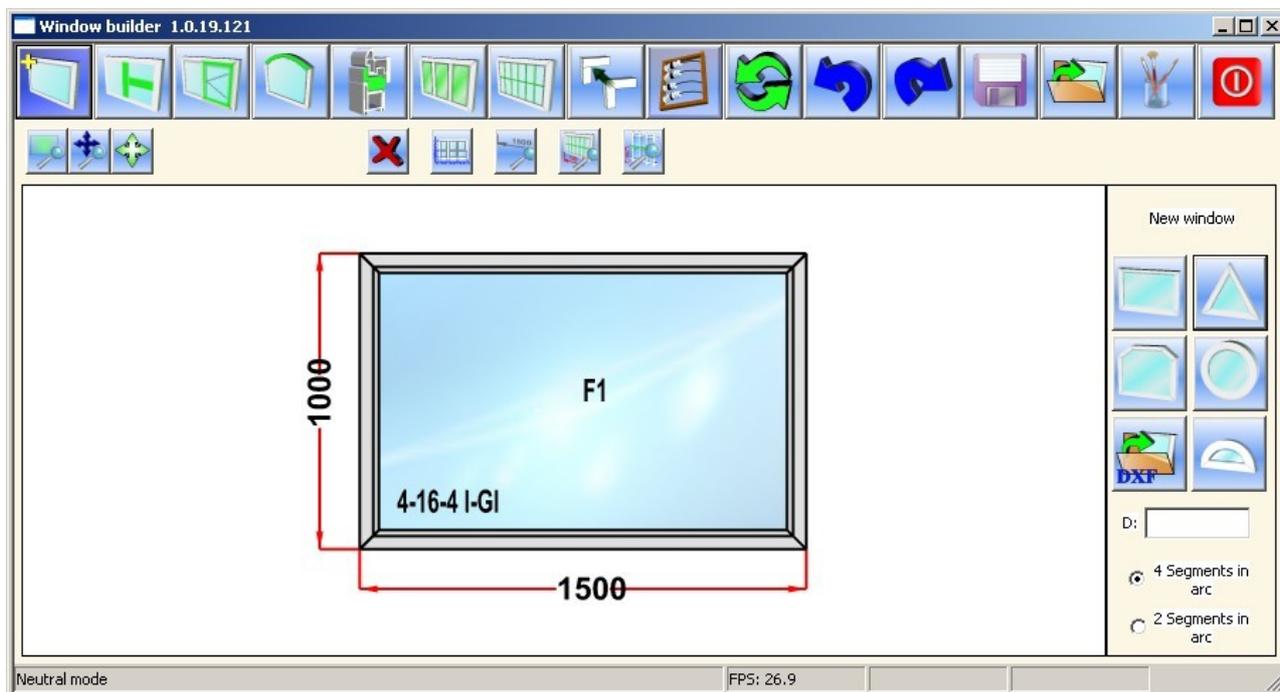
## .2.3 Tab “Note”



**Pic. 25: Tab “Note”**

Any note or explanation of order can be input in this tab. Just click the mouse on the tab field and input any information you need.

## Head 3 Work with the builder



**Pic. 26: Product builder**

Working window of the builder is conditionally divided into four parts – upper command panel, working field of builder, side control panel and lower information panel.

Upper command panel of the builder contains button managing the modes of building products, visualization of product in the builder working window, calculating products and managing the builder.

The working field of builder is necessary to visualize the product and select editable parts of product by means of mouse. Parameters of product visualization can be set in mode [“Builder setting”](#).

Side control panel may include various control elements, depending on the builder working mode, work with this panel will be described in the corresponding sections.

Lower information panel is not used in the current program version.

### .3.1 Upper command panel of Builder:

Upper command panel has two rows of control buttons:



**Pic. 27: Command panel of product Builder**

The upper row of buttons of the builder command panel provides access to operations of building and calculating products, and controlling the builder.

Buttons of the lower row make it possible to control the visualization of product in the builder working field.

The upper row of buttons of the command panel includes the following buttons:

-  - new product. By clicking this button, the builder will go to the mode of selecting configuration for a new product. Work in this mode is described later in the corresponding section [“Selection of new product configuration”](#);
-  - mullions. By clicking this button, the builder will go to the mode of inserting mullions of the product. Work in this mode will be described later in the corresponding section [“Insert mullions”](#);

-  - sashes. By clicking this button, the builder will go to the mode of adding sashes. Work in this mode is described later in the corresponding section [“Add sashes”](#);
-  - arcs. By clicking this button the builder will go to the mode of building arcs. Work in this mode is described later in the corresponding section [“Building arcs”](#). It is not used for the current program version;
-  - adapters. By clicking this button the builder will go to the mode of adding adapters. Work in this mode is described in the corresponding section [“Add adapters”](#) It is not used in the current program version;
-  - alignment. By clicking this button the builder will go to the mode of aligning product elements. Work in this mode is described in the corresponding section [“Alignment of product elements”](#);
-  - internal and decorative grilles. By clicking this button the builder will go to the mode of adding internal and decorative grilles. Work in this mode is described in the corresponding section [“Add internal and decorative grilles”](#) It is not used in the current program version;
-  - change of seam type. By clicking this button the builder will go to the mode of changing frame unit connections. Work in this mode is described in the corresponding section [“Change the seam type”](#);
-  - calculate. By clicking this button the product will be calculated and work with the builder will be over. Detailed information about product calculation is given in section [“Calculation of built product”](#);
-  - refresh the working area of builder. It refreshes the product view in the builder working field;
-  - cancel the action. It cancels the last action of editing the product;
-  - repeat the action. It repeats the last action of editing the product;
-  - save. It saves the editable product, later you can go to the saved condition by clicking this button  It is not used in the current program version;
-  - load the product. It is not used in the current program version;
-  - builder setting. By clicking this button the builder will go to the setting mode. Work in this mode is described in the corresponding section [“Builder setting”](#);
-  - shut down. It finishes the work with the builder without calculating and saving the current product.

Lower row of buttons of command panel contains the following buttons:

-  - zoom in. By clicking this button in the working area of builder you can set the section to zoom in;
-  - fit in the window. By clicking this button, product in the builder working area will be scaled to be completely displayed;
-  - activates the demonstrative mode, which allows turning the product builder horizontally and vertically by means of pointers;
- It is not available in the current program version;
-  - neutral mode. Click this button to go to the neutral mode;
-  - Dimensions of area lights. The buttons activates/deactivates showing dimensions of visible filling parts and overall dimensions;
-  - additional dimensions. This button activates/deactivates display of product additional dimensions in the builder working area. It is not used in the current program version;

-  - dimensions of decorative and internal grilles. This button activates/deactivates display of dimensions of internal and decorative grilles of product in the builder working area. If dimensions of internal and decorative grilles are displayed, main dimensions of product will not be displayed, i.e. either main dimensions of product or dimensions of internal and decorative grilles can be simultaneously displayed in the builder working area. This button is not used in the current program version;
-  - offsets of mullions. The button allows showing the offset value only for the marked mullions. It is used to edit dimensions of products, which have several mullions, situated on the same level.
-  - mirroring. This button allows re-building the product, symmetrically towards the vertical axis.

### 3.2 Selection of new product configuration

It is necessary to start building the new product with the selection of its configuration. To go to the mode “Selection of product configuration” click the button  of the upper command panel. Simultaneously, in the side control panel buttons to select the product configuration and control elements to set parameters of round-shaped window will appear:

-  - rectangular. Select the rectangular shaped product;
-  - triangle. Select the triangle shaped product. It is not used in the current program version;
-  - trapezoid. Select the trapezoid shaped product;
-  - round. Select the round shaped product. It is not used in the current program version

To build a round window, enter the window diameter in mm, also select the number of arc segments (2 or 4) in selector group;

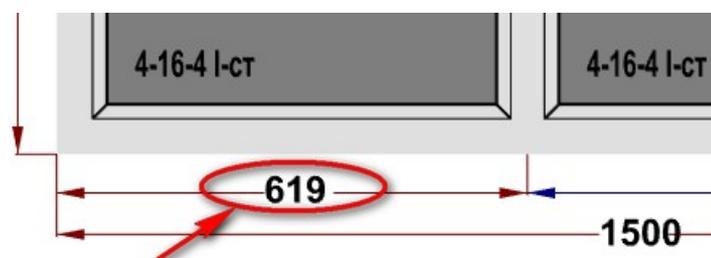
-  - semicircle. The button select a product, having semicircle shape (that is half a round) To build a semicircle, enter the window diameter in mm;
-  - load file. It makes it possible to load product configuration from dxf file. It is not used in the current program version;

After the product configuration has been selected, the Builder working field will be cleared in the side control panel, all input parameters will be reset and it will take the initial form, the product being of the necessary shape.

To build the round window, it is necessary to set window diameter in mm, and to select the number of sections of bow in selection group.

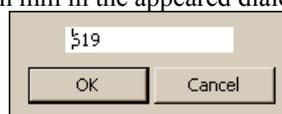
### 3.3 Editing of dimensions

To edit the dimensions of product and dimensions of its elements, click the mouse on the corresponding value:



Pic. 28 Editing dimensions

Then you need to set the necessary value in mm in the appeared dialogue window:

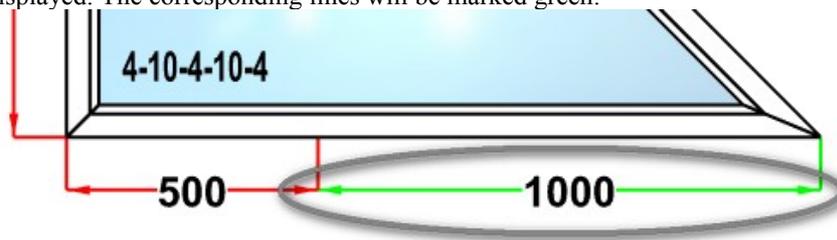


Pic. 29 Form to edit dimensions

It is possible to edit only main dimensions, which are displayed in red lined, additional dimensions displayed in blue lines cannot be edited.

All dimensions in builder must be integer and set in mm.

It is possible to temporarily block edit of line dimensions a product. Click the right mouse button on the field, where the dimension to block is displayed. The corresponding lines will be marked green:



**Fig. 30 Temporary block of dimension edit**

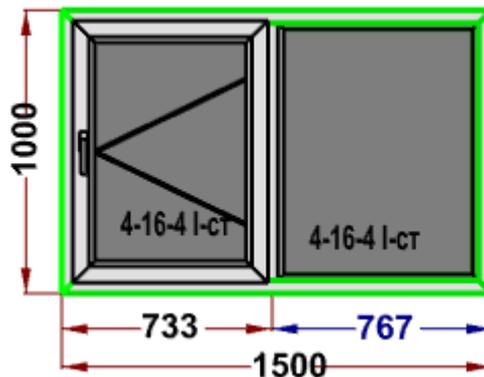
Analogically, you can block edit of several dimensions simultaneously. To unblock edit of dimensions, click the right mouse button once again.

It is possible to edit dimensions of mullions, internal and decorative grilles by means of alignment, which is described in section [“Alignment of product elements”](#).

### **.3.4 Editing of properties of frame items**

Under frame properties here we mean properties, belonging to the frame in general. Editing of separate frame elements is described in section [“Editing of properties of frame items”](#). To edit frame properties go to neutral mode by clicking the

button  and twice click the mouse button on the necessary casement in the builder working area, all elements of selected casement will be marked in green lines:



**Fig. 31 Editing of properties of frame items**

After this, in the upper part of the side control panel of the builder the capture “Frame properties” will appear and the

button  will be available on the panel, which opens the dialogue window “Frame properties” and the buttons of the panel will be available:

-  - window “frame properties”. This button opens the dialogue window “Frame properties”. Work with this dialogue window is described in section [“Dialogue window “Frame properties”](#);
-  - shift of frame units. Click this button, now you can change the placement of frame units of products. For this you need to click the left mouse button on the necessary frame unit and clicking the left mouse button shift the unit where you need. Precise dimension of unit can be edited, it is described in the section [“Editing of dimensions”](#);

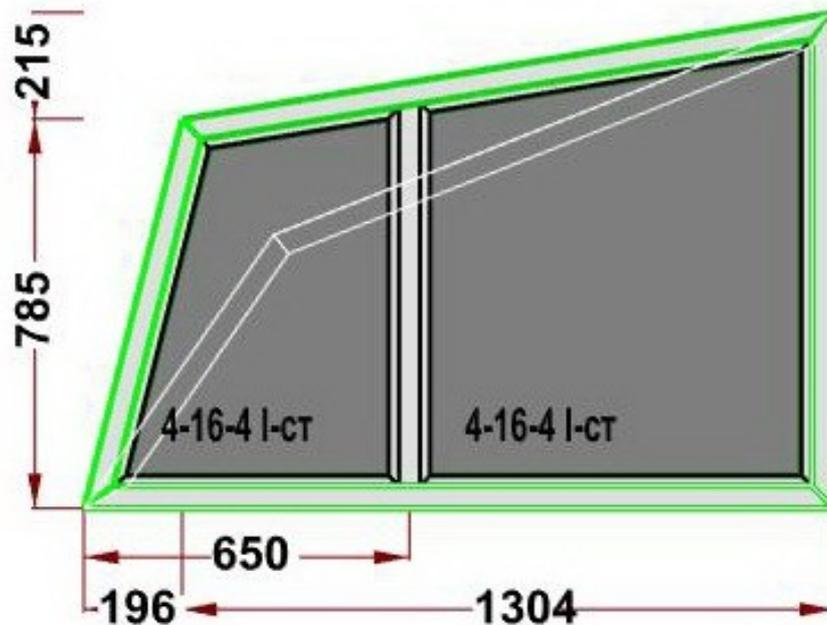


Рис. 32 Shift of frame units



- - add node points in frame. After you click this button, if you move the mouse within the builder working area, signs  will appear. To add a node point in frame, twice click the left mouse button on the necessary frame element. New frame node point will be placed in the middle of selected element.

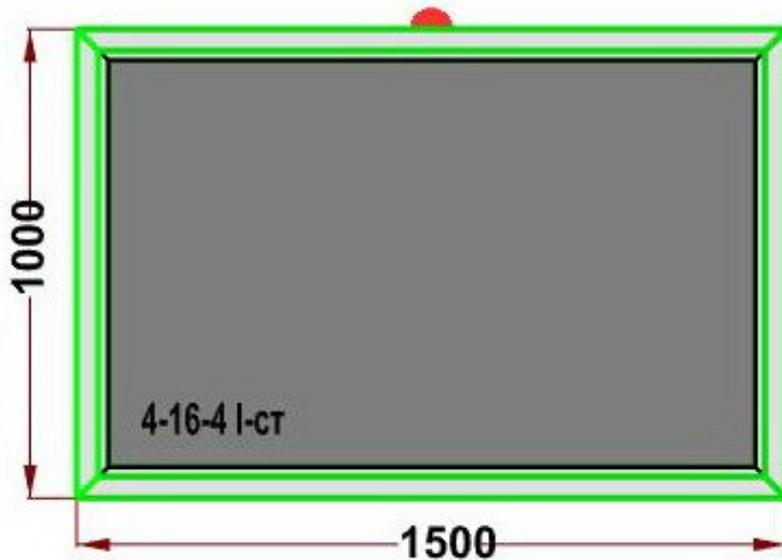
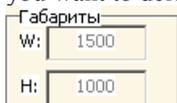


Рис. 33 Add frame node points



- - delete frame nodes. After you click this button, you should click the left mouse button on the node, which you want to delete;



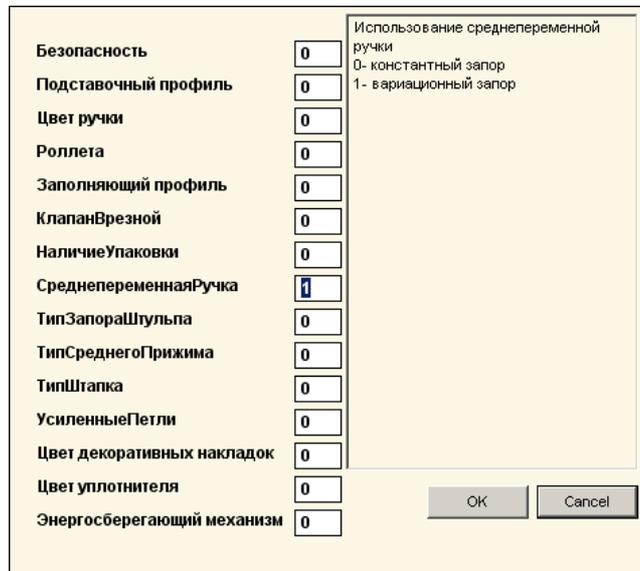
- - information window of overall dimensions;

### .3.4.1 Dialogue window “Frame properties”

This dialogue window is used to edit both general frame properties and separate properties of product. Click the button



of side control panel to edit frame properties, described in section [“Editing of frame properties”](#).



**Pic. 34** Dialogue window “Frame properties”

There is a group of selectors with the according input fields in the left part of window, where you can select corresponding values. In the right part of window, comments on editing the current parameter are reflected, which display possible values for the current parameter.

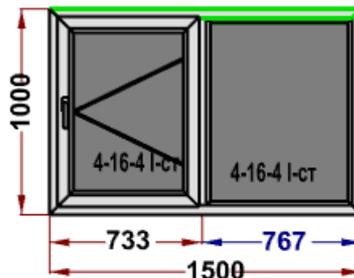
The catalogue “User parameters of product” determines set of parameters. Elements of the catalogue will be filtered by product type. Comment to edit parameter is also set in this catalogue.

That is, in this dialogue window we change only values of user variables, connected with the product, which in their turn influence the check of usage conditions for this or that element.

### 3.4.2 Editing of properties of frame parts

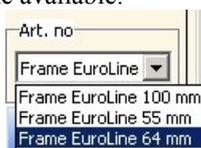
Besides editing frame properties in general, it is also possible to set parameters for separate parts of frame. For this you

need to go to the neutral mode by clicking the button  and click the left mouse button on necessary frame element in the working area of the builder, after this the selected frame element will be marked in green lines. It is also possible to select several balks by clicking them serially with the left mouse button, and by simultaneous clicking the key “Ctrl”, selected balks will be marked green.



**Pic. 35** Editing of properties of frame balk

Then, in the upper part of side control panel, you will see the capture “Properties of frame parts” and control elements will become available:



- - drop-down list “Art. no” allows selecting art. no of profile, which will be used to produce the selected frame part.
-  - this button confirms the selected Art. no of profile in the drop-down list.
-  - lengthen frame balk. This button is used to lengthen frame balk up to the next frame balk. It is used extremely rare for special cases of frame configuration, where mullion profile is the frame.

## .3.5 Mullions

To insert mullions in frames and sashes go to the mode “Insert mullion”, to go to which you need to click the button



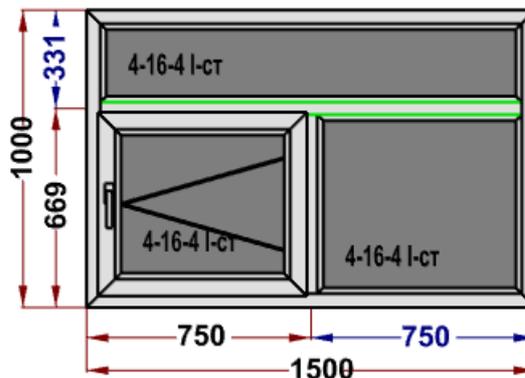
of the command panel. The side control panel in this mode contains buttons and an input field:

-  - vertical mullions. After you have clicked this button in the builder working field you can add vertical mullions in frames and sashes of products by clicking the left mouse button within the borders of necessary elements of window;
-  - horizontal mullions. Horizontal mullions are inserted in the same way as the vertical ones;
-  - is not available in the current program version;
-  - inclined mullions. Before you insert inclined mullion, you are to enter the value of angle inclination, then click this button and click the left mouse button within selected window elements in the build area;
-  - is not available in the current program version;
-  - delete mullion. Click this button, now you can delete the inserted mullions by clicking them with the left mouse button. The program will not allow deleting the mullion, if sashes or other mullions bear in it. You can delete such mullions, if you delete the adjoining mullions and sashes. When you delete a mullion, fillings will be joined, which have been separated by mullion. Pay attention, that the new general aperture will be filled by default;
-  - movable mullion left casement. After clicking this button, movable mullion can be inserted in fixed apertures of product. The movable mullion casement will be placed in the left;
-  - movable mullion right casement. After clicking this button, movable mullion can be inserted in fixed apertures of product. The movable mullion casement will be placed in the right;

Editing of mullion placement and casement dimensions is described in sections [“Editing dimensions”](#) and [“Alignment of product elements”](#).

### .3.5.1 Editing of mullion properties

To edit mullion properties go to the neutral mode by clicking  then click the left mouse button on the necessary mullion, it will be marked green. You can also select several mullions simultaneously: press the button “Ctrl” and consequently click the necessary mullions.



**Pic. 36 Editing of mullion properties**

After this, in the upper part of the side control panel of the builder the capture “Mullion properties” will appear and the control elements will be available:



- drop-down list “Art. no” allows selecting the Art. no of profile, which will be used to produce the selected mullion



- apply. This button confirms the selected in drop-down list Art. no of profile for selected mullions.

## 3.6 Casements



To insert casements in product go to the mode “Casements” clicking the button  of command panel. The side control panel in this mode contains the following buttons:

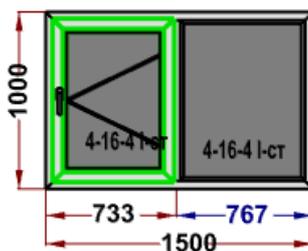
-  - right turn casement. Click this button, now you can insert right turn casement in fixed apertures of product. For this you only need to click the mouse in the necessary aperture.
-  - left turn casement. Click this button, now you can insert right turn casement in fixed apertures of product. For this you only need to click the mouse in the necessary aperture.
-  - tilt casement. Click this button, now you can insert tilt casement in fixed apertures of product. For this you only need to click the mouse in the necessary aperture.
-  - tilt and left turn casement. Click this button, now you can insert tilt and left turn casement in fixed apertures of product. For this you only need to click the mouse in the necessary aperture.
-  - tilt and right turn casement. Click this button, now you can insert tilt and right turn casement in fixed apertures of product. For this you only need to click the mouse in the necessary aperture.
-  - fixed sash. Click this button, now you can insert fixed casement in fixed apertures of product. For this you only need to click the mouse in the necessary aperture.
-  - delete casement. Click this button, now you can delete the casement of product by clicking the necessary casement. If you select a sash, which is a part of movable mullion sash, the sashes will be deleted together with the movable mullion;
-  - sliding sash. If you click this button, it will be possible to insert sliding sash in fixed apertures. Click the necessary aperture for this.

Insertion of movable mullion casements is described in section [“Mullions”](#).

### 3.6.1 Editing of casement properties

Under casement properties here we mean properties, belonging to the casement in general. Editing of separate casement elements is described in section [“Editing of properties of casement items”](#). To edit casement properties go to neutral

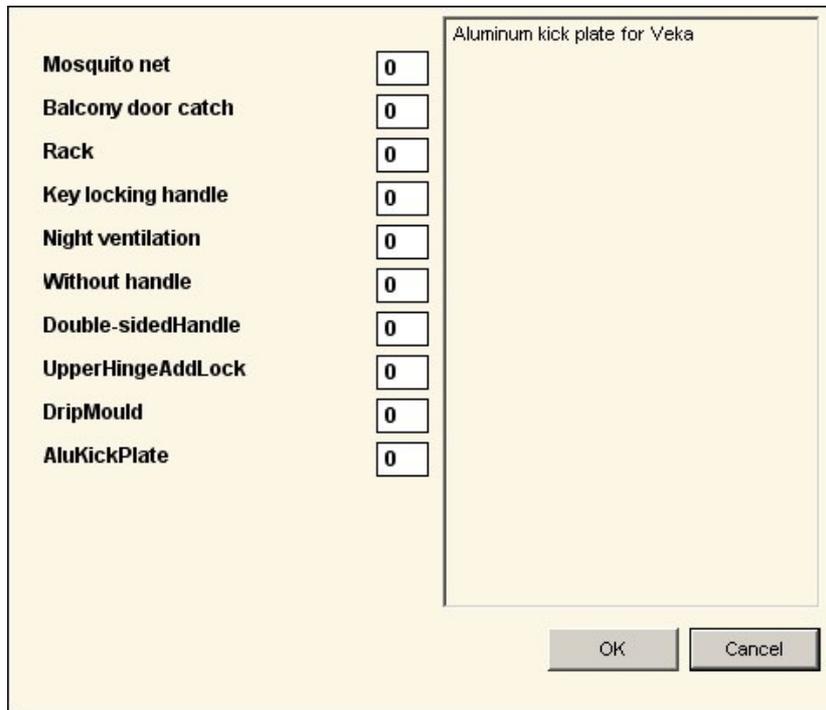
mode by clicking the button  and twice click the mouse button on the necessary casement in the builder working area, all elements of selected casement will marked in green lines:



Pic. 37 Editing of casement properties

After this, in the upper part of the side control panel of the builder the capture “Casement properties” will appear and

the button  will be available on the panel, which opens the dialogue window “Casement properties”. The set of these properties is limited for the current program version:



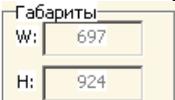
**Pic. 38** Dialogue window “Casement properties”

There is a group of selectors with the corresponding input fields in the left half of window, where you can set corresponding values. The comment to edit the current parameter is displayed in the right half of window, possible parameter values for the actual parameter being enumerated.

Parameter set is specified by the catalogue “User parameters of elements”. Catalogue elements will be selected in accordance with the type of casement opening. Comment to edit the parameter is also set in this catalogue.

That is, in this dialogue window we change only values of user variables connected with the casement, which in their turn influence on checking usage conditions of elements.

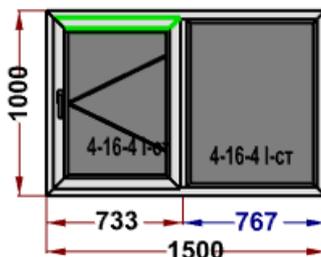
Besides the button “Sash properties”, the following panel to edit sash properties is also available:

- 
 - information panel of overall dimensions;

### 3.6.2 Editing of properties of casement items

Besides editing properties of selected casement, it is also possible to set parameters of particular casement parts. For

this, go to neutral mode by clicking the button  and twice click the mouse button on the necessary casement element in the builder working area, the selected casement element will be marked in green lines. It is also possible to select several casement elements, for this, it is necessary to click the mouse on the necessary casement elements by simultaneous clicking the key “Ctrl”.



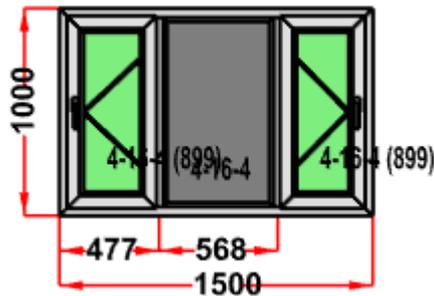
**Pic. 38** Editing of properties of casement items

After this, in the upper part of the side control panel of the builder the capture “Properties of casement part” will appear and control elements will become available in the panel:

- 
 - drop-down list “Art. no” allows editing Art. no of profile, which will be used to produce the selected part of casement.
- 
 - apply. This button allows applying the in drop-down list selected Art. no of profile for selected casement parts.

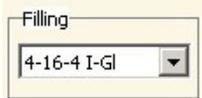
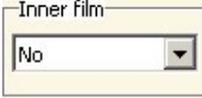
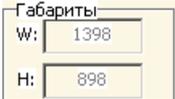
### .3.7 Editing of filling properties (Selection of glass units)

To edit filling properties go to neutral mode by clicking the button  and click the left mouse button on the necessary product aperture, the selected filling will be marked green. It is also possible to select several fillings, for this it is necessary to click the mouse on the necessary window apertures by simultaneous pressing the key “Ctrl” (It is not available for the current program version).



Pic. 39 Editing of fillings

After fillings have been selected, in the upper part of the side control panel of builder the capture “Filling properties” will appear and control elements will be available on the panel:

-  - drop-down list “Filling” makes it possible to select type of filling, which will be used for the selected aperture.
-  - drop-down list “Inner film” allows to select nomenclature article of inner film for the filling or set absence of film. It is not used in the current program version.
-  - drop-down list “Outer film” allows to select nomenclature article of external film for the filling or set absence of film. It is not used in the current program version.
-  - this button allows to apply the filling type selected from the drop-down lists as well as the inner and external films.
-  - if you select a filling, the information panel of overall dimensions will be available;

Note: if you mark fillings the distance between the upper edge of product and lower edge of filling will be displayed in brackets after the formula of filling.

### .3.8 Insertion of internal and decorative grilles

To add internal or decorative grilles in product, go to the mode “Insertion of internal and decorative grilles” by clicking



The following icons will be available:

- Decor. grilles
- Internal grilles - select if you need decorative or internal grilles;
-  - insertion of decorative or internal grilles in aperture. After you click this button, you can insert decorative or internal grilles in according apertures. The process of inserting is described later together with the explanation of corresponding buttons;
-  - insertion of penetrating decorative or internal grilles. After you click this button, you can insert penetrating decorative or internal grilles in all apertures. The process of inserting is described later together with the explanation of corresponding buttons;

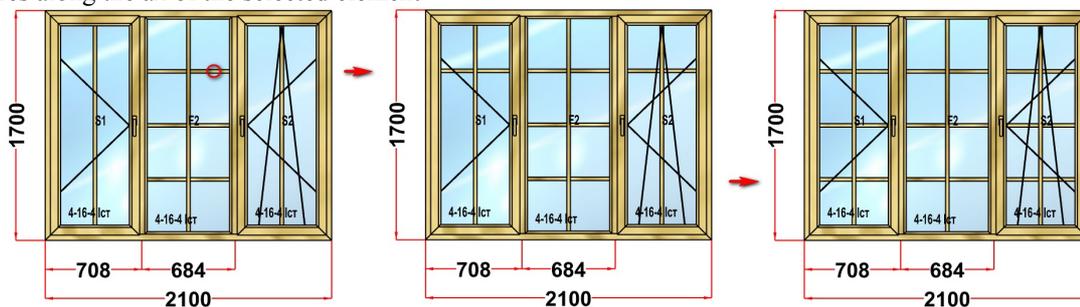
- 
 - insertion of vertical decorative or internal grilles. After you click this button, by means of mouse clicks you can insert vertical decorative or internal grilles in a definite aperture or penetrating ones in all apertures,

depending on which button you have clicked before  or ;

- 
 - insertion of horizontal decorative or internal grilles. After you click this button, by means of mouse clicks you can insert horizontal decorative or internal grilles in a definite aperture or penetrating ones in all

apertures, depending on which button you have clicked before  or ;

- 
 - lengthening of decorative or internal grilles. This button activates the mode of lengthening the installed decorative or internal grilles in the neighboring apertures. After you click this button, click the left mouse button on the selected decorative or internal grille item. The analogous elements will be inserted in the neighboring apertures along the ax of the selected element

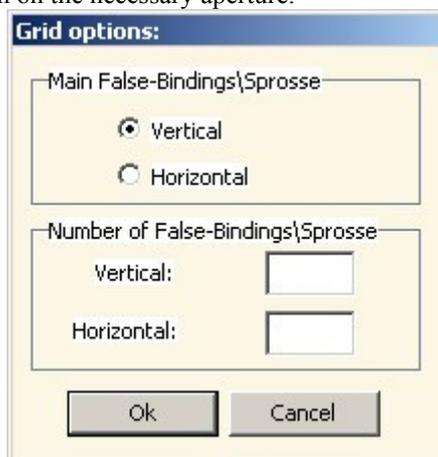


**Pic. 40: Dialogue window “Grille parameters”**

You can lengthen vertical, horizontal, and inclined elements of internal and decorative bars.

- 
 - shift of decorative or internal grilles. This button activates the mode of changing placement of decorative or internal grilles. After you click this button in the working area of the builder, you can shift elements of decorative or internal grilles vertically or horizontally by means of mouse.

- 
 - insertion of lattice of decorative or internal grilles. Click this button, the dialogue window of lattice parameters opens. Here you need to set number of vertical and horizontal element of lattice, as well as to select if vertical or horizontal lattice elements will be main. Main elements are those elements which will be first installed, that is the will not be divided into parts. After you have set parameters in the dialogue window, click the button “OK” and click the left mouse button on the necessary aperture.



**Pic. 41: Dialogue window “Lattice parameters”**



- - is used to delete decorative or internal grilles. Click this button, and then serially click the left mouse button on those decorative or internal grilles which you need to delete.



- - allows deleting all internal and decorative grilles of the selected aperture. Click this button and then click the selected aperture.

To display or edit dimensions of placement of decorative or internal grilles, you need to click the button  of command panel. Dimensions of placement of decorative grilles can also be edited as it is described in the section "Edit of dimensions".

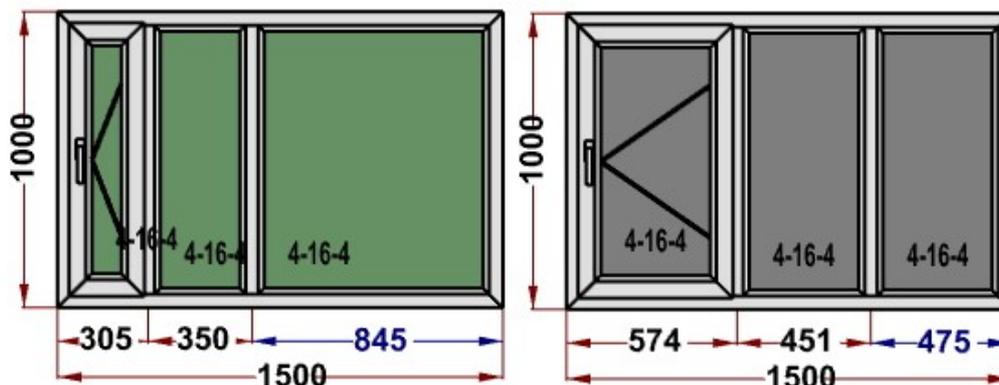
### 3.9 Alignment of product elements

In this mode it is possible to align horizontal and vertical dimensions of placing mullions, internal and decorative grilles. To go to this mode click the button  on the command panel. After this, two groups of control elements will become available on the side control panel.

The group of control elements "Mullions" contains buttons to align mullions:



- - alignment of aperture horizontal dimensions "by glass unit". After clicking this button you should select with the sequentially situated apertures between vertical mullions of frame or casement by means of mouse, selected apertures being coloured in aquamarine. After you have selected apertures, click the right mouse button. Finally, horizontal dimensions of the selected vertical apertures will be aligned accurate within 1 mm, exactly vertical dimensions of apertures will be aligned, but not the horizontal dimensions of mullion axes placement. For example:



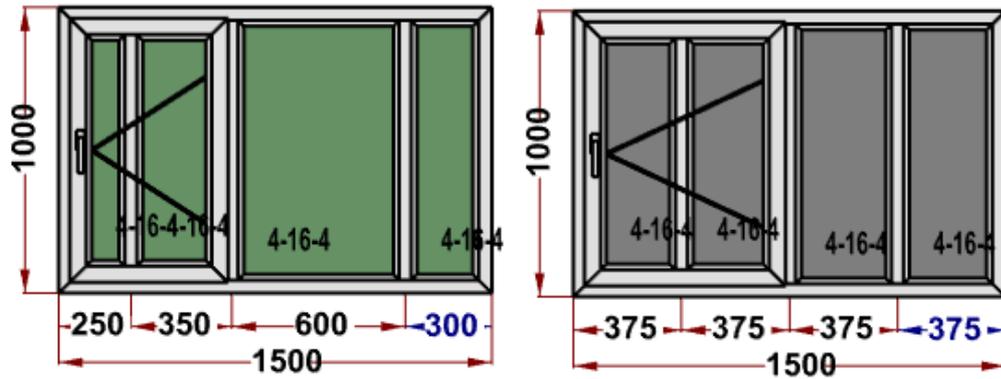
Pic. 41: Alignment of vertical mullions by aperture dimensions



- - alignment of aperture vertical dimensions "by glass unit" is analogous with the alignment of above-mentioned aperture horizontal dimensions.

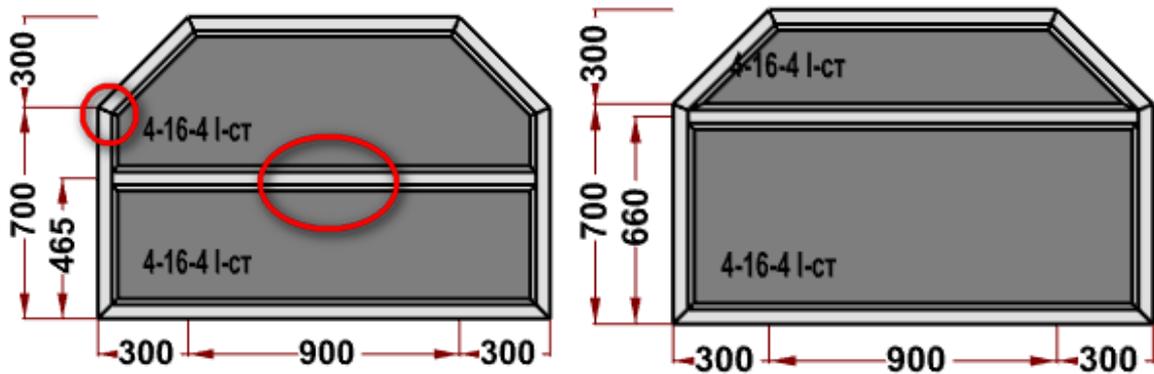


- - alignment of placement of vertical apertures "by mullion". After clicking this button it is necessary to select the sequentially situated apertures between vertical mullions of frame or casement by means of mouse, selected apertures will be aquamarine coloured. After you have selected apertures, click the right mouse button. Finally, horizontal dimensions of apertures will be aligned accurate within 1 mm by axes of vertical mullions, exactly vertical dimensions of apertures will be aligned, but not the horizontal dimensions of mullion axes placement. For example:



Pic.42: Alignment of placement of vertical mullions

-  - alignment of placement of horizontal apertures “by mullion” is analogous with the above-mentioned alignment of placement of vertical apertures.
-  - mullion alignment by frame unit. After clicking this button it is necessary to click the left mouse button on the lower mullion and then on the necessary frame unit. Then, the mullion will be aligned by the selected frame unit:

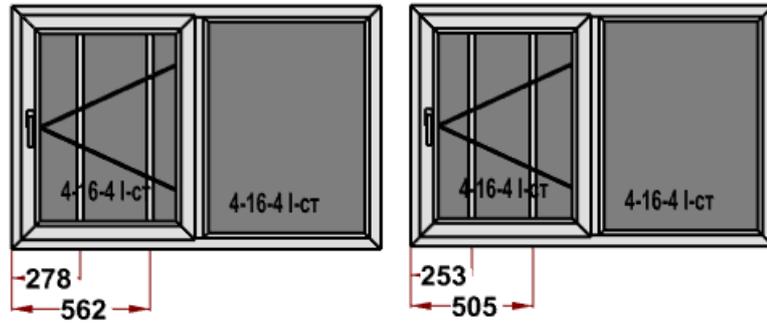


Pic. 42: Alignment of mullion by frame unit

To display or edit dimensions of placement of decorative or internal grilles, you need to click the button  of command panel. Dimensions of placement of decorative grilles can also be edited as it is described in the section [“Editing of dimensions”](#).

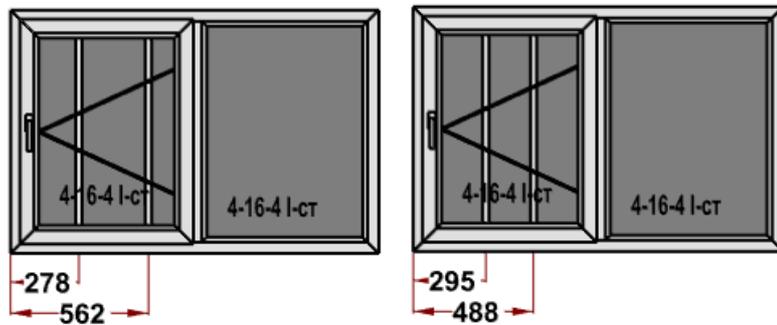
The group of control elements “Decorative/Internal grilles” includes elements to align internal and decorative grilles:

- Decor. grilles
- Internal grilles - a group of selectors is used to select product elements to align: decorative grilles or internal grilles.
-  - alignment of vertical dimensions of placement of decorative grilles. After you have clicked this button, click the left mouse button on the aperture, including decorative grilles, in the working area of the builder. Then, vertical dimensions of placement of decorative grilles will be aligned;
-  - alignment of horizontal dimensions of placement of decorative grilles. After you have clicked this button, click the left mouse button on the aperture, including decorative grilles, in the working area of the builder. Then, horizontal dimensions of placement of decorative grilles will be aligned;



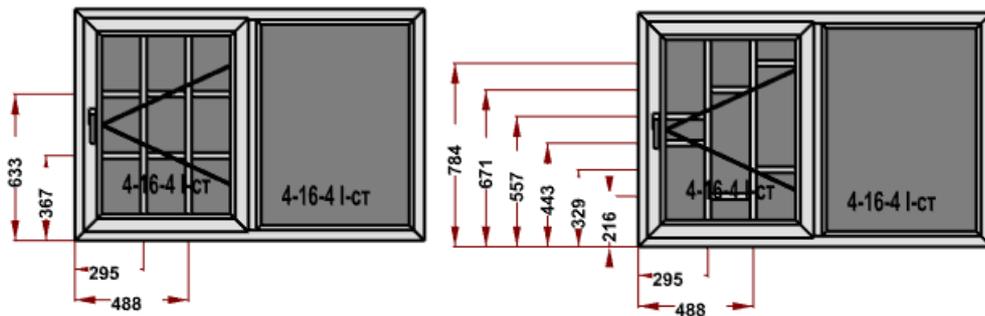
**Pic. 43: Alignment of horizontal dimensions of decorative grilles placement**

- 
 - vertical alignment of light areas of decorative grilles. After you have clicked this button, click the left mouse button on the aperture, including decorative grilles, in the working area of the builder. Then, the dimensions of light area of decorative grilles will be aligned in selected aperture;
- 
 - horizontal alignment of light areas of decorative grilles. After you have clicked this button, click the left mouse button on the aperture, including decorative grilles, in the working area of the builder. Then, the dimensions of light area of decorative grilles will be aligned in selected aperture;



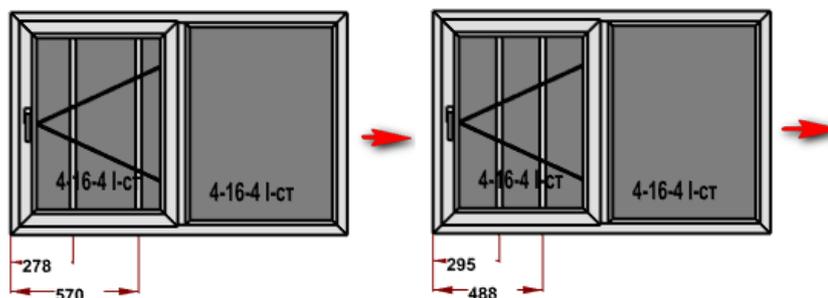
**Pic. 44: Horizontal alignment of dimensions of light areas of decorative grilles**

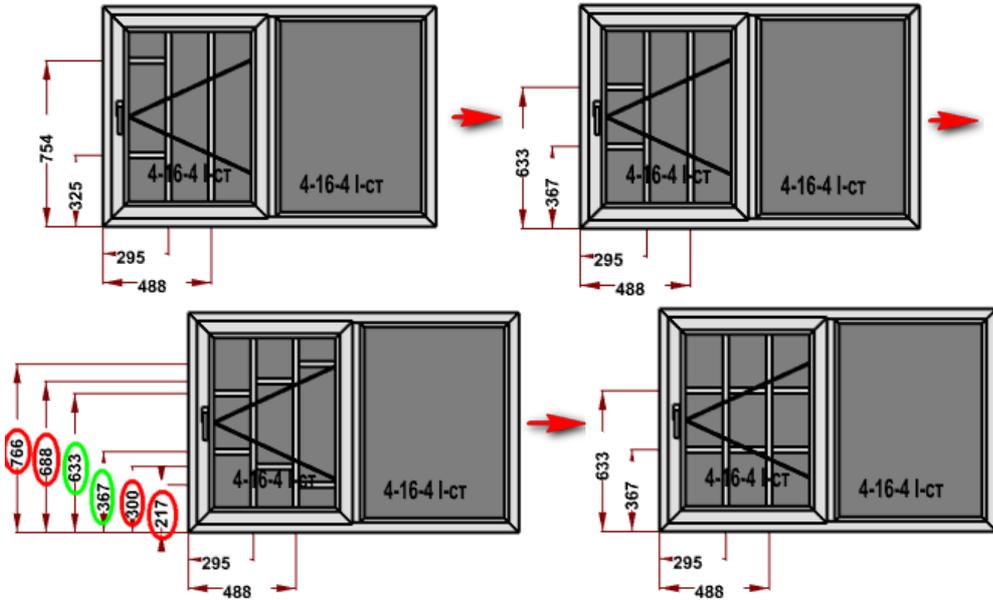
Please, note the important peculiarity of alignment. For the set of decorative grilles, shown in the picture, alignment of horizontal elements will not work correctly:



**Pic. 45: Incorrect alignment of decorative grilles for a complicated structure**

That is why to build such constructions it is necessary to follow the technique: first, add vertical elements and align them in the way you need, for example align light areas. Then, in one of vertical apertures insert horizontal elements and align them. After this add horizontal elements in the rest vertical apertures and correct the vertical dimensions for these horizontal elements in accordance with the dimensions of earlier aligned horizontal elements. This technique is illustrated in the picture:



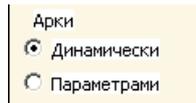


**Pic. 46: Alignment of decorative grilles for complicated constructions**

### 3.10 Arcs

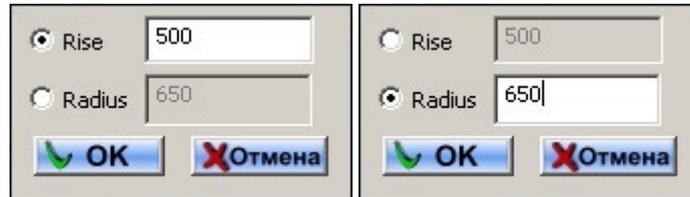


To build arcs, it is necessary to go to the mode “Arcs” by clicking the button of command panel. Then, select one of the two arc modes:

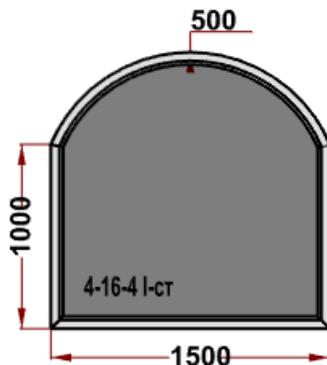


**Pic. 47 Selection of arc mode**

If you select “Dynamically”, it is necessary to click left mouse button on frame element, which is planned to be arc; click the left mouse button and “pull” the frame element where you need. Then, set the value of rise or radius of the arc in the opened dialogue window:

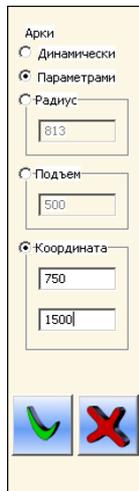


**Pic. 48 Setting parameters of arc**



**Pic. 49 Arcs**

If you select “By parameters”, several fields will be available:



**Pic. 50 Arc mode “By parameters”**

Select one of parameters (“Radius”, “Rise”, “Coordinate”), enter the necessary values, click  and click the left mouse button on the balk which you need to bend.



Horizontal and vertical coordinates of the arc middle point must be entered, the initial ax being the left angler of the frame outline.

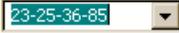
Editing of arc dimensions is analogues with editing of other dimensions, described in the section [“Editing of dimensions”](#).

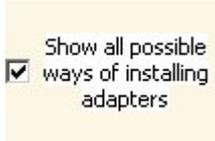
### 3.11 Adapters

For aluminum and timber systems it is possible to set adapters; for this, go to the mode of inserting adapters by clicking



the button. Now, the control elements in the side control panel are available:

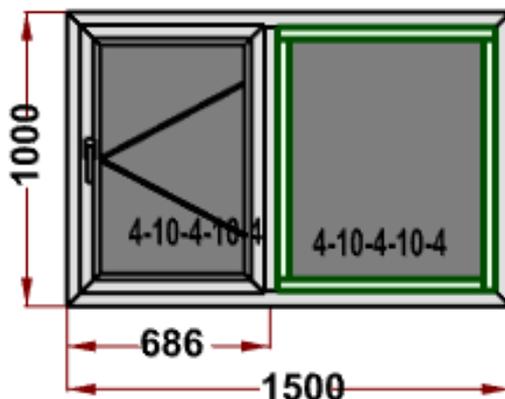
-  - drop-down list “Art. no”. It allows selecting Art. no of adapters among the list of all possible ones for the current profile system;



- - flag “Show all possible variants of installing adapters”. State of this flag influences the mechanism of inserting adapters. Usage of the flag will be described later.



- - insert adapters. After you click this button in the working area of the builder, you can insert adapters. If the field “Show all possible variants of installing adapters” is ticked off and you put the cursor in the middle of necessary aperture, all possible variants of installing adapters will be marked green in this aperture:



**Pic. 51: All possible variants of installing adapters**

When you put the cursor to any side of necessary aperture, adapter marker, which can be inserted, will be displayed. Then click the left mouse button on this marker and adapter will be added in aperture. If the field “Show all possible variants of installing adapters” is not ticked off and you put the cursor in the middle of necessary aperture, variants of installing adapters will not be shown.

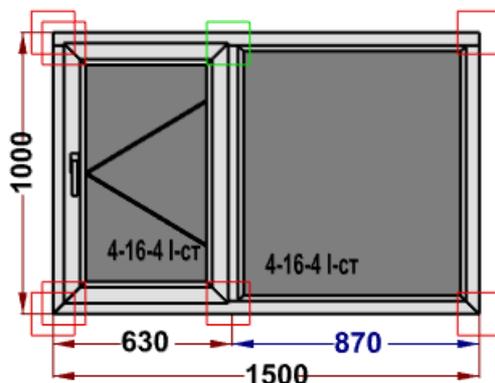


- - delete adapters. After you click this button in the working field of the builder, you can delete adapters. For this, you need to click the left mouse button on necessary adapter.

### .3.12 Change of seam type



There is opportunity to select seam type of product nodes. To go to this mode, click the button “Nodes” of command panel. Then, all corner units of frame and casements will be marked red. Then, click the left mouse button on the unit, which you need to edit, the selected unit will be marked green:



**Pic. 52: Cutting optimization**

After this, depending on the kind of selected unit, two of three buttons of unit types will be available in the side control panel:



- - seam 90° with vertical outrigger. This button allows setting seam 90° with vertical outrigger for the selected unit.



- - seam 90° with horizontal outrigger. This button allows setting seam 90° with horizontal outrigger for the selected unit.



- - seam 45°. This button allows setting seam 45° for the selected unit.

The button of current unit type will not be available.

### .3.13 Calculation of built product



After you have finished building the product click the button. Simultaneously, the product will be calculated and it will be added to the list of ready products.

### .3.14 Builder setting



Mode “Builder setting” is available by means of the button “Settings” of the command panel. In this mode the control elements will be available on the side control panel:



- - activate product edges. This button allows to activate display of product edges in the builder working area;



- - deactivate product edges. This button allows to deactivate display of product edges in the builder working area;

-  - activate the display of product frame. This button allows to activate display of product frame only in the builder working area;
-  - activate or deactivate product texture. This button allows to activate or deactivate display of product texture in the builder working area;
-  - size of capture font. Drop-down list “Captures” allows setting the font size of all captures but for captures for dimensions in the builder working area;
-  - size of dimensions font. Drop-down list “Dimensions” allows setting the font size of captures for dimensions in the builder working area.

## Head 4 Setting catalogues

Go to the upper menu “Catalogues” to edit any catalogue of the program:



**Pic. 53: Menu “Catalogues”**

### .4.1 Catalogue “Adapters”

Catalogue “Adapters” is used for aluminum profile systems. It includes information about window product t which the current product kind (door, window, etc.) belongs to, about ways of frame angles and sash coupling, about frame threshold and sash socle.

	Наименование	Артикул	A	B	C	D	Фреза
▶	Адаптер AGS50 шульп	AGS50-5210	33	33	33	33	0
	Адаптер AGS50 переверotka	AGS50-5224	28,5	28,5	28,5	28,5	0
	Адаптер AGS68 для компл.внутр.дверей	AGS68-5074	0,49	13	0	0	0
	Адаптер AGS68 для компл.наруж.дверей	AGS68-6032	22	35	22	22	0

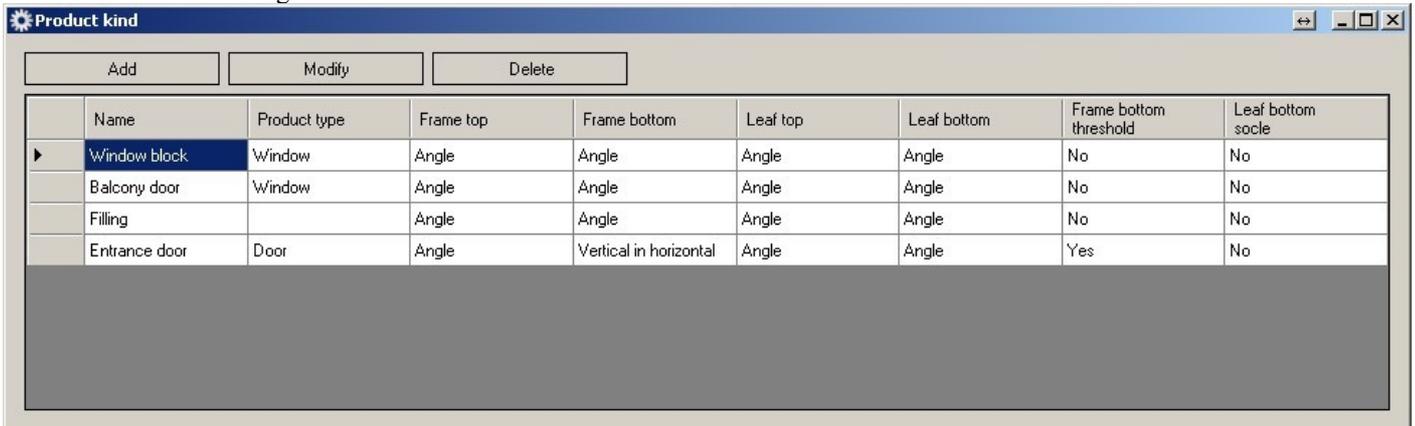
**Pic. 54: Catalogue “Product kinds”**

- Data field “Name”: enter the adapter name;
- Data field “Art. No”: enter the adapter art. no;
- Data fields “Delta A”, “Delta B”, “Delta C”, “Delta D”, “Cutter delta”: enter values in mms, which must be added to the corresponding geometrical parameters of main profiles, if you use adapters;

## .4.2 Catalogue “Product kinds”

This catalogue is used to keep kinds of window products, which are used to create orders. It includes information about type of window product, to which the particular product type belongs (door, window, etc.), about types couplings of frame and sash angles, frame threshold and window sash socle.

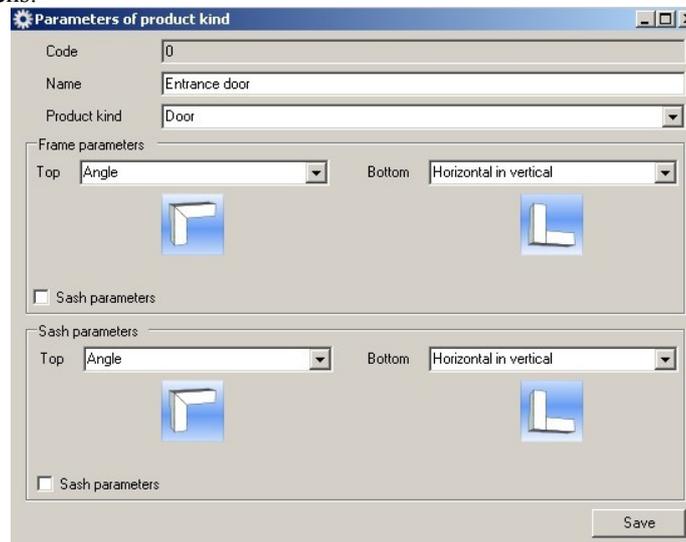
View of the catalogue:



	Name	Product type	Frame top	Frame bottom	Leaf top	Leaf bottom	Frame bottom threshold	Leaf bottom socle
▶	Window block	Window	Angle	Angle	Angle	Angle	No	No
	Balcony door	Window	Angle	Angle	Angle	Angle	No	No
	Filling		Angle	Angle	Angle	Angle	No	No
	Entrance door	Door	Angle	Vertical in horizontal	Angle	Angle	Yes	No

**Pic. 55: Catalogue “Product kinds”**

To enter a new product type, click the button “Add”. To edit the current item, click the button “Edit”. The following form opens:



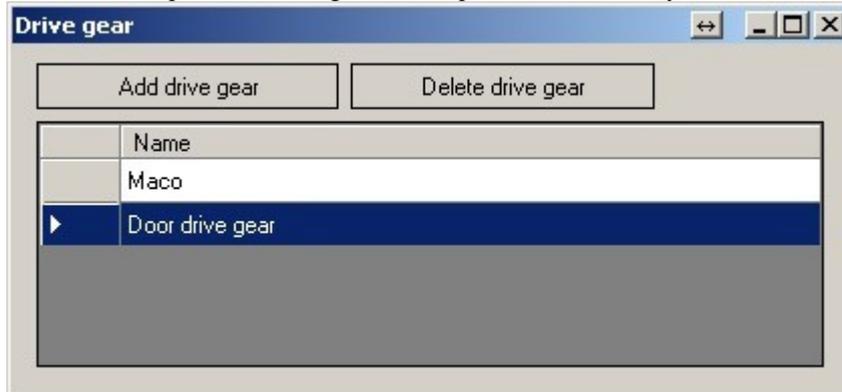
**Pic. 56: Form “Parameters of product kind”**

- Data field “Code”: filled automatically;
- Data field “Name”: enter the name of product kind;
- Data field “Product type”: select one of the product types from the list, each having its own constructive peculiarities;
- Data field “Frame parameters. Top”: select one of types of frame balk angle (Horizontal in vertical”, “Vertical in horizontal”, “Angle) ) for the product top;
- Data field “Frame parameters. Bottom”: select one of types of frame balk angle (Horizontal in vertical”, “Vertical in horizontal”, “Angle) ) for the product bottom;
- Flag field “Frame bottom – THRESHOLD”: tick it off if you need to use threshold, but not the frame profile;
- Data field “Sash parameters. Top”: select one of types of frame balk angle (Horizontal in vertical”, “Vertical in horizontal”, “Angle) ) for the sash top;
- Data field “Sash parameters. Bottom”: select one of types of frame balk angle (Horizontal in vertical”, “Vertical in horizontal”, “Angle) ) for the sash bottom;
- Flag field “Sash bottom – SOCLE”: tick it off if you need to use socle profile for the sash lower part;

To delete the marked item, click “Delete”.

### .4.3 Catalogue “Drive gear data”

This catalogue is meant for inputting drive gear systems, used in products, in the program. These names of types of drive gear systems can be later used to set price for drive gear sets, if price for different systems is various.



**Pic. 57: Catalogue “Drive gear data”**

To add a new drive gear system in the catalogue, click “Add drive gear”.

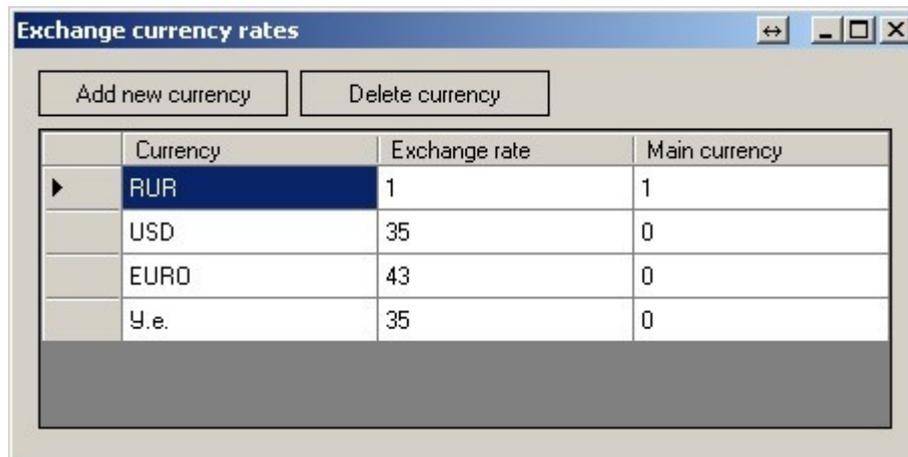
To edit the name of drive gear system, click the column “Name” and edit the line.

To delete the drive gear from the catalogue, select the necessary line and click “Delete drive gear”.

### .4.4 Catalogue “Exchange currency rate data”

It is possible to input prices of different currencies, but orders are calculated in roubles only.

Catalogue “Exchange currency rate data” is meant for setting current exchange rate for any currency, which has been input in the program.



**Pic. 58: Catalogue “Exchange currency rate data”**

To add a new currency in the catalogue, click “Add new currency”.

To edit the name of currency or its exchange rate, click the column “Currency” or “Exchange rate” and edit the line.

Set the value “1” in column “Main currency” for the currency, used to calculate orders and used for the prices of the database.

To delete the currency from the catalogue, select the necessary line and click “Delete currency”.

### .4.5 Catalogue “Additional nomenclature data”

This catalogue serves to input additional nomenclature and services in the program, which can be rendered customers.

Name	Art. no.	Name	MeasUnit	Price unit	Price
Additional nomenclature		Rack white	pcs	pcs	5
Outside windowsills		Rack brown	pcs	pcs	5
Inside windowsills		Installation plate EuroLine	pcs	pcs	0,35
Connecting profiles		Installation plate SoftLine	pcs	pcs	0,35
Services					

**Pic. 59: Catalogue “Additional nomenclature data”**

- Field “Currency” serves to select currency of prices, input in the catalogue;
- Field “Factor” serves to select price factor. This field may be used if it is necessary to quickly correct all prices of this catalogue for one and the same value. By default you should input “1”.

The tabular part is divided into two parts. The left one includes folders, where catalogue captions are saved for the easier use, and the right one shows the positions of additional nomenclature of the current folder.

There are icons “Folders” and “Positions” in the upper part of the form. If you click them, the menu will open, where you can create or delete folders and order positions, re-name folders, shift positions from one folder to another one. Before deleting or shifting positions, select the line. To edit name, art. no or price, click the left mouse button in the corresponding field. To edit columns “Measurement unit” and “Price unit”, click twice the necessary field and select the unit from the drop-down list.



Pay attention, that “m2” is the price unit, but additional nomenclature item is measured in mms, the measurement unit for this position must be selected as “mm2”.

## .4.6 Catalogue “Commercial calculation data”

This catalogue is meant for setting cost of products, created in order.

Number	Profile system
1	VEKA EuroLine
3	VEKA SoftLine
6	AGS-50
7	AGS-68

**Pic. 60: Catalogue “Commercial calculation data. Selection of profile systems”**

The window displays profile systems, for which settings of commercial calculation were saved.

The menu of this form has the following buttons:

- Button “Add” is used to create new script for commercial calculation. If you click this button, the window opens, displaying all existing profile systems. Select one of the systems and create a new script of commercial calculation for it;
- Button “Copy” is used to copy the current script of commercial calculation data. The script copy will be copied for the new profile system, which you select in the opened window;
- Button “Delete” is used to delete settings of commercial calculation for the selected profile system;
- Button “Edit” is used to edit settings of commercial calculation for the selected profile system. Click the necessary line twice to edit it;

Form to edit commercial calculation data:

Name	Price for 1 Lm.	Use condition
Price for 1 Lm. of threshold profile	1043	
Price for 1 Lm. of glazing bead profile	112	GetProductUP("Цвета")=0
Price for 1 Lm. of frame	124.95	GetProductUP("Цвета")=0
Price for 1 Lm. of frame	142.45	GetProductUP("Цвета")=0
Price for 1 Lm. of window casement profile	147	SideCode = 4 && GetProductUP("ЗащПрофиль") = 0 &...
Price for 1 Lm. of window casement profile	147	SideCode != 4 && GetProductUP("Цвета") = 0
Price for 1 Lm. of mullion	162.05	GetProductUP("Цвета") = 0
Price for 1 Lm. of window casement profile	182	SideCode != 4 && GetProductUP("Цвета") != 0
Price for 1 Lm. of window casement profile	182	SideCode = 4 && GetProductUP("ЗащПрофиль") = 1 &...
Price for 1 Lm. of window casement profile	182	SideCode = 4 && GetProductUP("ЗащПрофиль") = 0 &...

**Pic. 61: Catalogue “Commercial calculation data”**

It is possible to set independent commercial prices for any profile systems. There are several tabs in the catalogue for a more flexible system of creating commercial price.

### **.4.6.1 Tab “Main parameters”**

In tab “Main parameters” you need to input prices, which will be used to calculate price of the product itself, that is price for 1 line meter of every profile type, used to produce a product. This price must include not only price of profile, but also price of all items included in it. For example, price for frame must include both the price for reinforcement, and screws to install reinforcement and all other elements which are included in price for frame. In price for casement you should also include price for two (or three) rubber gaskets, etc.

By means of buttons  and  you can add or delete lines from catalogues.

To add a line, select the parameter from the list:

**Pic. 62: Form “Selection of main parameter”**

Select currency of the price for profiles in the field “Currency”.

Field “Factor” serves to “increase” price of product to have opportunity to use discounts. For example, if you input “2” in this field, it is quite evident that if we put 50% discount, we will get “pure” price in accordance with the prices which have been input. It means that this discount “neutralizes” the factor. Moreover, it is possible to use factor to quickly correct commercial price of product without changing prices of profile.

### **.4.6.2 Tab “Margins of main parameters”**

This tab is used to enter margins to commercial prices for one- or double-sided décor of products.

Main parameters   Main parameters margins   Drive gear   Fillings   Sash margins   Product margins   Internal grilles					
Factor		2			
Currency		У.е.			
Nº	Sys Nº	Name	Price for 1 l.m.	Condition of use	
123	13	Price for 1 l.m. of frame	3,57		
124	13	Price for 1 l.m. of mullion	4,63		
125	13	Price for 1 l.m. of window casement profile	4,2	КодСтороны != 4	
131	13	Price for 1 l.m. of window casement profile	4,2	КодСтороны = 4 && ПолучитьППИзделия("З	
132	13	Price for 1 l.m. of window casement profile	5,2	КодСтороны = 4 && ПолучитьППИзделия("З	
126	13	Price for 1 l.m. of movable mullion profile	6,01		
127	13	Price for 1 l.m. of glazing bead profile	1,45	ТолщинаЗаполнения > 10	
133	13	Price for 1 l.m. of glazing bead profile	2,5	ТолщинаЗаполнения <= 10	
128	13	Price for 1 l.m. of threshold profile	29,8		

**Pic. 63: Tab “Margins of main parameters”**

- Column “Margin”: from the drop-down list select décor type – single-sided or two-sided;

Parameter
String

**Pic. 64: Form to select data type in the margin line.**

Select one of the parameters of profile décor to save data type “parameter”:

Single-sided decor
Double-sided decor
Glazing bead decor

**Pic. 65: Form to select décor parameter.**

These parameters in catalogue “Main profile margins” influence on the price of products of single- or double-sided lamination. For painted products we can add script of type “line” to account margins of commercial price, the application field being limited by profile colour group and usage condition (for example, “ColourGroup” = “Group2”). Those colours only must be included in this group, which belong to painting. You should enter the name in column “margin” manually.

- Column “Value”: input the margin value to the price for 1 l.m. of the profile for the particular type of decor;
- Column “Condition of using”: by means of the section “Work with the builder of conditions” set the condition, determining when the particular margin must be calculated. For example, for the types of products “Window” and “Door” it is possible to enter different margins;

### 4.6.3 Tab “Drive gear”

This tab is used to create price of drive gear sets for different types of casement opening depending on its rebate dimensions. Besides, there is opportunity to create different price of drive gear sets for different drive gear systems.

Основные параметры   Надбавки основных параметров   Фурнитура   Заполнения   Надбавки створки   Надбавки изделия   Шпроссы						
Кoeffициент		2				
Валюта		У.е.				
Nº	Тип створки	Высота	Ширина	Цена	Фурнитура	Условие применения
232	Поворотно-откидное	800	610	26,01	Масо	
233	Поворотно-откидное	800	1210	30,62	Масо	
234	Поворотно-откидное	800	1600	37,42	Масо	
235	Поворотно-откидное	1400	610	27,22	Масо	
236	Поворотно-откидное	1400	1210	32,89	Масо	
237	Поворотно-откидное	1400	1600	39,69	Масо	
238	Поворотно-откидное	1800	610	28,36	Масо	
239	Поворотно-откидное	1800	1210	34,02	Масо	
240	Поворотно-откидное	1800	1600	40,82	Масо	

**Pic. 66: Tab “Drive gear”**

Fields “Factor” and “Currency” have the same aim as for the tab “Main parameters”. Select type of casement opening of current drive gear set in the field “Casement type”.

Select a drive gear system in the field “Drive gear”. In this case price of this set will be actual only for the current drive gear system. If price of a set does not depend on drive gear system, select the value “For all” in this field (in this case the field will be left blank).

In fields “Height” and “Width” set the range of sash rebate dimensions, for which the price will be used. This price will be used for all values of this line, starting from the smallest up to the biggest value.

That is, for the example Pic. 66, price of drive gear set Maco for tilt and turn casement, rebate height being 0 – 800 mm and rebate width being 0 – 610 mm, will be 26,01 USD. Price of drive gear set Maco for tilt and turn casement, rebate height being 0 – d 800 mm and rebate width being 611 – 1210 mm will be 30,62 USD, etc.

#### 4.6.4 Tab “Fillings”

This tab is used to create price of fillings (glass units, sandwich).

№	Filling	Price	Square
1	Basic Price	50,4	0,2
2	Basic Price	43,49	0,4
3	Basic Price	34,77	3
4	Basic Price	39,33	4
5	Basic Price	45,36	7,25
6	Three glasses	19	
7	1 glass	19	
14	Sandwich	5	

Pic. 67: Tab “Fillings”

Principle of calculation price for fillings:

There is a basic price, which is the price for single-chamber glass unit 4-16-4. This price differs depending on the square of glass unit. For example, price for glass units, square of which is 0 – 0,2 m2 will be 50,5 USD, if square is 0,41 – 3,0 m2 the price will be 34,77 USD.

Price for 1 line meter of other types of fillings is created by adding corresponding margins to this basic (price of single-chamber glass unit).

From the data of Pic. 67 it is evident that price for 1 m2 of double-chamber glass unit (4-10-4-10-4), square of which is 3 – 4 m2 will be 39,33 + 19 = 58,33 USD.

Price for 1 m2 of double-chamber glass unit having LowE glass (4-10-4-10-4 i-gl), square of which is 0,4 – 3 m2, will be 43,49 + 19 + 19 = 81,49 USD.

Fields “Factor” and “Currency” have the same aim as for the tab “Main parameters”

#### 4.6.5 Tab “Sash margins”

This tab is used to input margins to the commercial price for user parameters, which you add to the casement of products (for example, night ventilation or balcony bullet-catch).

№	Parameter	Price	Use condition
1	Night ventilation	10	GetElementUP("Микропроветривание") != 0
2	Add. lock	10	GetElementUP("ДопПрижимВерхПетли") = 1
3	Balcony door catch	20	GetElementUP("Балк.Заш.") = 1
4	Closer	110	GetElementUP("Доводчик") > 0
5	Key-locking handle	30	GetElementUP("РучкаКлюч") = 1
6	Remote opening	230	GetElementUP("ДистОткрытие") = 1
7	"Banana" col.	90	GetElementUP("РучкаДвери") = 1
8	"Banana" chrom.	130	GetElementUP("РучкаДвери") = 2
9	"Pipe" col.	180	GetElementUP("РучкаДвери") = 3

Pic. 68: Tab “Sash margins”

- Column “Parameter”: input the description of the option manually;

- Column “Price”: input the price for this option;
- Column “Condition of using”: by means of the builder of conditions (see 5 Work with the builder of conditions) set the condition, when the particular margin must be calculated. As a rule, the condition is set on the basis of the user variable of an element of product (see the section 4.7.1 Tab “User parameters of items”);

#### 4.6.6 Tab “Product margins”

This tab is used to input margins to the commercial price for the user parameters, which belong to the whole product (for example, ventilation valve).

Main parameters   Main parameters margins   Drive gear   Fillings   Sash margins   Product margins   Internal grilles			
Currency: <input type="text" value="U.e."/>			
Nº	Parameter	Price	Use condition
1	Valve	40	GetProductUP("КлапанВрезной") = 1
2	Reinforced hinge	4	GetProductUP("УсиленныеПетли") = 1
3	Handle titan, bronze, champ.	8,57	GetElementUP("РучкаКлюч") = 0 && GetProductUP("Цве...
4	Key locking handle white, tit, bronze, champ.	22,85	GetElementUP("РучкаКлюч") = 1 && GetProductUP("Цве...
5	Key locking handle, brown	45,7	GetElementUP("РучкаКлюч") = 1 && GetProductUP("Цве...
6	Basic safety D	10	GetProductUP("Безопасность") = 1
7	Concealed drive gear	64	GetProductUP("Безопасность") = 2

Pic. 69: Tab “Product margins”

- Column “Option”: input the description of the option manually;
- Column “Price”: input the price for this option;
- Column “Condition of using”: by means of the builder of conditions (see 5 Work with the builder of conditions) set the condition, when the particular margin must be calculated. As a rule, the condition is set on the basis of the user variable of product (see the section 4.7.2 Tab “User parameters of products”);

#### 4.6.7 Tab “Internal grilles”

This tab is used to output commercial price for internal grilles.

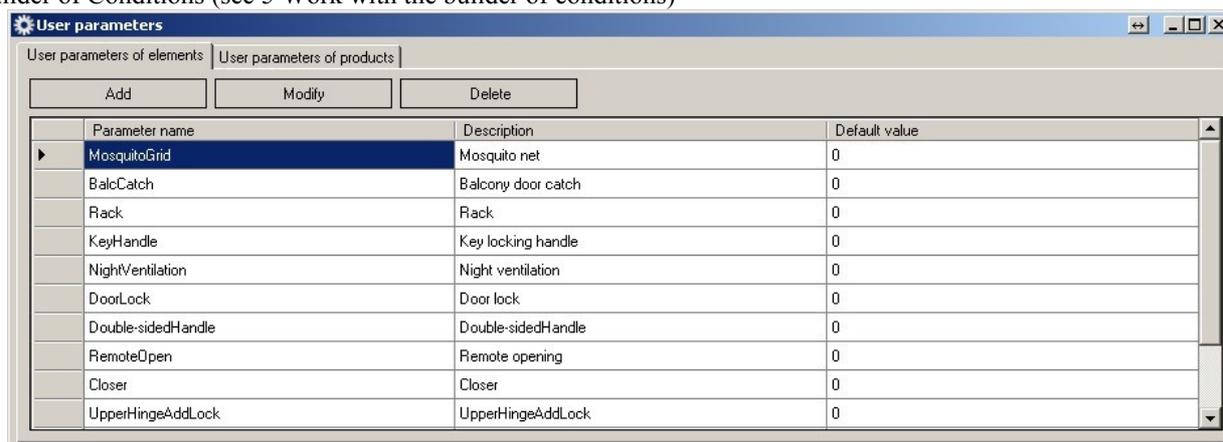
Main parameters   Main parameters margins   Drive gear   Fillings   Sash margins   Product margins   Internal grilles							
Currency: <input type="text" value="U.e."/>							
Nº	Parameter	Width	Price for 1 l.m.	Price of X connector	Price of Y connector	Price of T connector	Use condition
1	Internal bar 18 mm white	18	9	1	2	1	
2	Internal bar 18 mm brown	18	9	1	2	1	
3	Internal bar 18 mm brow...	18	19	2	4	2	
4	Internal bar 25 mm white	25	9	1	2	1	
5	Internal bar 25 mm brown	25	9	1	2	1	
6	Internal bar 25 mm brow...	25	18	2	4	2	
7	Internal bar 8 mm white	8	9	1	2	1	
8	Internal bar 8 mm gold	8	9	1	2	1	

Pic. 70: Tab “Internal grilles”

- Column “Parameter”: enter the name from the catalogue “Internal grilles”;
- Column “Width”: enter width of internal grille;
- Column “Price 1 l.m.”: enter the price for 1 l.m. of internal grille profile;
- Column “Price of X-connector”: enter the price for X-shaped connector of internal grille;
- Column “Price of Y-connector”: enter the price for Y-shaped connector of internal grille;
- Column “Price of T-connector”: enter the price for T-shaped connector of internal grille;
- Column “Condition of using”: by means of the builder of conditions (see 5 “Work with the builder of conditions”) set the condition, when the particular margin must be calculated. As a rule, the condition is set on the basis of the user variable of product (see the section 4.7.2 Tab “User parameters of products”);

## 4.7 Catalogue “User parameters”

Catalogue “User parameters” is used to set some restrictions and conditions of usage for different items of products in the Builder of Conditions (see 5 Work with the builder of conditions)



Parameter name	Description	Default value
MosquitoGrid	Mosquito net	0
BalcCatch	Balcony door catch	0
Rack	Rack	0
KeyHandle	Key locking handle	0
NightVentilation	Night ventilation	0
DoorLock	Door lock	0
Double-sidedHandle	Double-sidedHandle	0
RemoteOpen	Remote opening	0
Closer	Closer	0
UpperHingesAddLock	UpperHingesAddLock	0

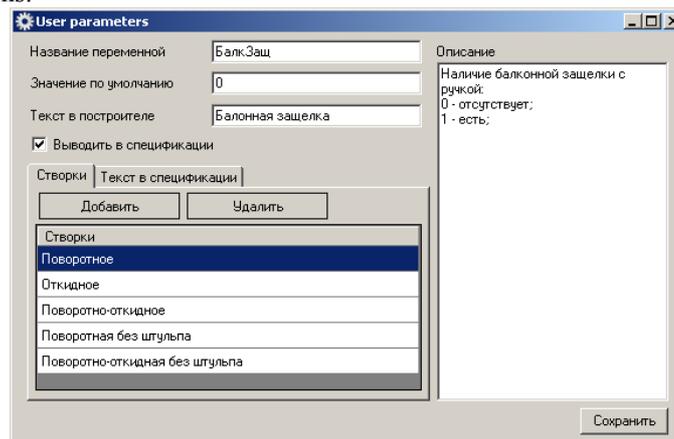
Pic. 71: Catalogue “User parameters”

### 4.7.1 Tab “User parameters of items”

This catalogue is used to create user variables, belonging to one item of product (for example, “Night ventilation” – it belongs only for the product sash).

To create a new variable, click “Add”. To edit the current line, select the line and click “Edit”.

The following form opens:

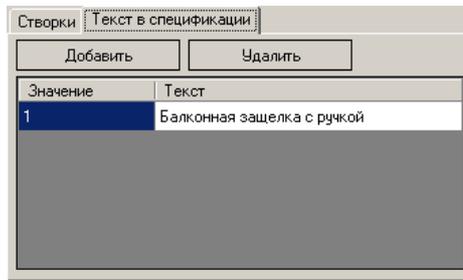


The form contains the following fields and sections:

- Название переменной: Балк.Защ
- Значение по умолчанию: 0
- Текст в строителе: Балконная защелка
- Выводить в спецификации
- Описание: Наличие балконной защелки с ручкой. 0 - отсутствует; 1 - есть.
- Створки:  Створки,  Поворотное,  Откидное,  Поворотно-откидное,  Поворотная без штапеля,  Поворотно-откидная без штапеля
- Buttons: Добавить, Удалить, Сохранить

Pic. 72: The form to enter a new/edit the current user variable of an item

- Data field “Name of the variable”: enter the most convenient for you name of the variable, which you will use in the creating conditions of using;
- Data field “Description”: description of the variable;
- Data field “Default value”: input the value, which the particular variable will have by default – for “False” input 0 (zero), for “True” input 1. When you set the condition of using you should use accordingly either the figures 0 or 1; or the points “false” or “True” in the formula;
- Data field “Text in the Builder”: enter the text which will be shown in the selection window of product items in the window builder (for example, sash properties);
- The flag field “Show in specification”: tick this field off, if the text must be shown in the specification depending on the value of this field;
- Tabular part, tab “Sashes”: here you can create sash types depending on their opening type, for which this variable is actual. The variable “Night ventilation” in the above-mentioned example is actual only for tilt and turn sashes.
- Tabular part, tab “Text in specification”:



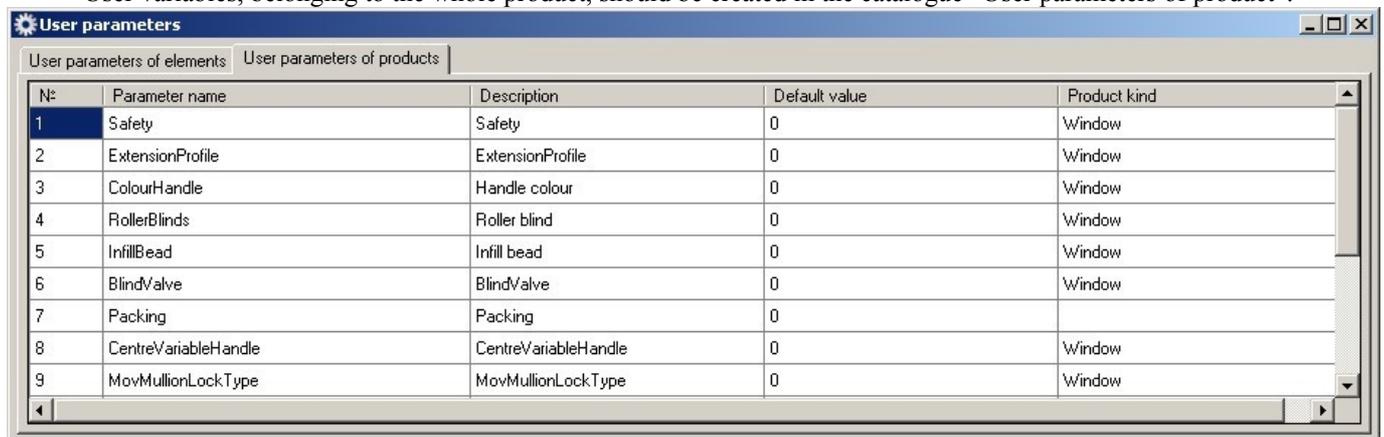
**Pic. 73: Tab “Text in specification”**

It is also necessary that the value of variable should be shown in order specification. For example, if in the sash installed drive gear is tilt and turn plus has the option of night ventilation, it will be useful to show this information in order specification. For this, you should add string in tabular part, where you should set equivalence between the value of variable and the text, which will be shown in the specification, depending on the value of variable. If a string for any value of variable is not present in the tabular part, no text for this value will be shown in the specification.

To delete items from catalogue “User parameters of elements”, select the line and click “Delete”.

### 4.7.2 Tab “User parameters of products”

User variables, belonging to the whole product, should be created in the catalogue “User parameters of product”.

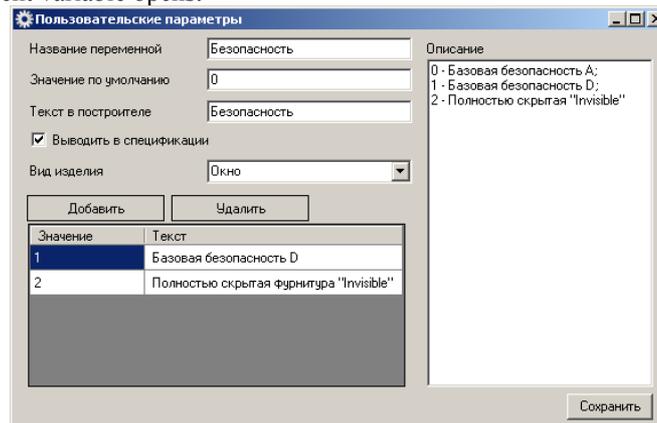


**Pic. 74: Catalogue “User parameters of a product”**

To create a new variable click the button (Ins) .

To create a new variable, click “Add”. To edit the current line, select the line and click “Edit”.

The form to edit the current variable opens:



**Pic. 75: The form of creating a new/editing the current user variable of product**

- Data field “Name of the variable”: input the most convenient for you name of the variable, which you will use in the creating conditions of using;
- Data field “Description”: description of the creating variable;
- Data field “Default value”: input the point, which the particular variable will have by default – for “False” input 0 (zero), for “True” input 1. When you set the condition of using you should use accordingly either the figures 0 or 1; or the points “false” or “True” in the formula;
- Data field “Text in the Builder”: enter the text which will be shown in the selection window of product properties in the window builder (for example, frame properties);

- The flag field “Print specification”: tick this field off, if the text must be shown in the specification depending on the value of this field;
- Data field “Type of product”: there are variables, used with one type of product. If this field is blank, the variable will be used for all product types;
- Tabular part of the form: it is often necessary that the value of variable should be shown in order specification. For example, the window block has a valve. It will be useful to show this information in order specification. For this, you should add string in tabular part, where you should set equivalence between the value of variable and the text, which will be shown in the specification, depending on the value of variable. If a string for any value of variable is not present in the tabular part, no text for this value will be shown in the specification.



There are 2 user variables, having predetermined names, in the program. One of them is used to check usage condition of mosquito nets; the second one is used to check usage condition of roller blinds. Names of these variables “MosquitoGrid” and “RollerBlinds”, and you can enter any text in field “Text in window builder”, for example “Mosquito net” and “Roller blind”.

To delete items from catalogue “User parameters of product”, select the line and click “Delete”.

## .4.8 Catalogue “Profile system data”

Catalogue “Profile system data” is used to enter price parameters, which are necessary for window and door products, as well as to enter profile geometrical parameters.

**Pic. 76: Catalogue “Profile system data”**

Buttons of the main menu:

- Button “Add profile system” is used to create data of a new profile system. When you click this button, a window opens to enter the name of profile system. Enter it and click “OK”;
- Button “Edit profile system” is used to edit the name of profile system;
- Button “Delete profile system” is used to delete setting of the selected profile system. When you delete profile systems, all templates and settings of commercial calculation, saved for these profile systems, will be deleted;

A number of fields must be filled for the selected profile system:

- Data field “Currency”: select currency, where you should enter the price parameters for the current form.
- Data field “Factor Work”: input the factor by which the cost of work to produce an product must be multiplied.
  - Data field “Standard seam price”: price for one product seam. (Rectangular frame and sash have 4 seams each, mullion has 2 seams). The value of this field is necessary to calculate work costs, spent to produce a product;
  - Data field “Non-standard seam factor”: point how many times the work cost to produce the non-standard seam will be more than the work cost to produce a standard seam. The value of this data field is used to calculate the cost of work to produce a product;
  - Data field “Standard seam price (Door)”: price for one product (type “Door”) seam. This field is analogues to the previous one. The value of this field is used to calculate work cost to produce products of type “Door”;
  - Data field “How much movable mullion is less than window casement”: enter the value how many mms the movable mullion profiles is less than the overall sash, to which it fixes;



Standard is considered to be a seam when the angle of sawing the profile is 45°, or 90°. For the arc profiles any seam is considered to be non-standard.

- Data field “Price for the of bend arc profile”: cost of the work to bend the profile. The value of this field is used to calculate the work to produce a product;
- Data field “Allowance of the arc”: ends of profile are usually cut off in the bend arc profile, because it is impossible to bend them in the way as it is necessary. This data field shows for how many mms we should increase the calculating length of the arc profile;
- Data field “Weld allowance”: enter the width in mm for the welded seam of two profile pieces. If, for example, every profile piece spends for weld 2.12 mm along the line, perpendicular to the seam flat, you are to enter value 4.2400 in this field. The value will be added to the length of every profile piece, which (the value) depends on the by us entered parameter and angle of profile cut (in the example above, the seam width is 4.24 and cut angle is 45°, 6 mm will be added t the length of profile workpiece);
- Data field “Lessen the mosquito net by height”: enter the value how many mms mosquito net height is less than the overall height of sash, for which the mosquito net must be calculated;
- Data field “Lessen the mosquito net by width”: enter the value how many mms mosquito net width is less than the overall width of sash, for which the mosquito net must be calculated;
- Data field “Lessen the roller by height”: enter the value how many mms the roller height, installed on the frame, is less than the overall height of window block;
- Data field “Lessen the roller by height”: enter the value how many mms the roller width, installed on the frame, is less than the overall width of window block;

To save the changes click “Save”.

To edit geometrical parameters of profile open the list by double click on the profile system, then select the necessary profile type (for example, “Frame”). Then select the necessary profile:

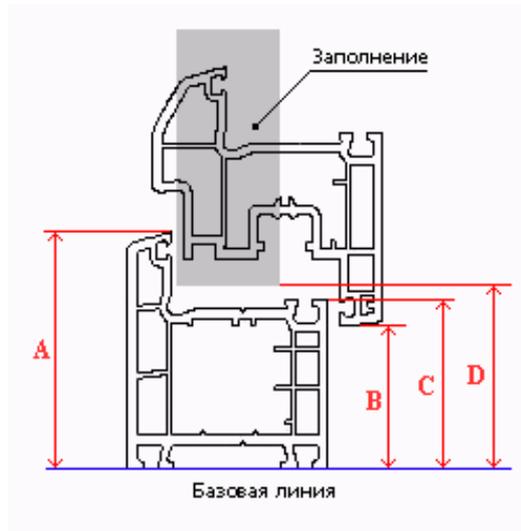
**Pic. 77: Edit of profile geometrical dimensions.**

- Data field “A”, “B”, “C”, “D”: have values of profile geometrical dimensions of the current group. These values are necessary for calculation of products;



Further explanations of geometrical dimensions of profiles of different groups have the notion “basic line”. For profiles of the frame, mullion and movable mullion these are the lines, according to which the geometrical dimensions to project a product are set. For the profile of a casement, this is the outer edge of the casement (from the side of installation drive gear).

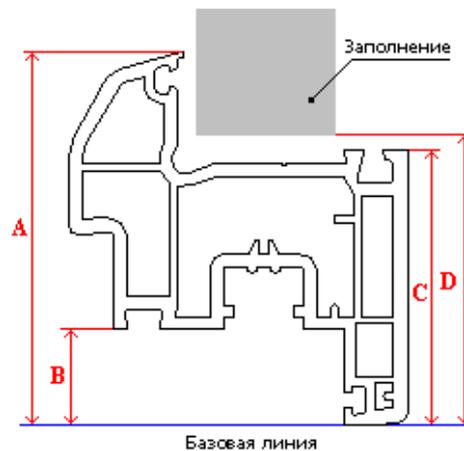
#### **.4.8.1 Geometrical dimensions of frame profile**



**Pic. 78: Geometrical dimensions of frame profile**

- A – maximal height of the frame profile;
- B – distance between the basic line of frame and basic line of the casement;
- C – distance between the basic line of the frame and line of installation of glazing bead (rebate of the frame);
- D – distance between the basic line of the frame and filling, installed in the frame;

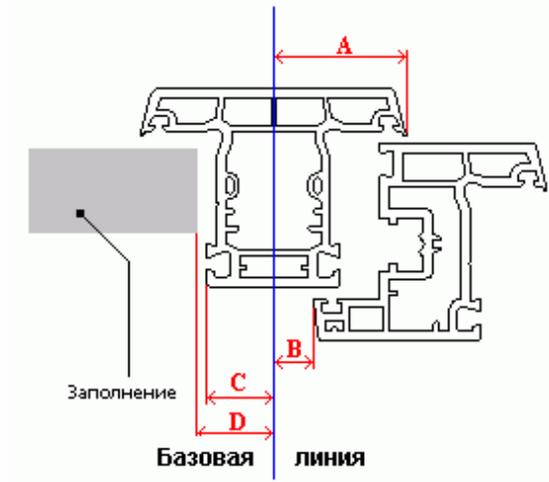
#### **.4.8.2 Geometrical dimensions of sash profile**



**Pic. 79: Geometrical dimensions of sash profile**

- A – maximal height of the profile of a casement;
- B – distance between the basic line of a casement and line of installation of glazing bead (rebate of the casement);
- C – distance between the basic line of a casement and the line of installation of glazing bead;
- D – distance between the basic line of a casement and filling, installed in the casement;

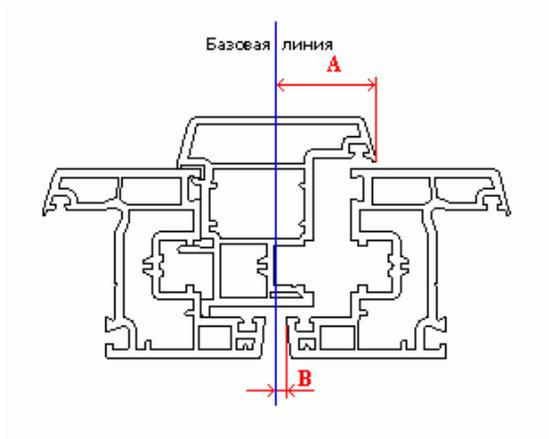
#### **.4.8.3 Geometrical dimensions of mullion profile**



**Pic. 80: Geometrical dimensions of mullion profile**

- A – distance between the basic line and the outer edge of the profile of mullion;
- B – distance between the basic line of the mullion and basic line of the casement;
- C – distance between the basic line of the mullion and the line of installation of glazing bead;
- D – distance between the basic line of the mullion and filling, installing in the mullion;

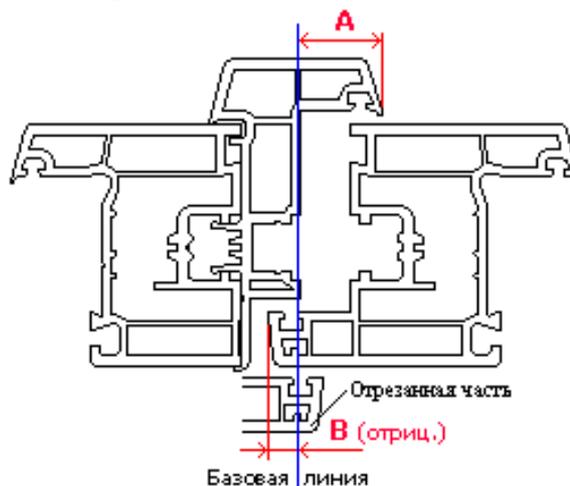
#### 4.8.4 Geometrical dimensions of movable mullion profile



**Pic. 81: Geometrical dimensions of movable mullion profile**

For movable mullion profile, geometrical dimensions A and are taken by analogy with the profile of mullion. Dimensions C and D may be omitted (their value is zero).

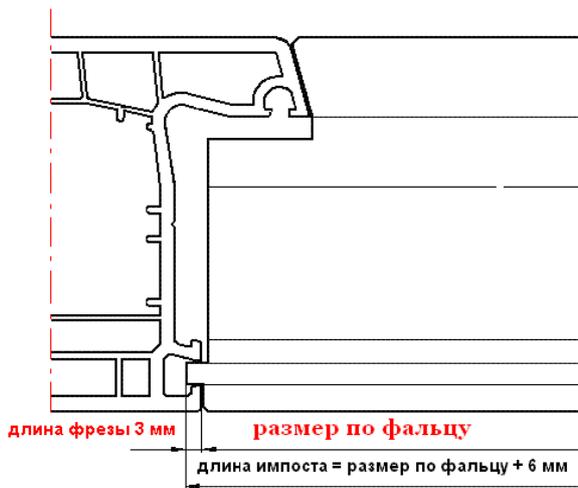
Some movable mullion profiles mean sawing of lug of a casement, to which the profiles are fixed. In this case, point B for such movable mullion profile will be negative. For example, a lug, having length 20 mm, is sawed from the casement, distance between the casements being 7 mm, then  $B_{st} = (20-7)/2 = 6,5$  mm (see pic. 24).



**Pic. 82: Geometrical dimensions of the movable mullion profile in case of sawing the lug of a casement**

### .4.8.5 Parameter “Length of mullion cutter”

- Data field “F” (Cutter length): length of the mullion cutter, which is cut in this profile. This parameter sets the value in mms, for which the calculation length of the mullion, cut in this profile, must be increased to get the necessary dimensions of a half-finished product;



**Pic. 83: Length of the mullion cutter**

## .4.9 Catalogue “Fillings”

This catalogues is necessary for all profile systems of the Program.

Name	Formula	Thickness	Calculation parameters
(3+3) triplex	(3+3)	6	
(3+3)-12-(3+3)	(3+3)/12/(3+3)	24	
(3+3)-14-4	(3+3)/14/4	24	
4-10-4-10-4	4/10/4/10/4	32	
4-10-4-10-4 LowE	4/10/4/10/4/i	32	
4-14-(3+3)	4/14/(3+3)	24	
4-15-4-14-4	4/15/4/14/4	41	
4-16-4	4/16/4	24	
4-16-4 LowE	4/16/4/i	24	

**Pic. 84: Catalogue “Fillings”**

To enter a new filling click the button “Add”.

The line, where you need to fill some fields, will open:

- Data field “#”: filled automatically;
- Data field “Name”: enter the name of filling;
- Data field “Formula”: enter the formula of filling:  
To input a formula of a unit glass do use “slash” ( / ) to divide the glass thickness in the formula from the thickness of distance frame (for example, 4/16/4). Use the letter “S” as the first symbol of formula for sandwich-panels.

Remember, that for correct calculating of the commercial price of glass units with energy saving glasses it is necessary that their names should have Latin letters: I – for the glasses having soft covering, K – for the glasses, having hard covering (for example, “4-16-4 I-Gl” or “4-16-4 K-Gl”). Latin letter S is necessary in the beginning of the name of Sandwich (for example, “S 24 mm” for Sandwich thickness 24 mm).



- Data field “Width”: enter the filling width in mm.
- Data field “Calculation parameters”: enter additional parameters, necessary for the correct calculation, in this field:

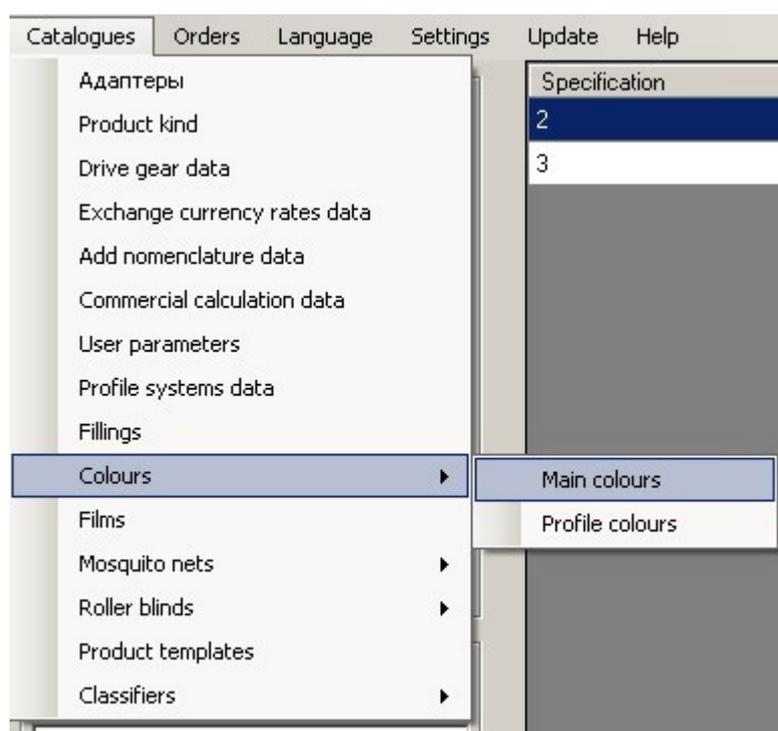
- Latin letter N – is used for the fillings price of which is not used to calculate the commercial price of a product. For example, you need to calculate a product without fillings, but with glazing beads. In this case, input the new filling in the program “Empty – 24” thickness being 24 mm. It is evident that price for this filling in the catalogue “Fillings” to calculate the real price of a product will be zero. The commercial price is calculated in a different way. Price of such filling won’t be included in the commercial price of a product if we input the letter “N” in this data field;

To delete the filling from the catalogue, select the necessary line and click “Delete”.

## 4.10 Catalogue “Colours”

Creation of colours belongs to profile systems, not only to any particular one. First of all you need to enter main colours.

### 4.10.1 Catalogue “Main colours”



**Pic. 85: Output of the catalogue “Main colours”**

The catalogue includes colours, which are further used to create profile colours.

The screenshot shows a window titled 'Main colours' with three buttons: 'Add', 'Modify', and 'Delete'. Below the buttons is a table with the following data:

Art. no	Name	Decor
White	White	Without decor
2097013	Mahagony (2097013)	Decor
2178001	Natural oak (2178001)	Decor
3118076	Natural oak (3118076)	Decor
2052089	Dark oak (2052089)	Decor
3152009	Douglas (3152009)	Decor
1192001	Oregon (1192001)	Decor
7155005	Grey (7155005)	Decor
RAL-8017	RAL-8017 (brown)	Acryl

**Pic. 86: Catalogue “Main colours”**

To enter a new colour, click “Add”. To edit or delete items, click the necessary line and click “Edit” or “Delete”.  
Form to enter/edit items of the catalogue “Main colours”:

**Pic. 87: Form of editing the catalogue “Main colour”**

- Data fields “Name” and “Art. no”: are filled by yourself;
- Data field “Décor”: select the point from the list:
  - “Without décor” – for non-laminated and non-painted profiles;
  - “Décor” – for laminated profiles;
  - “Acrylic” – for painted and anodized profiles;

In the lower part of the form you can also add a picture of the selected colour texture.

### **.4.10.2 Catalogue “Profile colours”**

Profile colours are based on the catalogue “Main colours”. Tabular part of the catalogue is divided into two parts. The left one includes folders of profile colour groups, the right one reflects the contents of these groups. Structure allows accounting different cost of painting profile depending on the colour.

Name	Exterior colour	Interior colour	Decor
▶ RAL-7001 (grey)/White	RAL-7001 (grey)	White	-1
RAL-8017 (chocolate bro...	RAL-8017 (brown)	White	-1
White/RAL-7001 (grey)	White	RAL-7001 (grey)	-1
White/RAL-8017 (chocol...	White	RAL-8017 (brown)	-1

**Pic. 88: Catalogue “Profile colours”**

There are buttons “Folders” and “Positions” in the upper part of the form. If you click them, menu will open, where you can create and delete folders and positions of the catalogue, shift positions from one folder into another. To delete folders, or delete and shift items from one folder into another. To delete a folder, delete or shift items, you should select the whole line.

When you add a folder, the form will open, where you can enter the name of the new folder:

**Pic. 89: Form to enter a new folder in the catalogue “Profile colours”**

To edit the folder name, select the necessary line and click the left mouse button on the corresponding line. To edit the colour script, click twice the line field.

The following form will open to edit or create profile colours:

**Pic. 90: Form “Profile colours”**

Select values for the fields “Exterior colour” and “Interior colour” from the catalogue “Main colours”. You can enter colour names manually in the field “Name”, but it is more convenient to use the function of auto-nomination (if the flag field “Auto-nomination” is ticked off, the name of profile colour will be created automatically from the names of exterior and interior colours).

The field “Décor” will also be filled automatically, if the field “Auto-décor” is ticked off.

You can create profile colours in groups, which have the same painting or foil and having the same price.

## 4.11 Catalogue “Films”

Catalogue “Films” is meant for entering toned and protective films for glasses of glass units.

Name	Art. no
green (medium)	STR 30 GN SR PS
green (dark)	STR 15 GN SR PS
silver (dark)	STR 20 SI SR PS
silver (light)	STR 50 SI SR PS
silver (medium)	STR 35 SI SR PS
bronze (medium)	STR 35 B SR PS
bronze (dark)	STR 15 B SR PS

**Pic. 91: Form of the catalogue “Films”**

The tabular part is divided into two parts. The left one includes folders, where toned and protection films are save, and the right one shows the films of the current folder. Films are saved in folders by categories. Categories are necessary to group toned and protection films, having the same prices.

There are icons “Folders” and “Positions” in the upper part of the form. If you click them, the menu will open, where you can create or delete folders and order positions, re-name folders, shift positions from one folder to another one. Before deleting or shifting positions, select the line.

When you add a folder, the following form will open, where you can enter the name of the new folder:

**Pic. 92: Form to enter a new folder in catalogue “Films”**

To edit the folder name, put the cursor on the line you want to edit and click the left mouse button in the necessary field. To edit the fields “Name” and “Art. no” click the mouse in these fields.

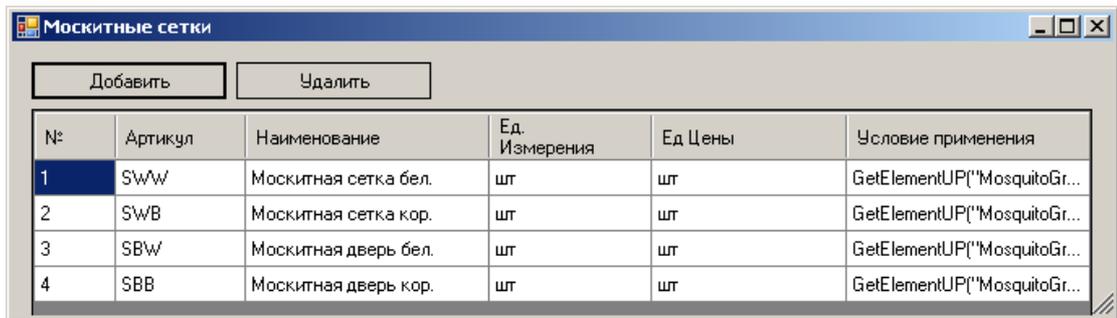
## 4.12 Catalogue “Mosquito nets”

Catalogue “Mosquito nets” differs from the rest additional nomenclature due the specific features of pricing of mosquito nets. Mosquito nets themselves are complex products, so the price for them is usually a table, having the scale of dimension range by height and width. Every range has its own price for mosquito net.

Specification	Data
2	27.0
3	27.0

**Pic. 93: Output of the catalogue “Mosquito nets”**

Catalogue “Mosquito nets”:

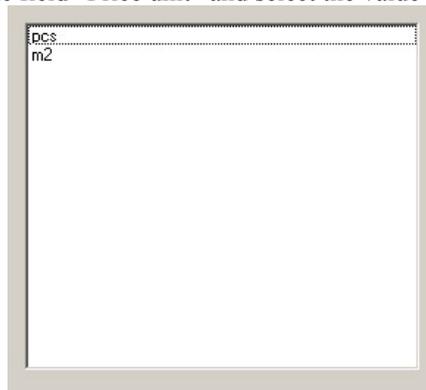


**Pic. 94: Window of the catalogue “Mosquito nets”**

You can add or delete a line from the catalogue by means of the buttons “Add” and “Delete”.

To enter a new item of the catalogue “Mosquito nets” you also must enter the name and art. no, as well as its usage condition. The value of user variable of the element “MosquitoNet”, which is to be selected to build a product, having mosquito net, will be analyzed in this usage condition.

Twice click the left mouse button on the field “Price unit” and select the value from the list:

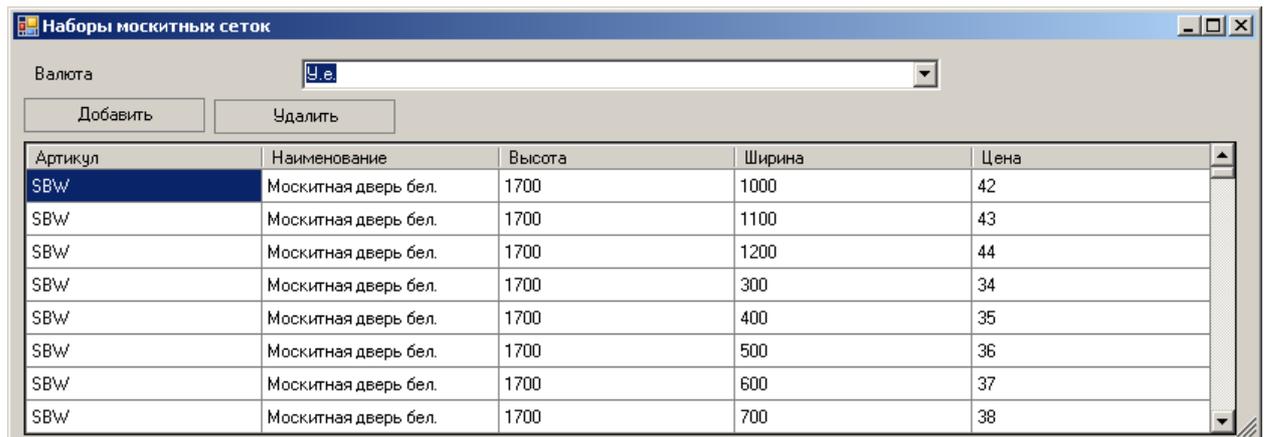


**Pic. 95: Form of price unit selection.**

The selected unit will influence on using the price, which was set in the catalogue “Sets of mosquito nets” when you calculate the mosquito nets in order.

#### **.4.12.1 Catalogue “Sets of mosquito nets”**

Catalogue “Sets of mosquito nets” is meant for keeping data about mosquito nets of the catalogue “Mosquito nets”. Catalogue “Mosquito nets”:



**Pic. 96: Form of the catalogue “Sets of mosquito nets”**

Select the used currency. You can add or delete lines from the catalogue by means of the buttons “Add” and “Delete”. When you add a new line select the type of mosquito net from the catalogue “Mosquito nets”.

Mosquito net white
Mosquito net brown
Mosquito net white, door
Mosquito net brown, door

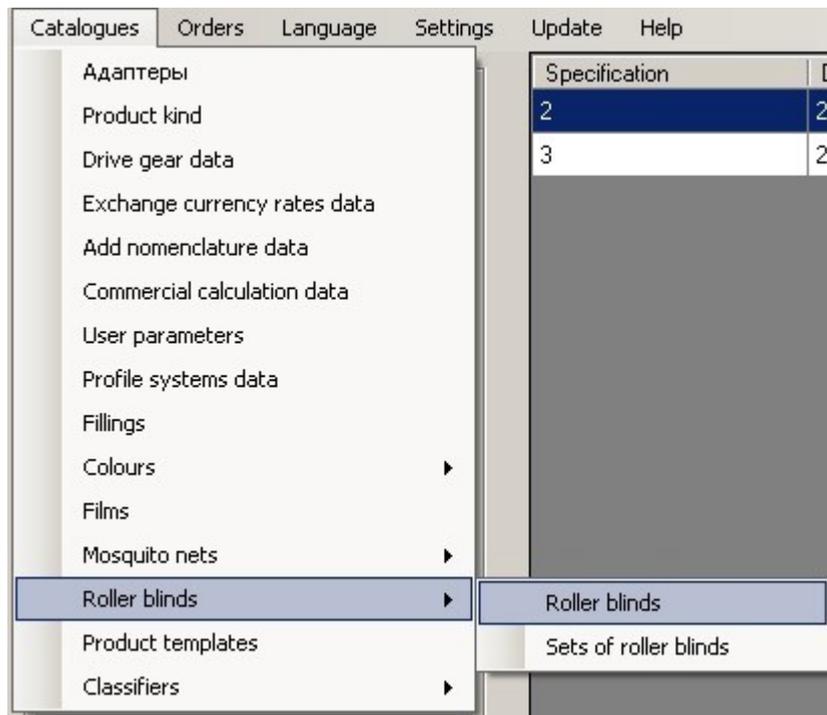
**Pic. 97: Form to select type of mosquito net**

Name and art. no of mosquito net will be entered automatically. Fill the fields “Height”, “Width” and enter price for the values of upper borders of the dimension range. This price will make sense for all dimensions starting from the smallest up to the value, entered in the current line.

If you select “piece” as the price unit in the catalogue “Mosquito nets”, the price of mosquito net of the corresponding type will be taken from the cell of having the appropriate dimension range. If you select “m2” as the price unit in the catalogue “Mosquito nets”, the price of mosquito net of the corresponding type will be calculated as multiplication of the price taken from the cell of the catalogue, having the appropriate dimension range, by the square of the real mosquito net.

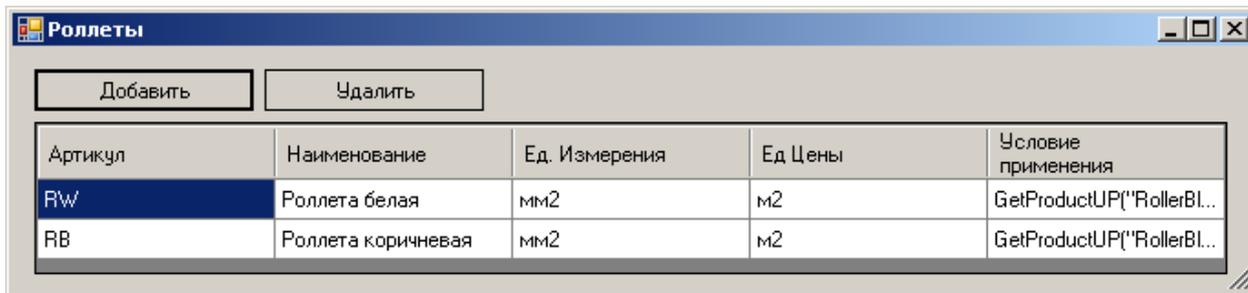
### .4.13 Catalogue “Roller blinds”

Catalogue “Roller blinds” is analogous with the catalogue “Mosquito nets”. It also differs from the rest additional nomenclature and is used to keep information about protective rollers (rolling shutters), which can be installed on window blocks. Idea of this catalogue can be explained by the following: for some profile systems it is possible to install window blocks and roller blinds together, the roller blinds are installed directly on the frame. Unlike the mosquito nets, dimensions of which depend on the dimensions of the corresponding sash, dimensions of roller blinds depend on the overall dimensions of the whole product, that’s why you should use the user variable “Roller blind” (but not the element, as in case of mosquito net) when you need to build a product, having roller blind.



**Pic. 98 Output of the catalogue “Roller blinds”**

Catalogue “Roller blinds”:



**Pic. 99 Form of the catalogue “Roller blinds”**

Select the used currency. You can add or delete lines from the catalogue by means of the buttons “Add” and “Delete”.

To enter a new item of the catalogue “Roller blinds” you also must enter the name and art. no, as well as its usage condition. The value of user variable of the element “RollerBlind”, which is to be selected from frame properties to build a product.

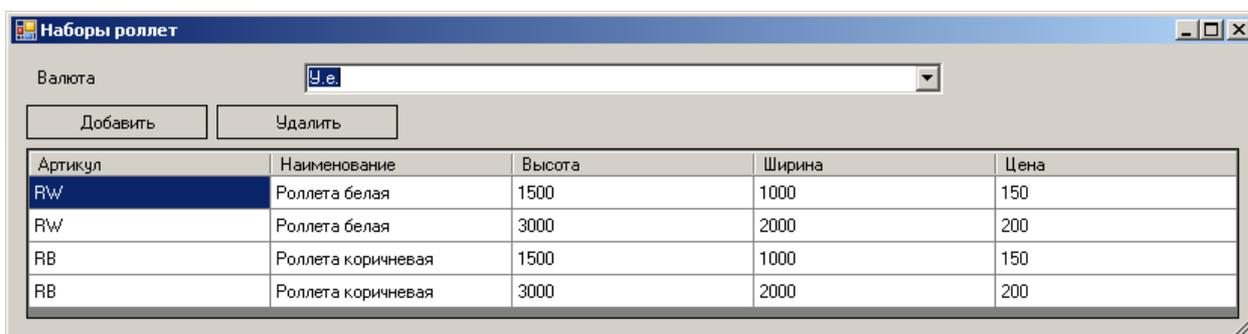
Twice click the left mouse button on the field “Price unit” and select the value from the list:

The selected unit will influence on price, selected in the catalogue “Sets of roller blinds”, when you calculate roller blinds in order.

### 4.13.1 Catalogue “Sets of roller blinds”

Catalogue “Sets of roller blinds” is used to keep information about prices of mosquito nets of the catalogue “Roller blinds”.

Catalogue “Sets of roller blinds”:



**Pic. 100: Form of the catalogue “Sets of roller blinds”**

Select the used currency. You can add or delete lines from the catalogue by means of the buttons “Add” and “Delete”. When you add a new line select the type of roller blind from the catalogue “Roller blinds”.



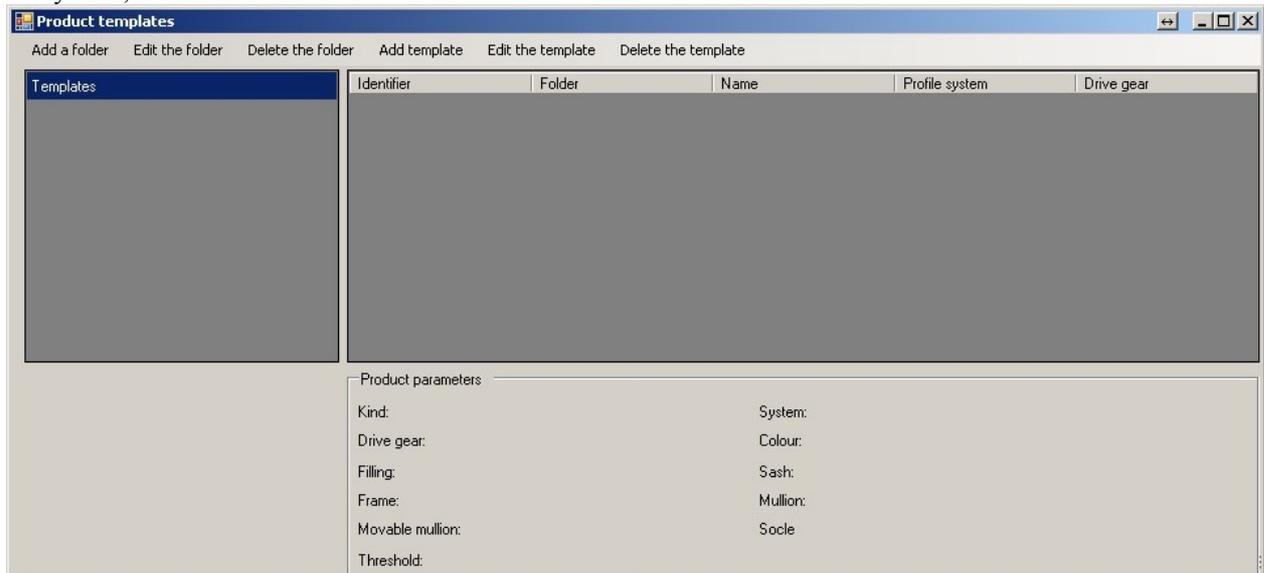
**Pic. 101: Form to select type of roller blind**

Name and art. no of mosquito net will be entered automatically. Fill the fields “Height”, “Width” and enter price for the values of upper borders of the dimension range. This price will make sense for all dimensions starting from the smallest up to the value, entered in the current line.

If you select “piece” as the price unit in the catalogue “Roller blinds”, the price of roller blind of the corresponding type will be taken from the cell of having the appropriate dimension range. If you select “m2” as the price unit in the catalogue “Roller blinds”, the price of roller blind of the corresponding type will be calculated as multiplication of the price taken from the cell of the catalogue, having the appropriate dimension range, by the square of the real roller blind.

## 4.14 Catalogue “Product templates”

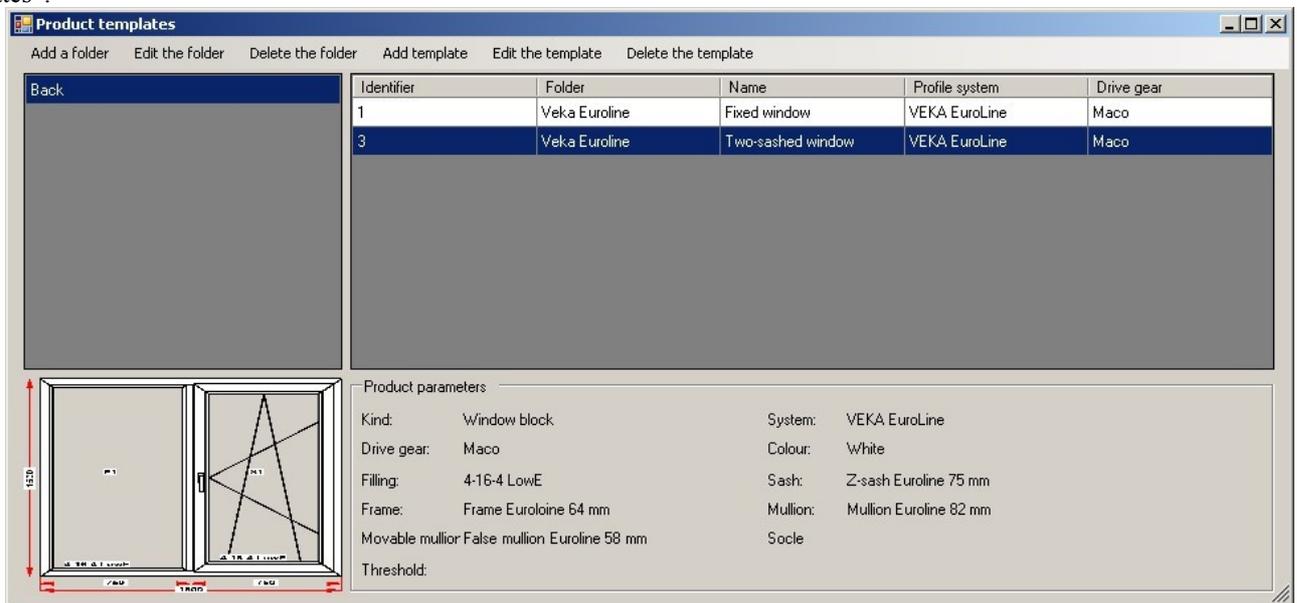
Catalogue “Product templates” is used to keep product configurations, which have been created beforehand, or which are frequently used, or which it is difficult to build.



**Pic. 102: Form of the catalogue “Product templates”**

There are folders in the left part of the form, which we can create to keep the created templates. Creation, re-naming or deletion of a folder can be performed by means of corresponding buttons of textual menu, situated in the upper part of the window. We can create, delete and edit templates in the selected folder by means of the buttons of the same textual menu. To

create a new template, click **Add template**. The window builder opens. Create the product of necessary configuration by means of the window builder. Work with the window builder is described in section “Head 2 Work with the window builder”. When you save the built product, the new template will be given in the right part of the form of the catalogue “Product templates”:

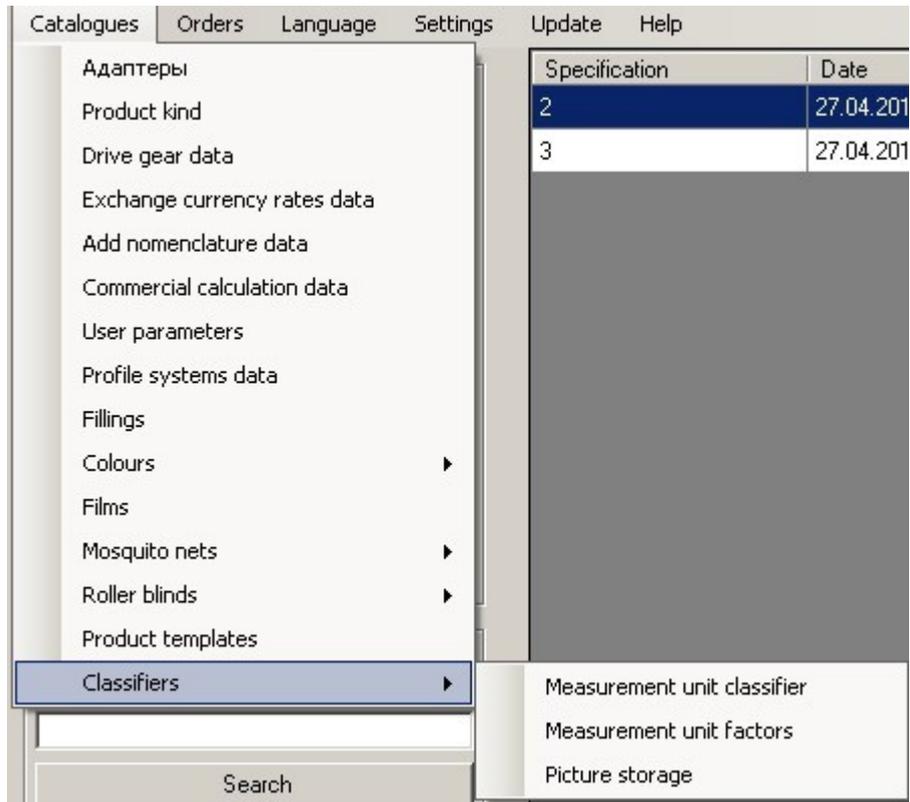


**Pic. 103: Catalogue “Product templates”. List of created templates.**

Now you can use this template, when you build new products in an order.

## 4.15 Catalogue “Classifiers”

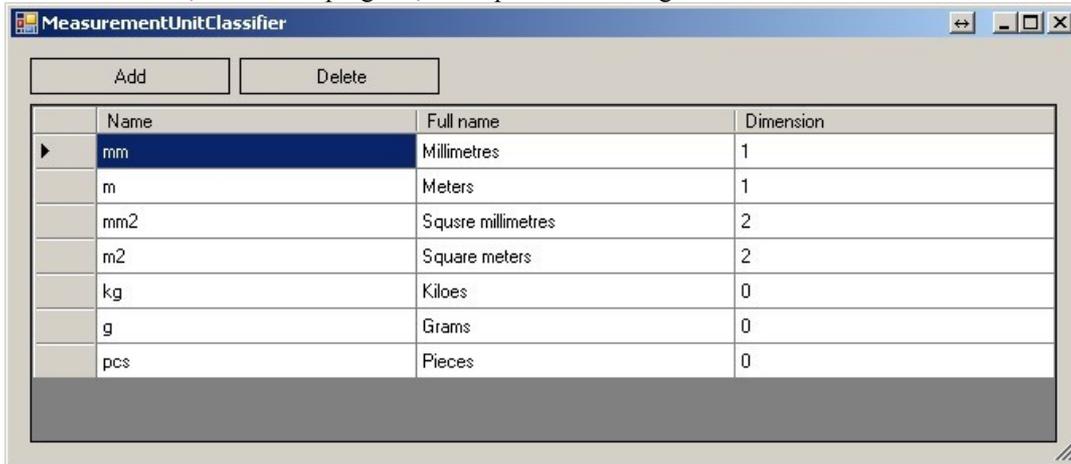
This section has several catalogues. Menu:



**Pic. 104: Output of catalogue “Classifiers”**

### **.4.15.1 Catalogue “Measurement unit classifier”**

The measurement units, used in the program, are kept in this catalogue:



**Pic. 105: Catalogue “Measurement unit classifier”**

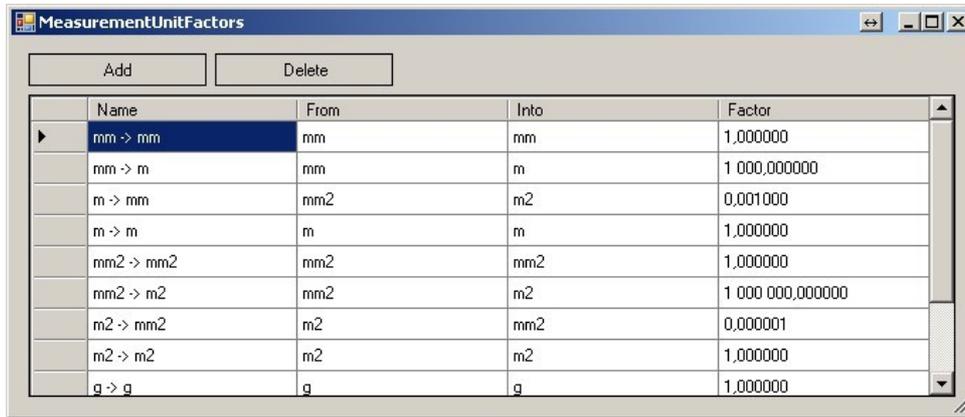
To enter a new measurement unit, click “Add” and fill the field “Name” (the short name), “Full name” and “Dimension”.

You should enter one of the codes: “0”, “1” or “2” in the field “Dimension”. Code “0” can be entered for the items, for which width and length of the nomenclature element are of no importance. Code “1” is to be entered for the items, for which only one parameter – length – makes sense in nomenclature position. Code “2” must be entered for the items, defining nomenclature positions, which have two dimensions (length and width).

To delete catalogue lines, select the line and click “Delete”.

### **.4.15.2 Catalogue “Measurement unit factors”**

This catalogue includes factors to translate one measurement unit into another:



**Pic. 106: Catalogue “Measurement unit classifier”**

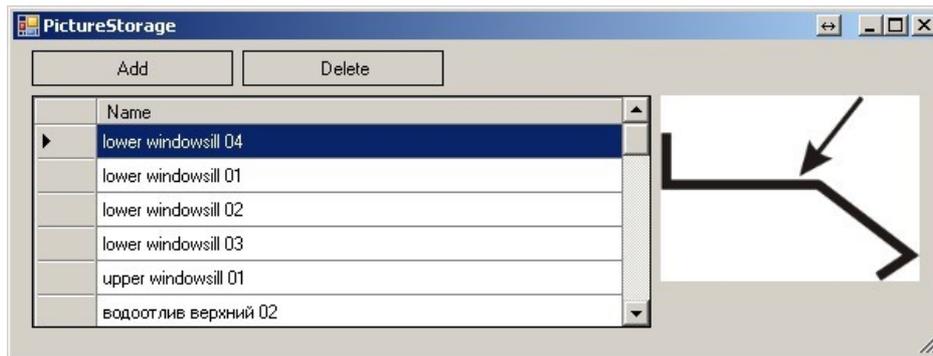
To enter a new item, click “Add” and fill the fields in the new line.

- Data field “Name”: click the explanation information for the current line;
- Data field “From”: select the unit from the measurement unit list, which you need to translate;
- Data field “Into”: select the final measurement unit, into which the measurement unit of the field “From” must be translated into;
- Data field “Factor”: enter the factor, showing how many initial units the final measurement unit includes. If you enter factors, having fractional part, you should use the symbol “.” to separate the fractional and integer parts;

To delete catalogue lines, select the line and click “Delete”.

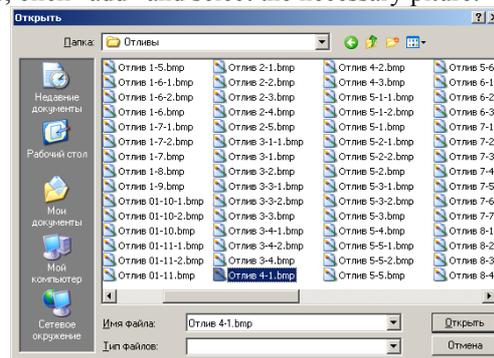
### 4.15.3 Catalogue “Picture storage”

Different graphical pictures can be stored in this catalogue, for examples drawings of windowsills. Structure of the catalogue:



**Pic. 107: Catalogue “Picture storage”**

To add a picture in the catalogue, click “add” and select the necessary picture:



**Pic. 108: Selection of file to add in catalogue “Picture storage”**

The picture will be saved in the database.

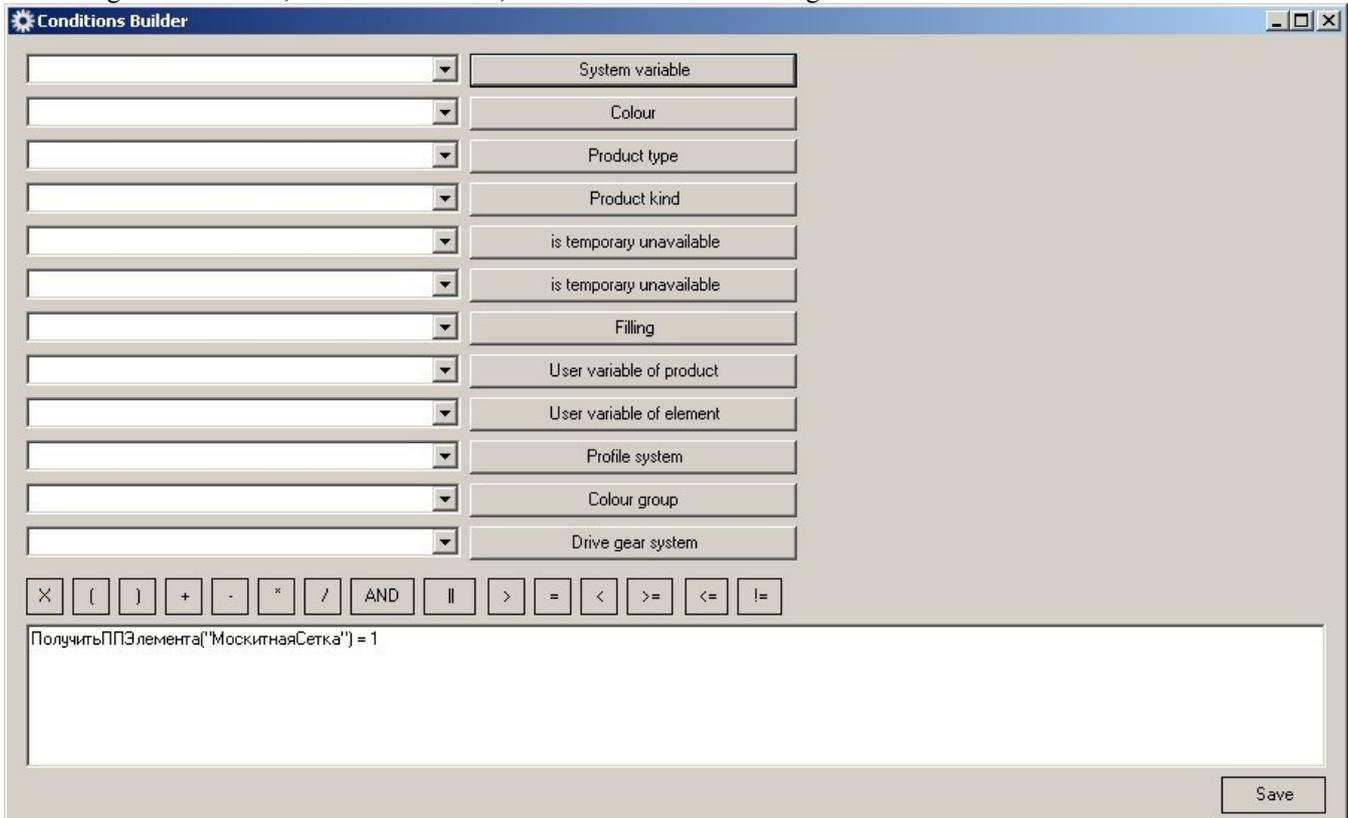
When you add the picture in the catalogue, you can enter explanation information in data field “Name”, by clicking its field with the left mouse button.

To delete the picture from the catalogue, select the line with the name of the picture to delete, and click “Delete”.

## Head 5 Work with the builder of conditions

Almost all the elements of the catalogues of the Program have the data field “Condition of using”. This data field must be filled by means of the special builder of conditions, to avoid grammatical mistakes when you input the names of system variables and user parameters.

To go in the builder, twice click the cell, where the condition of using is entered:



**Pic. 109: Builder of conditions**

### .5.1.1 Build of conditions

Setting of conditions is based on the rules of mathematical logic. As the result of checking the condition we must receive either “True” of “False”. Three types of variables are used to set conditions:

- System variables are the variables, which are the component parts of the Program. (It is impossible for the user to delete/add these variables);
- User variables of products are variables, created by Users themselves and belonging to the whole product;
- User variables of the elements of a product are variables created by Users, belonging to some elements of a product (a casement, mullion, etc.);



To support the possibility of using the program in several languages, there some limits connected with the names of variables. Names of all system variables must consist of Latin alphabet letters only.

There are 2 user variables, having predetermined names, in the program. One of them is used to check usage condition of mosquito nets; the second one is used to check usage condition of roller blinds.

Names of functions, used in used conditions to get values of product user variables and element user variables, must also be written in the Latin alphabet: “GetProductUP” and “GetElementUP”.

To input any variable in the formula, it is necessary to open the list of corresponding variables and select from it the necessary one, then click the button “Insert” to the right from the name of this variable. Below the names of variables there are windows of descriptions, which show the short the summery of the selected variable.

Names of global (system) variables must be saved in the condition line of the window builder in accordance with their name in the list (for example, “FilmCategory”). Names of product user variables must be saved in the condition line together with the names of functions, used to get values of corresponding variables (for example, “GetProductUP(“Windowsill profile”)”, “GetElementUP(“Night ventilation”)”).



Remember, that line of values of user variables must be exactly the same as in the window builder and cannot include any additional spaces.

Colour name, product type and kind, art. numbers of profiles and reinforcement must be inserted in the condition line from the dropping down list, located below the system variables. This will allow avoiding errors in writing these parameters in the Program and in the condition line.

To insert names of colours, type and kind of a product, Art. nos of profiles and reinforcement, etc. in the formula, you need to use the opening lists, situated below the system variables. It will exclude the mistakes to write these parameters in the Program and setting the condition of using.

Besides, to set the condition use the buttons, placed above the condition:



- clear the condition field;



- enter brackets;



- enter signs of algebraic operation;



- enter logical "AND". The sign "&&" stands for the logical "AND" in the condition;



- enter logical "OR". The signs "||" or "OR" stand for the logical "OR" in the condition;



- enter comparison characters: "right bracket", "equal", "left bracket", "greater than-equal sign", "less than-equal sign", "nonequality sign";

Digit quantities, used in expression, must be keyed in.



It is desirable to insert spaces before and after signs of algebraic operation, comparison characters or logical signs.

As it has already been written, user variables, besides the system variables, are also used to create usage conditions.

These variables are divided into two types just to make it easier to use them in building products. Depending on whether the particular feature belongs to the whole product (for example Pack") or to the product element (for example, sash night ventilation), the user variables will be created in the corresponding catalogue.

Figures to be used for the formula should be input by means of the keyboard.

As it has already been said, it is also necessary to use user variables to set the conditions of using besides system variables.

### .5.1.2 List of global (system) variables

Name of variable	Type of value	Description	Beschreibung
Colour	String	String expression of product colour	Stringvorlage der Produktfarbe
VerticalMullions	Number	Number of vertical mullions in product	Zeigt die Anzahl der senkrechten Pfosten des Produkts
GorizontalMullions	Number	Number of horizontal mullions in product	Zeigt die Anzahl der waagerechten Pfosten des Produkts
Threshold	Number	Availability of threshold 0 – without threshold 1 – there is a threshold	Vorhandensein der Schwelle 0 – ohne Schwelle 1 – mit der Schwelle
OuterDecor	Number	It shows whether product has or has no outer décor 0 – no 1 – yes	Zeigt ob Produkt Außendekor hat 0 – ja 1 – nein
InnerDecor	Number	It shows whether product has or has no inner décor 0 – no 1 – yes	Zeigt ob Produkt Innendekor hat 0 – ja 1 – nein
Decor	Number	Numeric expression of product decor: 0 – without decor 1 – single-sided 2 – double-sided 3 – acryl	Zahlenwert Dekor von Produkt 0 – ohne dekor 1 – einseitiger Dekor 2 – zweiseitiger Dekor 3 – Akryl

<i>FilmCategory</i>	Number	It takes the numeric value of protective film category (0 – without film)	Zahlenwert der Schützfolie (0 – ohne Schützfolie)
<i>ProductKind</i>	String	Numeric expression of product kind	Zahlenwert der Produktart
<i>ProductType</i>	String	Numeric expression of product type	Zahlenwert des Produkttyps
<i>ColourGroup</i>	String	It takes the value, which equals the name of colour group of the current product	Übernimmt den Wert gleich gesamter Name der Gruppe der Farbe des aktuelle Produkts
<i>ProfileSystem</i>	String	It takes the string value, which equals the name of profile system	Übernimmt den Wert gleich gesamter Name des Profilsystems
<i>DriveGearSystem</i>	String	It takes the string value, which equals the name of drive gear system	Übernimmt den Wert gleich gesamter Name des Beschlagsystems
<i>ArcAllowance</i>	Number	Value of allowance of arc element workpiece in mm	Wert der Zugabe von Bogenelement des Produkts
<i>NumberOfArcs</i>	Number	It reflects the number of arc elements in product	Zeigt die Anzahl der Bogenelemente des Produkts
<i>ProfileArtNo</i>	String	String expression of profile art. no	Stringvorlage des Profilartikels
<i>SideCode</i>	Number	It takes values, which equal the codes of side stretch for frame and sash profiles. 2 - upper; 4 - lower; 8 - left; 10 – upper left; 12 – lower left; 16 - right; 18 – upper right; 20 – lower right. It is used to calculate reinforcement.	Übernimmt den Wert gleich gesamter Kode der Abschnittseite für Rahmen- und Flügelprofil. 2 - ober; 4 - unten; 8 - links; 10 – ober linke; 12 – unten linke; 16 - rechts; 18 – ober rechte; 20 – unten rechte. Es wird bei der Berechnung der Verstärkung und dem Umweg von der Balken des Rahmens und des Flügels verwendet.
<i>FrameHeight</i>	Number	Frame height of product (mm)	Höhe des Produktrahmens (mm)
<i>FrameWidth</i>	Number	Frame width of product (mm)	Breite des Produktrahmens (mm)
<i>FramePerimeter</i>	Number	Frame perimeter (mm)	Umfang des Rahmens (mm)
<i>FillingDepth</i>	Number	It takes value, which equals the depth (mm) of filling for the current element (0 – without filling)	Übernimmt den Wert gleich gesamter Füllung (mm) des aktuelle Elements (0 – ohne Füllung)
<i>Filling Square</i>	Number	Filling square of element (m <sup>2</sup> )	Füllungsfläche des Elements (m <sup>2</sup> )
<i>Filling</i>	String	String name of filling name	Stringname der Füllungenamen
<i>SashHeight</i>	Name	Rebate height of the sash to be processed (mm)	
<i>SashWidth</i>	Name	Rebate width of the sash to be processed (mm)	
<i>TypeOfOpening</i>	Number	Type of sash opening in numeric expression only: 0 – Non-determined 1 – Fixed 2 – Tilt 3 – Turn 4 – Tilt-turn 5 – Movable mullion turn 6 – Turn without movable mullion 7 – TT without movable mullion 8 – Turn door with movable mullion 9 – Turn door without movable mullion 10 – Turn door	