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Opera JOB MANAGEMENT 3.0 - Complete manual

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Manual

Guide to contents and program use

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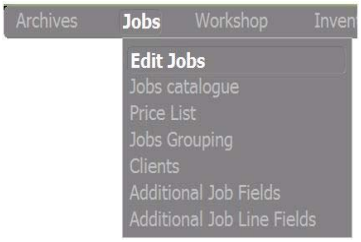
Interface

This section is of fundamental importance to understand the use of this program. *Interface* means the method of inserting and receiving information from the computer.

After starting the program you will see the menu bar in the upper part of the screen which contains the list of work areas, we will call these *program screens*.

To select with the mouse you need to point and click on the item. To select with the keyboard you need to use arrow keys ← → and press Enter. This will open a list of items.



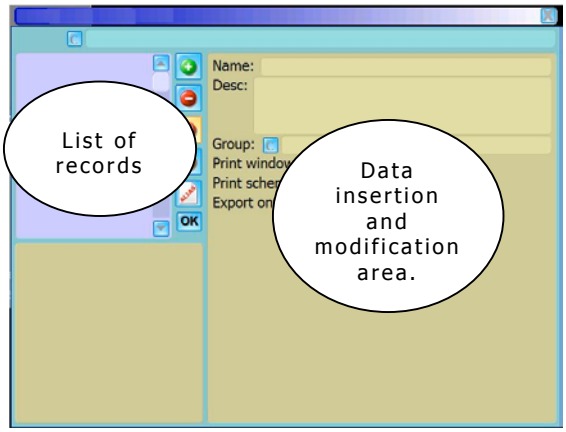
To select with the mouse you need to point and click on the item. To select with the keyboard you need to use arrow keys ← → and press Enter. This will open a program screen corresponding to that item. A program screen is always rectangular and titled.

Work area

You can close a program screen using two methods: use the mouse to click on OK or press Invio to confirm or click on Cancel, or press Esc to exit the program screen.

Program screen for data storage

A large quantity of Opera JOB MANAGEMENT's program screens are made up of some elements that allows you to insert and modify records.



These are called *program screens for data storage*. The data storage buttons (as seen above) are described as follows:

New recording. This button is used to start a new recording., ex. A new profile, a new handle or a new window.

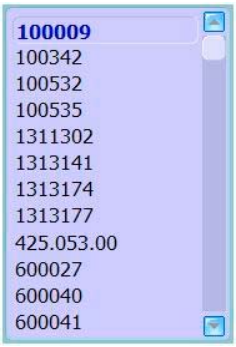
Deleting. This button is used to delete a recording from the archive.

Modify. This button is used to modify a recording, ex. to modify profile overlap values or price modification of an accessory.

Copy. This button is used to copy a recording. It is useful if you want to add a new recording similar to an already existing recording in the archive.

Archive data search

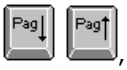
The archive data search of a list can be done in different ways depending on your needs.



List of records

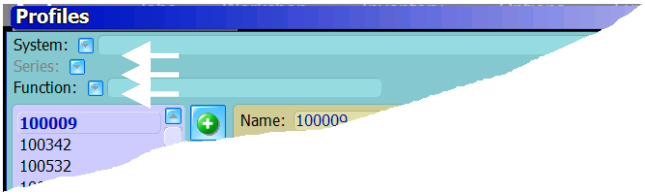
Typing in the first letters or numbers of the code
A quick search method is to type in the first letters or numbers of the code: the program will automatically find the code with the letters or number you have typed in, an acoustic signal will tell you if this code does not exist, otherwise the code will be underlined if the search is successful.
For example you want to find code A123B456C: if you type letter A the program will go straight to the first code that begins with A; if you add the number 1 the program will go straight to the first code that begins with A1; if you also add the number 2 the program will go straight to the first code that begins with A12; and so forth until you have found the code you need. If you make a typing mistake, for example pressing 3 instead of 2 you can cancel by pressing the backspace key .

Skipping recordings

By using the page down and page up keys 

, you can skip recordings to quickly find the code you need.

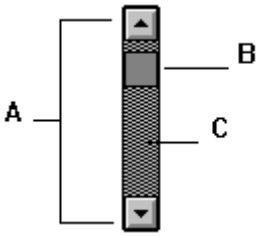
Using the preselection fields
In some program screens you can ask the program to list only those recordings that belong to a certain category. Below the program screen title you will find one or more preselection fields to set your criteria search.



For example, if you are in the profile archive and you want to find a list of profiles belonging to a specific system, you can click on the **System** field and select what you need. The program will show you only the profiles belonging to that specific system. Then you can click on the **Series** field and select what you need: the program will show you only the profiles belonging to that specific Series, and so forth.

Scrolling bars

The scrolling bars, on the side of the lists or program screens, as shown below, are used to show you the items that are not visible on the program screen.



They are made up of a shaded area (C) that shows you the amount of information contained in each list, the scrolling buttons (A) on the top and the bottom of the scrolling bar are used to scroll up or down the contained information, and the indicator (B) moves up or down depending on where you are in the area.

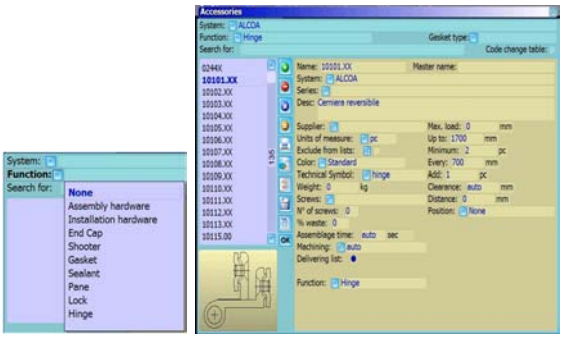
Fields with buttons

Some fields are provided with buttons that are placed next to the name.
Alcune caselle sono dotate di un pulsante posto affianco al nome.

Two examples are shown above.

Clicking on this button or pressing the Page down key

the program will open a program screen from which you can use the information you need.



Above are 2 examples of program screens. The example on the left can also be called *scroll list*.

Yes or No fields

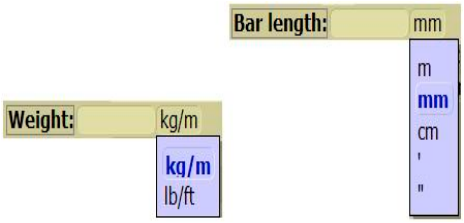
These fields are made up of a brief description followed by a small circle.

On the inside of this circle you can place a black dot to confirm the operation.

The black dot can be placed by either clicking on the circle or by using the space bar.

Fields for unit of measurement

Next to some fields you will find another field that shows the units of measurement. To open these fields click on the inside: a list will scroll down from which you can choose the unit of measurement you need.



Shown above are 2 examples of units of measurement

Space bar

An interesting function, is that one which allow either to activate and deactivate profiles in the archive, using the space bar in the keyboards (indicated by the arrow). Selecting the profile and pressing the space bar, it will be turned off, which still will be part of the archive, but it'll be avoided by the programm in the phase of research during the modification of a window. This functions can be applied even in the Archive of Acessories and Archive of Window type as well, and its very useful for the users who want have displayed in the lists only the used materials.

The calculator

The program contains a calculator that can be used at any moment by pressing the

key.

The display

The display works exactly like a normal table top calculator showing numbers and results. The buttons work the same way.

Results

In this area your calculations are shown by pointing and clicking on a figure or calculation it will be automatically transferred to the display box to continue your calculations.

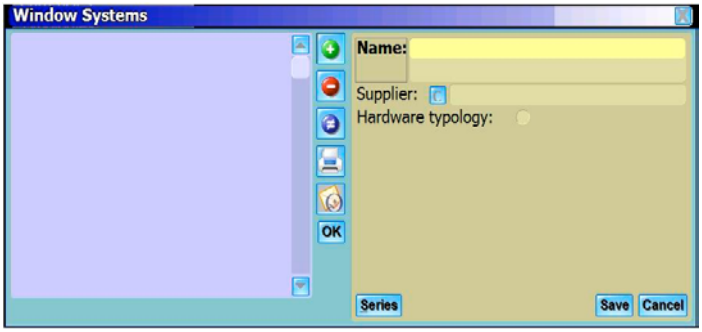
Section 1

The Archive menu

The following chapters out line the contents of the archive menu and how it works.

Systems archive

This archive is used to insert or modify profiles or accessory brands.



For example, if you have to record a new type of profile or accessory first you need to put in the brand name of these items in to the systems archive and the names of all series belonging to that brand name.

Contents description

Name
The name or brand name of the system, as seen in the catalogue.

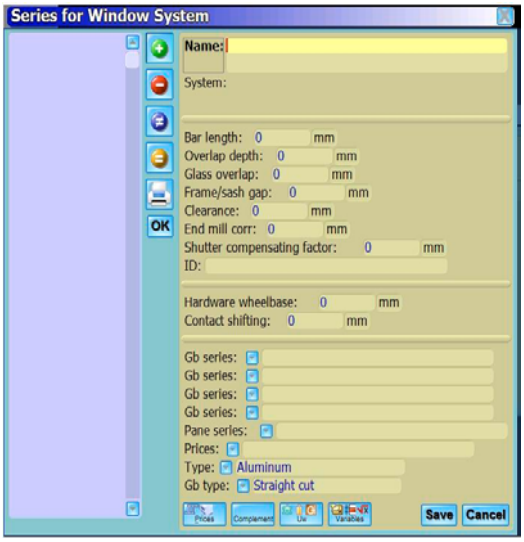
Supplier
The name of the supplier.

Program can automatically place the supplier's name on material order forms.

Hardware typology
It specify the structures of this system are worth for all the series of the system itself.

The button Series
This button is used to open the series archive.

Most of the systems, especially profile systems, are subdivided into various series according to usage, gasket type, etc… therefore it is necessary that brand names, some general data and the price per kilo of the series relative to the system are shown in the system archive.

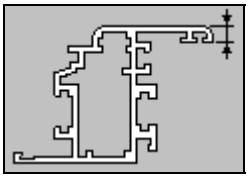


Contents description of the series archive

Name
This is the name of the series

Bar length
This is the bar length of the profiles of this series.

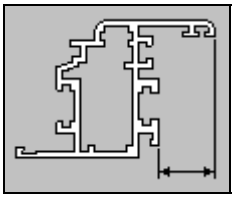
Glass overlap width
This is the glass overlap width of the profiles belonging to this series.



Example of the glass overlap width

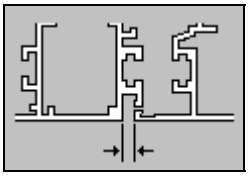
Glass overlap

This is the glass overlap height of the profiles belonging to this series.



Example of the glass overlap height

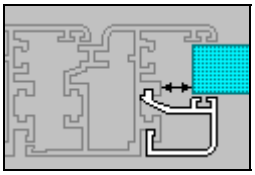
Frame-Sash gap
This is the gap value between the fixed frame and the sash frame.



Example of the gap value between frame and sash.

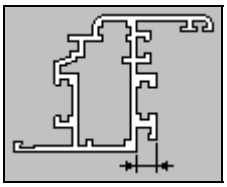
The gap value between the frame and the sash is taken into consideration for the cutting calculation of the Astragal.

Clearance
This is the value relative to the distance between the encumbrance profile and the glass.



Example of the clearance

End mill. corr. (End milling correction value)
This is the height of the end milling correction value.



Example of the end milling correction value

The e.m.c. value is considered during the cutting calculation of the transoms, sills, etc. and for the cutting calculation of all the profiles that have to be milled. The program increases the cutting measurement of the profile that has to be milled with the value relative to the height of the e.m.c. to where it has to be connected.

Shutter compensating factor
It is corrector for the shutter compensation value.

ID
The function of this box is related to the advanced step *Machinings*. The purpose is to combine an ID code who identify the series. There are some

workcenters who needs to have a series' ID within the electronic file developed by Opera, so that is possible to recognize the profiles on which carry out the machining.

Hardware wheelbase.
This box is linked to that *Exclude from* list box who is in the *Archive of Accessories*. When a substitution code list is created, choosing the Wheelbase criterion is necessary to establish the value that has to coincide with the value in this box, to allow the programm to charge in the windows the items combined to the wheelbase. Further explanation in this section, on the Archive of Accessories chapter.

Contact shifting
In this field is possible to set the axis value of the hardware striker, standard for all profiles of the series. This value is calculated by the program through the variable *Sr*, which reading this field apply the value on the expression combined with the machining causing the machining position.

Gb series (Glazing bead series)
This is the name of the glazing bead series that have to be assembled on the window types of this series.

During the window pane planning stage the program can carry out an automatic research for the kind of glazing bead to assemble depending on the window pane selection. This glazing bead can be found inside the specific series of the Gb series button.

Pane series
This is the name of the series that has to be considered during the assigning of the pane kit.

Opera allows you to create in a suitable archive a kit containing everything necessary for the assembly of a window pane (or other types of window panes). In a single procedure you can assign to the window type not only the glass or the panel but everything necessary for the assembly (eg. Screws, silicone, gaskets, glazing beads, etc..). The operating directions of this archive is explained in the Panes archive of this chapter.

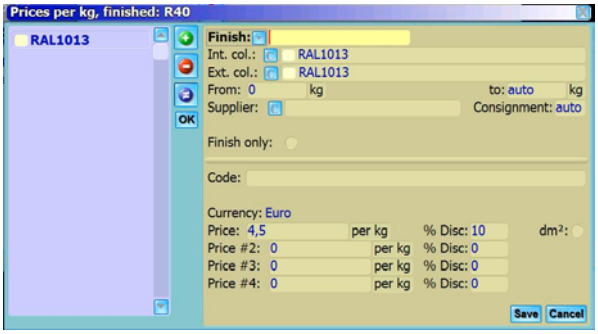
Prices
This is the name of the series from where you can adopt the prices.

Should two or more ranges have the same price, it is best to assign the price list to only one of the them, and to indicate the name of the range against which the price can be found, in this box.

Type
This shows the type of material the profiles are made of (Aluminium, Wood,…)

The button

This button is used to open the archive to add or modify the prices per kilo, finished.



Contents description

Finish
This is the type of finish.

> The term *finish* is used to indicate the technique used to colour the aluminium. Where the price for the range is based on the finish, without any distinction in terms of colour – for example, Painting, Anodising, Electro-colouring, etc. the price must be labelled *"by finish",* you must therefore highlight the finishes item and key the price in, in the **Price** box.
>
> If the price varies on the basis of colour, even where the items have the same finish – such as Painted White, Painted Red, Painted Green, Anodised Silver, Anodised Bronze, etc. the **Finish** box must be left blank and the price must be marked *"by colour",* and you must then go to the **Col. int./Col. ext.** box and set the actual colour.

Int. col./Ext.col. (Internal colour/External colour)
These are the fields that have the colour according to the price.

From, to
This indicates the minimum and maximum quantity that can be purchased at the price indicated below.

> This allows you to handle cases where the supplier offers a better price when larger quantities are purchased. When working with the job, the program will automatically select the best price on the basis of the quantity needed to produce the job – but this will only be done when the Discounts button is activated.
>
> An explanation of the Discounts button is given in **Section 2,** in the paragraph entitled: **The**
>
> **button**.

Supplier
This is the supplier from whom the materials are bought at the price indicated below.

This allows various suppliers to be assigned different purchase prices. When working with the job, you can select the supplier you want to use from the *Job Materials* field, which will also allow you to change the purchase price.

See the explanation for the Inventory status button in **Section 2,** under the paragraph entitled: **The button**. Parts

Consignment
This is the time the supplier normally takes to deliver the materials you have ordered.

Finish Only
This tells the program that the price below is the price for the specified finish.

This is not a finished price therefore. To obtain the complete purchase price also specify the rough state price. In this way, when working with the job, when calculating the cost of the profile, the program will add the rough price and the price for the finish.

Price
This is the purchase price according to the unit of measurement (excluding VAT).

Price #2, **Price #3**, **Price #4**
These are other purchase prices according to the unit of measurement (excluding VAT).

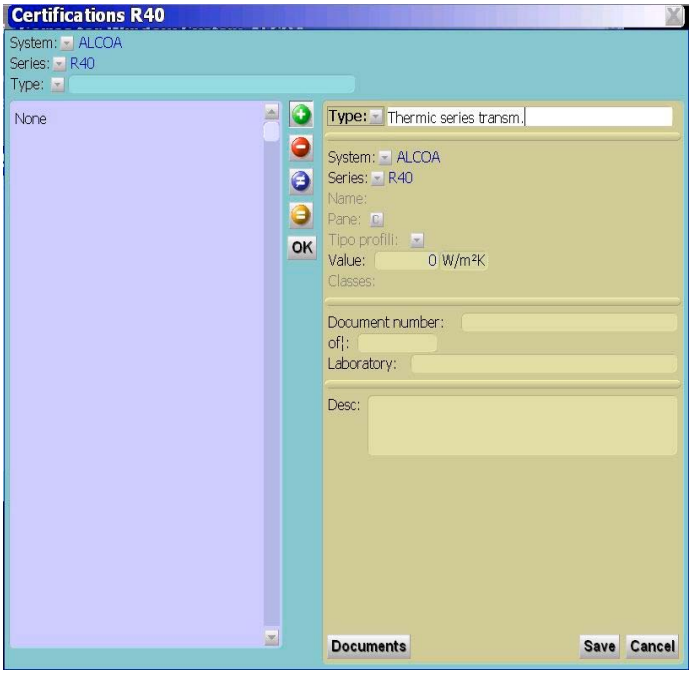
% Disc. (Discount)
This is the discount percentage given by the supplier.

For more information on applying discounts, see the explanation of the Discounts button in **Section 2,** in the paragraph entitled: The button. Parts

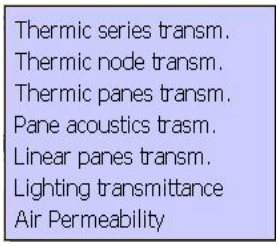
dm^2. (square decimetre)
When this box is checked the price can be calculated for painted surfaces. The colouring price for surfaces must be indicated in the file (see: Colour File, later on in this section.)

The button

This button open the screen to set the values to calculate the window's *Thermic transmittance*:



Type
The combined button open a list from which the user draws the type of classification of the thermic coefficient:



System / Series
These are the field whom identify the belonging system and series.

Name
It is the name to associate with the setting record of the coefficient. This file works only for the setting transmittance of the single node or junction.

Pane
The button is linked with the *Accessories selection* from which the user draws the type of pane, when the editing transmittance coeffincient is about the following parameters: *Thermic pane trasm., Linear pane trasm., Lighting trasm.*

Profile type
It open a list to draw the type of material of the extrusion.

Value
Here is where the trasmittance value has to be written.

Classes
In this must be reported the belonging class of the certification, released by the laboratory who has carried out the proof. Compulsory for the *Air permeability*

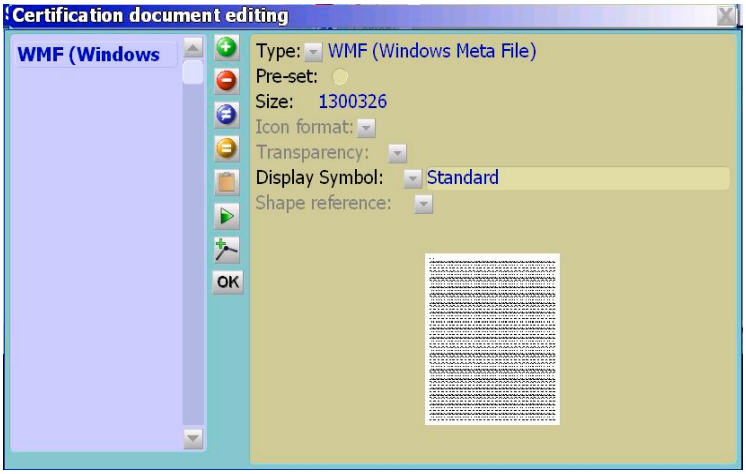
Document number
It is the document number who certify the laboratory proof.

Of:
It is the document date who state the when the proof has been made.

Laboratory
It is the name of the laboratory whom carried out the certification.

Description
To the print out of the *Energetic certification* is possible to attach the documents that certify the coefficient of the classification. In this field is possible to describe that document.

The button Documents
This button open the screen of the *Documents' certification*

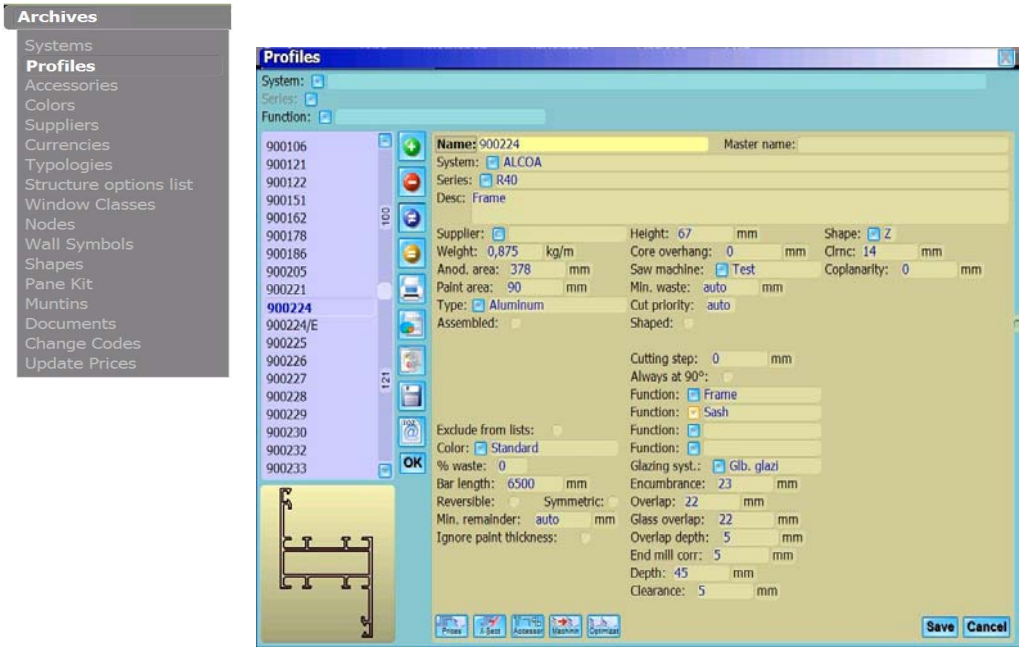


In this screen is possible to load as a picture format, the document which being printed as attachment of the *Certification*. The picture loading in this screen are the same used for example to load sections and picture in the acchives of profiles (See ahead in this Manual)

The button

The variable function allows the user to set formulas of calculation upon the structures using either values already existing in the program or creating new ones. The button open the *Structure formula definition*. The functioning of this page is described in the button *Data* within the *Windows type's* chapter.

The Profiles archive



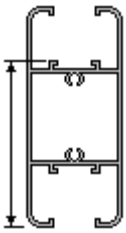
The Archive of profiles is a of database of paramount importance, on it the profiles are registered along with their technical data (height, encumbrance, thickness). These data are used by the program in order to output the cutting list, the cut optimization, to calculate prices, and the required quantity.

Description of Profiles archive contents

Name
The profile code given by the manufacturer or supplier.

Master name
The profile code to be referred to.

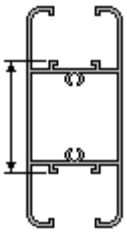
A typical example for which it is necessary to use the *Father's name* is when a marine glazing *sash sill* profile can also be used as *transom*. In this case, their dimensions (encumbrance) will change when their use is modified. If we look at the following pictures we can see that the profile in *Picture 1*, called 9963 in this example and usually used as a sash sill, has a smaller encumbrance if used as transom, *Picture 2*.



Code 9963

Picture 1.

If used as a sash sill, the dimensions (encumbrance) also include the bottom overlaps.



Code 9963-T

Picture 2.

If used as a transom, the dimensions do not include the bottom overlaps and are therefore smaller.

This is necessary for loading a new profile that we will call k390**-T**. This will be an exact copy of the other, excepting for changes to the type of use and chamber values Encumbrance: 28. It would be useful to enter **k290M** against Master name: K390M (Master Name) so that 9963 is used for the order to the supplier, in cutting lists, in optimisation lists, etc., rather than the 9963-T, which is only a fictitious profile.

System
Indicates the name of the system the profile belongs to.

Series
Indicates the name of the series the profiles belongs to.

If the profile purchase price relates to the range to which the item belongs (for example frame NC2175 costs the same per kg as the NC45 International range), linking the range to the profile is fundamentally important for calculating the cost. In this case, if the name of the range is not indicated against the profile, it will not be possible to calculate the cost.

Description
The text describing the characteristics of the profile.

Supplier
Indicates the name of the profile supplier. For additional information please see the paragraph entitled **Description of Systems archive contents** in the **Systems archive** chapter in this section.

Weight
The weight of the profile is indicated per metre length.

Anod area / Paint area
The here written values determine the profile's quantity of anodized and painted area per mm.

Type
This is a basic description indicating the type of material used to make the profile.

> The only description item that influences the profile's technical data is the **PVC** item. This causes the Assembly Dimension: box to appear, where the quantity of the profile consumed during welding is indicated. This value makes it possible to produce an accurate cutting list.

Assembled
Informs the program that is an assembled profile.

> **The Assembled profiles.** These are profiles made up of different bars, often of different materials, that when combined together form the assembled functional profile (or assembled profile). This is the case, for example, of the aluminium-wood profiles that are usually made up assembling different bars: an aluminium bar, a plastic bar and a wood bar; or in the case of bicolour profiles when there are two aluminium bars with different colours. Opera, being aware of the problems relative to the cost calculations, allows the calculation of the assembled profile cost in addition to the calculation of the cost of each single component, even if they have different measurement units amongst them. In case of bicolour profiles, it calculates the cost of the internal and external colours. The programme can output, in the materials list, the assembled profile code or the codes of the profiles that make it up.

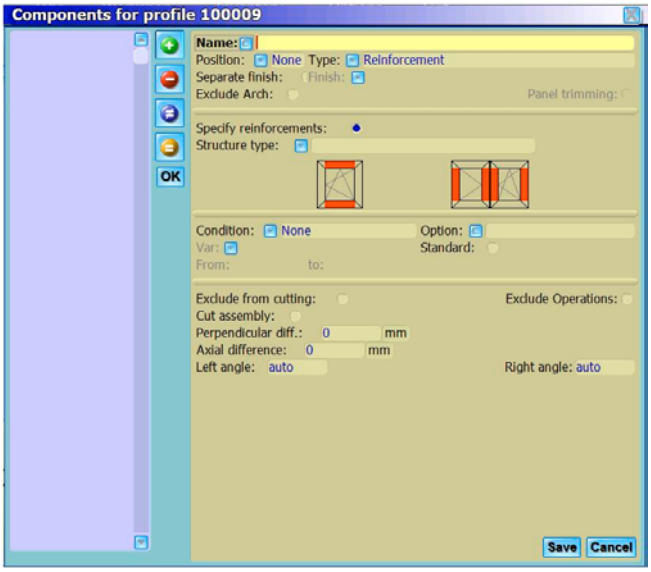
When the **Compound** box is activated, it causes the four boxes explained below to appear.

List of components
Informs the program that the profile component codes must be displayed in the materials lists.

Components cutting
Informs the program that the cut values of each component must be displayed in the cut lists.

It also enables the

button, used to open the screen, to add or modify the profile components.



Description of Profile components screen contents

Name
Indicates the name of the component profile.

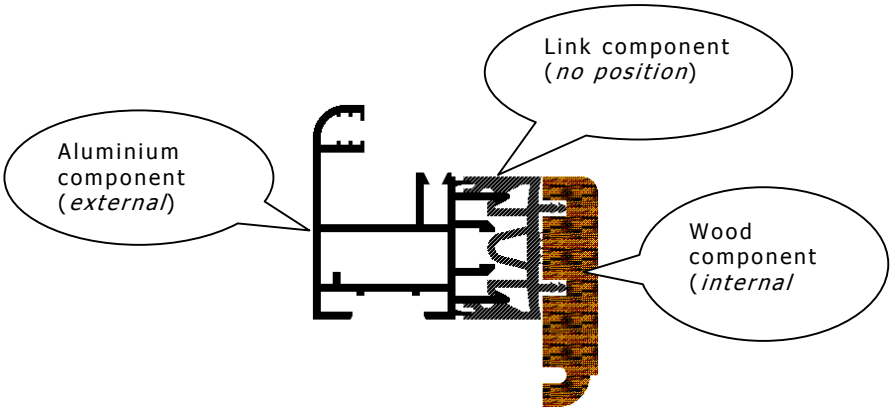
Position
Shows the position that the component profile has on the assembled profile and is used to assign the colours. It indicates four possible items.

None
Choose this item and the profile will be considered raw, therefore the cost calculation will be based on the raw price (usually used for reinforcements inside the profile or for the thermic cut bars in PVC).

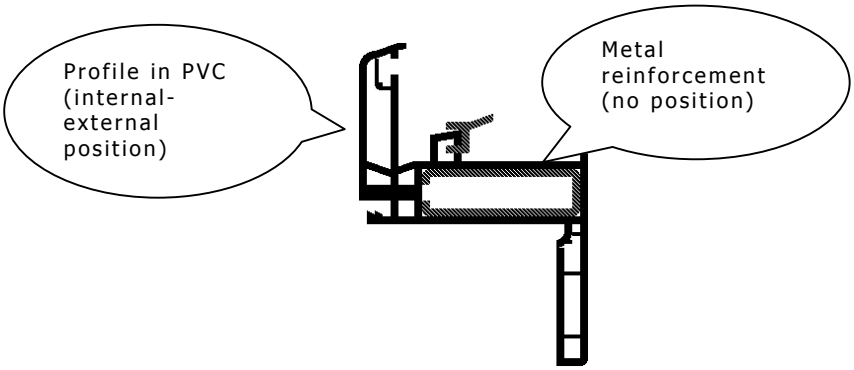
Internal
Choose this item and the cost calculation will be based on the price of the internal colours of the typology (usually used for wood component or the internal component of the thermic cut).

External
Choose this item and the cost calculation will be based on the price of the external colours of the typology (usually used for the aluminium component in the aluminium-wood profiles or the external component of the thermic cut).

Int.-Est.
Choose this item and the cost calculation will also consider the possible bicolour set out on the typology in the order (typical of the profile in PVC).



Example of an assembled aluminium-wood profile



Example of profile in PVC with reinforcement

The boxes explained hereafter are enabled only if the **Components cutting** box already outlined had been checked.

Type
The button of this box open a list, from which the user, determine the function that the component has within the assembled profile. This box is used mostly by users who use *Opera Machining*, when is necessary to carry out the operation only in the profile whom coincide with the parameters established in this box.

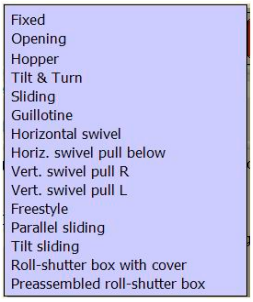
Separate finish
Enabling this field the program consider the color finish type of the external color to use the component.

Finish
Straight linked with the previous *Separate finish* this open a list of finish to which the colors are associated to activate the component separation.

Exclude arches
Tells the program to exclude the component if the profile is arched.

Specify reinforcements
Selecting this box being activate the function who permit to determine, in which side of the window the reinforcement has to be settled. This function it's very useful, when although inserting the same profile in each side of the windows, the reinforcement is needed only in one or some sides. Afterward in the technical prints there will be the quantity only for the side where it has been inserted.

Structure type



From the combined list it's possible to specify the structure type on which the previous function has to work.

Condition
This box allows you to set the conditions for entering a component, as it may only be necessary to apply a component under certain conditions. If *Interval* is set, the program will activate the boxes for setting the variables, and the values relating to entering parameters, for example:

Option
The button open the link with the options selection. When the option has been associated it determine the way the component being loaded in the structure. In this regard is useful to read the section dedicated to the *Option list for typologies* ahead in this Manual.

Standard
This function make the program consider as *standard choise* the loading option of the component. It is useful in case there are different components to be loaded according the option type.

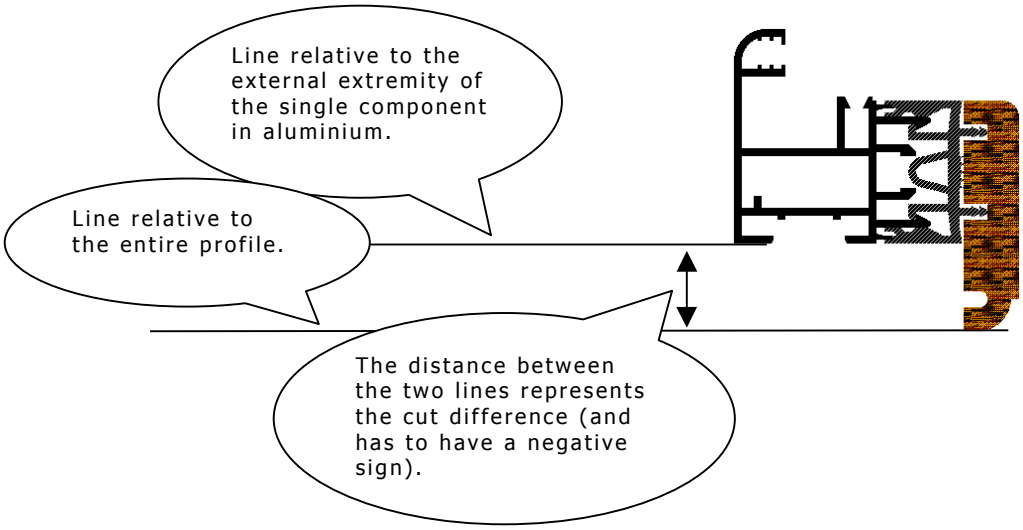
Exclude from cutting
Informs the program that the profile component has to be excluded from the cut list.

A component can be left out from a cut when it has to be cut being already assembled to another component.

Compound Cut
Tells the program that the component must be included in the compound profile cutting list.

One example of where "Compound Cut is used, is where the component must be cut with a compound profile.

Perpendicular diff. (or Cut difference)
The value that is deducted from the cut dimension of the assembled profile to obtain the component cut dimension, only if the assembled profile is cut at 45°.
The value has to have a negative sign (ex.: –25).



Axial difference (or Fix difference)
The value that is added to the cut dimension of the assembled profile to obtain the cut dimension of the component.

This value can be used to calculate the cut dimension of the steel reinforcement of a profile in PVC, that usually needs to be cut shorter. For example, if a value of -150 is input, the steel reinforcement will be cut 150mm shorter than the profile in PVC.

Left angle and **Right angle**
The value used to determine the cut corners of the component profile whenever they are different from the corners of the assembled profile. The

default value auto sets the component cuts equal to the ones of the assembled profiles.

Screws
This is the code for the screws to be used when working with this profile.

This function arose to allow assembly screws to be assigned to profiles that need reinforcing, such as PVC profiles.

Screw thread
This is the average spacing between one screw and another.

The program will calculate the number of screws required automatically.

Exclude from lists (or Exclude from print-outs)
Informs the program that the profile has to be excluded from any print-out (cut list, optimised cut, supplier order, etc...).

This technique can be used when the profile has the function of false profile with the sole purpose of creating an encumbrance in the typology. In this case, it should not appear in any print-out. Being in fact a fictitious profile, it is therefore necessary to check this box.

Colour. (colouring)
This determines the colour the profile must take for the particular job. Nine options are provided, as explained below.

The "Type General Data" panel appears as soon as a new type is entered for a job. The colour indication boxes can be seen.

Normal
Indicates that the profile is to take the colour assigned to the job, with a distinction being made between the internal and external colour.

If one colour has been set for the inside on the job, and another for the outside, the profile will be considered, two-coloured.

Internal
Indicates that the profile is to take on the job's internal colouring.

External
Indicates that the profile is to take on the job's external colour.

Accessories
Indicates that the profile is to take on the colour assigned to the accessories.

Roller Shutter
Indicates that the profile is to take on the colouring assigned to the roller shutter.

Filling
Indicates that the profile is to take on the colour assigned to the filling.

Locks
Indicates that the profile is to take on the colour assigned to the locks.

Hinges
Indicates that the profile is to take on the colour assigned to the hinges.

Hardware
Indicates that the profile is to take on the colour assigned to the ironmongery.
Wall support
The profiles takes the color assigned to the wall support.

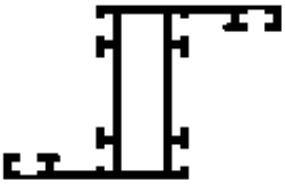
Sash. Int. / Ext color
The profiles takes the color according the internal or external sash color

Glazin bead
The profiles takes the color assigned to the glazing bead

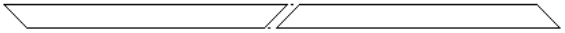
Bar length
The length of the entire bar.

Reversible
Informs the program whether the profile is reversible or not.

The reversibility property of a profile, valid for the Z profiles, is when the profile can be used in the same way even if turned upside down. This property will be used by the program when calculating the optimised cut, avoiding the unnecessary wastage pieces.



Example of a reversible profile



Example of an optimised bar with reversible profile

Example of an optimised bar with a NON - reversible profile

Symmetric
When activated this function ,makes the profile symmetric in comparison with either the external and the internal surface.

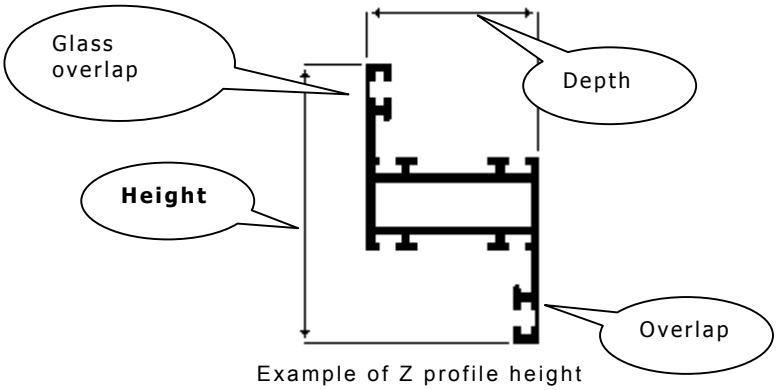
Min. remainder
The value of the minimum reusable piece. The specification indicates that the profile will use the value set in the parameters relative to the cut; please see the **Cut** paragraph in the **Options** chapter.

Ignore col. thk. (ignore colour thickness)
Tells the program not to include the thicknesses of finishes in calculating cutting lists.

The thickness of the finish is indicated in the colouring data in the Colouring File.

Height
This is the height of the profile measured perpendicular to its depth.

In the case of fixed frames, moving frames, and T beams, the sum of the clear space + glazing rebate + rebate is given.



Example of Z profile height

Saw
Indicates the name of the saw usually used to cut the profile.

Min. waste
The minimum waste value for this profile; please see the **Cut** paragraph in the **Options** chapter.

Cut order
The position value that the profile will have in the cut print-out.

In the cut print-outs, the profiles are usually listed in alphabetical order according to the code. **Cut order** is necessary to set out a different sorting that will be based on the number shown in this box: the profile having the lower code will be printed first. For example, if we have profile 9963 with Cut order: 20 and profile 9982 with Cut order: 10, the profile printed out first will be 9982.

Assembling dimension
In this box which is active only with PVC material, being determined the welding dimension of the profile whom is added to the cutting measure.

Cut step
This is the rounding off value for cutting profiles.

This function is particularly useful when cutting reinforcing for PVC profiles. If a step of "50 mm" is set for example, this will avoid the inclusion of decimal values on the cutting list. It will allow the program to include all cuts that fall within the step value set beforehand. It is also important to note that this function always rounds off "downwards".

Always at 90°
When activated this function compel the program to cut the profile always in 90 degree

Function
Shows the profile's function.

According to the default use, a few boxes will appear that will show the technical data of the profile. The program will take this data into consideration for the cut calculations.

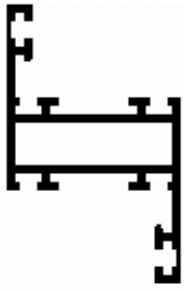
The explanation of the required technical data is given in Appendix I, "Technical data of the profiles based on their function".

Glazing system (or Glazing bead system)
This box shows the glass assembly system. One of the following three options may be set :

None
Indicates that the profile is not preset for the application of a pane.

The **None** value in the **Glazing bead system** field is usually used when a frame filler positioned inside the panelling is not preset to accept panes so to instruct the program that it has to use the pane data contained in the frame and not in the above mentioned frame filler.

Glazing bead glazing
When the profile requires the installation of a glazing bead to fix the pane.



Example of profile with "*glazing bead*"

Wedge glazing
Used when the glazing system allows the installation of the glass after the frame has been fitted (as for the glazing bead) and uses a gasket afterwards to mechanically fix the glass.

Marine glazing
When the profile is supplied with overlaps to block the glass and therefore does not require a glazing bead.

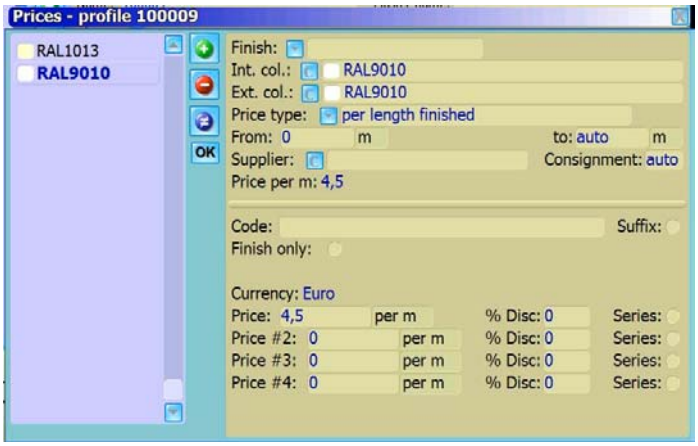
Example of profile with "*marine glazing*" glazing bead system

Assigning profile prices

The button

is necessary to open the archive to add or modify the profile prices.

In case of purchases per Kilo, the profile price will usually be determined by the price of the series it belongs to. Therefore, a price is usually not applied to the profile but rather to the series it belongs to. Please see the **Systems** chapter in this section as well.



Finish
Shows the type of finishing the price refers to.

The term *finish* means the technic with which the profile has been colored. If the prices of the series are calculated upon the finish, without distinction of the color, as Painted, Anodized, Powder coat, etc., then the price has to be charged according the *finish.* Therefore the user has to choose the finish from the list and type the price in the box **Price**. Otherwise if the prices changes according the color, altough they are made with the same finish, as White painting, Red painting, Green painting, Silver powder coat, Bronze powder coat etc.,then in this case the box **Finish** has to be left empty and the price need to be charged according the *painting*, the user has to push the button in the box **Int. col. / Ext. col.** In order to choose the color and afterward type the price within the box **Price**.

Int. col. and **Ext. col. (Internal colours** and **External colours)**
Shows the colour the price refers to.

Prc type (Type of price)
This shows the unit of measurement the price is based on. Eight options are available, as explained below.

Range price

Means that the profile takes the price allocated to the range to which it belongs.

By weight/finished
This means that the profile is purchased by weight, with the cost of the finish included.
By weight/rough
This means that the profile is bought by weight excluding the finish cost.

By length/finished
This means that the profile is bought by length, including the finish.

By length/rough
This means that the profile is bought by length, excluding the finish.

per m^2
This means that the profile is bought by m^2.

By price
This means that the profile is bought in bars.

Component price (only used for compound profiles)
This means that the total price for the profile will be the sum of the prices for each of its components.

From, to
This indicates the minimum and maximum quantity that can be purchased at the price indicated below.

This means that you are able to allow for a situation in which a supplier offers a better price as the purchased quantity increases. While working on the job the program will automatically choose the best price for the quantity required to produce the job, but this will only be done when the Discounts key is activated.

See the explanation of the Discounts button in **Section 2,** in the paragraph entitled: **The** Parts **button.**

Supplier
This is the supplier from whom the material is purchased at the price indicated below.

This allows you to enter a number of suppliers at different purchase prices. When handling a job, the supplier preferred can be chosen in the *Job Materials* box. This makes it possible to vary the purchase price.

See the explanation of the Inventory status button in **Section 2,** in the paragraph entitled: **The** Parts **button**.

Consignment

This is the time normally required for the supplier to deliver the material ordered.

Finish only
This tells the program that the price indicated below is only the price for the specified finish.

> This means that the price shown is not a complete price. To obtain the complete purchase price the rough price must also be specified. Where this is done, when handling the job the program will add the rough price and finish price to arrive at the price of the profile.
>
> Assigning prices in this way is also useful because to change them one simply need to change the rough price.

Code
The code that the profile will take according to the colour set out in the previous boxes relative to the Internal and External colours, the profile code will be replaced by the code indicated in this box.

> Some manufacturers change the code every time the profile changes colour or price. Let's take for example profile M999 and suppose that the code changes upon variation of colour. We could have, for example, code W700999 if the accessory is white, W800999 if it is red, W900999 if it is green, and so on...

Suffix
Indicates that the text outlined in the previous *Code* box will be added to the real code of the accessory, without replacing it.

> Some manufacturers often add another code (suffix) after the real code so to indicate the colour. For example, if code 700 indicates white, code 800 red, code 900 green, etc... profile M999 in white will be M999**700**, in red it will be M999**800**, in green it will be M999**900**, and so on.

Price
The purchase price, net of taxes (VAT or other).

Price #2, **Price #3**, **Price #4**
Other possible purchase prices, net of taxes (VAT or other).

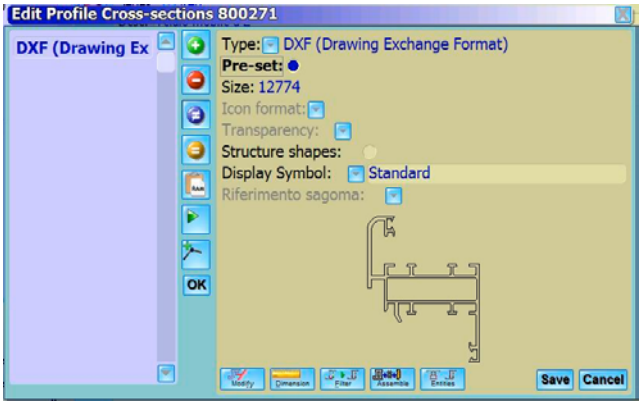
Discount %
The percentage of discount granted by the supplier.

> For more information on the system for applying discounts, see the explanation of the Inventory status button in **Section 2,** of the paragraph entitled: **The** Parts **button**.

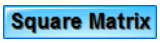
The profile drawing

The button

is necessary to open the screen to create or modify the sectional drawing of the profile. Opera will allow you to link every profile to its graphic section as indicated in the catalogue. This could be an image taken directly from the catalogue using a scanner or it could be manually drawn by the operator. Press this key and the following screen will be displayed:

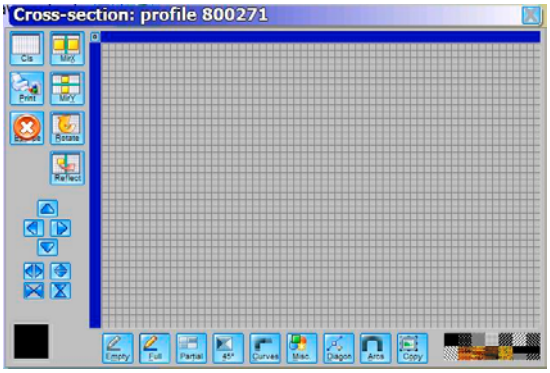


Select this button and the programme will open the following panel:

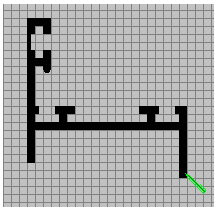
If the reply 

is given, the program opens the field for drawing by hand. The contents of it are explained next in the paragraph entitled: **The field for drawing the profile** :

The field for drawing the profile



Here you can draw the profile as it is outlined in the catalogue. There is a squared area having a group of other buttons and elements. Choose the insert shape, bring the mouse on the squared area (or drawing area) and click, so to create the drawing.



This button is necessary to cancel the drawing.

This button is used to print the drawing.

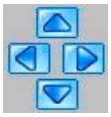
This button is used to close the screen.

Press this key to horizontally split the squared area into 2 mirrored parts: everything that is drawn on one of the two parts will be automatically copied onto the other part.

Press this key to vertically split the squared area into 2 mirrored parts: everything that is drawn on one of the two parts will be automatically copied onto the other part.

Every time you press this key, the drawing will be rotated 90°.

The function of this key is closely linked to the MirX and MirY keys: if one or both of them are enabled, the drawing will be turned upside down.



Use this group of buttons to move the drawing in all directions.

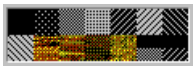
These buttons horizontally expand or compress the drawing.

These buttons vertically expand or compress the drawing.

This icon will always show the current insert.

This group of buttons is necessary to select the insert shape.

This button is necessary to copy parts of the drawing.



Click on one of these rectangles to select the insert pattern; handy to draw parts of the profile made using different materials, as the wooden parts of the aluminium-wood profiles, or the parts in PVC of the thermic cut profiles.

Help keys for the drawing

It is possible to use two help keys while drawing to simplify some of the design phases of the drawing.

This key will undo the last action; helpful in case of mistakes or for moving back one step.

Press and hold this key to draw a straight line.

If, however, one selects

Image (bitmap or TIFF) | WMF (Windows Meta File) | DXF (Drawing Exchange Format)

the program connects to the operating system, and opens a field in which it is possible to select the directory in which the name of the file containing a TIFF, BitMap, WMF or DXF image can be found, which was previously scanned out of a catalogue, handled using a graphics program and saved on the woindows *clipboard.* This is the part of the operating system memory that temporarily stores an image or text.

TIFF, BitMap, WMF The image must be scanned using a program that is suitable for scaning images, and must be saved in a TIFF, BitMap or WMF format.

The button

When this button is clicked, the program connects directly to the clipboard and shows and loads the last image saved on the clipboard.

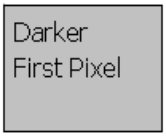
The button

When handling this section, it is possible to save a number of images or drawings. When this button is pressed with an image selected, the Pre-set: box is activated. This means that this is the image that will be shown in the profiles file. Basically, this provides the possibility of handling a number of images or drawings of the profile.

Size
The value here reported is developed by the program, and it refer to the file dimension.

Icon format
This is active with Bit Map, Tiff, or Wmf pictures, it inidcate the picture's format per color.

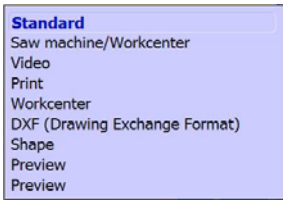
Transparency
The combined button, in the box which is active importing a bitmap file, open a short list where the user can choose the parameters he prefer in order to manage the picture background.



Managing the picture in bitmap format, with graphic programs, when the picture is saved in a outer directory or in the clipboard, depending though to the program that is being used, is saved even the board work background, and this function in Opera allow to delete totally or partially such background

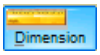
Structure shape
It consider a unique piece as the structure's shape

Display symbol
This function is active with all format.
In Opera is possbible to insert more images, related the same profile, this button display a list, from which the users can determine the picture displaying type, namely its possible to have the picture in such position that has to be shown in the cutting list , or for those who use *Opera Machining*, in the related prints of the workcenter



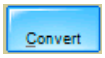
The button

This button allows you to change the image, by connecting to the graphics program, or the small box matrix where the image is a drawing.

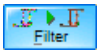
The button 

This button allows you to change the dimensions of the image or drawing, by opening the *Object Data* field. A detailed description of this field can be found in the *File Type* chapter in the paragraph entitled : *The*

button, later in this section.

The button 

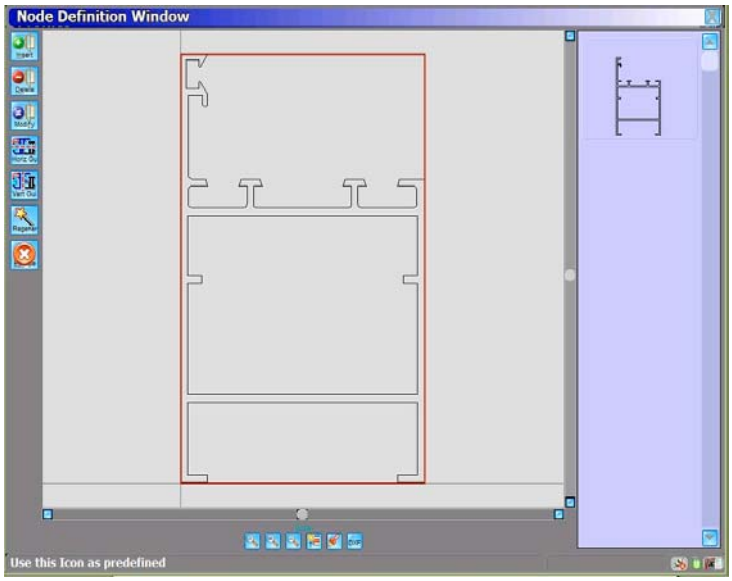
When the image of the section of the profile needs to be changed, this button must be pressed. The *Format Conversion* field opens, allowing you to change the image's parameters.

The button 

The function of this button which is active with images in Wfm or Dxf format, is to optimize the quality of the picture itself.

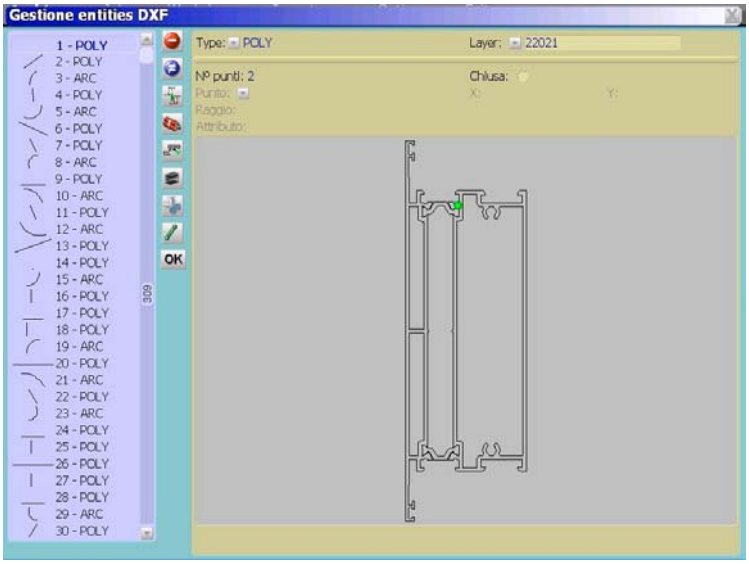
The button

This is active with images in Dxf format, allow to build the profile section.
Pressing it the program introduce in the *Edit profile Cross-section*, where is possible to import further images, in order to create the profile icon.
The way of use is the same of the *Edit profile Cross-section* in the *Archive of Nodes*



The button

This button ioen the screen to edit the entities:



The function of this screen is to allow the managing of lines and polylines making the dxf or dwg drawing. Often they (the sections) are made by lines who make a unique figure but which within they are entities detached one from ther other. This might cause problem to some machine centers software, which recognize only drawings made by a unique line. Following we'll see in detail how the functions contained in this screen works.

The button
Delete an entity from the drawing

The button
Enable the entity modification

The button
This button has the function to optimize *polylines*, it open the foolowing screen

The button
It *explode* namely decompose the section in single polylines

Il pulsante
This button enables the link between Opera and the drawing program moving the section onto the same. To make this function works properly is necessary to set in the *Directories* the parth to open the drawing program.

The button
Manage the making layers of polylines.

The button
Allow cutting sides of the section. Is necessary to select the side to cut cliking and draw a line along the side to cut.

The button
Allow to add lines in the section. Its activation enable the action on the section in the screen.

The button
Confirm and take away from the screen

The profile's standard accessories archive

The button

is necessary to open the profile's standard accessories archive.

These are the accessories usually fitted onto the profile. If the profile has a kit of accessories, the accessory kit will automatically be assigned when it is assigned to a typology. It is also possible to choose which accessories should be fitted.

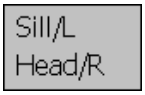
Description of contents

Part
Shows the accessory code.

Quantity
The quantity to be taken into consideration.

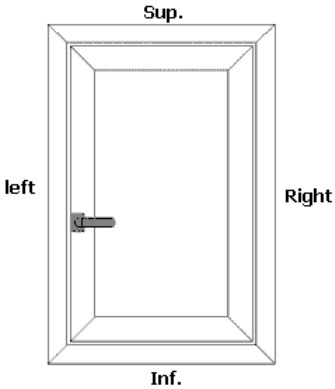
Automatic
Informs the program that the quantity has to be automatically calculated according to the quantity determination table set on the accessory in the accessories Archive; for the Table for the automatic determination of quantities please see **Appendix II**, **Technical data of accessories based on function.**

Position



In this box, through the short list opened by the little button the users establish in which position the accessory has to be placed in the windows. The positions are two: Inf./left or Sup./Right

This function is useful when is needed to charge in the windows one or more accessories, which have a specific function, in the different position.



Autoinsert

Shows the accessory assignment method. There are three possible methods that can be used, explained hereafter.

None

Check this item and the program will not assign automatically the accessory. If necessary, however, the accessory assignation screen must be opened and the accessory must be selected from the list that will suggest the standard accessories of the profile.

Automatic

Check this item and the accessory will be automatically assigned.

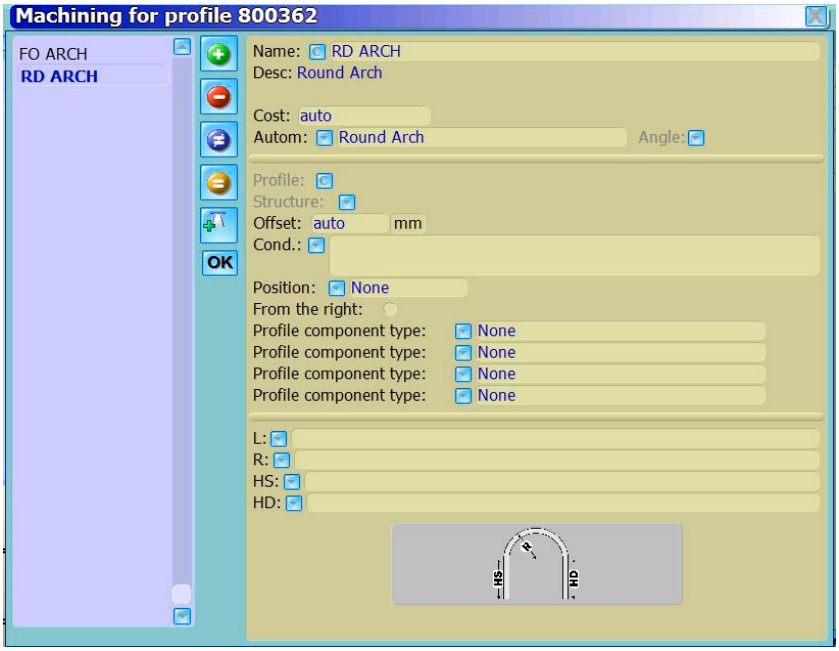
Selection

Check this item and the screen of the profile's standard accessories will be opened so to choose only the required ones.

Assigning cambering tasks

The button

is used to assign costs and cambering tasks.



Description of the contents

Name
Shows the camber name.

Cost
This is the cost of cambering. If you keep the configuration *auto* the program calcul the cambering cost according the labour cost settled within the *Rates*, otherwise the user can point a specific value in this box.

Autom
Allows the cost of the tasks to be calculated automatically.

Selecting the item relating to the task required, is absolutely essential for calculating the cost of this task.

Optimization of the bar.

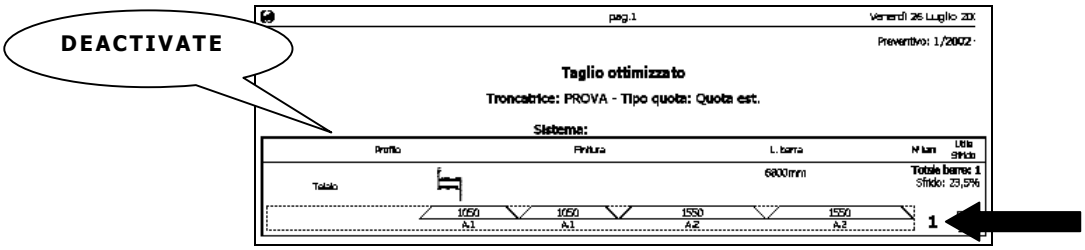
The button

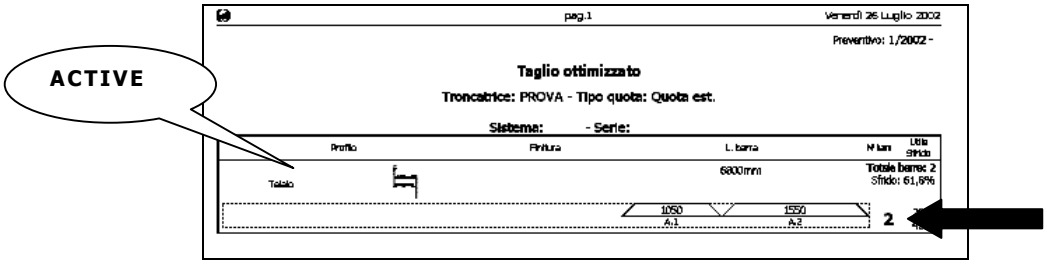
open the screen *Optimization parameters*. It has the task to allow the user to customize the optimization data.

The above picture reproduce the upper side of the screen.

Number of assembled parts
The setting of these boxes allows to send on cutting, more bars in the same operation. Whether there are bars which are to be cutted at the same measure, setting here the quantity, the program develop the optimization bunching the bars. This function is useful for those profiles who usually are cutted in groups, as blade shutter, or glazing bead

Force group bar
Checking this.it oblige the programm to optimize, cutting the bars always grouped, even though would be enough to use a single bar, hence the optimization will be printed as the following pictures shows.





Re-usable remainder
For who use the Warehouse, this function allows to determine a minimum dimension of the re-usable remainder, which differentiate from the standard measure settled in the *Cutting parameters*.

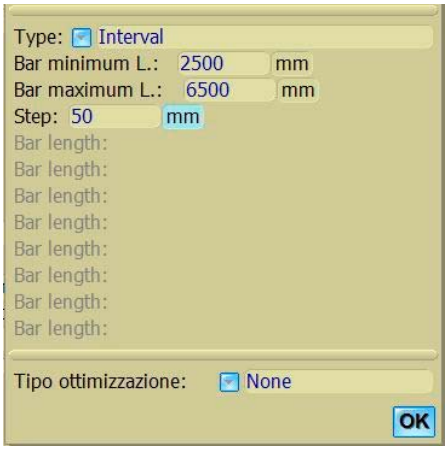
The second size of the screen provide three different type of configuration, according on which the optimization is calculated.

Do not divide long pieces
If enabled this function tells the program not to divide long pieces in the different bars of the optimization.

Unique label pack
This field tells the program to make a unique label for those peices worked assembled, useful for shutters glazing beads etc.

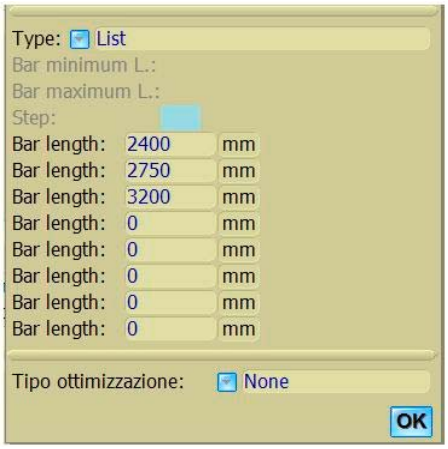
The following about the optimization are functions of the *Smart Optimization* advanced *Step*. Therefore they do work in the program if that advanced step has been licensed and installed.

Interval



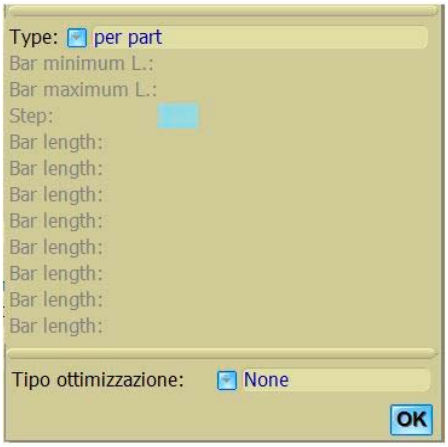
Choosing this kind of optimization, it's possible to determine both the minimal and the maximal measure put on disposal by the supplier, and a step of change of the optimization's measures. Following this procedure the programm draws the best possible measure for the needed bar.

List

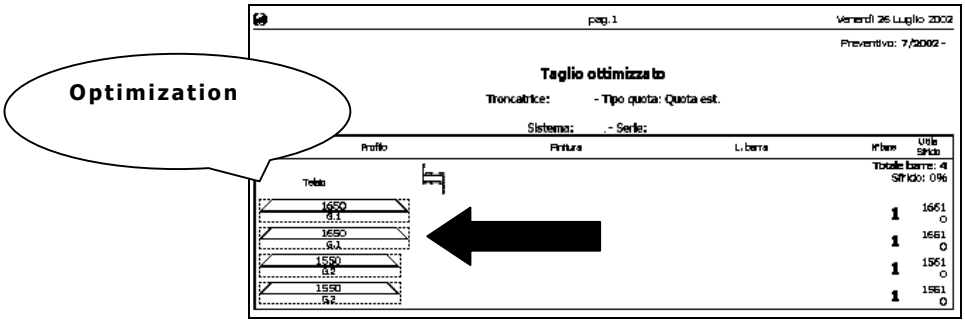


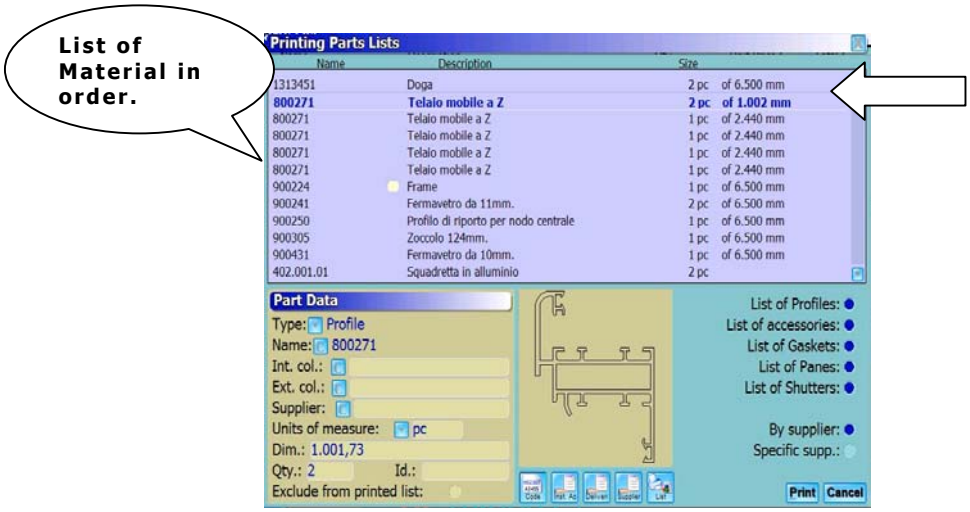
This allow to create a list of maximal measures put on disposal by the supplier. Such measures are analyzed by the programm which in the optimization stage takes the fittest bar to order.

Per part



This allow to optimize and hence to order the bar, in the real measure of use:

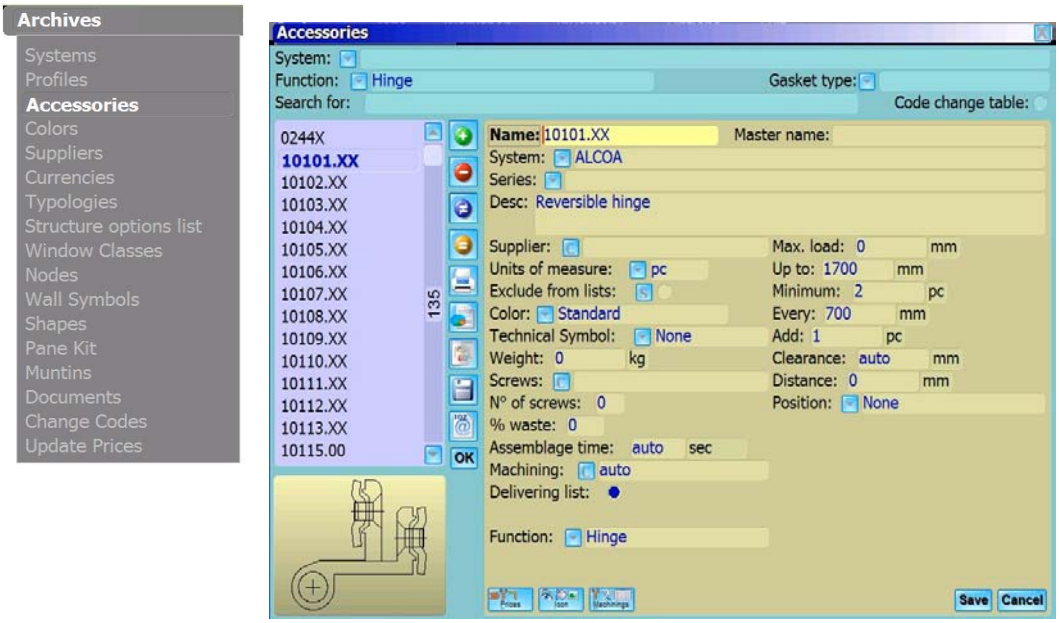




Optmization type

Smart optimization's functions being enabled within the profile further the *Cutting parameters* or within the *Job*. The user can determine in the profile the type of optimization to work with.

The Archive of Accessories



As for profiles the archive of accessories is the storage database of the accessories' technical data. By them the program is able to calculate the application spot, the quantity, the prices.

Description of contents

Name
The accessory code.

Master name
The accessory code to refer to.

System
Indicates the name of the system the accessory belongs to.

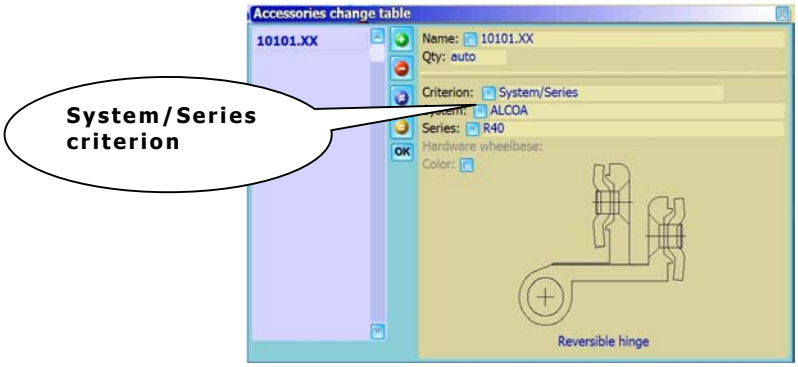
Series
Indicates the name of the series the accessory belongs to (approximate data).

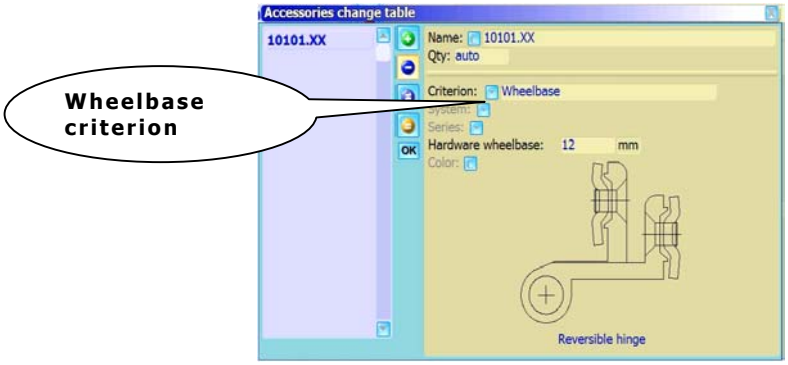
Description
Describes the accessory features.

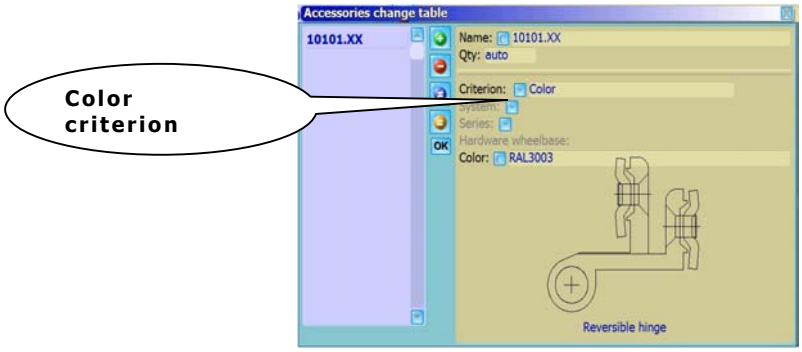
Supplier
Indicates the name of the accessory supplier. For additional information, please see the **Systems** chapter in this section as well.

Units (or Unit of measurement)
Shows the unit of measurement of the accessory. 26 different items are taken into consideration.

Excl. from list
It indicate the program that this item has to be excluded from any printout regarding the material (order, list…). As you can see the box has a combined button, which oper the screen *Hardware change table*. The goal of this function is to beget a generic item, who has within the changing table a list of accessories, obviously they too saved in the archive, which will be loaded in the structure according the *Criterion.*







As the above pictures shows the criterion are three

System /Series
Choosing this criterion its necessary to insert in the apposite box both the *System* and the *Series* which determines the hardware charging. Consequently the hardware will be inserted when the profiles of the typology belongs either to the reported system and the series.

Wheelbase
This is related to the Hardware wheelbase. In the related box will be reported the related hardware wheelbase. To turn active this function is needed to set in the System/Series archive (see page 5 *The Archive of system*) the wheelbase value. Therefore the program will match the value established in this box with that one established in system/serier archive, and it will take the suitable accessory

Color
Likewise the previous this criterion will determine the accessory type, when the structure will have the chosen color on which the accessory is coupled.

Colours
Specifies the colours of the accessory in the order. There are four different choices explained hereafter:

External
This means that the accessory will be the same colour as the outside colour for the job.

Accessories
This means that the accessory will be the colour that is selected for the accessories.

Roller Shutter
This means that the accessory will be the same colour as that selected for the roller shutter.

Filling
This means that the accessory will be the same colour as that selected for filling.

Locks
This means that the accessory will be the same colour as that selected for the locks.

Hinges
This means that the accessory will be the same colour as that selected for the hinges.

Hardware
This means that the accessory will be the same colour as that selected for the hardware.

Wall support
The accessories takes the wall support color

Sash Int. color / Sash ext. color
The accessories takes the internal or external sash color

Glazing bead
The accessories takes the glazin bead color

Symbol
Shows the code of the symbol that has to be linked to the accessory. It is better to link a symbol to the accessory in order to facilitate the interpretation of the drawing both on the screen and on the print-out.

Weight
It allows to determine a possible weight in Kg. Of the accessories

Screws
This indicates the code for the screws to be used to assemble the accessory.

N° Screws
This is the number of screws that will be required to assemble the accessory.

Waste %
Is possible to set a waste value percentage, whom shall have influence on the item's price in the quotation.

Assemblage time
To the part can be assiciated an amount of time needed to mount it in the sructure.

Machining
This field and the previous *Assemblage time* are strictly linked. In fact in the previous being reported the mounting time, on this must be reported the machining upon which calculate that time.

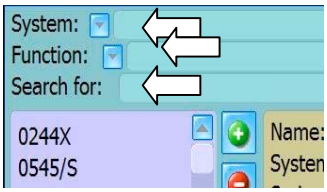
Delivering list
The accessories who have activated this function will printed in a separate list. This is output in the job managing in the order list printout

Function
Shows the accessory's function.

According to the set use, a few boxes will appear that will show the technical data of the accessory. The program will consider this data during the profile cut calculations and the quantity calculations. The explanation of the required technical data can be found in **Appendix II, Technical data of accessories based on usage**.

Accessories archive printing

The button is used to print the accessories archive.



Obviously it is possible to print only a group of accessories. Please remember that, as indicated in the picture, the selection boxes explained in **The interface** section, will let you set the parameters to select only a certain type of records. This is useful, for example, if you want to print only the accessories belonging to a certain make, or for a certain use (corners, locks,...).

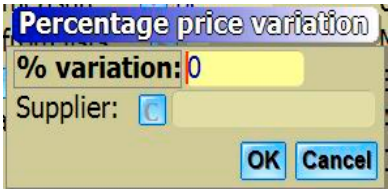
Pushing the button the program display the following message

The user needs to point the program whether it has to output a printput about the single profile or about the whole selected list. In both cases the program submit a further request:

Finally according the chosen option the printout will refer the list, the technical data, the price list, or a list according the code.

Changing prices for accessories.

The button
When this button is pressed the following window opens:

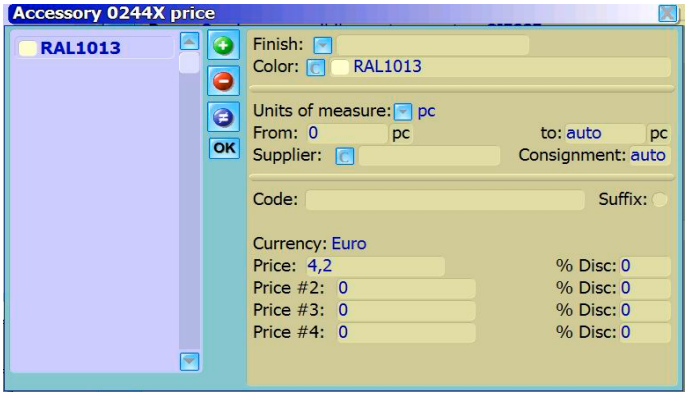


The operator can change the prices for accessories, entering the extent of the change in percentage terms. The change can be made for individual accessories or for the entire list in the file. Once the value has been entered and the OK button is clicked, the program will ask what operating mode you wish to use.

The accessory price archive

The button

is necessary to open the archive to add or modify the accessory prices.



Description of contents

Finishing
Shows the type of finishing the price refers to.

Colour
Indicates the colour the price refers to.

Units (or Unit of measurement)
Indicates the unit measurement set for the accessory (please see the Accessories archive description of contents).

From, to
This indicates the minimum and maximum quantity that can be purchased at the price indicated below.

This means that you are able to allow for a situation in which a supplier offers a better price as the purchased quantity increases. While working on the job the program will automatically choose the best price for the quantity required to produce the job, but this will only be done when the Discounts key is activated.

See the explanation of the Discounts button in **Section 2,** in the paragraph entitled: **The**

button.

Supplier
This is the supplier from whom the material is purchased at the price indicated below.

This allows you to enter a number of suppliers at different purchase prices. When handling a job, the supplier preferred can be chosen in the *Job Materials* box. This makes it possible to vary the purchase price.

See the explanation of the Inventory status button in **Section 2,** in the paragraph entitled: **The** Parts **button**.

Consignment
This is the time normally required for the supplier to deliver the material ordered.

Code
The code that the accessory will take according to the colour set out in the previous Colour box. The real accessory code will be replaced by the code indicated in this box.

Some manufacturers often change the code every time the accessory changes colour or price. Let's take for example accessory M999 and suppose that the code changes upon variation of colour. We could have, for example, code W700999 if the accessory is white, W800999 if it is red, W900999 if it is green, and so on...

Suffix
Informs the program that the text outlined in the previous **Code** box will be added to the real code of the accessory, without replacing it.

Some manufacturers often add another code (suffix) after the real code so to indicate the colour. For example, if code *101* indicates white, code *102* red, code *103* green, etc... accessory M999 in white will be M999**101**, in red it will be M999**102**, in green it will be M999**103**, and so on...

Price
The net purchase price, excluding taxes (VAT or other).

Price #2, Price#3, Price 3
These are other purchase prices, excluding taxes (VAT or other).

% Discount
This is the discounts percentage applied by the supplier.

For more information on the system for applying discounts, see the explanation of the Discounts button in **Section 2,** of the paragraph entitled: **The** Parts **button**.

Assigning an image

The button

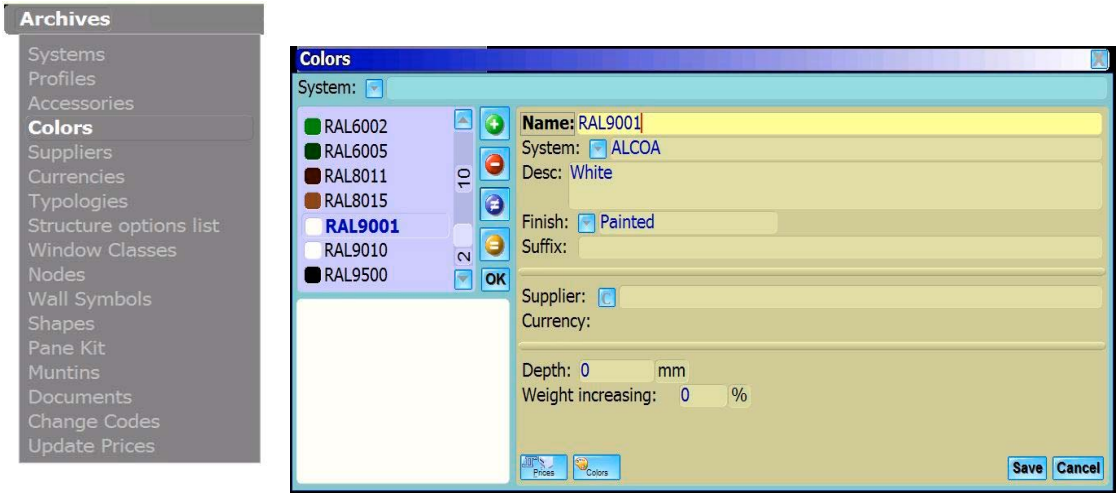
is used to open the *Accessory Icon Management* field, to allow you to work on the icon for the accessory. This can be drawn in the small block matrix and loaded as an image from the operating system's virtual memory.

It is also possible to assign an image to the accessory, such as the photograph in the catalogue. This image must be in TIFF or BitMap format.

The functions for using and managing the *Icon Management* field are identical to those used for the *Profile Section Management* field, which is amply described in this section, under the *Profile File* chapter, in the paragraph dealing with the button

.

Colors archive



This side of the program has the task to store and gather according the system the colors, which will be combined to profiles and accessories developing the quotation.

Description of contents

Name
The colour code as in the catalogue.

System
Shows the system it belongs to.

Description
Indicates the characteristics of the colour.

Finish
Shows the finishing type relative to the colour.

Suffix
The code that has to be added to the profile or accessory code when this colour is used.

Supplier
This is the supplier from whom the materials can be bought at the price indicated below.

Depth
This indicates the thickness of the finish on the profile.

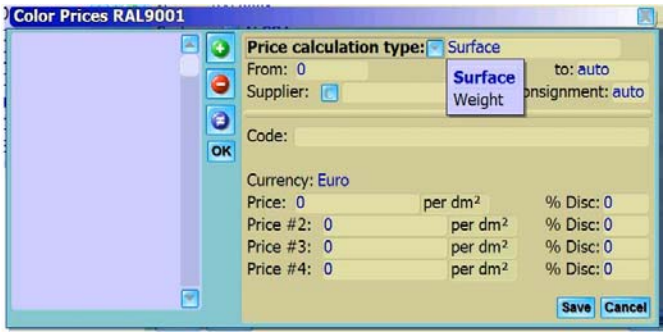
This thickness affects the cutting list.

Apply on the height only
Enabling this field the program will calculate the color thickness only in the height of the strucutre not modifing hence the cutting values

Weight increasing %
The total weight calculation of the needed profiles, is susceptible according the painting. In order to have a value who goes to increase the total weight , influencing the costs, is necessary to act within this box determining the average vaules of increase of the painting weight.

The button

When this button is pressed the program opens the field for assigning prices for colouring:



A price can therefore be entered for colouring. A you can see the operator has two choices – Surface and Weight. Let's take a closer look at the contents of this field:

Type of price calculation
This box is used to set the basis for calculating the price.

From, to
This indicates the minimum and maximum quantities respectively, on the basis of the price indicated below.

Supplier
The name of the supplier that supplies and carries out painting is entered in this box.

Currency
This will be shown automatically once the supplier is indicated, provided it has previously been indicated for the supplier.

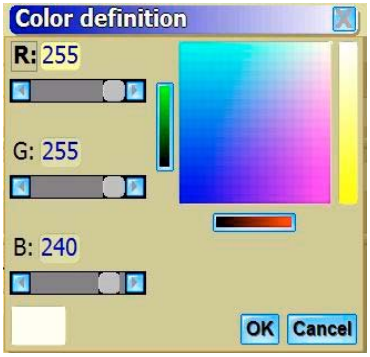
Price per dm² or per kg.
The price is entered in this box, with the unit of measurement chosen as the basis for the calculation at the beginning of the operation.

Discount
A percentage discount can be indicated in this box.

Colour setup

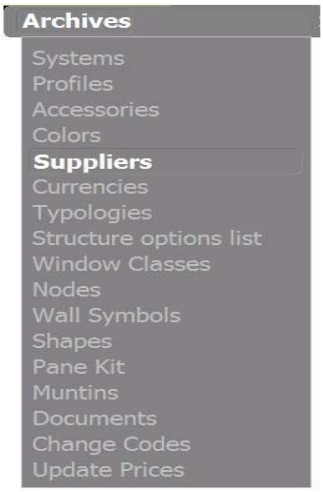
The button

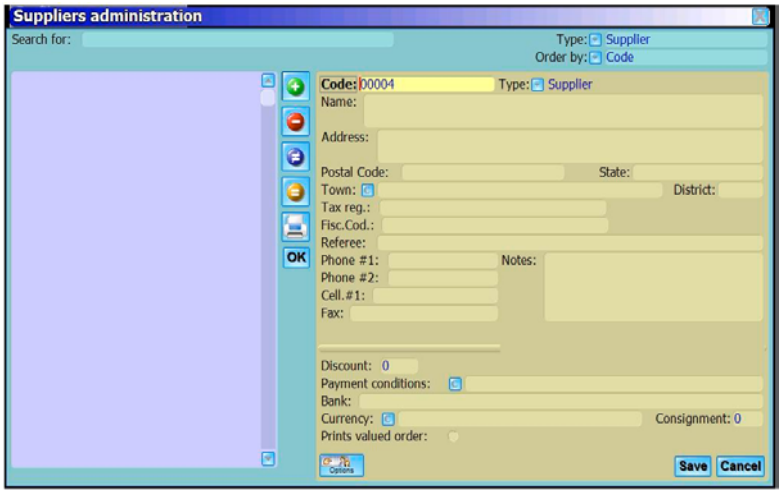
is necessary to display a sample icon similar to the true colour of the colouring.



The program will open a screen displaying 3 boxes : **R** (*Red)*, **G** (*Green*), **B** (Blue). You will need to digit the colour quantity necessary to make the colouring in whole numbers for each box from 1 to 255.

Suppliers archive





The Archive of supplier is the database where all the supplier data are stored. It is very useful in the order of material, because it allows to automatically compile the heading data of the supplier.

Description of contents

Key, Type, Order by
These boxes facilitate and speed up the search for a specific supplier, and to order suppliers in the way that best meets the operator's needs.

The button
It start the Archive of suppliers' printout

The user has at his disposal two types of prints

List

Through this button you get a list in alphabetical order of the stored suppliers

Phone directory

The printout you get through this button is a phone direcotry, where the suppliers are divided in sheets marked according the alphabetical letters on which they belongs.

Code

This is the code assigned to a supplier automatically by the program, but it can be changed.

Name, **Address**, **Post Code**, etc...

This includes the supplier's registry data. This data is used every time an order for the supplier is printed.

Tax reg., Fisc. code

These are the supplier's commercial data

Referee

It reports the name of the supplier's refeere

Phone #1, Phone.#2, Cell. Fax , E-mail, Notes

These are the traceableness data of the supplier

Discount

The percentage discount applied by the supplier.

Payment Terms

This indicates the payment terms agreed with the supplier (e.g.:30-60 days\60-90 days).

Bank

It is the bank on which the supplier refer to.

Currency

This indicates the currency in which the supplier is to be paid.

Lead Time

This is the time taken for a supplier to deliver the item concerned.

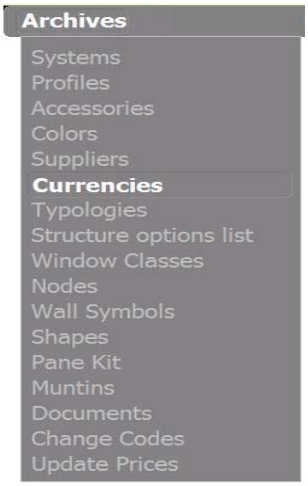
Print valued order

If activated this function prints the order alongwith the cost of material.

The button Options

This function rely on the option management settled on the accessories. If the client use hardware with particular features, they can be managed directly upon the supplier

The Archive of Currencies



This file is used to save currencies.

When this file is used correctly, a guide or principal currency is entered. This will then correspond to the currency in which the prices in the files are shown. This currency will have an exchange rate of "1", while the other currencies will have a value that reflects current exchange rates. This makes it possible to print the Type Abacus and a Quotation with the amount shown in the currency selected.

Description of contents

Name
This is the name of the currency.

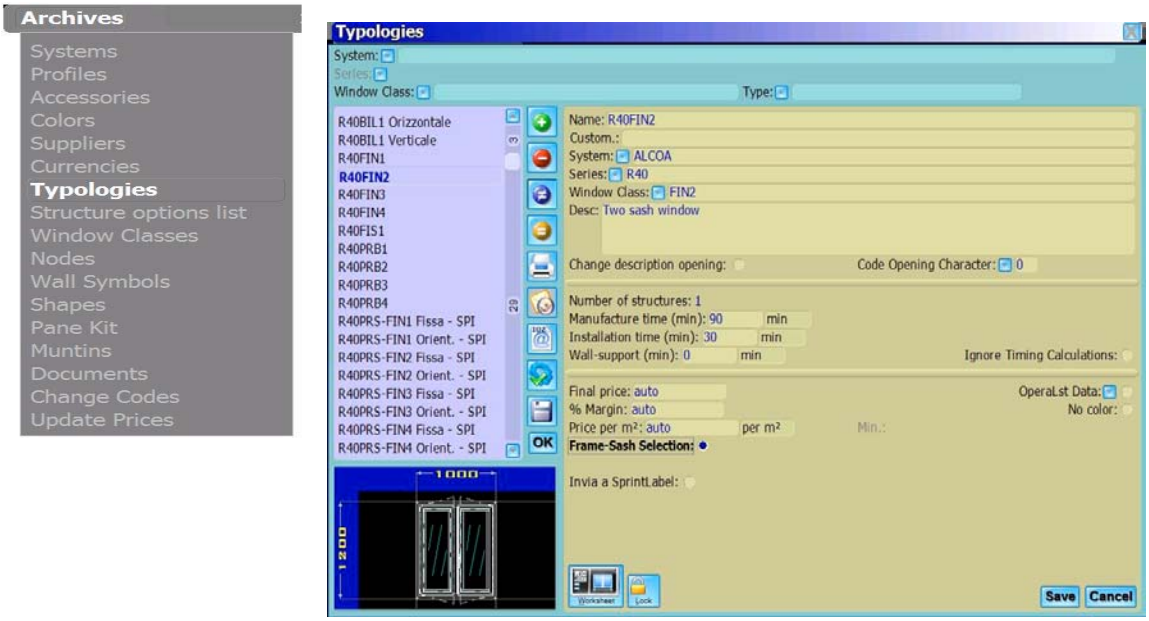
Currency Symbol
This is the symbol indicating the selected currency.

Currency Decimals
Fractions of the currency.

Exchange
This is the exchange rate against the principal currency.

Rounding
This is the rounding off figure used for calculating amounts.

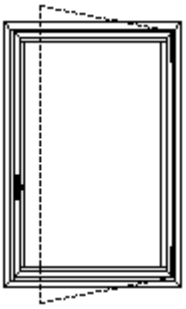
Archive of Typologies



This archive is used to make or modify structures. Within it are stored the basic structures, which is possibole to modify according the need while developing the quotation.

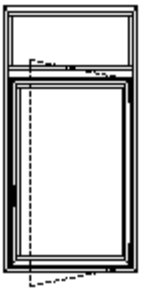
Basics notions

In *Opera,* a typology (or window type) indicates a finished and ready to use window or door frame made up of one or more elements called *structures*, made up of profiles and accessories. A single structure typology will be, for example, a window, as outlined in the following example.



Example of single structure typology

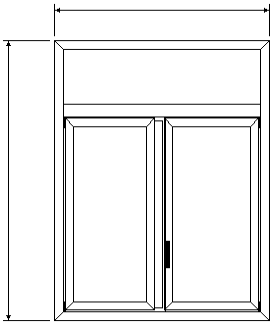
A typology made up of two structures will be, for example, a window with an overhead window, as outlined in the following example.



Example of typology made up of two linked structures

It is clear that the most important element of the typology is the structure: to make a typology, in fact, the structures that make it up must be realised first, or the ones that have already been prepared may be used and linked to each other.

How Opera calculates the typology cut lists



Based on the width and the total height of the typology, the profile cut lists are calculated taking into consideration the following factors:

1. technical data (or dimensions data) specified in the profiles archive (encumbrance, overlaps, clearances...., see the **Profiles archive** chapter in this section).
2. possible cut formulas relative to the typology profiles. If the typology has cut formulas, the technical data of the profiles will not be taken into consideration and the cut list calculation will be based on the formulas.
3. the internal or external cut type set out on the selected saw (see the **Workshop menu** in section 4 of the **Cutting parameters setup** chapter).

Description of window types archive contents

In the upper side of the screen we find the preselection boxes of the stored structures. Easy method who facilitate the research

The button
When this button is pushed it allows you to print the type schedules for the types included in the file, or to print the codes, with a description of the type.

The button
The function and use of this button is described in the *Job Menu* chapter, in the *Description of the Contents of the Job File* paragraph, in section 2 of this manual.

Name
The typology code.

Personalization (or customise or subtype)
An additional code used to customise the real code of the typology.

The customise code is used in case of two typologies having identical codes but with slight differences, such as in the materials. In this case an additional code may be added to the **Pers** (customise) box in order to highlight the differences between the two typologies.

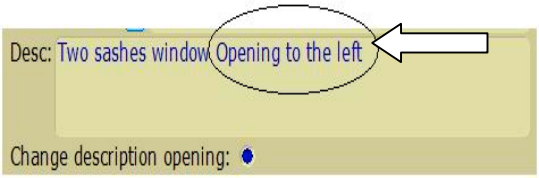
System
Shows the system it belongs to.

Series
Shows the series it belongs to.

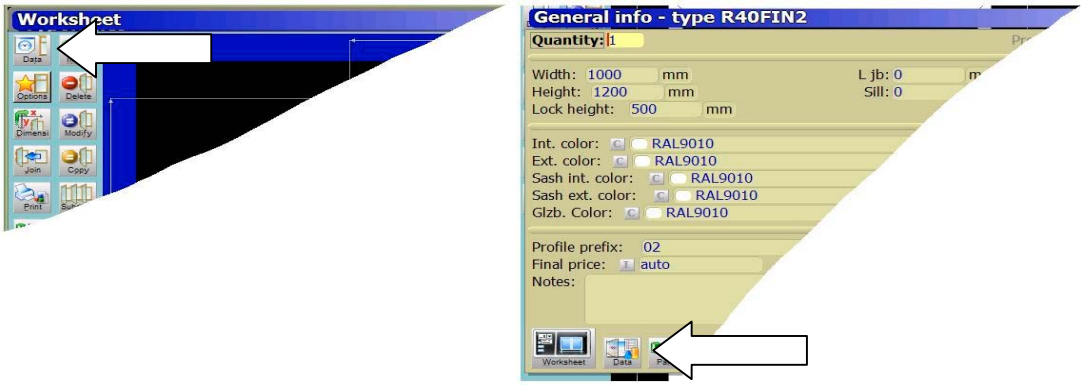
Window class (or Category)
Shows the category code of the typology. For clarifications relative to categories and category codes, please see the **Window class archive** chapter in this section.

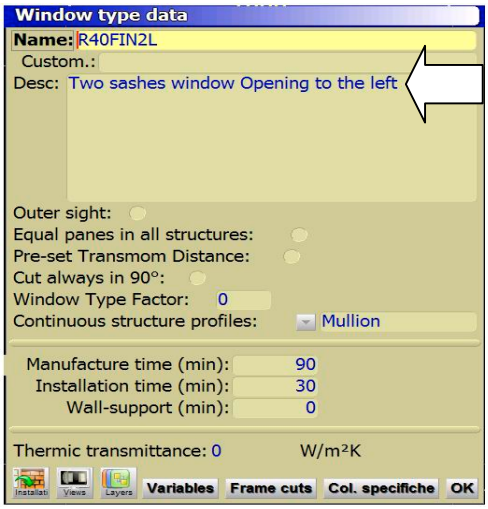
Description
Describes the features of the typology.

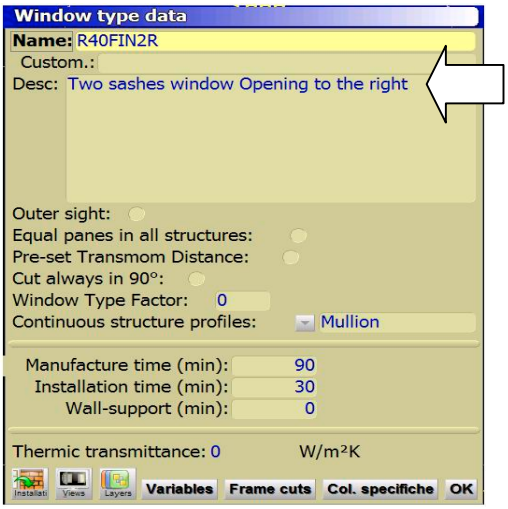
Change description opening
As is understandable by the name the action of this function operate on the structure's description, precisely in the description of the opening side, lets see the following picture:



check off the box is not enough, is essential to mention the opening side in the description eg.: *Opening to the left / Opening to the rigth*.
This allow tho change automatically in the description the opening side when in the *Worksheet* being pushed the button . Hence pushing the button in the worksheet or in the *General info* while developing the quotation:





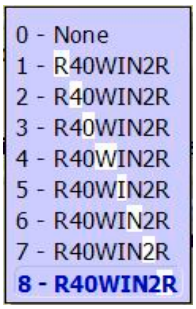


Watching the pictures is easy to deduce that with simple procedures, changing the opening side, is up to the program to change the description which will be printed out in the window chart

Code opening character

This function who resemble the privious ine work upon the typology code or name, pointing the opening side. But in this case the procedure foresee to specify the character in the name box with the letters *L* (left) / *R* (right):

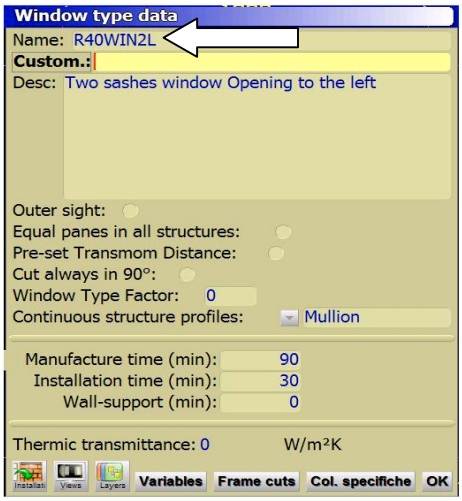
When you set the name the program goes to read the number of characters, hence when you the associated button it show where the character is:

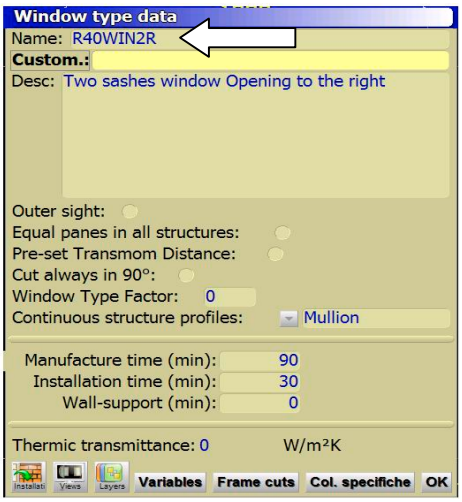


As we see in the above picture there's numerically pointed the character position. In our example is the 7th, but it can be longer (until 11 charac.), essential is the position of the main letter L or R, who has to be the last.

Even this function is activated withn the worksheet pushing the button

We can make the effects in the *Window type data*





Number. of structures
Shows the number of structures making up the typology.

Manufacture time (or Labour minutes)
Indicates the minutes necessary to make the typology in the workshop.

Installation time
Indicates the minutes necessary to install the typology.

Wall support time
Indicates the minutes necessary to make the wall support relative to the typology in the workshop.

These three values will be considered during the calculations of the typology costs by multiplying them by the relative hourly labour and installation rate indicated in the company data. See the **Options menu** in section 4 of the **Company data** chapter.

Ignore timing calculation
Checking this flag the users deactivate the manufacturing timing calculation in the typology

Sales price
This box allows the operator to attach a price to the type, which the program will use during the quotation phase.

% Margin
Here box is possible to set a margin percentage in the sell's price settled in the typology

Price per sq.m.
Here the users can determine the window's sq.m. price

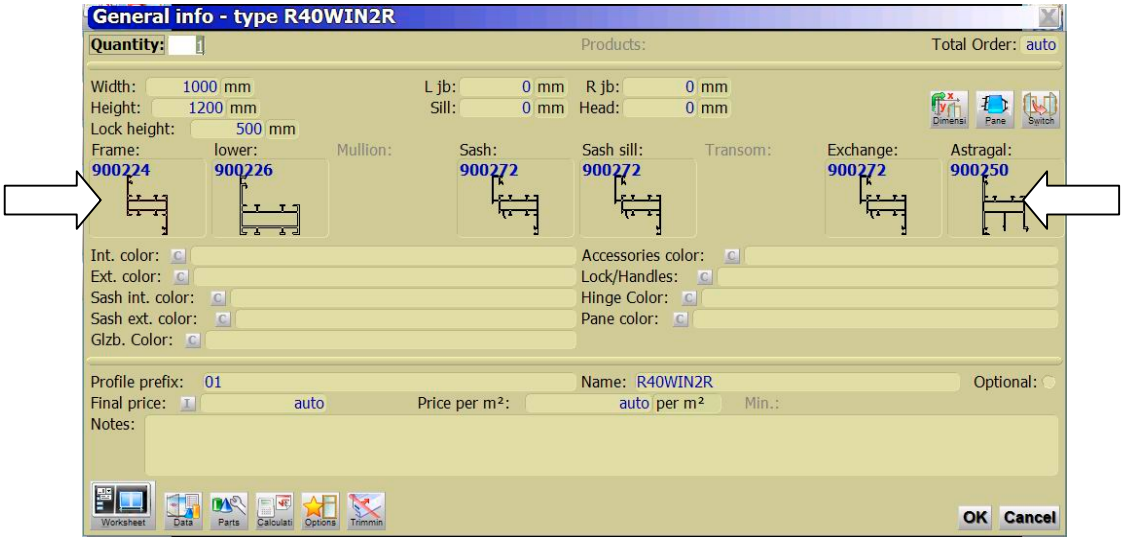
Min. (minimum chargeable)
This box is consequent to the previous one, it report the minimum chargeable misure.

> It's important to take in count, that if are established both a sell's price and sq.m. price, in the job managing the calculation will depend on the values here settled, and any more according the price of the items settled in the archive.

No colouring
Tells the program that no job colour will be accepted by the program for the current type.

> This function arose to allow erroneously indicating a colour for types that are normally made up of rough profiles, such as counter-frames.

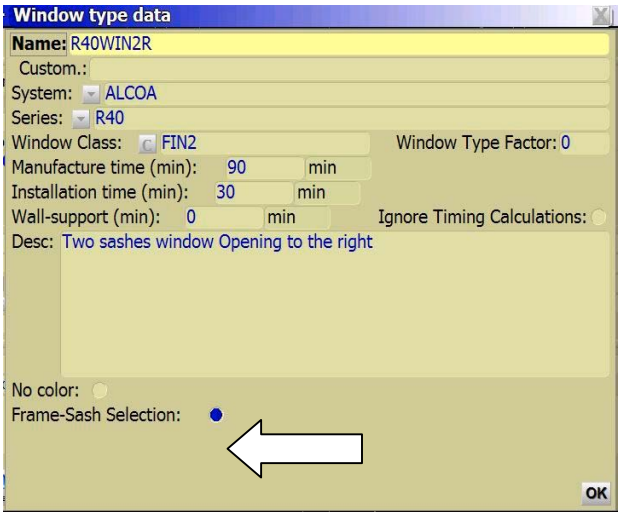
Frame – Sash selection
When activated this function allow to choose profiles directly in the *General info* screen:



This function determine the definition of the screen as we see in the above picture, where are dispalyed the structure's profiles. In our example we've used a typology who comprise all the main function within the structure, in fact further the frame and the sash who are always used to build up a window, to activate the quadrant related to the kind of profile, is necessary to have the profile itself charged in the structure. Moreover watching the picture we can see that there's a box named *Mullion* and another named *Transom* , the first

being activated when in the structure there's a profile who has been inserted using the function *Subdivision* , the second being activated when in the structure there's a profile who has been insrted using the function *MTM*.
Pushing upon the quadrant who bear the profile the program open the link with the archive, where thruogh the usual procedure being drawn the item to change.
This function is very useful because yet in the *general info* is possible to understand what kind of profile is being used and if the case change it with no need to move neither in the worksheet nor in the list of materials.
Is possible to enable this function even within the screen opened by the button

whom dwell in the general info.



The button

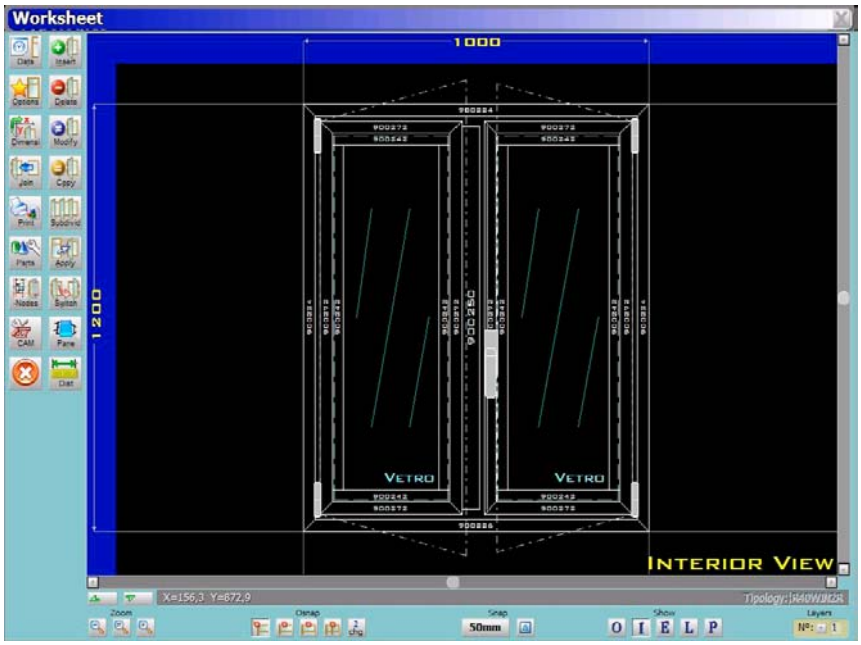
The button lock forbid any modification in the structure. When pushed being opened the screen *Structure password:*

Is necessary to set a password which being requested in the case the user try to enter in order to modify the typology.

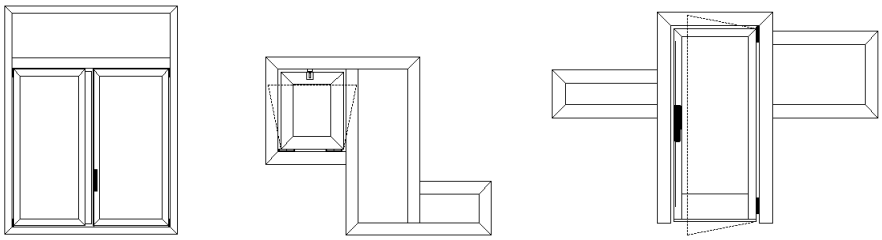
The Worksheet, to make and modify typologies

The button

is necessary to open the *Worksheet* to design, make and modify the typology.



The Worksheet is a powerful tool to make and design the most common or the most bizarre typologies, as you can see from the following pictures.

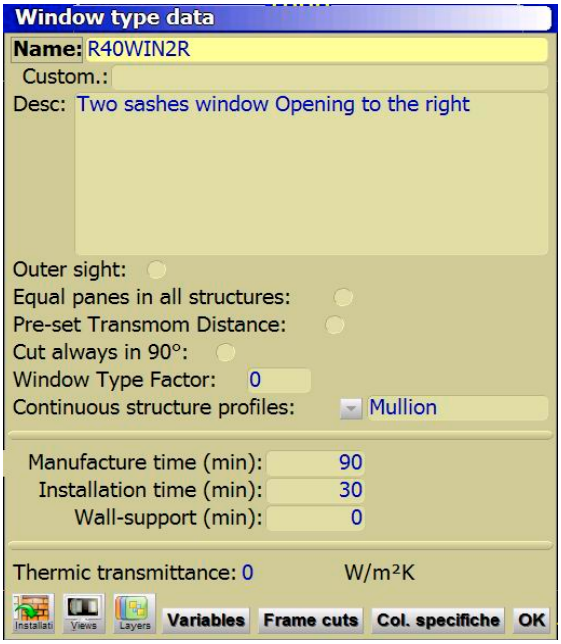


Examples of typologies designed using the powerful *Opera* Worksheet

Description of contents of the Worksheet

The button

Used to add or modify general data relative to the typology. Press this key to open a screen having the following contents.



Name
The code of the typology.

Customise
An additional code used to customise the real code of the typology.

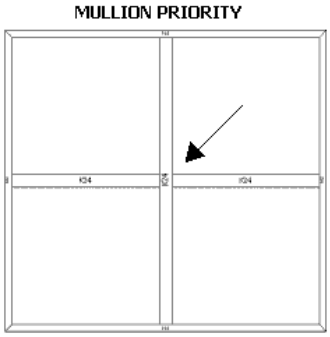
Desc
Describes the features of the typology.

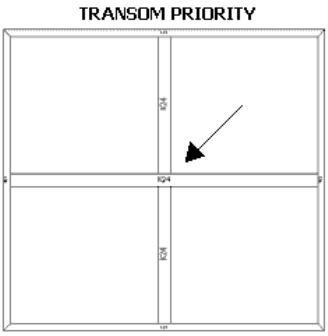
Outer sight
Whe this flag is activated the program shows the structure from the outer sight

Equal panes in all structures
The checking of this flag equal the outer panes, in composed typologies

Cut always in 90°
This function when activated cut always in 90° the upper side of vertcal profiles

Continuous structure profile
The parameters of this box, *Transom* or *Mullion*, are linked to the function of the button
The chosen parameter determine the mullion or transom priority in the divided typology.





Labour minutes
Indicates the minutes necessary to make the typology in the workshop.

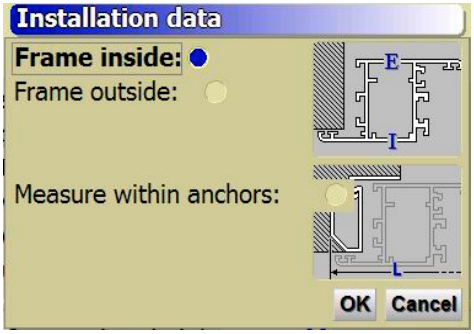
Installation minutes
Indicates the minutes necessary to install the typology.

Wall support minutes
Indicates the minutes necessary to make the wall support relative to the typology in the workshop.

Thermic transmittance
Following the field the program report the window's thermic transmittance.

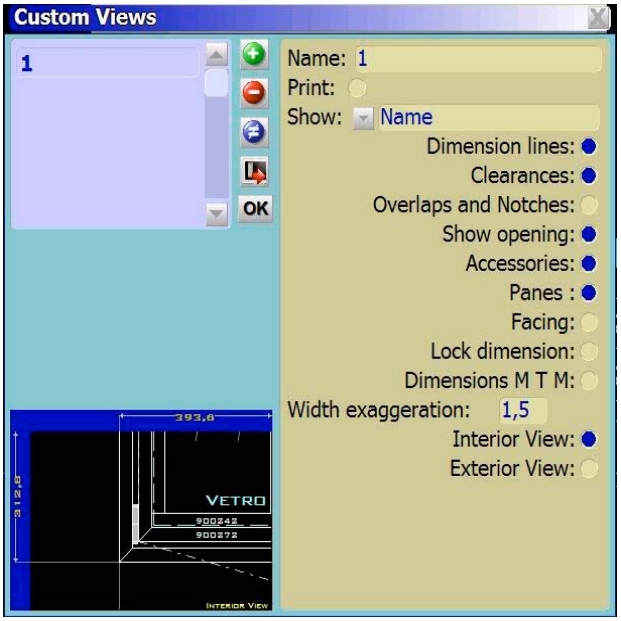
The button

Opens the screen to change the data relative to the typology installation. Press this key to open the **Installation data** screen.



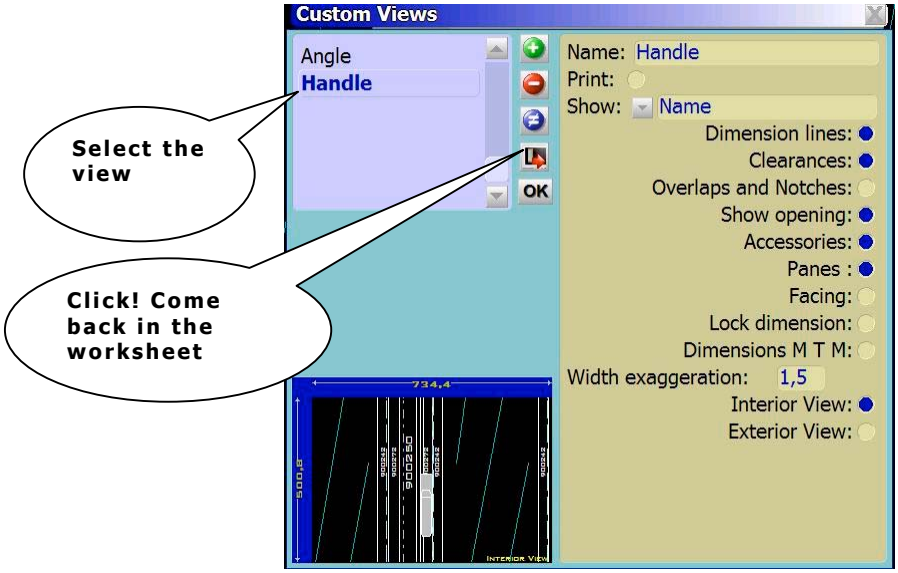
The button

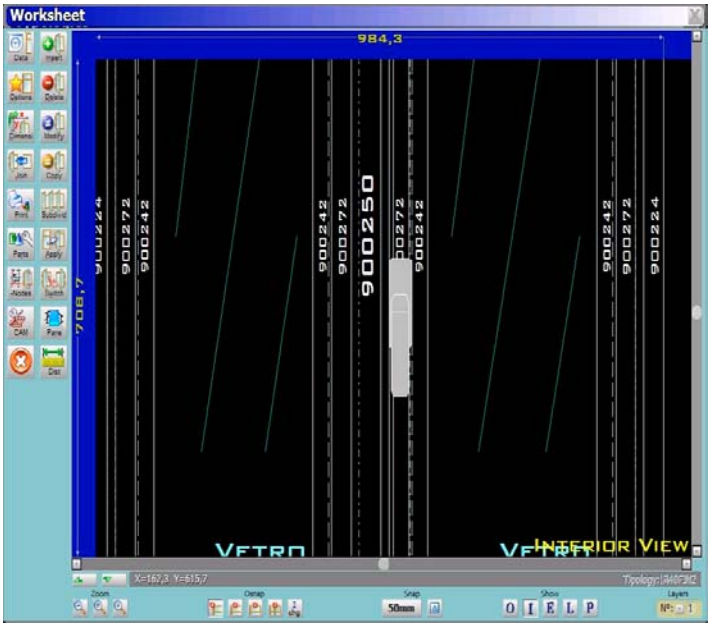
Used to save the some features of the typology so to get them back easily. Press this key to open the **Typology view management** screen, the contents of which are explained hereafter.



The button

Selecting a view from the list and pushing this button, the view will be highlighted in full screen in the worksheet.





Name
The view name.

Print
Indicates that the feature, or view, has to be printed every time print views is activated during work order management.

This is useful when there are several views saved and you do not want to print them all.

Show
Shows the code of the element to be displayed inside the profile. Open the pull-down box to get the list explained hereafter.

Name
Displays the name of the profile.

External dimension
Displays the cut value measured up to the external extremities.

Internal dimension
Displays the cut value measured up to the internal extremities.

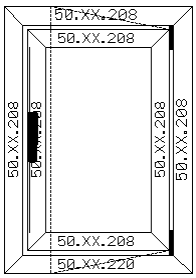
External dimension name
Displays the name of the profile and the cut value measured up to the external extremities.

Internal dimension name
Displays the name of the profile and the cut value measured up to the internal extremities.

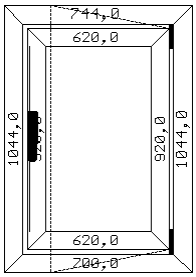
Use
Displays the type of use indicated in the profiles archive (see the Profiles chapter).

Profile core dimension
Displays the cut value measured up to the profile core (see Appendix I)

Profile core dimension name
Displays the name of the profile and the cut value measured up to the profile core.



Example of a typology in



Example of typology in

which profile name display has been enabled	which the external dimension display has been enabled (cut value measured up to the external extremities)

Dimension lines
Indicates that the lines relative to width, height, mullions, transoms, etc. have to be displayed.

Clearances
Indicates that the clearances between one profile and the other have to be displayed.

Show Opening
Indicates that the opening direction has to be displayed.

Hardware
Indicates that it is necessary to display the accessories.

Panes
Indicates that it is necessary to display the panes (glass, panes...)

Intest (or Processing)
Indicates that it is necessary to display the processing to be made on some profiles, for example the mills.

Lock dimension
Indicates the measure where the lock or handle has to be fitted must be displayed.

Dimensions MTM
Indicates that the measures where mullions and/or transoms will be installed must be displayed.

Width exaggeration
Indicates the exaggeration the profiles must have compared to the typology dimensions.

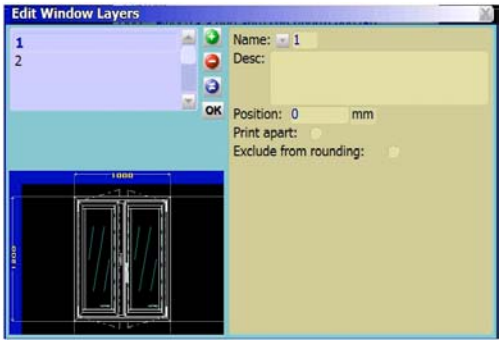
This value is the enlargement factor of the profile encumbrances with respect to the typology dimensions. For example, if this value is 2, the encumbrances will be proportionally displayed twice as large as the typology dimensions; if this value is 1, the encumbrances will be perfectly proportionate.

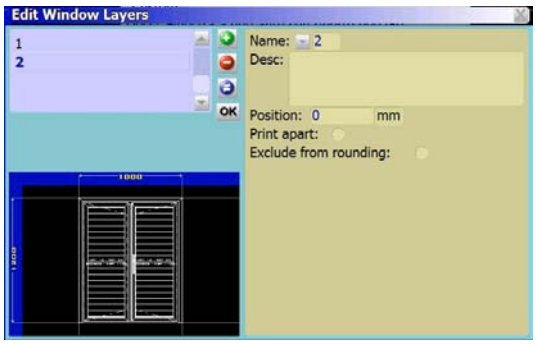
Interior view
Indicates that the typology has to be displayed internally.

Exterior view
Indicates that the typology has to be displayed externally.

The button

If is being managed a typology built by structurer in different layers, within the *Edit Window Layers*, it's possible to set the layers in a way to have the structure, which are part of it, separated in the *Window chart* and the *List of typology* as well





As the above pictures shows, each layer can be defined, inserting the typology on which it refer, setting the distance between the two of them, afterward activating the dedicated flag its possible to get a differentiated print of the structures charged in different layers.

Name
It's the layer name on which the window is located

Description
Space dedicated to write the features oh the window who's upon the layer

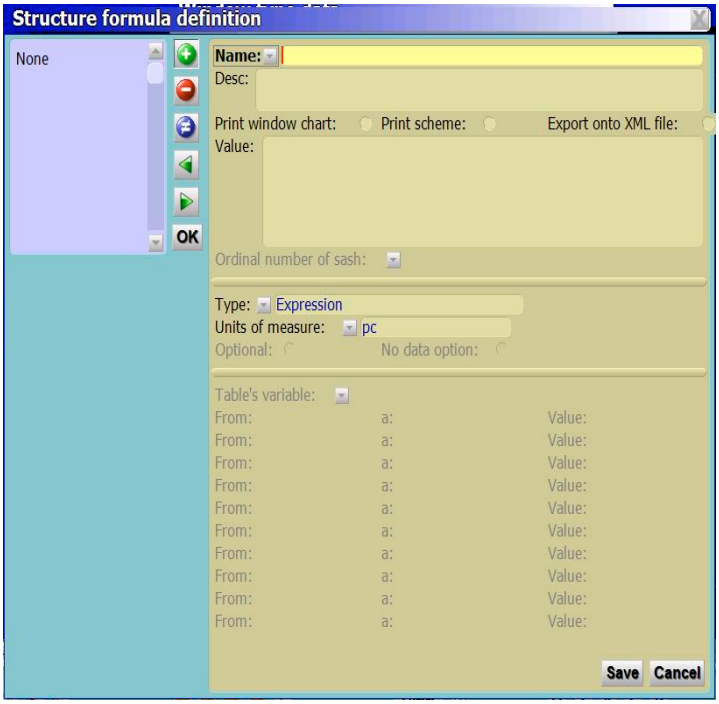
Posiziotion
Points the window position in the structure.

Print a part
When enabled this flag indicate the program to printout in different sheets the windows whom compound the structure

Exclude from rounding.
This function give the chance to choose if the windows over the different layers have to be calculated in the whole rounding. Building this kind of structures often what is nedeed isn't the sum of the area of all windows, but just the area of the hole where the structure is placed.

The button

Through this button the user is ables to set some formula of calculation upon the structures, using values already existing withing the program or creating new. The button open the *Structure formula definition:*



Description of contents:

Name
It's the variable's name. It can be drawn from the list opened by the associated button

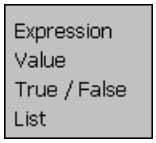
Description
It's formula definition features

Prints window chart / Prints scheme
These function make print the formula's value in the aforesaid sheets

Value
In this space has to be written down the applicatory formula.

Ordinal number of sash
It point the sequential number of the sash in the window.

Type



The button open a curtain with different kind of variables

Unit of measure
It define the unit of measure the vairable has to refer in order to apply the formula.

Optional
If activated this function determine the request of the variable's value in the data screen within the quotation

No data option
Enabled this function doesn't ask for the variable in the *General info* of the window

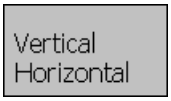
Variabile
Is possible to use this function if in the previous one *Type* has been selected the parameter *List*, by it the user drawn the variable to apply in the fields **from / to /value**

The button Frame cuts
The function of this button is addressed specifically for curtain wall structures. Its purpose is to break frames at a specific dimension, for example when the profile cutting match the floor.

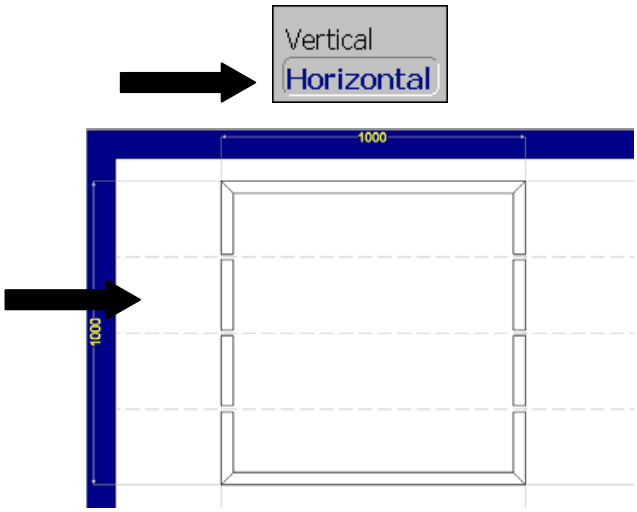
The *Frame stoppege editing*:

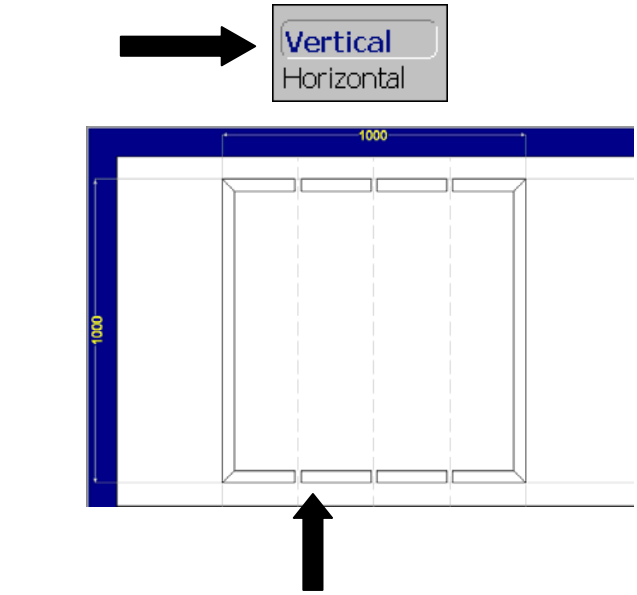
Position
Here being settled the value who determine the frame breaking. If the frame needs more breaks, each one has to be charged with its own value

Type

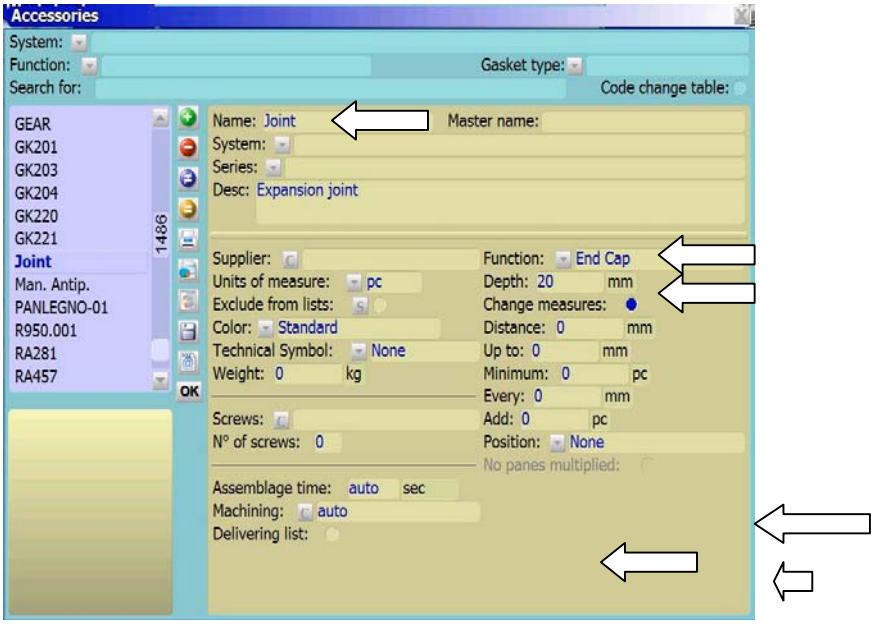


From the list opened by this button is possible to choose the kind of breaking, namely whether the breaking is for the vertical or horizontal profiles

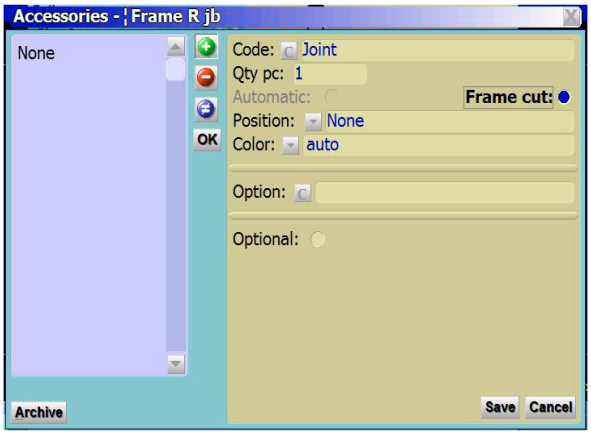




The above pictures shows the action of this function on the axternal frames, obviously it is applicable even on internal profiles either vertical and horizontal who divides the curtain walls.
Furthermore watching the pictures we can see a space amid the breakings. They are the space needed to screw the joint of expansion. The inserting of these joints and their calculation needs to have them (the joints) charged in the accessory archive with the function *End Cap* along with the thickness:



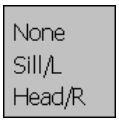
Then the joint is charged as frame's accessory:



The procedure to charge the joint as accessory is the same as for any other item, however the arrows in the above picture show us two boxes which we need to analyze:

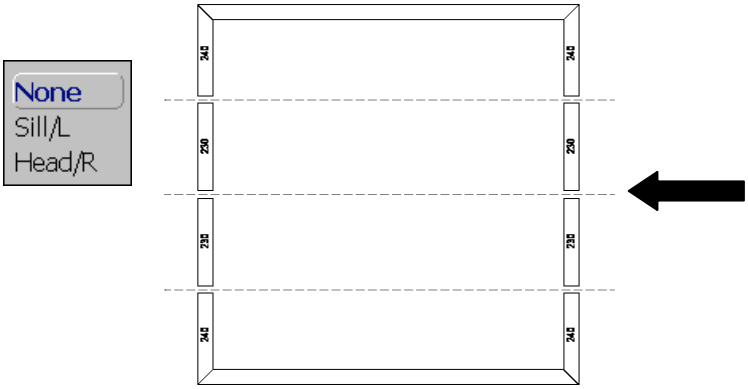
Frame cut
When checked this function charge the joint per each frame breaking

Position

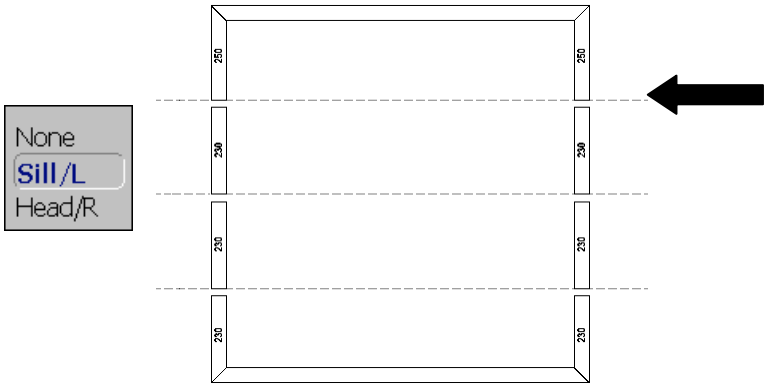


From the list is drawn the paratemeter who set the accessory posiotion. The position will affect the frame dimension.

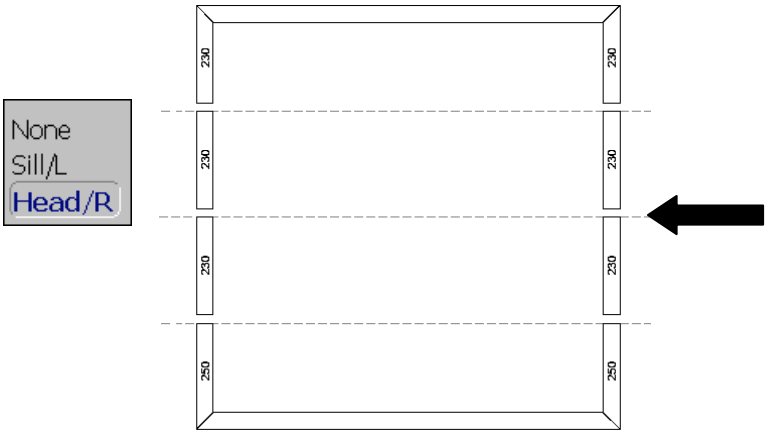
With the parameter **None** the program will place the joint thickness on the breaking axis, dividing the thickness equally amid both the profiles:



Sill / L (left) place the joint on the inferior or left profile

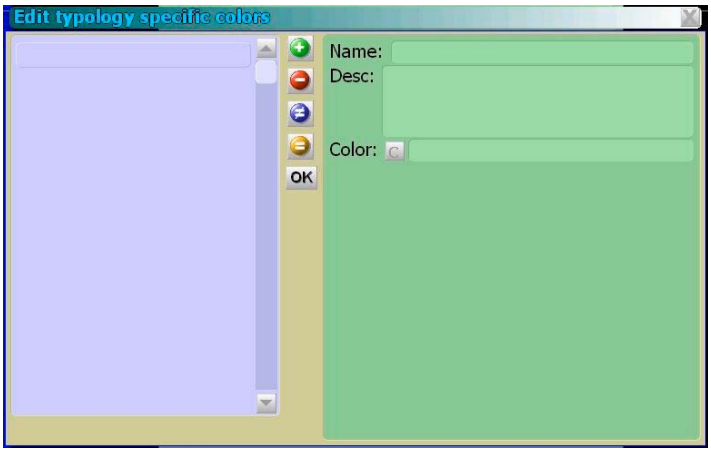


Head / R (right) place the joint on the upper or right profile



The button

This button opens the screen *Edit typology specific colors*:



The goal of this function is to allow the making and association of a specific voice of color combined to a profile or accessory.

Name / Description
Easy to understand this fields reports name and description of the voice of color

Color
The associated button opens the list of colors of the system.

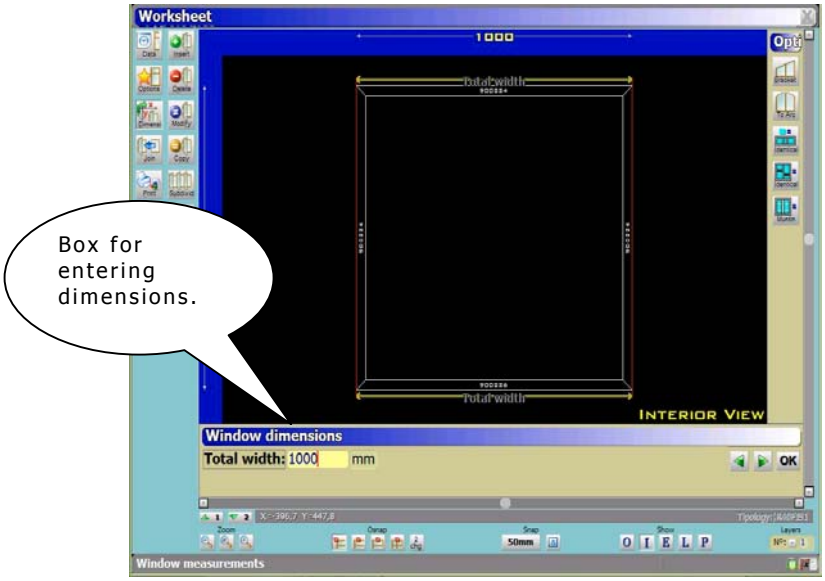
After the *coloring voice* has been made it can be associated to the item being it a profile or accessory. Afterward it will be calculated by the program and enabled in the *typology general info*.

The button

The *Options* have the function to enable the choose in the worksheet of possible associated options.

The button

This is used to assign dimensions to the type and to change the type to include arched or out of square shapes.



Total width and **Total Height**
The perimetric dimensions of the typology excluding overlaps.

When you set the typology dimensions, you have to input the value of the opening on which you will install the typology, taking out the space that has to be left between the wall and the frame. This space can be set directly on the typology as *clearance value between frame and wall*, so to calculate it automatically.

Lock height
Indicates the lock or handle height.
This value depends on the setup of the following three buttons.

1)If this button is enabled, the lock height will be considered starting from the frame of the structure, **excluding** the overlap.

2)If this button is enabled, the lock height will be considered starting from the sash, **including** the overlap.

3) Where this button has been activated, the height given for the lock will be taken, starting from the moveable frame of the structure, **excluding** the rebate. Since the program cannot

change the lock height where this is set, the tubular difference for the profile in the file must be determined.

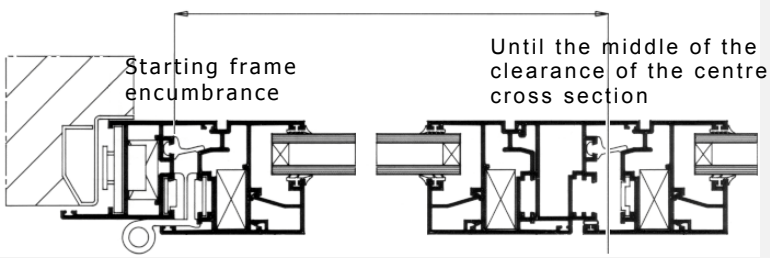
These buttons have to be set **before** assigning the lock height value.

This key is necessary to centre the lock based on the setup of the three previous buttons.

Sash shifting
The width of each sash of openable structures.

This dimension is required only if the structure has more than one sash.

Taking into consideration the window sashes, the reference points of the shifting measure of each sash go from the encumbrance of the left frame (for internal views; right for external views) up to the middle of the clearance of the centre cross section, as shown in the following figure.



The sash shifting value can be set using the following buttons.

Press this key to automatically obtain equal sashes, keeping the distance between the various clearances equal.

Press this key to automatically obtain equal panelling.

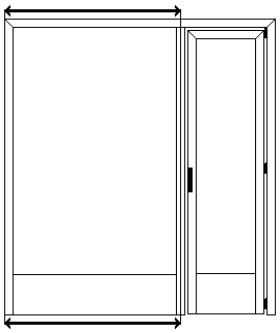
This button enable the function which allow to manage in window with more than one sash the dimension of each single sash

Roll shutter box height
The total height of the roll shutter box.

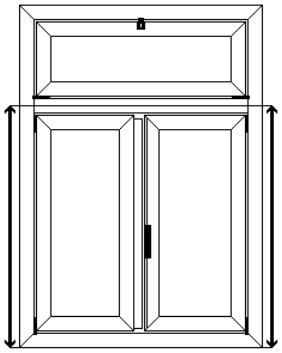
For roll shutter boxes relative to a *Pre-assembled roll shutter box* structure, this value will be automatically taken from the height of the *Roll*

shutter box cap accessory. In this case the roll shutter box height value will not be requested.

Horizontal dimension and **Vertical dimension**
This indicates the width and height of a structure belonging to a typology made up of several structures.



Example of **horizontal dimension** (width) setting of a structure belonging to a typology made up of two structures



Example of **vertical dimension** (height) setting of a structure belonging to a typology made up of two structures

These dimensions can be set using the following buttons.

Pressing this button, it is possible to begin the dimensioning the structures from the first one to the right, or from the top; it is useful for typologies having several structures horizontally or vertically linked to each other, as, for example, the belt structures.

Pressing this button, it is possible to begin the dimensioning the structures from the first one to the left, or from the bottom; it is useful for typologies having several structures horizontally or vertically linked to each other, as, for example, the belt structures.

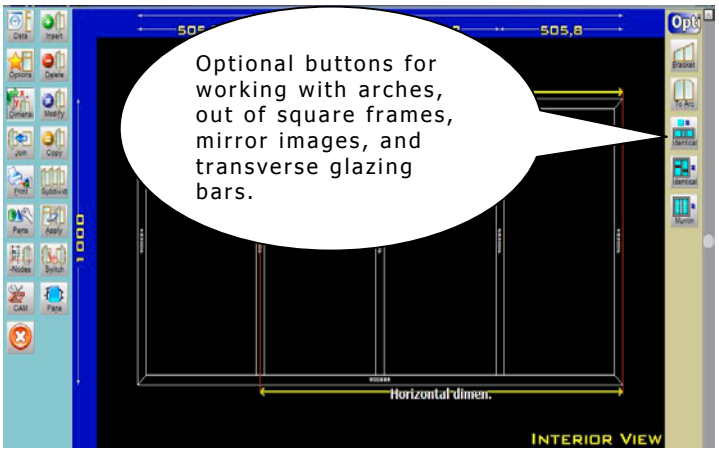
Swive hinge position
The position of the clutch. Valid only for swivel structures.

These dimensions can be set using this button that allows centring the clutch based on the height of the sash mullions.

Hinge Position
This is the position of the central hinge. It is required for structures that have more than two hinges.

Setting this height is made easier by this button that calls centres the hinge.

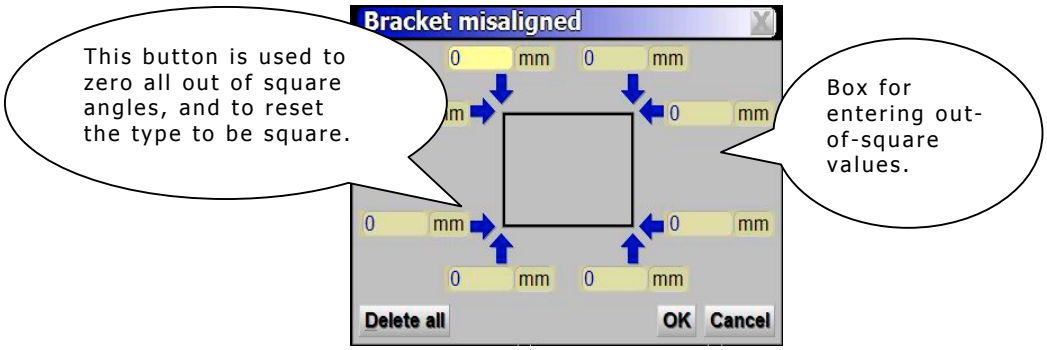
The optional buttons field



These buttons are used to change the type into an arched or out of square type, and to make glazing symmetrical, or for setting the height of transverse glazing bars.

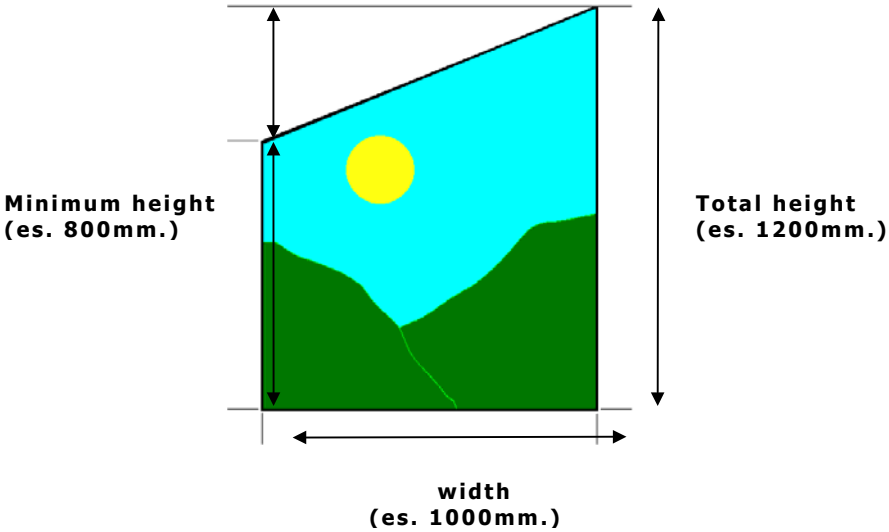
The button

When this button is pressed, it makes it possible to change the type into an out of square type. The following field opens.

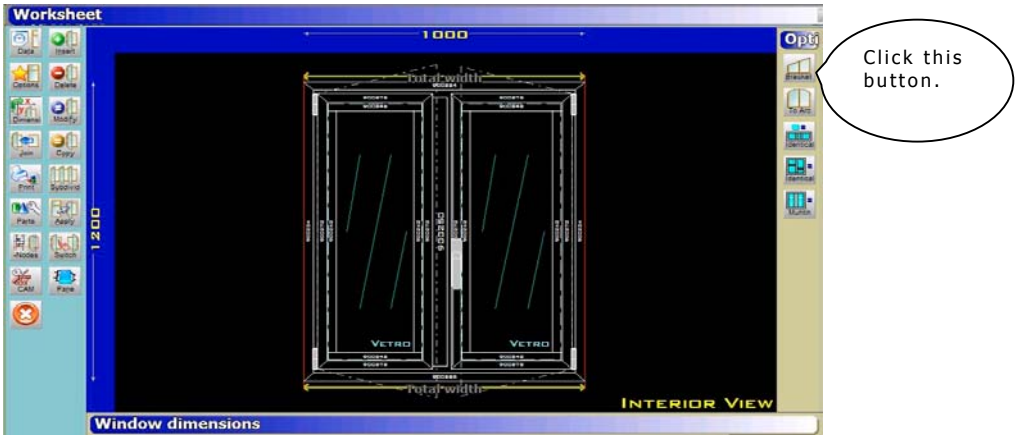


How to create an out-of-square shape

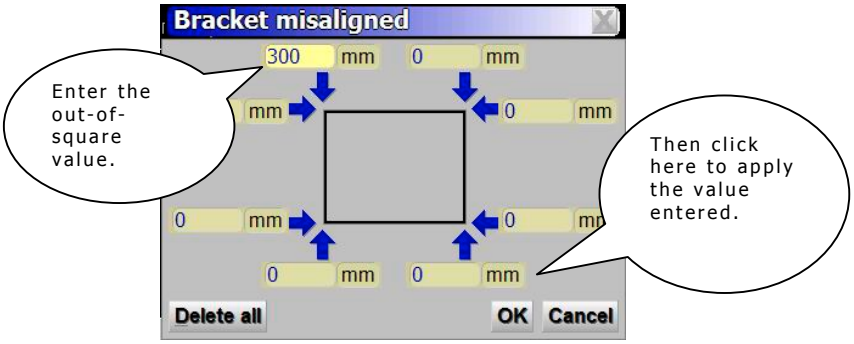
The maximum dimensions for the space into which the finished unit is to be fitted, must be applied to the type. The example given below shows a space into which an out-of-square frame, sloping at the left top is to be fitted.



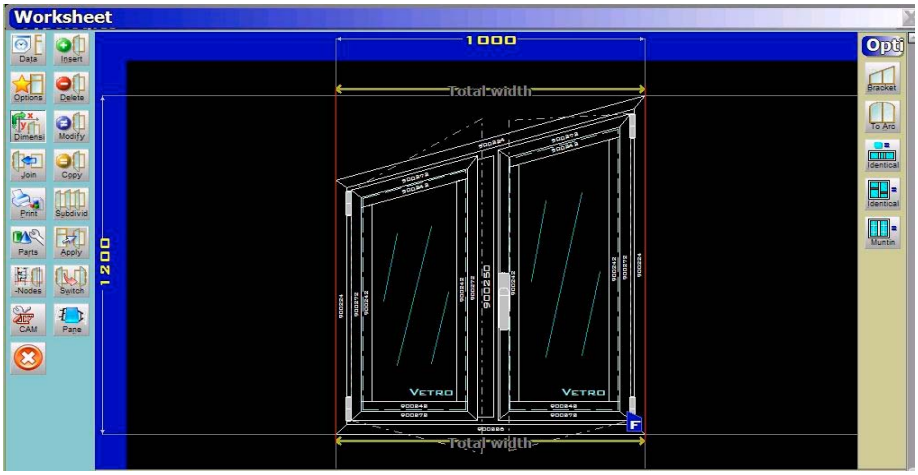
As a result the dimensions for the type to be fitted into the space shown in the example must be H 1200 x L 1000. The slope value of 400 mm must be entered on the top left side.



The field for setting an out-of-square shape will open.



The figure below shows the result obtained when a value of 400 mm is set for the top left side.



Effects on the cutting list

The program sees to calculating the angle at which the profiles are to be cut. As shown, the operator need only enter the out-of-square value, in relation to the maximum height or width. The following diagram shows the cutting list for the window considered above, in which the cutting sizes for the profiles used in the out-of-square side can be seen.

Distinta di taglio profili

Troncatrice: pippo

Sistema: ALUK - Serie: 45DS

Profilo	Utilizzo	Quota Taglio	Quota troncatri	N° pezzi	Cod. ident.
K621 Asta di comando	Asta sx	780,5 H	780,5	1	P.03.11
	Asta sx	227,7 H	227,7	1	P.03.10
k33 Telaio Fisso BIANCO MIX	Telaio fisso dx	1500 H 35,8°	1500	1	P.03.4
	Telaio fisso sup	35,8° 1264,9 L 54,2°	1264,9	1	P.03.2
	Telaio fisso inf	1200 L	1200	1	P.03.1
	Telaio fisso sx	54,2° 1100 H	1100	1	P.03.3

Sistema: ALUK - Serie: 45CO

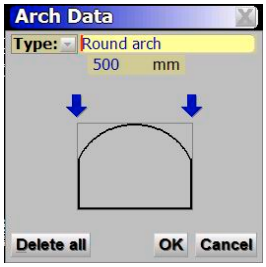
Profilo	Utilizzo	Quota Taglio	Quota troncatri	N° pezzi	Cod. ident.
K35 Telaio BIANCO MIX	Telaio mobile dx	1264,2 H 35,8°	1264,2	1	P.03.8

Sistema: ALUK - Serie: SC95

Profilo	Utilizzo	Quota Taglio	Quota troncatri	N° pezzi	Cod. ident.
K65 Telaio mobile BIANCO MIX	Telaio mobile dx	1432 H 35,8°	1432	1	P.03.12
	Telaio mobile sx	54,2° 1240,2 H	1240,2	1	P.03.9
	Telaio mobile sx	54,2° 1051 H	1051	1	P.03.7
	Telaio mobile sup	35,8° 606,4 L 54,2°	606,4	2	P.03.6
	Telaio mobile inf	575,2 L	575,2	2	P.03.5

The button

When this button is pushed it allows the type to be changed to become an ached type. The following field is opened, and is explained below.

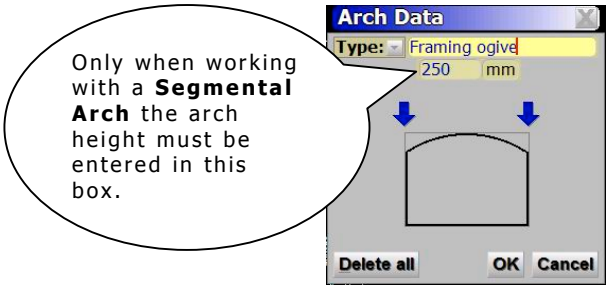


Type
This is the type of arch to be produced. Two types are provided, as explained below:

Round arch
In this mode, the radius of the arch will be equal to half the overall width of the type

Example of a round arch

Framing ogive
The arch radius is defined by the user.



Example of a segmental arch

Type of arch calculations
This request box is only used when working with a **Segmental** arch, and can be **Clear Space** or **Height.**

This function is used to indicate whether the clear space or maximum heights are to match. In creating cambers the profile is naturally altered, which creates difficulties when joining to a profile that has not been curved, as these cannot be made to match perfectly.

Effects on the cutting list
The calculation of the angle at which the profile must be cut is done by the program. As shown, the operator simply need to select the type of arch they intend forming, and only where a segmental arch is selected, the radius value must be entered.

The following figure shows a cutting list for a round arched window.

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Distinta di taglio profili

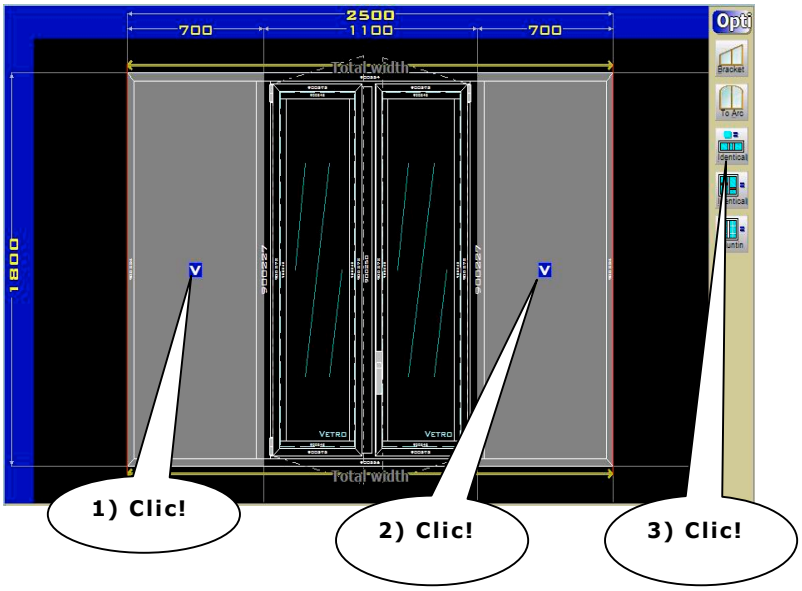
Profilo	Utilizzo	Quota Taglio	Quota troncatri	N° pezzi	Cod. ident.
4299 Fermavetro arrotondato da 17mm.	Fermavetro sup	**1361,6L** **Raggio di curvatura: 433,5**	1361,6	**1**	DZ.8
	Fermavetro inf	**867L**	867	**1**	DZ.7
	Fermavetro dx	**633,7H**	633,7	**1**	DZ.10
	Fermavetro sx	**633,7H**	633,7	**1**	DZ.9

Sistema: SISTEMI P&E - Serie: EKU 53 TT

Profilo	Utilizzo	Quota Taglio	Quota troncatri	N° pezzi	Cod. ident.
TTE101 Telaio fisso	Telaio fisso sup	**3083,9L** **Raggio di curvatura: 522**	3083,9	**1**	DZ.2
TTE102 Telaio fisso a L	Telaio fisso inf	**1000L**	1000	**1**	DZ.1
TTE105 Telaio mobile a Z	Telaio mobile sup	**2842,3L** **Raggio di curvatura: 475**	2842,3	**1**	DZ.4
	Telaio mobile inf	**950L**	950	**1**	DZ.3

The button

This button can be pressed, to set equal glazed panels automatically, for any type made up of a number of structures.
In using this function it is important for the operator to know that before using this button, the structures that are to have equal glazing are to be selected, as shown in the example below.



The equal glazing button

When this button is pressed the same height for the horizontal glazing bars can be set for types made up of a number of structures. The same procedure as that used for equal glazing above applies, in that the operator must first select the structures to which he wishes to apply this selection.

The button

The function of this button is about to determine the glass muntin position in case they are charged upon combined structures with different panneling dimension

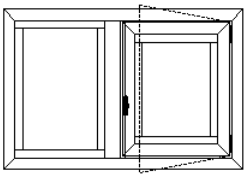
The enabling happen pushing the button and afterward upon the panneling with glass muntins

The button

Used to join or split two structures of a typology.

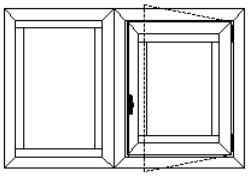
> In *Opera,* two structures can be called joint structures when their frames are continuous and have only one mullion (or transom) in common; whereas we have split structures when each one has its frame and they are not continuous.

Joint structures typology



Example of typology with 2 joint structures; it is possible to see the continuous perimetric frames and only one mullion in common.

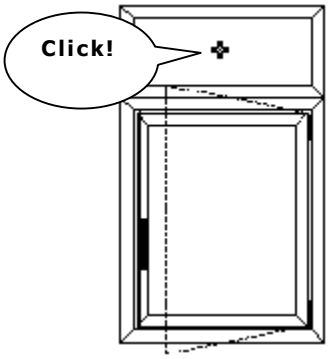
Split structures typology



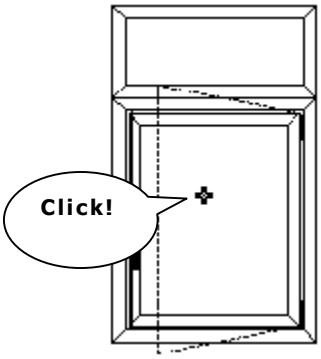
Example of typology with 2 split structures; it is possible to see the non-continuous perimetric frames; each structure has its own frame and there is no mullion in common.

How to join two separate structures

1. To join the two separate structures click on the structure you want to join;

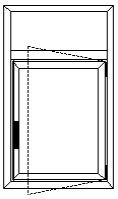
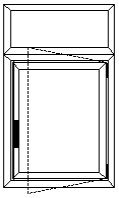
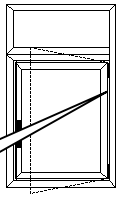
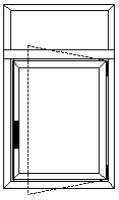


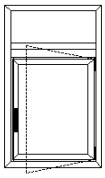
2. then click on the structure you want to be joined.



At this point, the program will carry out a quick test on the perimetric profiles of the two structures, in particular on the joint points, to verify if they have the same code. The program will then carry out the following actions.

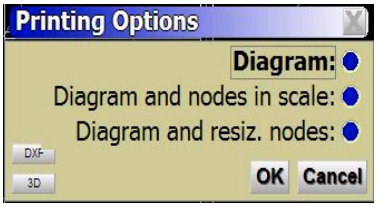
Test result	Action	Example
All profiles match	The program will ask if the structures have to be joined. In case of a positive reply, the structures will be joined	The frames of the two structured are joined

	on all sides. If the common profile is not a mullion or transom the program will inform the operator and will output the Mullions/Transom selection screen.	
All profiles do not match	The structures are kept separate.	 The frames of the two structures are NOT joined
Only one of the three matches	The program will ask if the structures have to be joined. In case of a positive reply, the structures will be joined only on the side where the profile matches. Joined side	 In this case only the right mullion has been joined
Only the profile in common matches	The program will ask if the structures have to be joined. In case of a positive reply, there are two possible actions: a. if the profile has a mullion/transom, one of them is cancelled and only one is left in common between the two; the lateral profiles remain separate. b. if the common profile does not use a mullion or transom, the	 As can be noted in the picture, only the profile in common has been joined.

	program will inform the operator and will output Mullions/Transoms selection screen, whereas the lateral profiles will remain separate.	
Only the lateral profiles match	The program will ask if the structures have to be joined. In case of a positive reply, only the sides will be joined.	 Only the lateral mullions have been joined whereas the transoms in common remained separate.

The button

Used to print the typology.



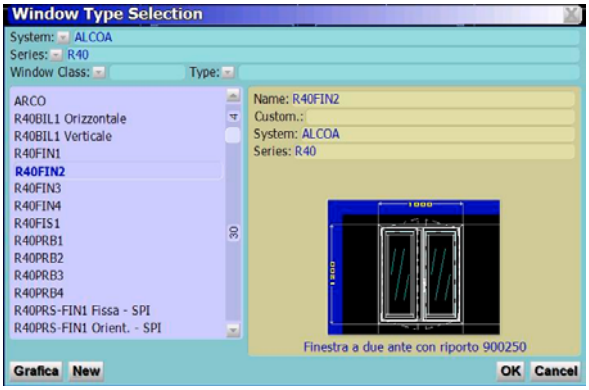
The button

Used to open the **Bill of Material** screen to view or change the typology materials. The contents are explained in the **Work orders management** chapter, in **Section 2**.

> It is important to remember that this screen should be used only to refer to the input data, for example to verify the quantity of materials, the correctness of prices and codes...; in fact, this screen should not be used to add or modify the typology materials, that should be done using another method as explained hereafter in this chapter.

The button

Used to input the structures to be used to make the typology on the Worksheet. The typologies screen where you can select the structure will be opened.

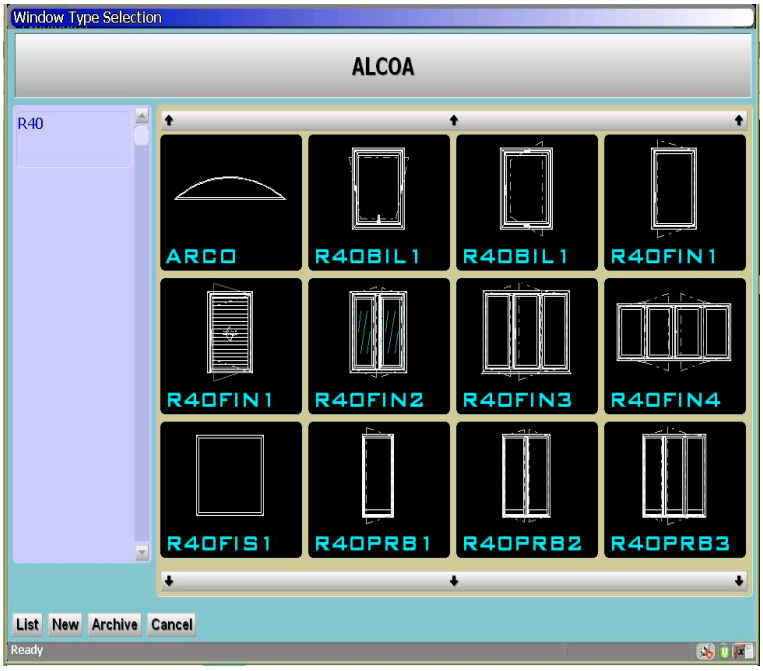


Typologies selection screen

Select the typology that has the required structure and draw it on the Worksheet.

The button

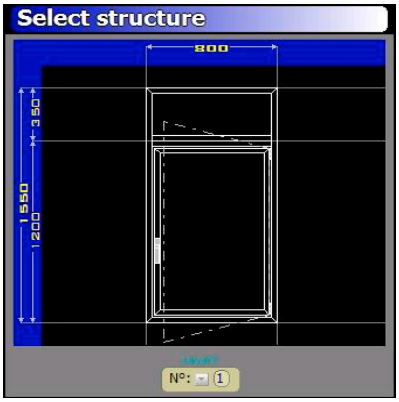
The possibility to display the selecting screen of strcuctures are two, one is shown in the previous picture, the other is shown in the following:



The button

is necessary to open the **Structure definition screen** to create the structure from scratch.
The contents and functions of the Structure definition screen are explained in the relative paragraph hereafter in this chapter.

If the selected structure belongs to a typology made up of several structures, the program will open the screen outlined in the following picture. The structure may be exported by clicking on it.

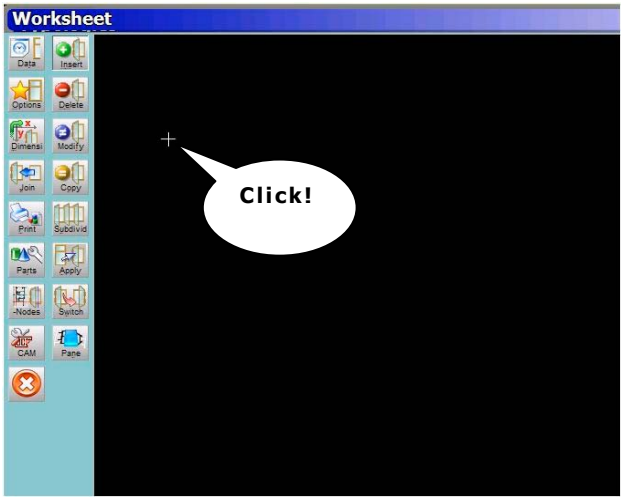


Program screen to extract a structure from a compound typology

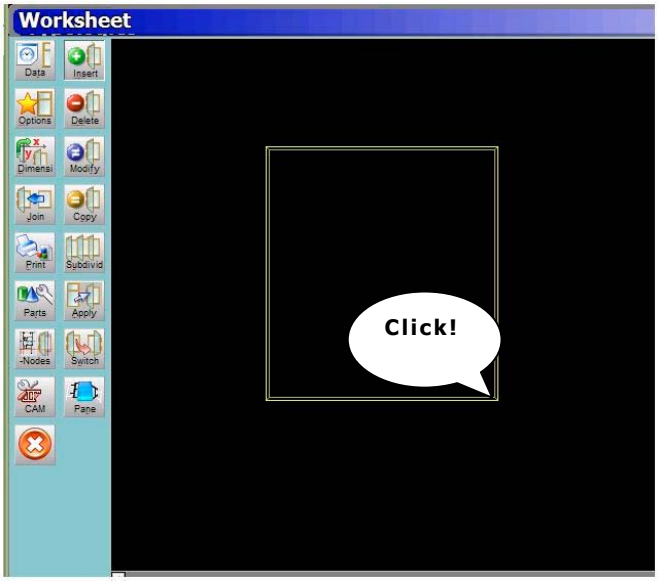
How to draw the structure on the Worksheet

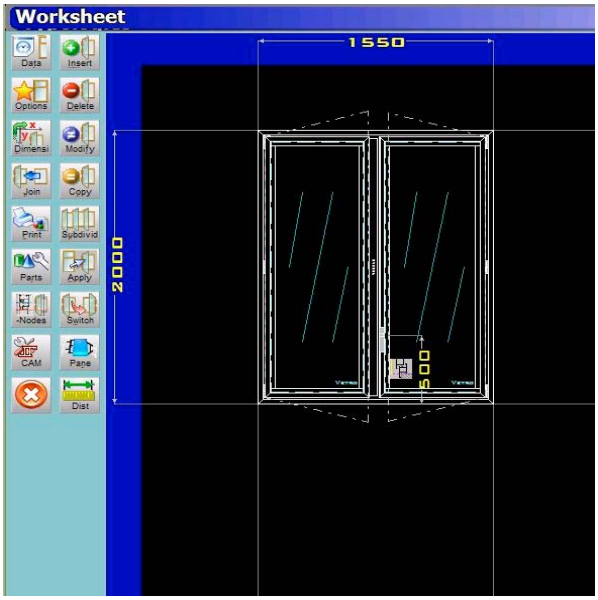
First obtain the structure and then draw it on the Worksheet as follows:

1. Bring the mouse pointer on the top part of the Worksheet, then click it and release it.



2. Drag the mouse diagonally from top to bottom so to open a rectangle then click it.

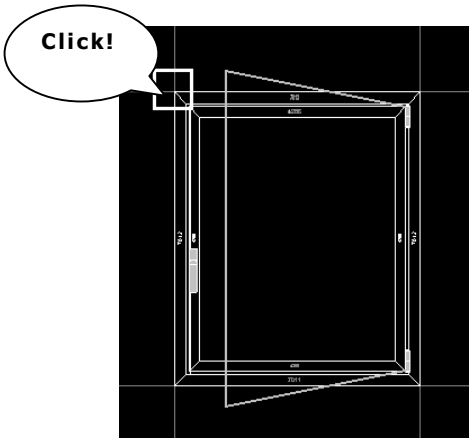




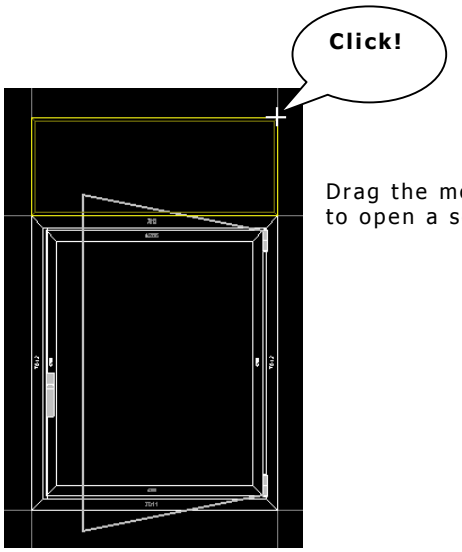
This is how the structure you have drawn will appear on the Worksheet

How to draw the structure linking it to a typology already drawn on the Worksheet

First obtain the structure and then draw it on the Worksheet as shown in the following pictures. When you link a structure to another, the mouse will appear as a square.



Put the square onto a corner of the typology, then click and release.



Drag the mouse diagonally upwards so to open a square, then click it.

The program will carry out a quick test on the perimetric profiles of the two structures, in particular on the joint points, to verify if they have the same code. The program will then carry out the actions explained in the previous **The Join button** paragraph in this chapter.

In this case the program will open the general data screen relative to the typology to make the necessary changes on the name, the descriptions and

the processing times. The description of contents of the general data screen of the typology can be found in the previous **The Data button** paragraph in this chapter.

The button

Used to cancel a structure of the typology. First press it and then click on the structure to be cancelled.
At the end of the operation is has to be disabled.

The button

Used to modify a structure of the typology. First press it and then click on the structure to be modified. The program will open the Structure definition screen whose contents and function are explained in the relative paragraph hereafter in this chapter. This button works like a switch and therefore needs to be disabled at the end of the operation.

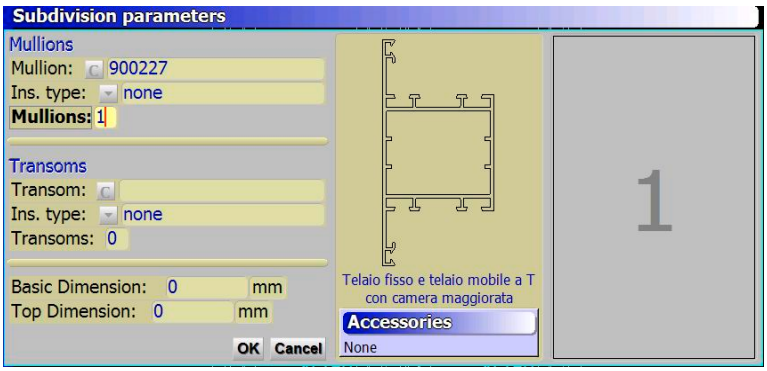
The button

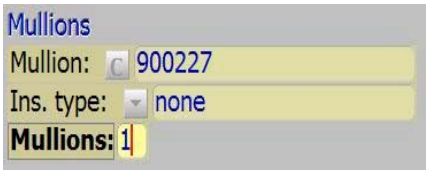
Used to copy a structure already present on the Worksheet. First press it and then click on the structure to be copied and precisely follow the instructions given in the previous paragraph.

This button works exactly as the **Inser** button, with the only difference that the structure to be inserted can be taken directly from the Worksheet.

The button

Used to multiply the structures in a typology. Press it and the **Multiplication parameters** screen will be displayed, the contents of which are explained hereafter.



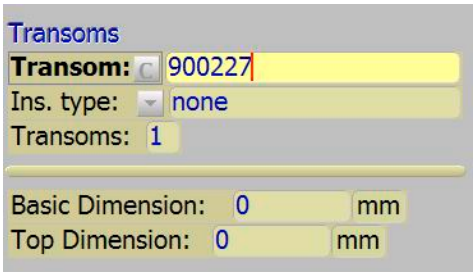


Mullion name
This is the code for the vertical glazing bar profile to be used for all the structures.

Type of insertion
This box offers the operator the opportunity of indicating the method to be used in fitting the vertical glazing bars, that is, whether they should be installed as a double profile, or if the profile is to go all the way to the base.

Mullions
The operator uses this box to enter the number of vertical glazing bars to be fitted in the type.

Accessories
When this button is pressed, the program opens the field for loading the vertical glazing bar accessories to be included for the type.



Transom Name
This is the code for the horizontal glazing bar to be used in all the structures.

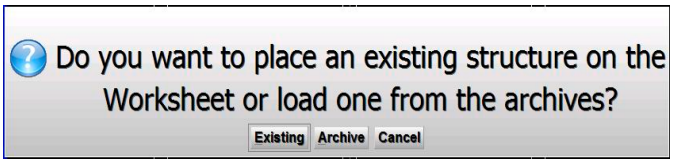
Type of insertion
The operator uses this box to indicate the way the horizontal bar is to be inserted, that is, whether it is to be inserted as a double profile, or if the profile is to go all the way to the wall.

Transoms
The operator puts the quantity of horizontal glazing bars in this type into this box.

Lower height, Upper height
This indicates the level of the horizontal bar, in relation to the lower and upper widths. When the values are entered in these boxes, the program considers the horizontal bar as the base for this type, or as the upper width, eliminating profiles positioned beforehand.

Accessories
When this button is pressed the program opens the field for loading accessories for horizontal bars entered for the type.

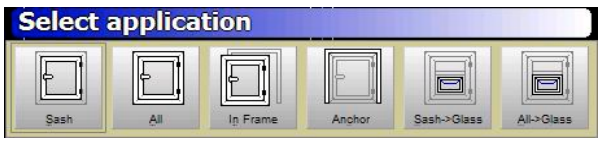
The button
Used to apply a structure to a drawing already existing on the Worksheet. The structure that should be applied can be taken from the drawing itself or directly from the typologies archive; press this button and the following request will be made.



Select Existing and the program will wait until you click on the structures belonging to the typology found on the Worksheet, and then that you click on the structure onto which you want to paste the selected structure.

Select Archive and the program will open the typologies selection screen where you can select the structure.

Once the choice has been made the program opens a further field entitled "Application of structure".



It is important to know how to use this function properly, in order to create windows that include fixed and opening sections. This allows the operator to choose the button that provides the function best suited to their needs.

The button

Where this button is selected, only opening sections will be included in the structure selected. For the entire glazed area in the existing structure on which the application must be used, horizontal bars are ignored and deleted where the structure is a door with a central panel.

The button

When this button is selected it has a similar action to that of the previous button. The difference lies in the fact that the program enters the entire structure selected including the fixed element. This replaces the fixed frame in the structure on which the application is used. Horizontal bars are ignored and deleted where the structure is a door with a central panel.

The button

When this button is selected the program enters the entire structure selected into the existing structure on the design sheet. It does not delete the fixed element in the structure but inserts the selection inside it. Horizontal bars are eliminated and ignored where the structure is a door with a central panel.

The button

When this button is selected, it allows the counter frame to be applied to the type already used on the design sheet. In this case the internal structure of the type is not changed. Using this button within the "Apply" function is useful for speeding up the process of applying a counter frame to a type at the time of preparing a quotation. Remember that to have a type of counter frame available, this structure must be created in the Type File.

The button

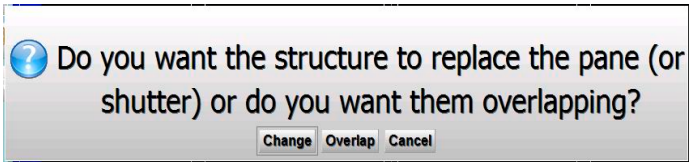
Although very similar to the first of the buttons looked at here, this button differs from the "Apply" button in that it provides the possibility of inserting an opening element into the selected structure, without

eliminating horizontal or vertical glazing bars already in the structure on the design sheet.

The button

This last button in the "Apply" function has the same characteristics as the previous one, the only difference being that the entire selected structure will be applied to the structure in the file, including the fixed element.
The practicality and functionality of these last two buttons will be appreciated when you need to create types of frames that include closing sections in a shutter, or any structure that calls for an opening section in a frame that opens.

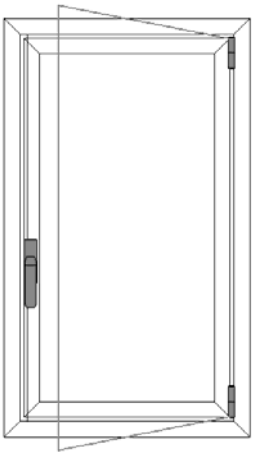
The program only displays the message below when the choice to apply the last two buttons has been made.



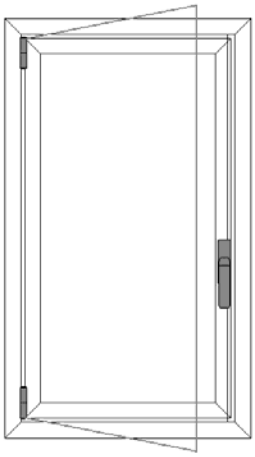
What the program is asking in this case is how the filling elements in a structure on the design sheet are to be considered, that is, whether the structure to be applied is to replace the filling or be superimposed on it.

The button

Used to reverse the opening operation. The effects of this button depend on the number of sashes.
For 1-sash typologies the mullions, including the accessories, will be reversed.



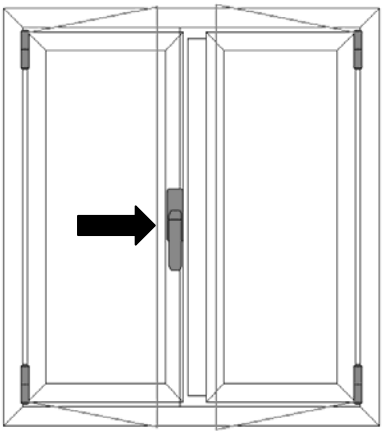
Before pressing the button



After pressing the button.
The sash profiles have been reversed, including their accessories.

For 2 sash typologies all cross section profiles will be reversed, including the accessories.

Before pressing the button.

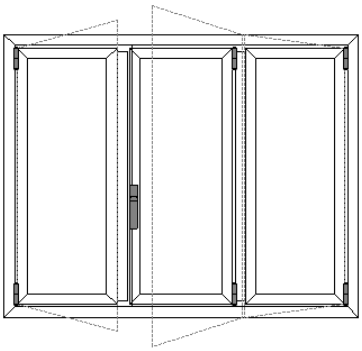


After pressing the button.

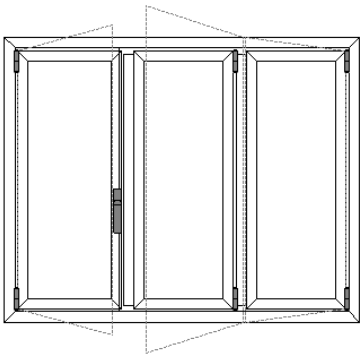
All centre cross section profiles have been reversed, including their accessories.

For 3-sash typologies the following request will be made.

Select **Node** and the program will exchange all cross section profiles relative to the handle, including their accessories.

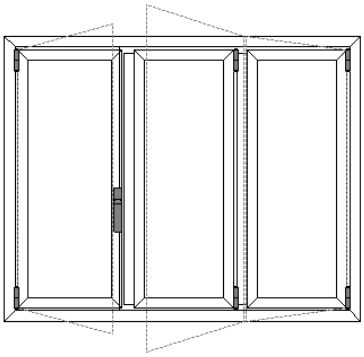


Before pressing the button.

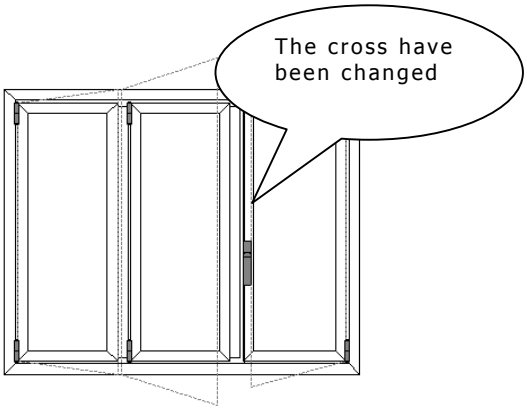


After pressing the button.
All cross section profiles relative to the handle, including their accessories, have been inverted.

Select **Sashes** and the program will exchange the position of the semi-mobile sashes and will put the sash that can be opened on the opposite side.



Before pressing the button.

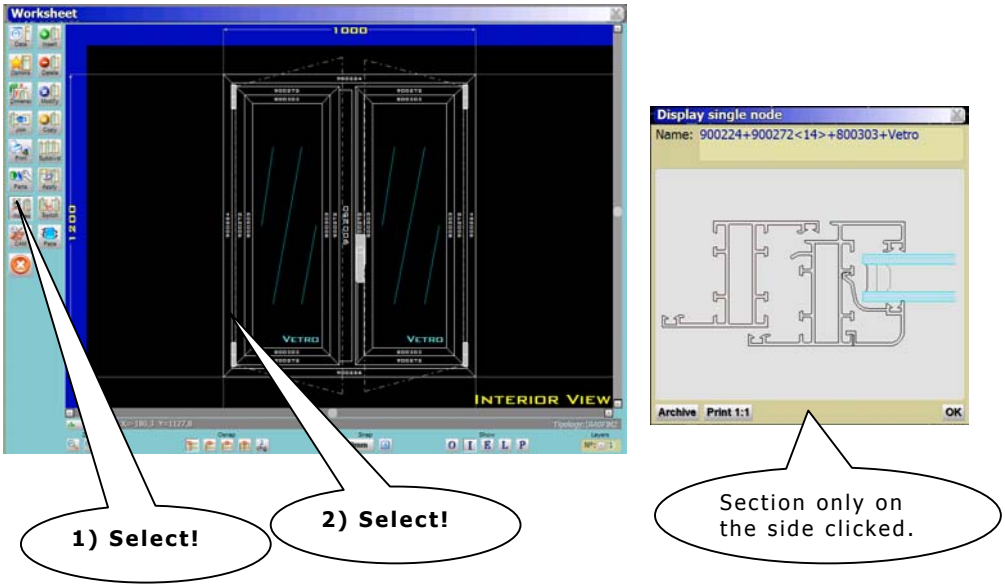


After pressing the button.
The position of the semi-mobile sashes has been exchanged. The sash that can be opened has been moved to the opposite side with respect to its original position.

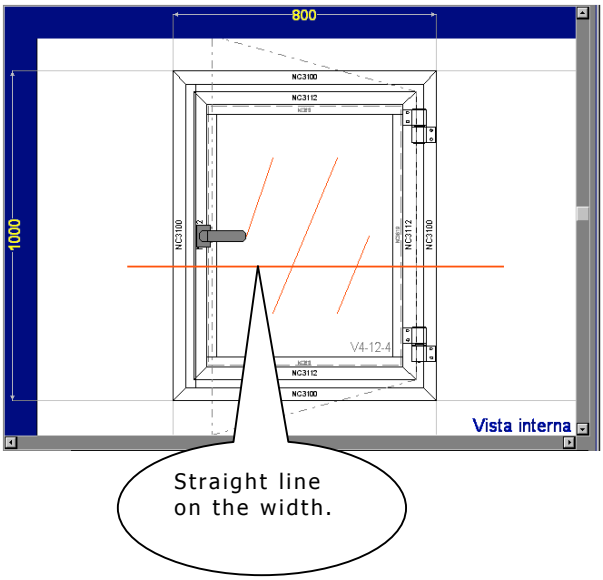
If **Invert** is selected, the program will reverse the opening direction, for the leaf that has the handle fited on it.

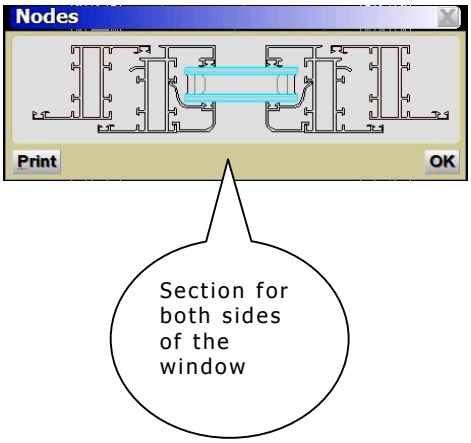
The button

This is used to make is possible to see the connections. It is not sufficient to simply press this button, once it has been pressed the program waits for the operator to click again, on the side of structure for which you wish to view the connection. If the connection has already been created and filed, the program will open a field on the design sheet showing the connection.



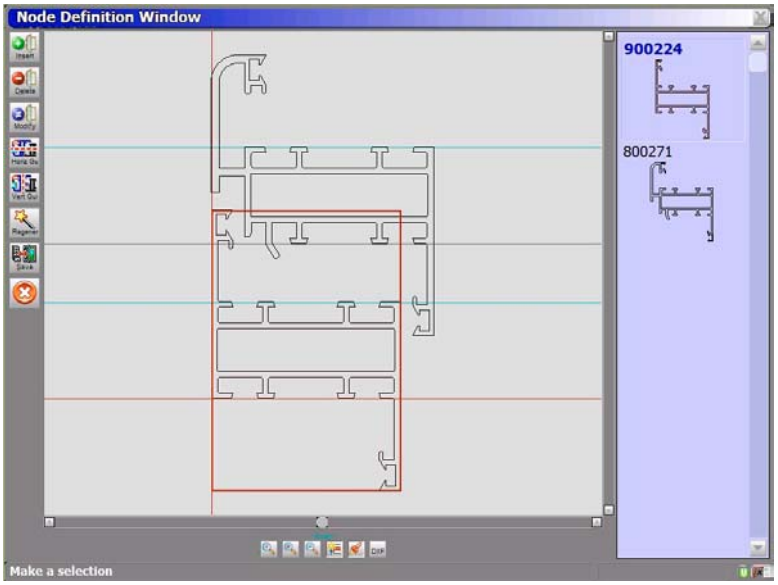
Or tracing a straight line holding the left button on the mouse down and passing the mouse over the work table, cutting through the width or height of the type, as shown in the example:





If the connection has not been created and filed previously, the program will display the following message:

If the **Yes** button is clicked, the program takes you to the *"Connection definition field"* the contents of which are described below.



The operator works in this field to position objects so as to define the connection. The objects within the field can be moved. To move them the operator clicks on the object he wants to move. The object is outlined in red. It is then dragged by holding the left button on the mouse down and moving the mouse over the work table, and the object moves. There are lines inside the field that are fundamentally important in positioning objects. The two vertical and horizontal red guide lines determine the starting point for the connection, and the point at which they intersect determines the zero poin. The program determines this point on the basis of the values indicated in the "Vertical and Horizontal Reference Points" in the *Subject Information field,*which contents will be analyzed shotrly ahead in these pages The other lines, demarkate the space including chambers and clear spaces in the profiles. To the right of the field there is a symbol list of the objects in the field. The operator can also activate the objects to be moved from this list by clicking on them. The following buttons are found to the left of the field.

The button

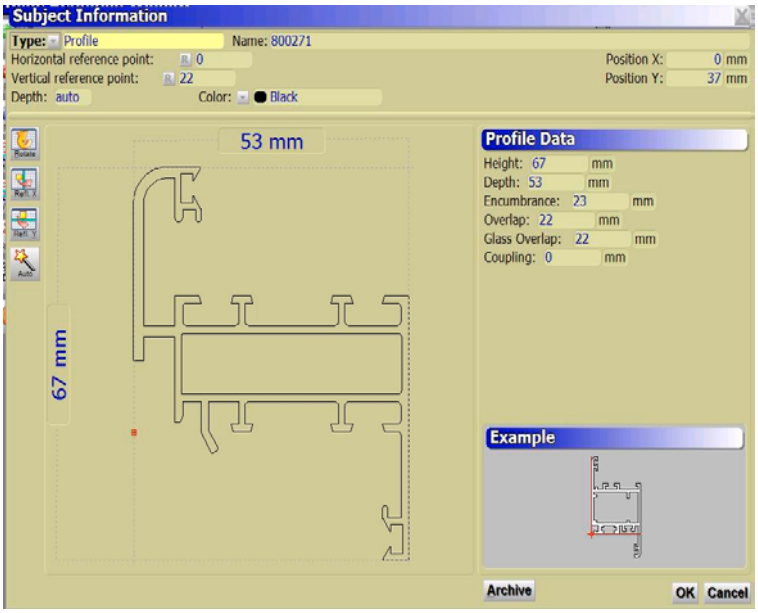
When this button is pressed, it allows a profile, accessory, filling or image to be added to the connection.

The button

When this button is pressed, it allows objects to removed from the connection.

The button

When this button is pressed, the settings for an object in a connection can be changed. When the object has been selected and this button in pressed the program open the screen the *Subject Information field*

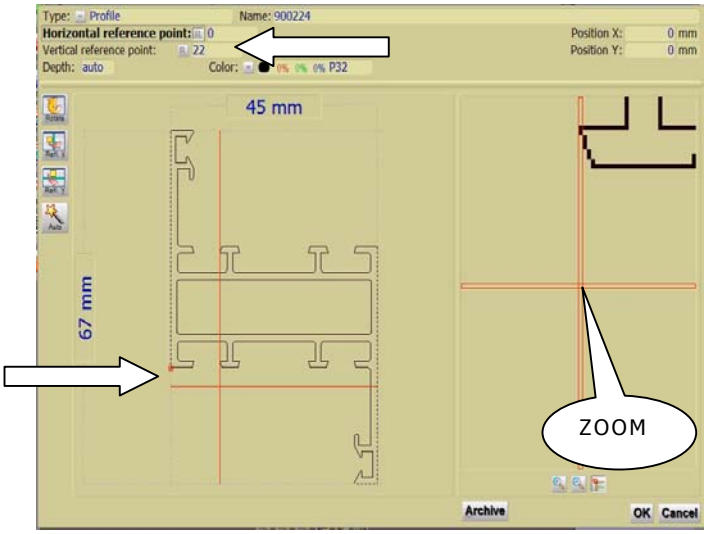


In the above picture there are the profile shape data which is possible to modify using the following functions:

Type
This indicates the type of "object" you wish to create – a profile, accessory or filling.

Name
This is the coded name for the object.

Reference point Horizontal / Vertical
Both the values set the leaning point of the object upon the profile guide lines. To enable this functions the usar has to push the button the move the mouse toward the shape and fix the point.



Position X / Position Y
These values determines the horizontal and vertical position of the object in the **"Connection definition field"**,.

Depth
Here is possible to insert a value to determine the sketch line thickness

Color
This button open the color list, to determine the line color which delimit the sketch.

The button

When this button is pressed, the object can be rotated clockwise. The operator uses this function when the image is positioned incorrectly compared to the example.

The button

When this button is pressed, it inverts the position of the object horizontally, about the vertical axis.

The button

When this button is pressed, it inverts the position of the object vertically, about the horizontal axis.

The button

When this button is pressed, the object data is regenerated and recalculated automatically.

Profile data
This includes values in mm for the sizes of an object that the program finds in the "File".

Once the preliminary operation of displaying the object data has been completed, the program waits for the operator to confirm. This is done by clicking the OK button, to the bottom right of the field you're working in. The program will take you back to the *"Connection definition field*:

The button

When this button is pressed, it is possible to change the settings for the horizontal guide lines.

The button

When this button is pressed, it is possible change the settings for the vertical guide lines.

The button

When this button is pressed, it is possible to regenerate the connection, or the recreate the images of the objects making up the connection, using existing images or creating a new work sheet. This button should be used with care, to avoid losing connections already created, which would mean having to start the work over again.

The button

Through this button you exit the screen saving the node and saving it in the Nodes archive, of whom you'll find detailed explaination in ahead in this section.

Enlarge
When this button is pressed, a detail in a drawing is enlarged. Further explanation of this button is required. Once it has been pressed, the indicator for the mouse takes the form of a cross. This cross must be positioned near the point you wish to enlarge, then outline the area to be enlarged and click.

Complete
When this button is pushed, the design takes up as much space as possible in the connection definition field, to fill the field.

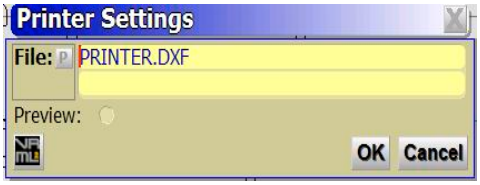
Reduce
Pressing this button allows you to reduce the size of a drawing. This is useful for creating more space in the Connection definition field.

The button
This button nearby the zoom group, has the function to clasp and unclasp the draws from the guidelines

The button
The activation of this function makes the draw moving less precise but more fast.

The buttomn

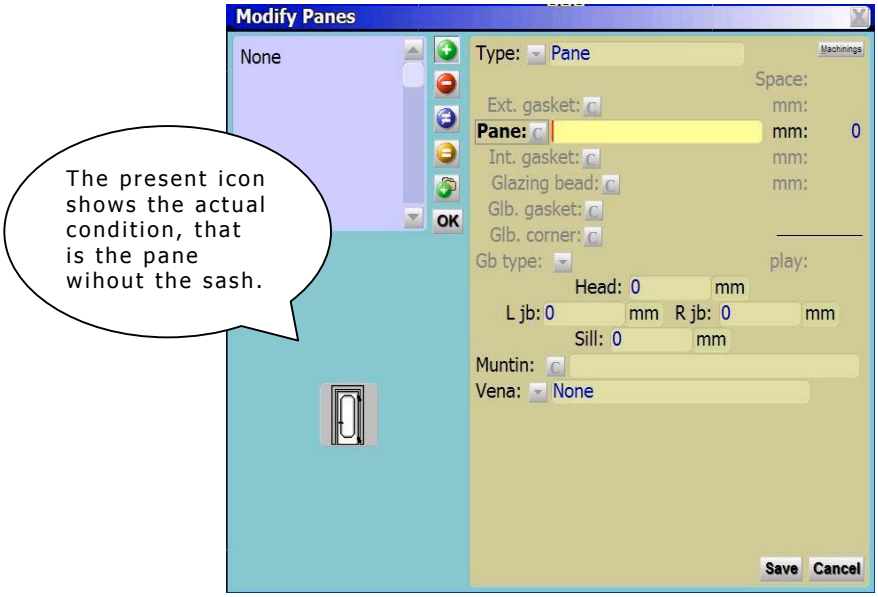
This button allow to make a Dxf file of the node worked in the screen.



The button

Used to open the typology pane add or modify screen. The contents of the screen vary according to the profile glazing system of the typology. Find hereafter an explanation of the different cases.

In case of Casement window typologies without profiles on the sash, the following program screen will be displayed.



Program screen modify panes for casement window typologies with no profiles on the sash.

Description of contents of the screen if the structure has no profiles on the sash.

Type
Shows the type of pane to be assigned to the typology, either *Pane* or *Panel.*

Ext. gasket
Disabled as there is no frame
Pane/Panel
The code of the pane (glass or pane) or the panel.

Int. gasket
Disabled as there is no frame.

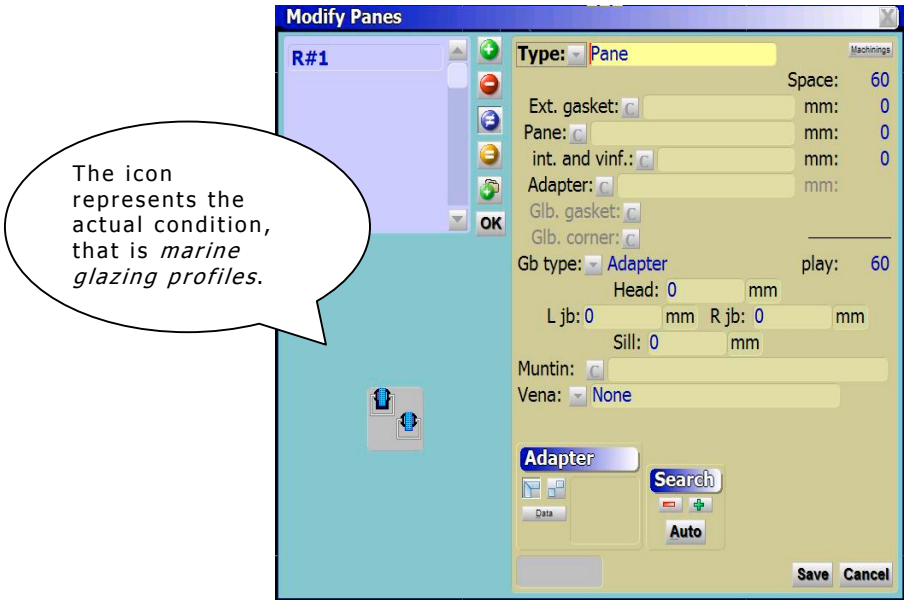
Glazing bead
Disabled as there is no frame.

Glazing bead gasket
Disabled as there is no glazing bead.

Glazing bead corner
Disabled as there is no glazing bead.

Head, Left, Right, Sill
These indicate the clearance values between the pane and the frame.

In case of a marine glazing structure, the following screen will be displayed.



Description of contents of the screen in case of a marine glazing structure

Type
Shows the type of pane to be assigned to the typology, either *Pane* or *Panel.*

Ext. gasket
The gasket to be fitted in the external part of the glass.

Pane/Panel
The code of the pane (glass or pane) or the panel.

Int. or marine glazing gasket
The gasket to be fitted on the internal side or a marine glazing gasket; if the marine glazing gasket is displayed, it will not be possible to indicate the external gasket.

Adapter
The code of the possible glass space adapter profile.

Glazing bead gasket
Disabled as there is no glazing bead.
Glazing bead corner
Disabled as there is no glazing bead.

Head, Left, Right, Sill
These indicate the clearance values between the pane and the frame.

The screen

This screen indicates the sectional drawing of the adapter profile and allows the setting of the cuts.

Press this button to set the angles to 45°.

Press this button to reduce the cut length of the height value of the profile itself.

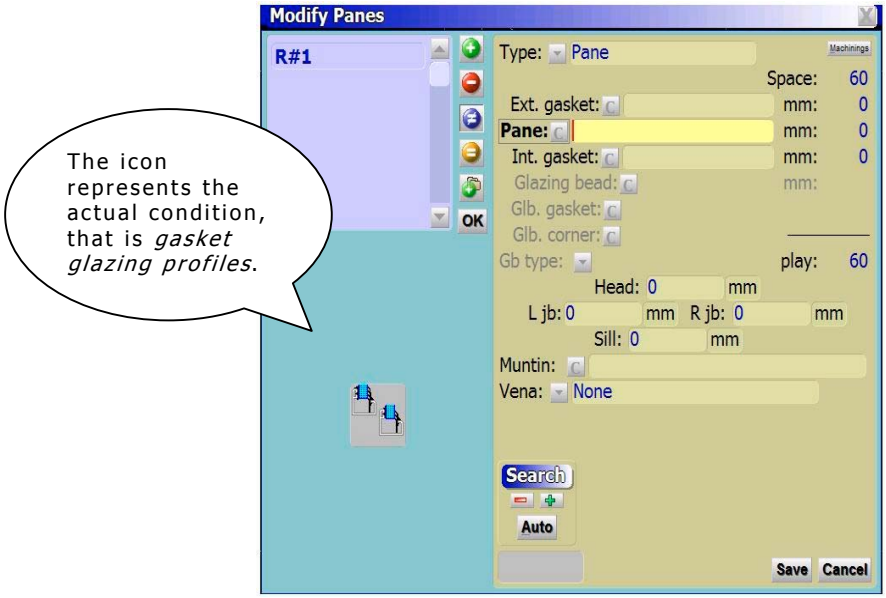
The screen

This screen will allow you to launch the automatic search of components (adapter, gaskets…) for the best possible seal according to the chosen glazing.

These buttons allow you to search the thinnest and the thickest internal gasket.

This button is used to automatically find the best possible sealing solution (gaskets, adapter…) according to the chosen glazing.

For *gasket* glazing structures, the following screen will be displayed.



Description of contents of the screen in case of a *gasket* glazing structure

Type
Shows the type of pane for the typology, either *Pane* or *Panel.*

Ext. gasket
The gasket to be fitted in the external part of the glass.

Pane/Panel
The code of the pane (glass or pane) or the panel.

Internal gasket
The gasket to be fitted in the internal part of the glass.

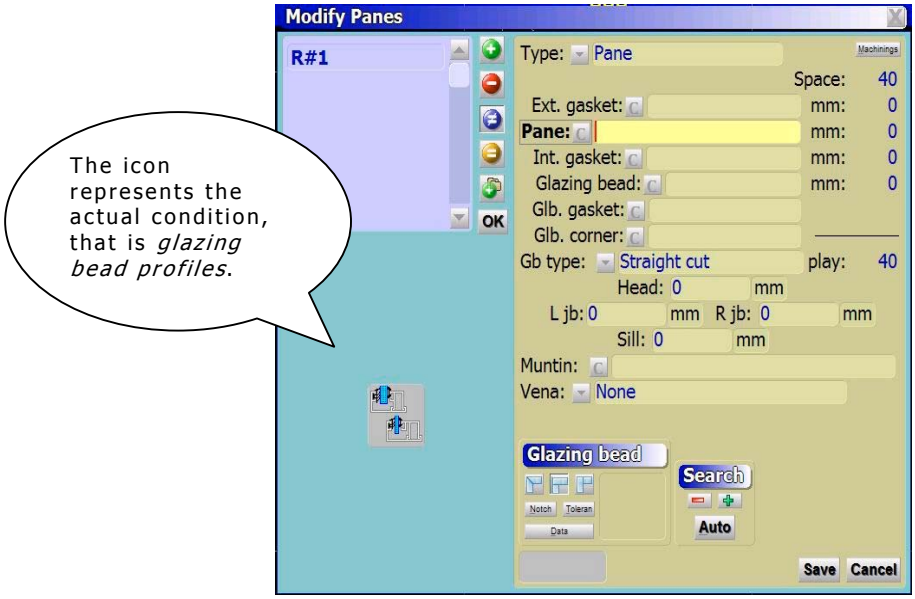
Glazing bead
Disabled as this is a gasket glazing system, thus not requiring a glazing bead.

Glazing bead gasket
Disabled as there is no glazing bead.

Glazing bead corner
Disabled as there is no glazing bead.

Head, Left, Right, Sill
These indicate the clearance values between the pane and the frame.

For glazing bead structures, the following screen will be displayed.



Description of contents of the screen in case of a *glazing bead* structure

Type
Shows the type of pane for the typology, either *Pane* or *Panel.*

Ext. gasket
The gasket to be fitted in the external part of the glass.

Pane/Panel
The code of the pane (glass or pane) or the panel.

Internal gasket
The gasket to be fitted in the internal part of the glass.

Glazing bead
The code of the glazing bead profile.

Glazing bead gasket
The gasket necessary to fix the glazing bead. This system is used by some manufacturers.

Glazing bead corner
The accessory used to close the glazing bead corners, usually for rounded glazing beads. The quantity is automatically multiplied by as many corners as there are in the structure to which the pane is linked to.

This accessory can be automatically input every time a glazing bead requiring a corner is added. To do this it is necessary to assign the corner accessory to every glazing bead that requires it. This operation has to be carried out in the profiles archive, in the profile accessories section (please see **The profile standard accessories archive** paragraph, in the **Profiles** chapter).

Glazing bead type
The function of this box is relative to the *Search* aspect, explained hereafter, and is used to define the aesthetic appearance of the glazing bead (sharp, rounded, gothic edges). If you choose the glazing bead type before making the automatic search of components (glazing bead, gaskets…), the program will look for the most suitable glazing bead amongst the ones relative to the specified type.

Head, Left, Right, Sill
These indicate the clearance values between the pane and the frame.

The

screen
This screen is necessary to carry out specific operations on the glazing beads. Find a detailed explanation below.

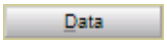
Cut corners setting. These buttons are used to set the cut corners of all glazing beads of the pane being defined.

Coupling value activation. This button will work only if the cut corners buttons have been enabled. In fact, if one of the two buttons that control the cut at 90° is enabled , enabling the

button, the coupling value will be added (input in the technical data relative to the glazing bead, in the profiles archive), to the longest glazing bead. Obviously, if this value is positive (ex. 25) the glazing bead will be lengthened, whereas if it is negative (ex. -25) it will be shortened.

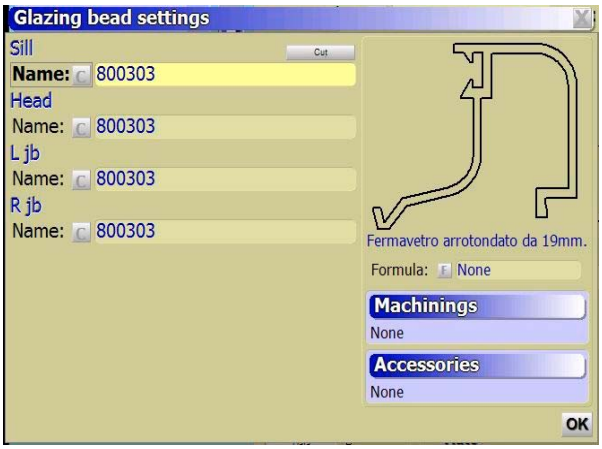
The tolerance value activation. This button will work only if the cut corners buttons have been enabled. In fact, if one of the two buttons that control the cut at 90° is enabled, enabling the

button will deduct the tolerance value input in the technical data relative to the glazing bead in the profiles archive, thus shortening all four glazing beads of the pane.



Check and modify data relative to each glazing bead. Press this button to open the screen relative to settings of glazing beads data to change, when necessary, particular data of the single glazing

bead, useful when the glazing beads require different codes, cut measures or other. The following screen will be displayed, followed by a description of its contents.



Sill Name, Head Name, Left Name, Right Name
These boxes indicate the names of the bottom, top, left and right glazing bead.

Each glazing bead has a group of buttons to be used to assign accessories, formulas or reset the cuts.

The button Cut
This button is useful when the glazing bead is cut together with the frame it will be fitted onto. In this case it is better to press the button to get a unique cut list for both profiles. Only if both profiles are 45°.

Profile	Function	Dimension Cut
TTE105+9040 Sash profile	Sash Sill	**950L**

Detail of the cut list

The frame code is followed by the glazing bead code.

The cut dimension refers to the assembled profiles.

The button

This button is necessary to assign the accessories to the glazing bead.

Formula
This button is necessary to assign the cut formulas to the glazing bead.

The screen

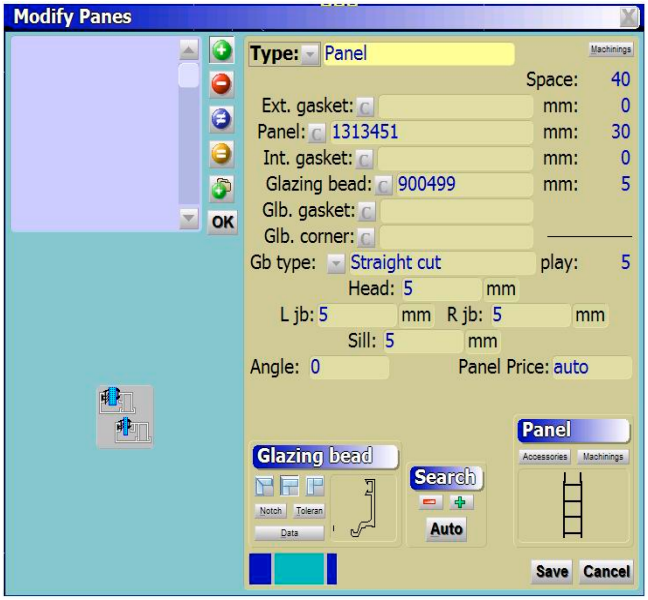
This screen will allow you to launch the automatic search of components (adapter, gaskets…) for the best possible seal according to the chosen glazing.

These buttons allow you to search the thinnest and the thickest internal gasket.

This button is used to automatically find the best possible sealing solution (gaskets, adapter…) according to the chosen glazing.

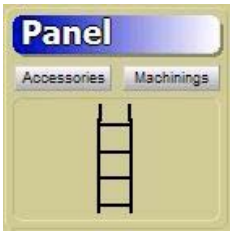
The correct use of this function depends on certain factors. For example, if you have input a 20 mm glass and chosen a *rounded* glazing bead (see the previous *Glazing bead type* paragraph), it is necessary that there is a suitable glazing bead and the necessary gaskets in the archive. It is also necessary that there are not double glazing beads or double gaskets, that is with the same encumbrance and thickness.

If the sctructure is STAVE the will be as follows:



Basically the screen configuration is the same. The difference is that the stave is a profile therefore it is saved in the archive of profiles. The cutting and quantity will be dealt by the program in the same t deal with all the other profiles of the window

A particular feature strictly linked with the stave within the panes is the following screen:



This screen who manage the accessories and possible machinings (for those who use *Opera Job Management and Machinings)*, at the same way on which the accessories of other profiles are manged in the worksheet

The button
The panes management screens have an extra button, in addition to the fundamental elements of the management screens already examined.
This button is used to get the group already equipped with everything required to fit the pane (glass, gaskets, glazing bead, etc.…) from the panes

archive. For additional information on how to use this handy feature, see the *Panes* chapter hereafter in this section.

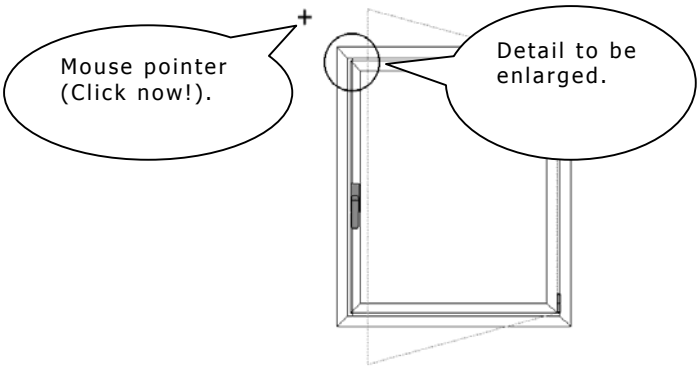
The buttons of the Zoom group

Zoom out. Press this button to reduce the drawing. It is useful to get more space on the Worksheet.

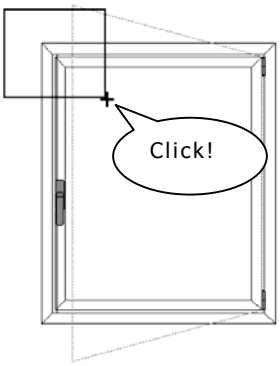
Entire. Press this button and the drawing will use the entire available space on the Data page.

Zoom in. Press this button to enlarge a detail of the drawing.
This button requires further explanation. If you press it, you will notice that the mouse pointer will change into a cross: you will need to point this cross near the point you want to enlarge, then open a square including such point and then click.
Therefore, to enlarge the drawing you will have to:

1. Point the mouse near the point you want to enlarge and click, see the following picture (note the mouse pointer);



2. after clicking, drag the mouse till you open a square including the point you want to enlarge, then click, as in the following picture;



The buttons of the Osnap group

The buttons of this group represent another important function of the Worksheet. In particular, they are used when you want to link a new structure to the typology saved on the Worksheet, to help you catch exactly the connection point.
Find hereafter an explanation for each one of them.

Get corner. Press this button to get the corner when you want to link the new structure from a corner of the typology.

Chance link. Press this button to link the structure from any point on any of the two sides of the typology.

To better understand the two following buttons, it is necessary to begin from the last one of the group.

Get structure. If the typology to which you want to link the structure is made up of several structures, this button will let you catch exactly one point of one of the structures on the side specified in the division factor.

Get typology. If the typology to which you want to link the structure is made up of several structures, this button will let you catch exactly one point of the typology whole side specified in the division factor.

Set the division factor. This button will give you the chance to determine the number of parts into which the typology side you want to link to the new structure should hypothetically be cut into for an easier connection. Using the buttons explained hereafter it will be possible to make the link starting from an exact point, such as the half, one-third, two-thirds, etc. Therefoe if you input value 4 you can,

clicking anywhere on the side, link the structure at exactly ¼ of the typology width.

The buttons of the Snap group

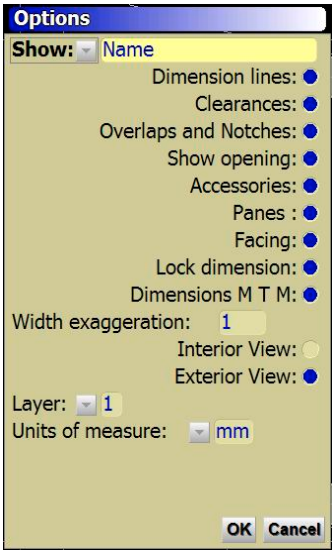
Using these two buttons, you can set the minimum movement values of the mouse pointer on the Worksheet. In fact, a sort of invisible grid guides the movement of the pointer, making sure that it can be found on these invisible squares forming the grid.

Movement value. Point and click on this button to input a new movement value.

Delta. This button is used to determine if the cursor has to move on a grid built from the base of the typology or from the initial position of the cursor.

The buttons of the Show group

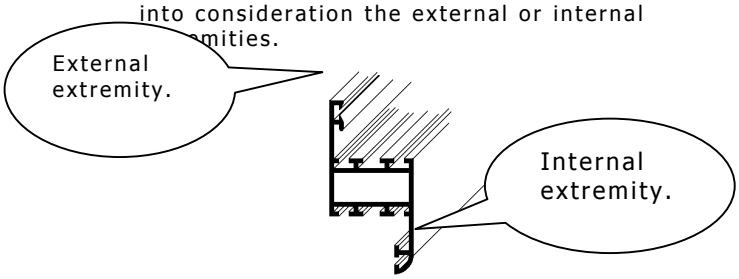
Display options. This button is used to set the display options that will let you see on the typology, some of its features such as the profile names, cut dimensions, components design, opening directions,...
The screen outlined in the following picture will be displayed, followed by an explanation of the contents.



Show
Indicates the display type name. There are nine possible choices.

Name Check this item to display the codes of profiles and panes.

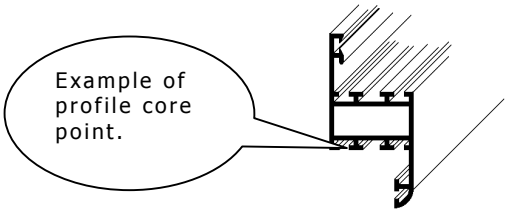
Ext. Dimension
Int. Dimension Check one of these items and the cut values of profiles and panes will be displayed. The profile cut measures will be displayed taking into consideration the external or internal extremities.



Name+Ext. Dimension
Name+Int. Dimension Check one of these items and the codes of profiles and panes will be displayed followed by the cut values. The profile cut measures will be displayed taking into consideration the external or internal extremities.

Function Check this item and the profile uses will be displayed as input in the profiles archive.

Core dimension Check this item and the cut values of profiles and panes will be displayed. The profiles cut measures will be considered from profile core to profile core.



Name+Core Dimension Check this item and the codes of profiles and panes will be displayed, followed by the cut values. The profile cut measures will be considered from profile core to profile core

Formula This show the profile's cutting formula

Dimensions lines
Check this item to display the reference lines in the lock, height and width measures.

Clearances
Check this item to display the clearances between the profiles, if any.

Overlaps and Notches
When this box is activated, the ledges and gains for horizontal profiles or wainscots are displayed, as applicable.

Show opening
Check this item to display the opening direction of the sashes.

> The opening direction is given by the presence of the handle or lock. Therefore, if neither of the accessories are indicated, it will not be possible to display the opening direction.

Accessories
Check this item to display the accessories of the typology, such as hinges, handles, water drip moulds, ...

Panes
Check this item to display the panes assigned to the typology.

Facing
When this box is activated any butts or reductions of profiles are displayed.

Lock dimension
Check this item to display the lock or handle height.

Dimensions MTM
Check this item to display the positions of mullions or transoms, even the ones relative to the muntin.

Width exaggeration
This value indicates the enlargement factor of the encumbrance of the profiles compared to the dimensions of the typology. For example, if the value is 2, the encumbrances will be proportionally displayed twice as large as the dimensions of the typology; if the value is 1, the encumbrances will be perfectly proportioned.

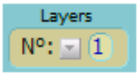
Interior view
Indicates that the typology has to be displayed internally.

Exterior view
Indicates that the typology has to be displayed externally.

Layer
Shows the active plan. As regards to the plans, see hereafter in this chapter.

Units (or Unit of measurement)
Sets the preferred measurement unit.

Internal view and **External view**. Set how the topology will be displayed, that is in internal or external view.

The Level Button 

When this button is pressed, the level you wish to work on can be set.

The level function is useful when working on superimposed types. In fact, types can be superimposed for each level. This function is useful in creating combined types, such as windows with shutters. In this case the position of the window is set on level 1 and that for the shutter on level 2.

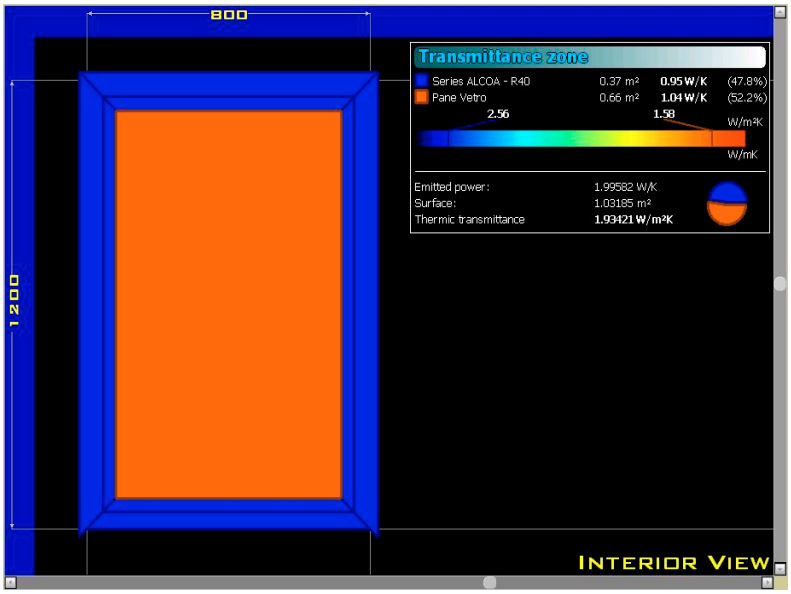
The button

Shows the machinings upon profiles in their position.

Profiles. This button shows the profile shape within the structure in the worksheet.

The button

Shows in the worksheet the *Thermic transmittance* calculation of the structure

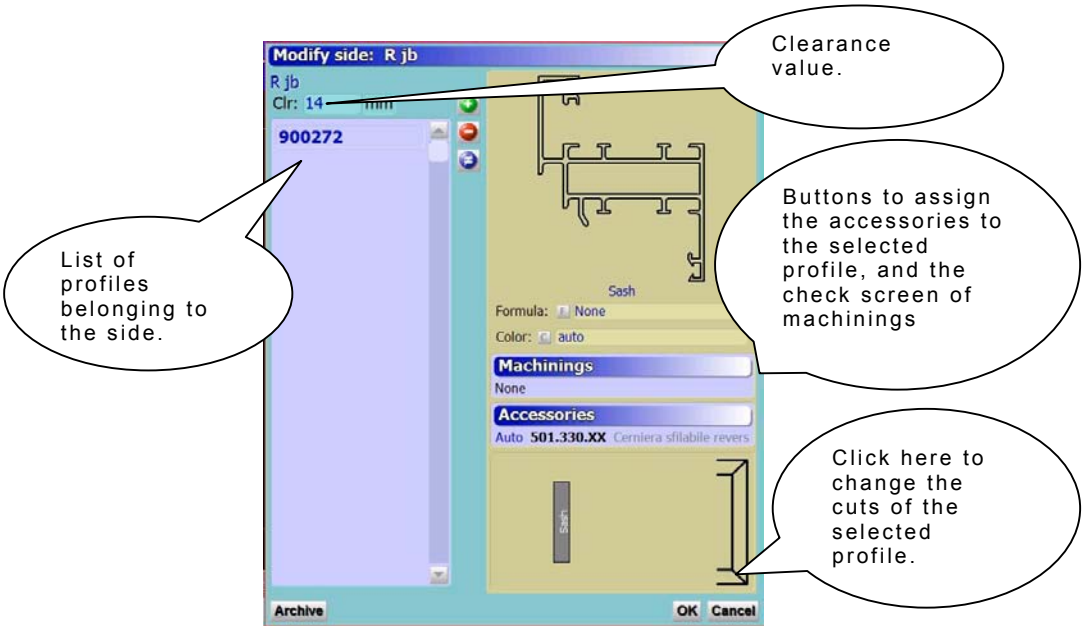


Direct actions on the Worksheet

It is possible to make changes on the drawing simply clicking on the typology. The possible actions are explained below.

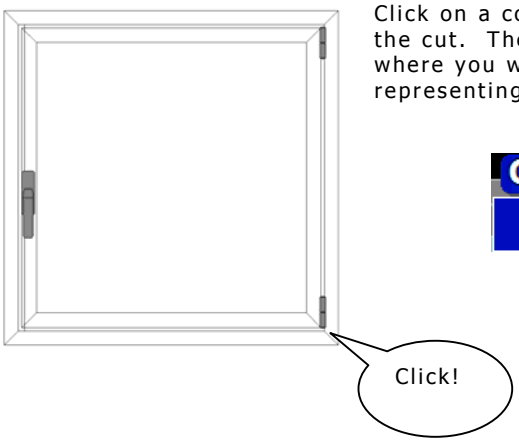
Modify or cancel profiles or accessories belonging to one side

Click on the typology profile to display the screen outputting the profiles belonging to the side where you clicked and where you will be able to add, modify and cancel the profiles and/or accessories and set formulas for the calculations of the cut and so on.



Side modification screen

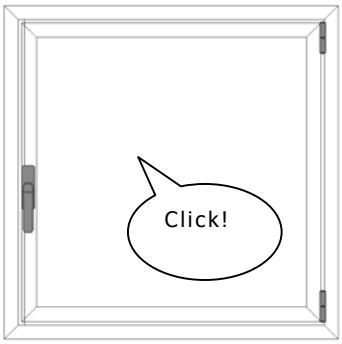
Modify a cut



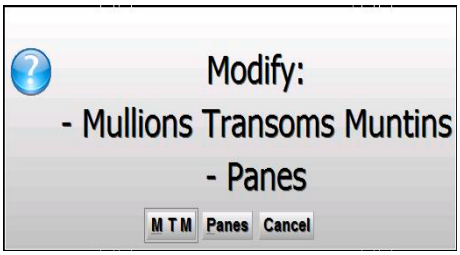
Click on a corner of the typology to modify the cut. The following screen will appear, where you will need to select the button representing the required cut.

Cut setting screen

Mullions, transoms and panes settings



Click on an empty panelling area to display the screen where you can choose to add or modify mullions, transoms or panes. The description of contents will follow.



Used to set mullions, transoms, muntin and to place the panes in the various panelling. As regards to the contents and function, see hereafter in the **Structure definition screen** paragraph.

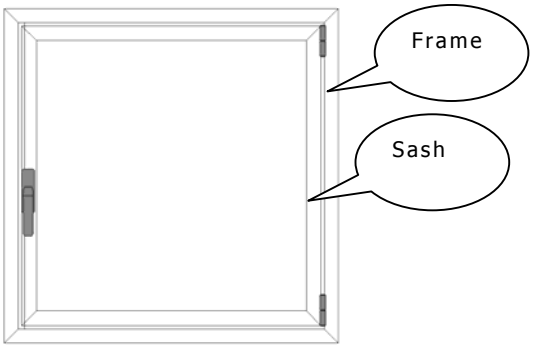
Used to add the panes. As regards to the contents and function, see **The button** in the previous paragraph.

The Window Structure Definition screen

This screen is very important for the realisation or modification of the typology structures. It is the best help on the Worksheet as it will allow you to make frames by assigning profiles and accessories, add sashes, place separation

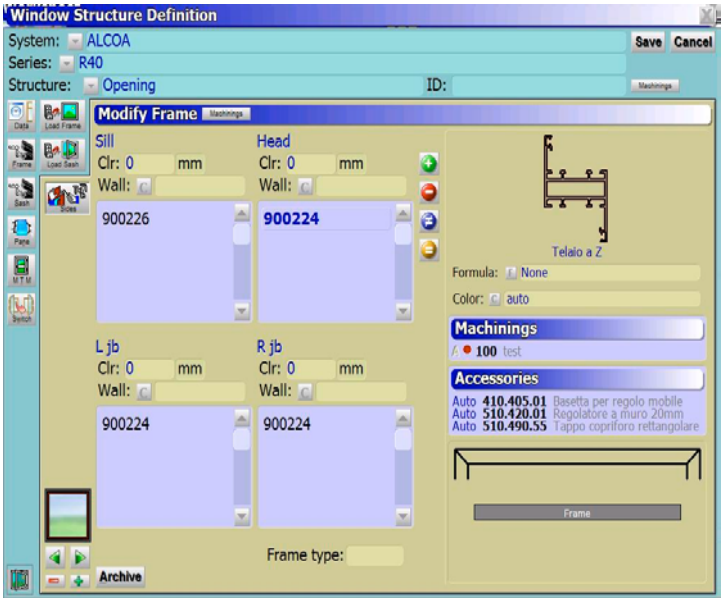
mullions or transoms, invert the opening direction, set the cuts, input the cut formulas, change the clearance values, input the panes, ... it will allow to carry out all operations necessary to define the structure in the best possible way.

Basics on the structures
The structure is the main element of the typology. Please see the **Basics** paragraph at the beginning of the **Typologies archive** chapter.
The structure is made up of a fixed part (the frame) and, excluding the fixed window structures, a movable part (the sash).



The frame elements
In the creation stage, the frame has to be made up of the profiles relative to the four sides and to the accessories exclusively relating to the fixed part, such as the overlap gaskets, the water drip moulds, the adjustable supports

The sash elements
In the creation stage, the sash has to be made up of the profiles relative to the four sides and to the accessories exclusively relating to the movable part, such as the hinges, the handle, the lock groups....



The Structure definition screen in the definition of a casement window frame

Description of Window structure definition screen contents

System
Indicates the name of the system the structure belongs to.

Series
Indicates the name of the series the structure belongs to.

Structure
Shows the type of structure. This is a compulsory field. 15 different types are displayed, covering the most common types of structures.

Fixed
Choose this item if you are making a structure for a fixed window.

Opening (or Casement window)
Choose this item if you are making a structure for window or door with one or more sashes.

Hopper (or Wasistas)
Choose this item if you are making a structure for a wasistas window.

Tilt & Turn
Choose this item if you are making a structure for a window or door with one or more sashes having a tilt sash.

Sliding
Choose this item if you are making a structure for a sliding window or door.

Guillotine (or Double hung)
Choose this item if you are making a double hung structure.
Horizontal swivel, Horiz. swivel pull below, Vert. swivel pull right, Vert. swivel pull left
Choose one of these items if you are making a swivel structure.

Freestyle (or Folding)
Choose this item if you are making a structure for folding door or window. The maximum number of sashes is 10.

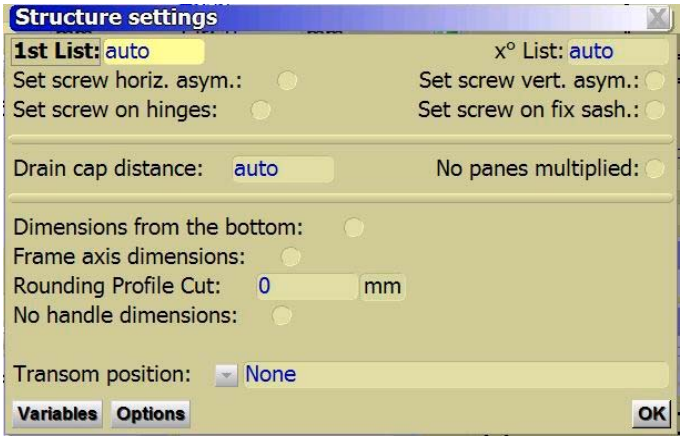
Parallel sliding, Sliding wasistas
Choose this item if you are making a structure for parallel sliding window or sliding wasistas.

Roll-shutter box with cover
Choose this item if you are making a structure for a roll shutter box with cover, made up of four lateral profiles and one front pane.

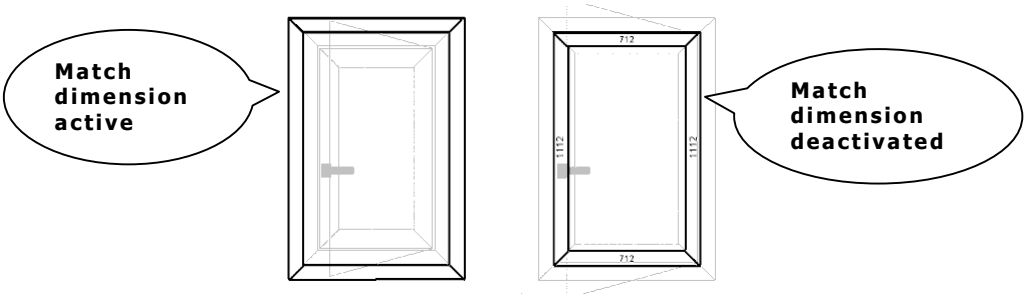
Pre-assembled roll-shutter box
Choose this item if you are making a structure for a pre-assembled roll shutter box, made up of one front profile and two lateral caps.

The button

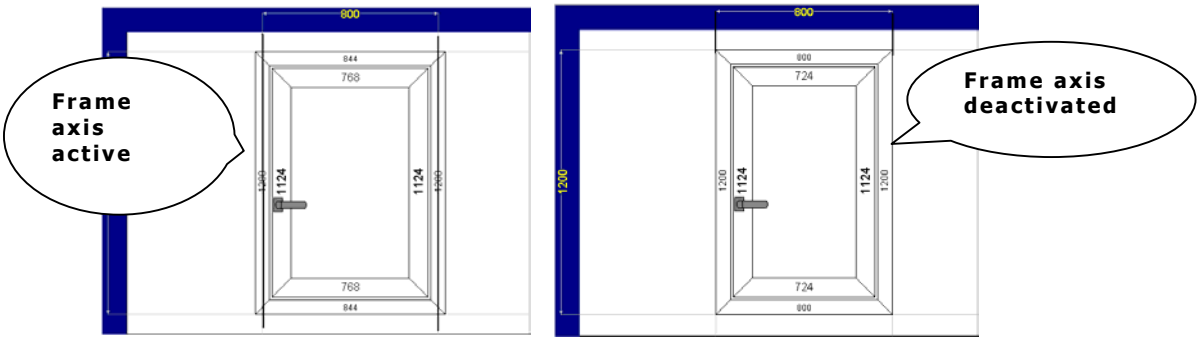
When this button is pressed, the program opens a template that allows you to set various parameters for the layout and cutting of profiles.



Match dimension
This function is mostly used with typologies built in different layers. Its activation draws the frame dimension from the coincident structure laid on different layers.



Frame axis dimension
This flag has the function to move the dimension reference to the axis profile frame



Rounding profile cut
Here is possible to set a rounding cut dimension for the structural profiles

No handle dimension
When active this flag, do not display the handle dimension in the worksheet.

Transom position

Equalize Rst
Equalize Rst inf/sup

This function is addressed specifically for shutters. It works the variable **Rst**, (shutter compensation), which is given by the remaining shutter blade

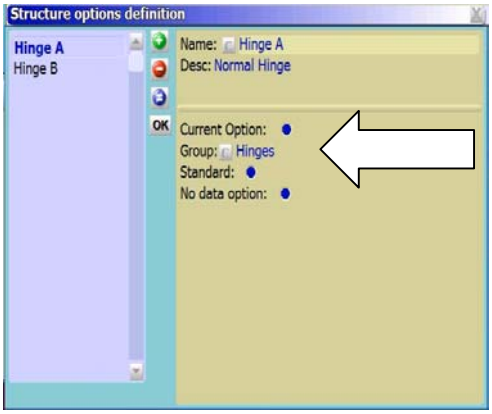
value needed to apply the terminal blade. According the choose the program place the transom.

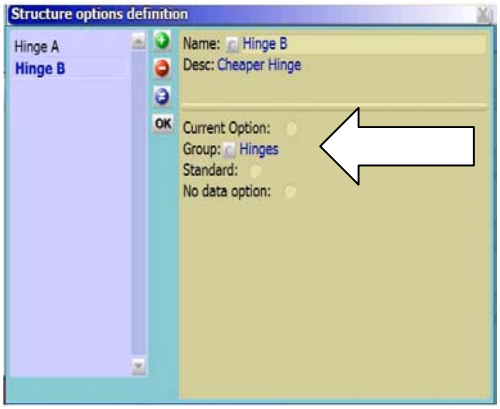
The button Variables

The functioning of this button is the same of those explained in the screen *Data* in the worksheet chapter.

The button Options

The *Sctructure option* are about the changing of one or more accessories, according the window features or the client request. The goal is to gather different options together in the same Group.





Options and Groups are both stored within the *Structure options list* (on this matter would be useful to have a look of the pertaining chapter ahead in this section) The purpose is to define the possible window's options. The button lead inside the *Structure options definition*.

The options being settled as the arrows in the pictures points, under the same group. Furthermore as we see is possible to establish wich option is the *Active one* and which is the *Standard* one, namely as first choise charging the window in the quotation.

The button

The screen *Structure parameters* supply useful information about the typology. Some fields of this screen are active meaning that the users can interact with them modifing the window's features.
70

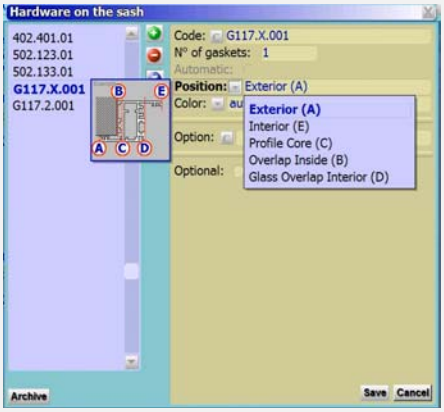
The button

This button is used only to assign the accessories relative to the frame. Only the accessories having the quantities relative to the perimeter of the structure have to be input here, such as the corners and the overlap gaskets and/or centre seal.

The button

This button is used only to assign the accessories relative to the sash. Only the accessories having the quantities relative to the perimeter of the movable part have to be input here, such as the corners and the overlap gaskets.

An important step in assigning structural accessories, or those for only one side of a structure, is that of entering gaskets.



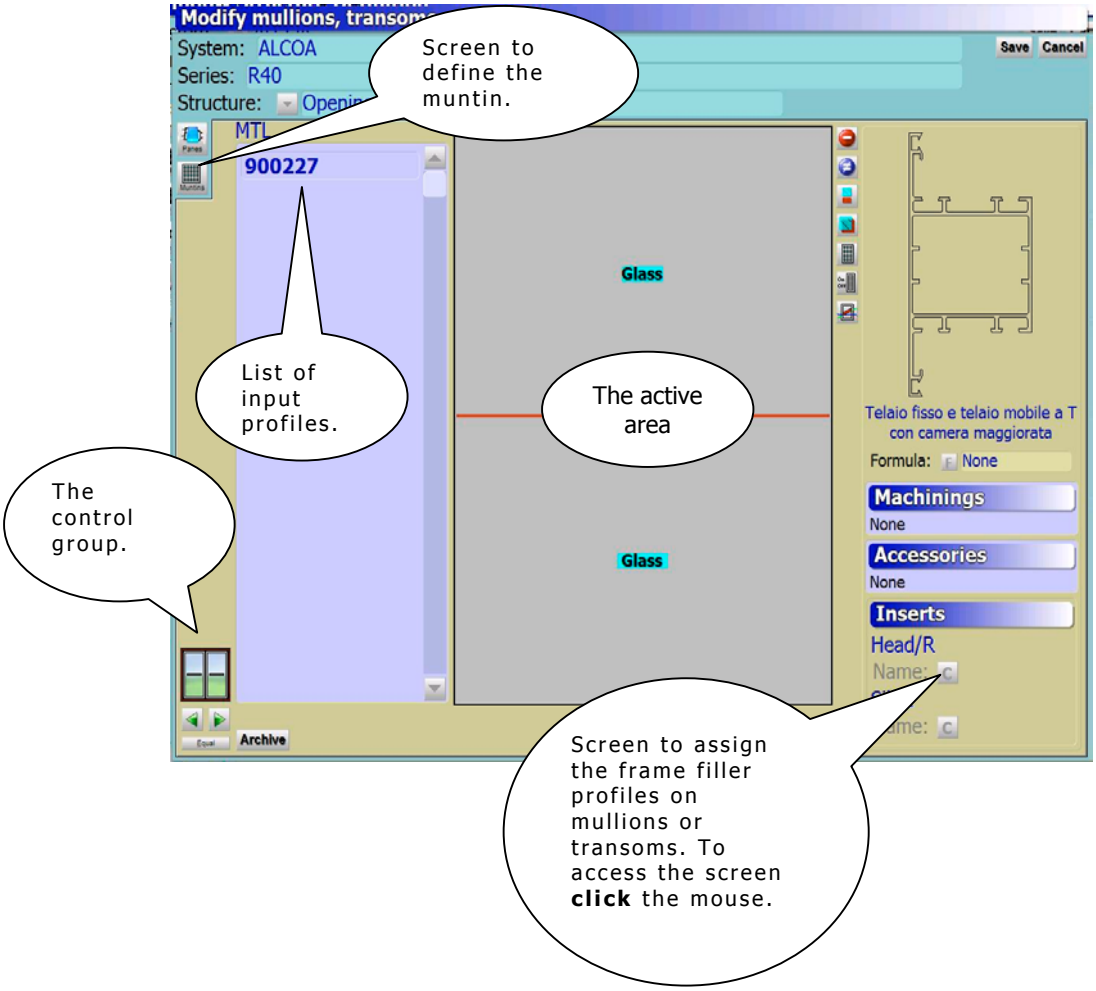
As you can see from the image above, the operator is able to enter the profile gasket in 5 different positions. This function is useful in calculating the gasket quantity to be entered for a type.

The button

This button is necessary to open the insert or modify screen relative to the panes of the structure. The contents of the screen depend on the profile glazing system. The contents and function of this screen are explained in the previous paragraph entitled **Description of Worksheet contents**.

The button

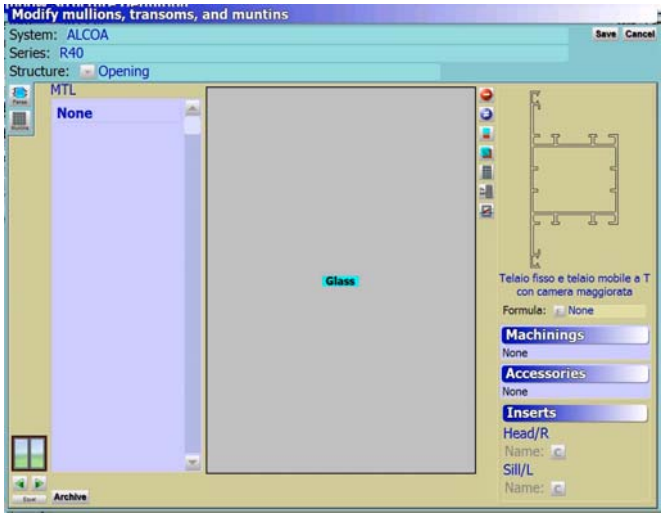
Press this button to assign mullions, transoms, or muntin to the panelling. The following screen will be displayed followed by a description of the contents.



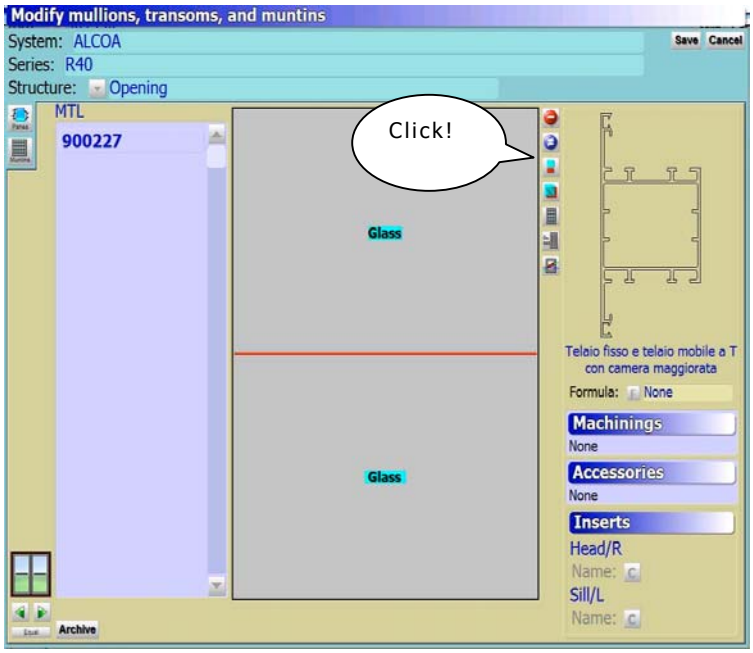
System, **Series**, **Structure**
Indicates the system, the series, and the structure it belongs to. These cannot be directly modified.

Assign mullions or transoms

To assign the mullions or transoms, it is necessary to click inside the *Active area*. The following screen will be displayed, where you will press one of the two buttons to input the mullion or transom.



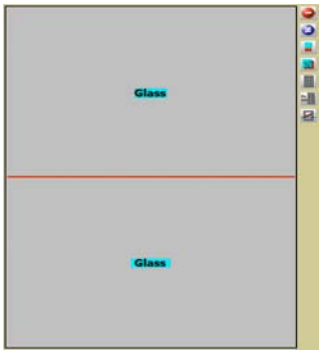
Positioning the panes (glass, panes or panels)



Having defined the panes (as outlined in the previous pages in **The button**

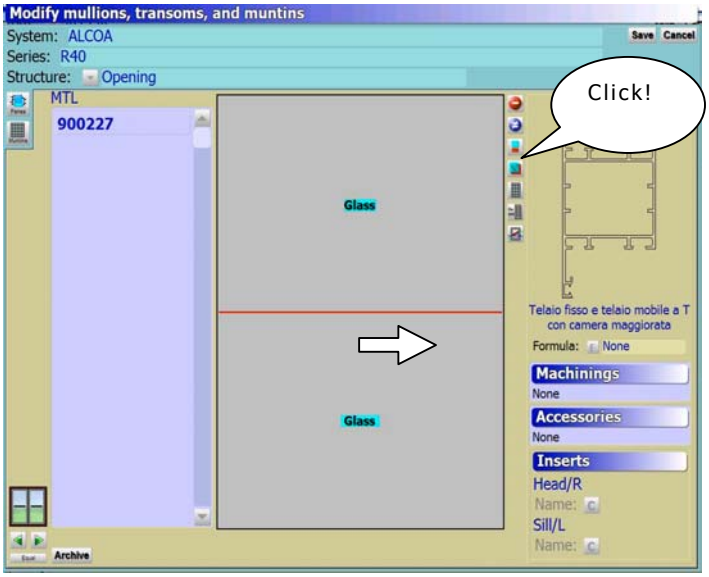
paragraph), it is possible to position them in the various panes clicking first on the **positioner** button. Then click on the panelling where you want to position the pane until the pane code appears.

Be aware that a *R#1* or *R#2* or *R#3* code etc… means that the pane does not exist or it was created but the glass (or pane) code is missing.

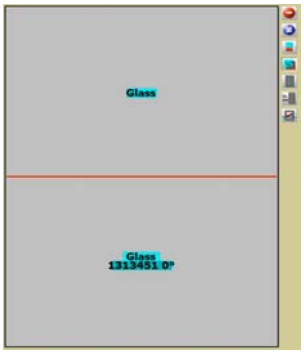


Detail of the Active area inside which the panes have been positioned

Pane overlapping
Having defined the panes (as outlined in the relative paragraph on the previous pages) and having placed them in the required point (as outlined in the previous paragraph), it is possible to position the pane where another one already exists, useful in the case of panes overlapping on a single panelling (glass+pane).



Click first on the overlap button, then click in the panelling where you want to put the pane until the pane code appears.

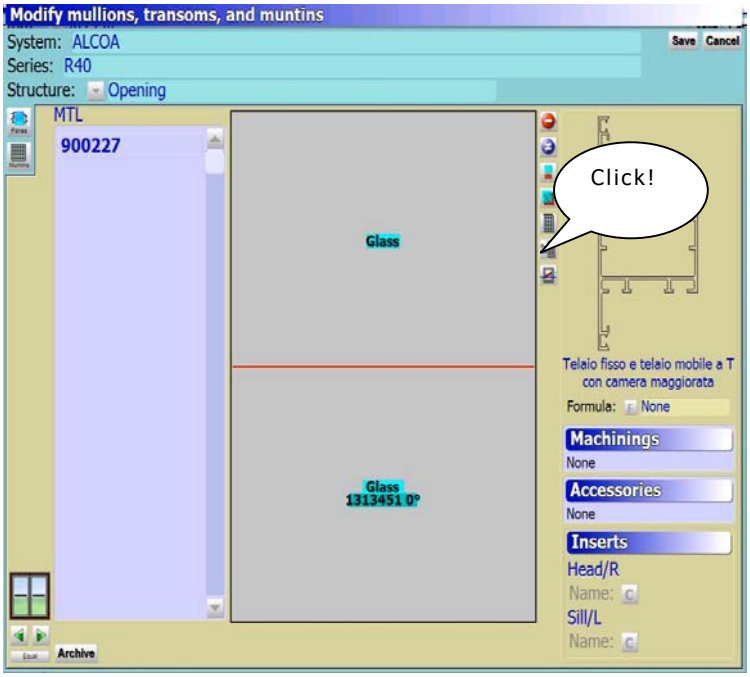


Detail of the Active area where the two pane codes can be seen inside a single panelling

Enable/Disable the muntin

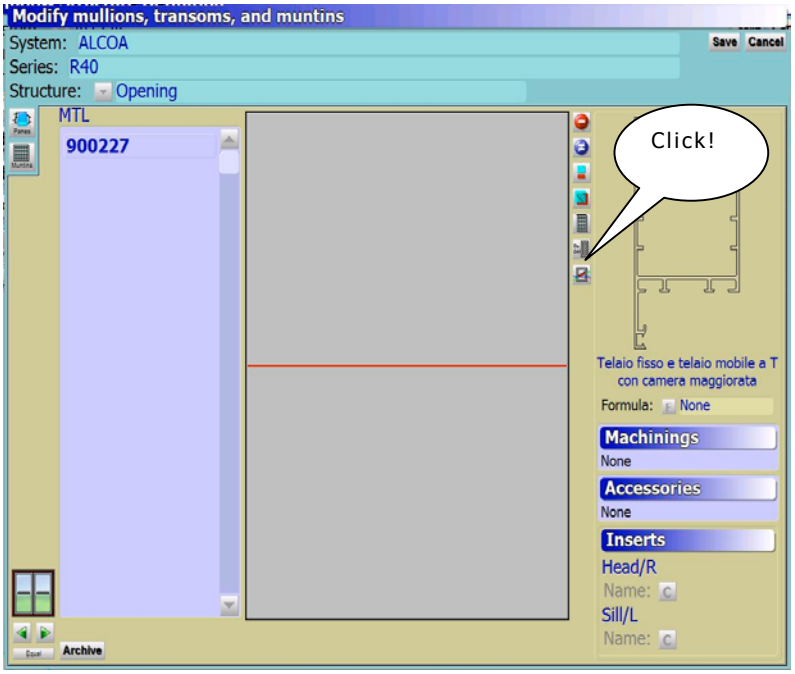
If you have defined the muntin profiles (see the relative paragraph), the program usually considers all of the panellings active. Therefore the muntin will appear on all panelling of the structure.

Clicking on the **button** and then clicking on the chosen panelling, it will be possible to enable/disable the muntin. This is useful, for example, to make muntin structures only in the top panelling and not in the bottom part.



Enable/Disable the shutter

Clicking on the **button**, and then clicking on the chosen panelling, it will be possible to enable/disable the shutter.



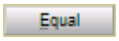
The control group

This group of elements is necessary to choose the sash on which to work. In particular, for windows having several sashes, it is possible to carry out all operations explained in the previous paragraphs on a single sash, that is to assign mullions, transoms, muntins, panes, overlapping panes, etc....

Explanation of the control group elements

This element represents the structure highlighting the current frame in white, where the operation will be carried out. Usually, in case of structures having several sashes, the operation works on all sashes.

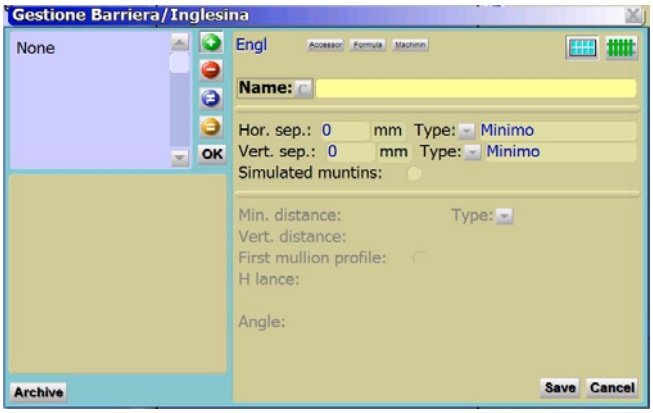
These buttons are used to move the control onto another sash, disabling the others. It is useful for carrying out different operations on the sashes.
The current sash will be highlighted in white.



Press this button to make all sashes equal to the left sash.

The screen

This screen has the function to define the profiles to be used to make the muntin. Below is the description of contents .



Name
The name of the profile to be used.

Horizontal step
The average distance between the vertical profiles. The program will try to keep the distance between the mullions equal to the value indicated in this box.

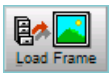
Vert. step
The average distance between the horizontal profiles.

Simulated muntins
Check this item to maintain the mullions and the transoms of the muntin as applied to the glass. Therefore the glass will remain entire, and will not be divided into 'squares', as in the classic muntin.

> This feature can be used when adhesive transoms are to be applied to the glass.

The button

Used to invert the opening operation. The use of this button is outlined in depth in the previous paragraphs relative to the Worksheet.

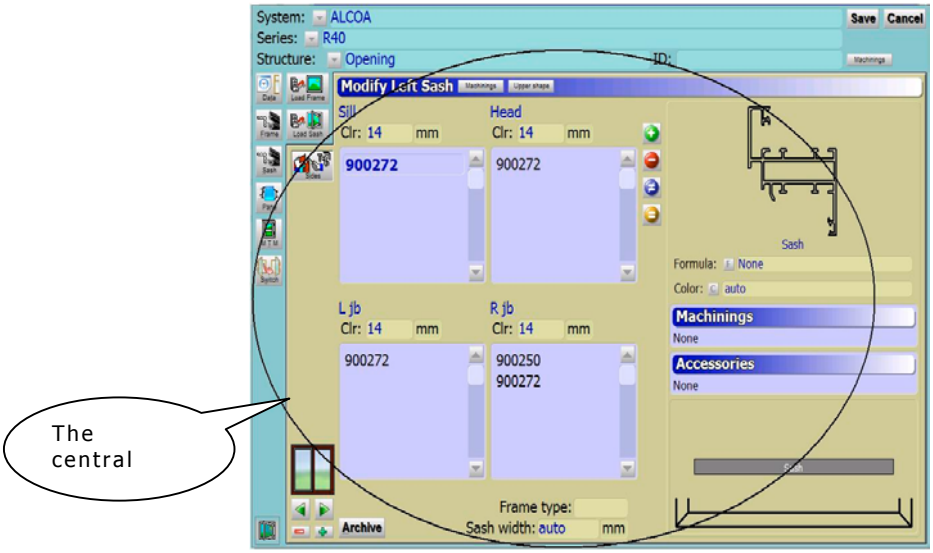
The buttons 

and

A structure can also be realised taking frames already made in other structures. These buttons will let you take a frame and a sash from the typologies archive.

The button to enable the central area

This button is used to enable the central area of the screen and will let you add, modify or cancel profiles on the frame sides. Press this button if you want to begin to define the profiles and the accessories of the sides of the frames of the structure.



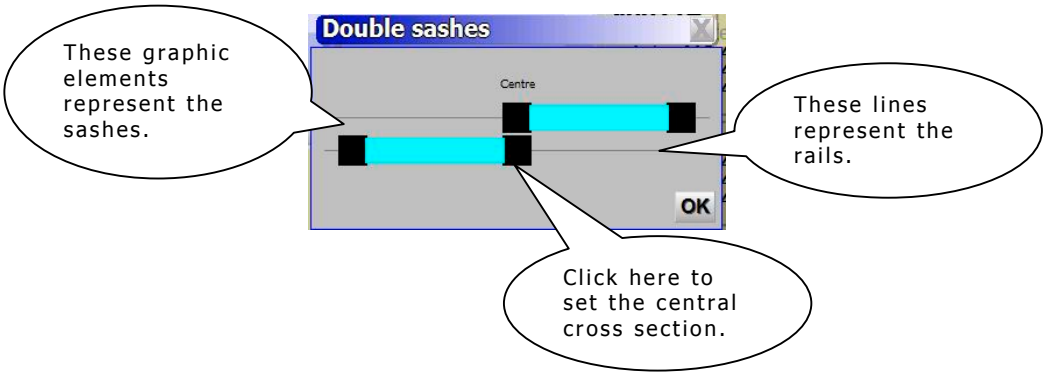
Structure definition screen in the definition of the casement window frame. The circle represents the area enabled after pressing the **Side mod.** button

Elements of the central area

The control group

This group of elements is necessary to carry out certain operations on the frames of the structure. Find below the explanation of the various elements.

This element represents the structure being made by highlighting the frames and sashes, if any. The current frame, the one which we are working on, is highlighted is grey whereas the actual side we are working on blinks in white.
This element is active. It is therefore possible to click on it to add the some of the structure settings. For sliding or double-hung structures, it is possible to set the position of the sashes on the rails.

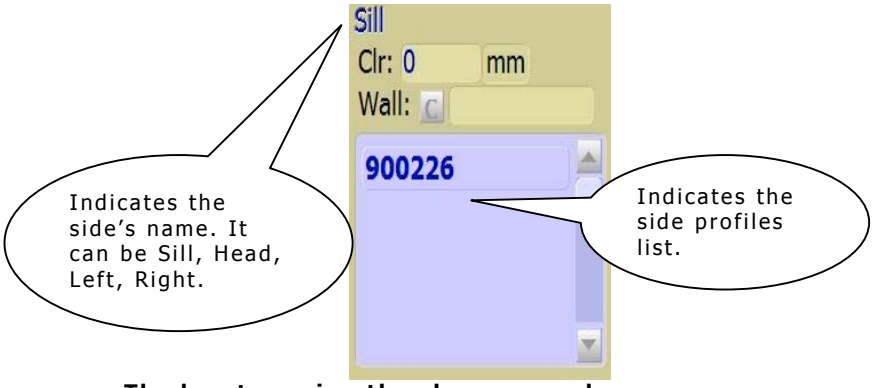


These buttons will let you shift the control onto another frame. The current frame will be highlighted in grey, whereas the current side will be highlighted in blinking white.

These buttons are used to add or delete the sashes. To better understand their functions we will outline them one at a time. The first button is used to delete the sashes from the structure; the sash that will be deleted first will always be the first to the left. The second button is used to add *spaces* for new sashes; then it will be necessary to define the profiles for these new sashes.

The lists

Every side of the structure, either fixed or movable, corresponds to a list indicating the profiles that have been input. To go to the list relative to another side of the same frame just click on it. The elements of the lists are explained below.



The box to assign the clearance value

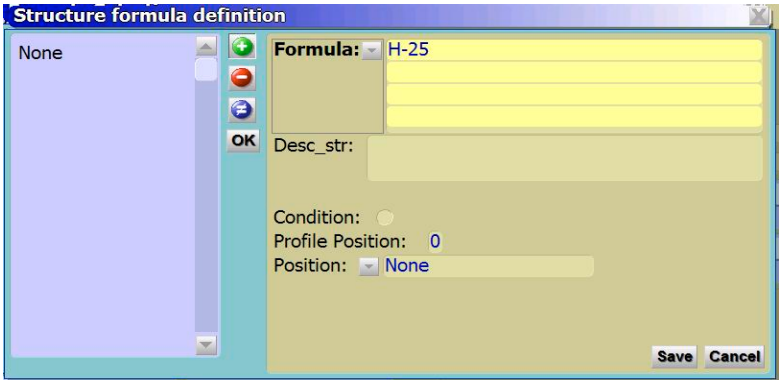
This box shows the clearance value. It can be modified clicking on the box itself.

Formula

This button is necessary to set the formulas for profile cuts. Press this button to open the formula selection box and select the required formula; otherwise input a new one.

Define a new formula

Press this button to define a new formula. The following screen will be displayed, followed by the description of contents.



Formula
Shows the expression relative to the formula. The expression elements can be taken from the list. The contents of the list are outlined in **Appendix IV "Explanation of variables and symbols"**. Examples of expressions are *H+30* meaning *height plus 30mm.*; or *L-50/2* meaning *width less 50mm divided by 2*.

> Please remember that the cut calculation is always done automatically by the program and is based on the dimension values of the profiles (encumbrances, overlaps, ...) specified in the relative archive. Therefore the assignation of a cut formula has to be considered as an exception, that is only on those occasions when it is not possible to get an accurate cut list taking into consideration the dimensional values.

Condition
Charge the profile if the formule condition is verified

Profile position
Points the profile ordinal number

Position

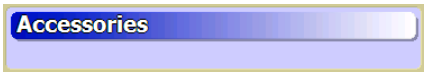
None
Sill/L
Head/R
Height

The formula is applied according the parameter choosen in the assiciated list. In case any position is demanded the parameter has to be *None*.

Colors
Open the color slection for the side:

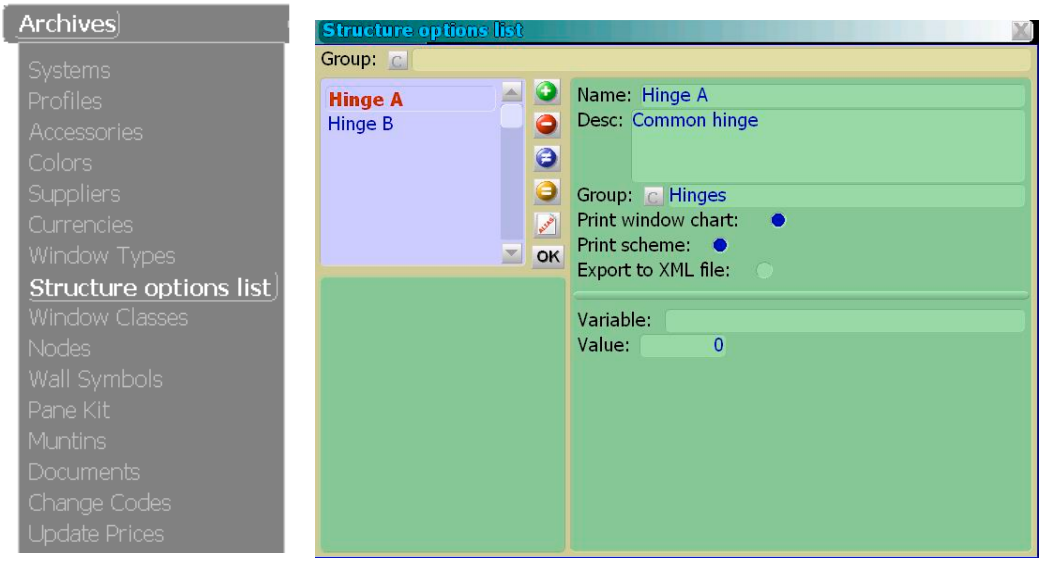
The button

It open the screen to verify the machihning applied upon the structure.
This function works if within the program is installed the advanced step *Timing + Machining*

The button 

Used to assign the accessories to the profiles.

Structure option list.



In the previous chapter we've seen and analized the *Structure option*, their utility and how to apply them. The table reported in the above picture can be defined the archive of options. The program compiles this table when the user make the options in the *Window structure definition*, otherwise the user can make *Groups* and *Options* rigthly in this table.

The aim of this function is to determine e series of accessories with the same functionality but different features, hence *different Options*, whom gathered within the same *Group*, on which while developing the casement in quotation is possible to make a quick choose of the kind of accessory, according the window features or the client request.

Description of contents:

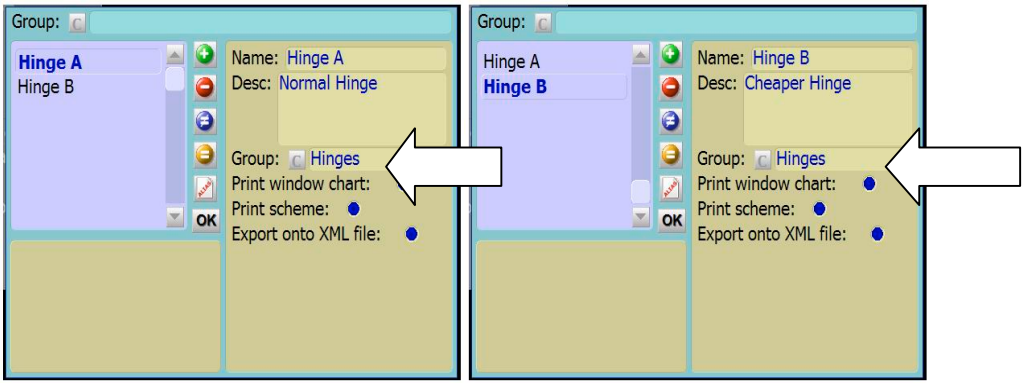
This box located underneath the screen title allow to filter the options accroding the group.

Name
Is the option name.

Description
Describe option's features.

Group
It identify the option. The button open the curtain of selection and the group archive

In this archive the grpup is created and the accosiated to the option



Print wndow chart / Print scheme
Checking this box is possible to report the option status in these sheets

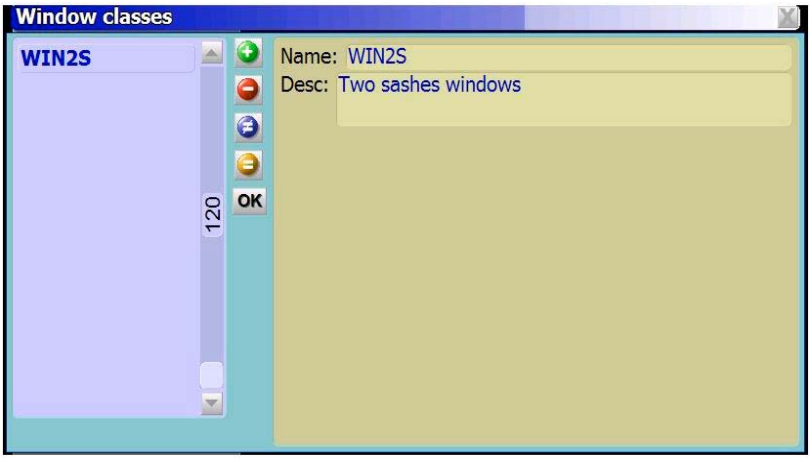
Variaible
To the option is possible to associate a variable, which will be enabled when the option being enabled. Such variable can determine the features of the application.

Value
Following the previous *Variable* this field reports the value, who establish the features when enabled.

The button

Through the usual procedure to charge pictures, the user can import a picture to associate to the optionThe

Window Classes archive



Basics on categories

The categories archive has been created so that, when preparing an estimate, the typologies may be replaced with other items belonging to a different series or system without having to prepare the estimate again. To do this, it is necessary to assign a category to each typology making sure that some of them (as appropriate) will have the same category code. In this way, when you ask for typology replacement while making the estimate, the program will look for the typologies having the same category code of the present ones inside the system and series indicated.

The following table is an example of category code assignation on a typologies group.

Typologies	Example of the category code that can be assigned
1-sash windows	FIN1
1-sash window with roller shutter	FIN1+AVV
2-sash windows	FIN2
2-sash window with roller shutter	FIN2+AVV
2-sash sliding windows	SCO2

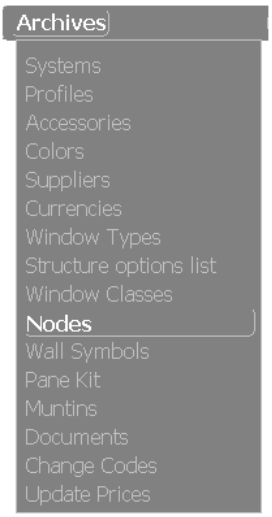
3-sash sliding windows	SCO3
1-sash shutter windows	PRS1
2-sash shutter windows	PRS2
Etc…	

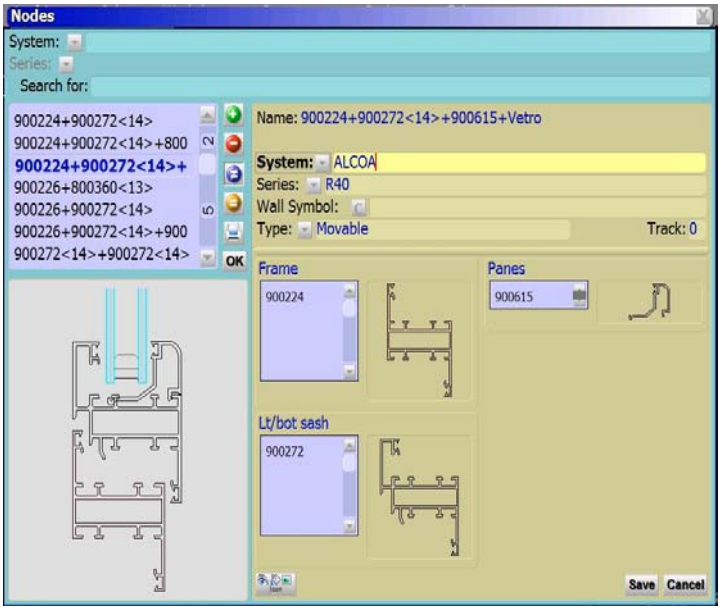
Description of contents

Name
The category code. Ex. FIN1.

Desc
The description of the category. Ex. 1-sash window.

The Nodes Archive





The operator can use this file to check connections for each range and to modify them.

Description of the contents of the The Nodes Archive

Name
This is the code for the connection with the names of all the objects it includes.

System and Range
This shows the name of the system and range to which the connection belongs.

Wall
This is the name of the wall symbol associated with the connection.

Type
Indicates the connection's function in the structure, e.g. *Fixed, Opening, Central etc.*

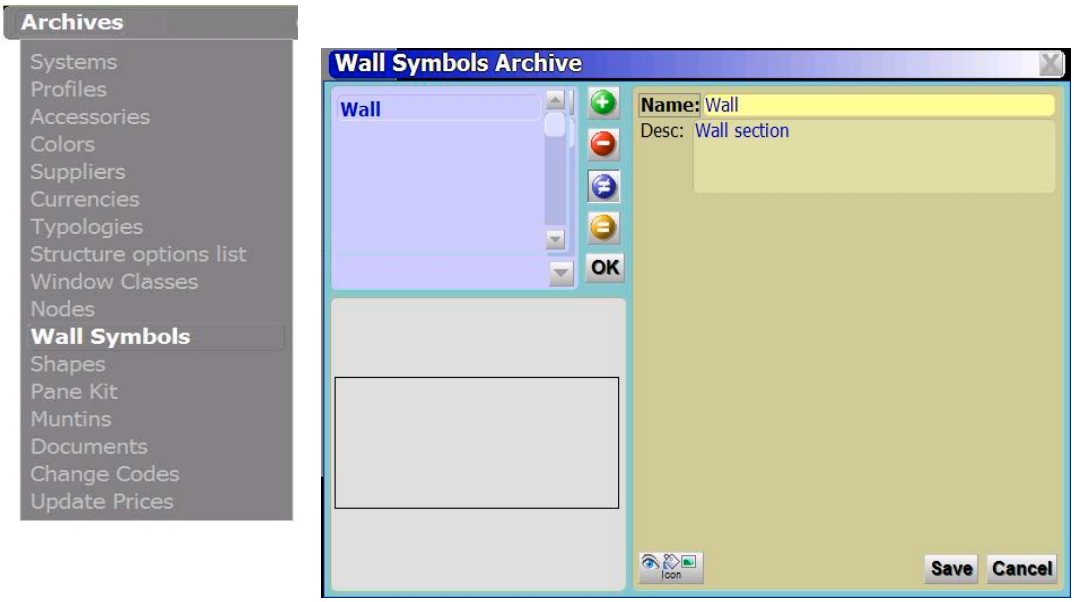
Track
This determines the position of the connection, where it forms part of a sliding structure.

Node thermic certification
The button opens the *Certification List* from which the users draws the thermic certification parameter nelonging to the node.

Fixed / Opening frame, Filling
The program shows the objects that make up the connection and their use in the structure in this field.

The button
When this button is pressed, it connects the Connection file to the **Connection definition field** examined above, namely to the *Type File* in the button paragraph.

The Wall Symbols Archive



This file is used to create a drawing of the wall symbol that can be associated with the connections. Since this is a file, the symbols may differ, and may be stored and used for various purposes, to be associated with various types of connections. In addition the wall symbol may be shown in the file, by means of an image copied using a scanner, opened using a suitable graphics program and saved on the operating system's clipboard, or as a WMF (windows meta file) format file, and saved in a directory created for the purpose.

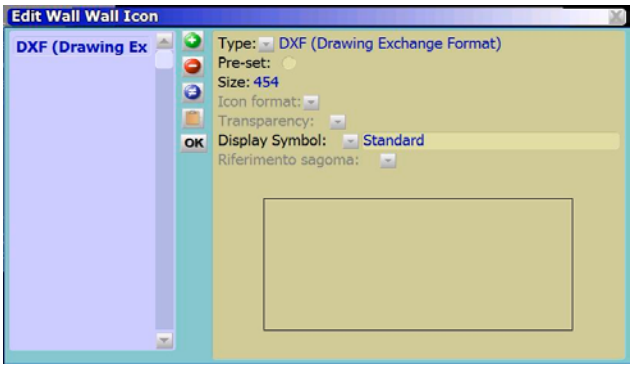
Description of the contents of the wall symbol file

Name
This is the name assigned to the symbol by the operator at the time it was created.

Description
This describes the symbol assigned by the operator at the time it is created.

The button

When this button is pressed, the program opens the Wall Icon management window.



To create a drawing of a wall symbol, or to load an image, press the button. The following message will appear.

The button Square Matrix

This button opens the symbol drawing field, to allow the operator to create the symbol manually. A detailed explanation of how to use the "Block Matrix" function is given in the *Profile File* chapter, in the *Drawing a Profile"* paragraph.

The button Image (bitmap or TIFF)

When this button is pressed, it connects you to the PC's directories, from which a symbol, copied using a scanner and saved in a bitmap of tiff format can be taken.

The button WMF (Windows Meta File)

WMF (*windows meta file*) is the format used to save scanned images, opened using a graphics program. The program also looks for this type of image in the directories in which the operator has stored image files with this extension.

The button DXF (Drawing Exchange Format)

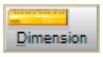
Again another kind of format who's charged following the same procedures of previous format

The button
When this button is pressed, an existing image is deleted.

The button
This button allows you to change the parameters for an image.

The button

When this button is pressed, the drawing field is opened, with the "block matrix" which allows you to change the characteristics of the drawing.

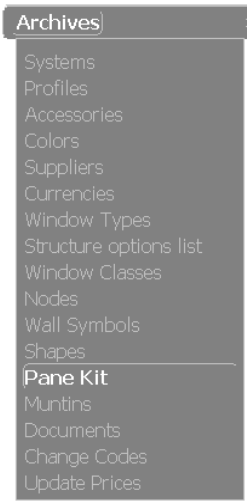
The button 

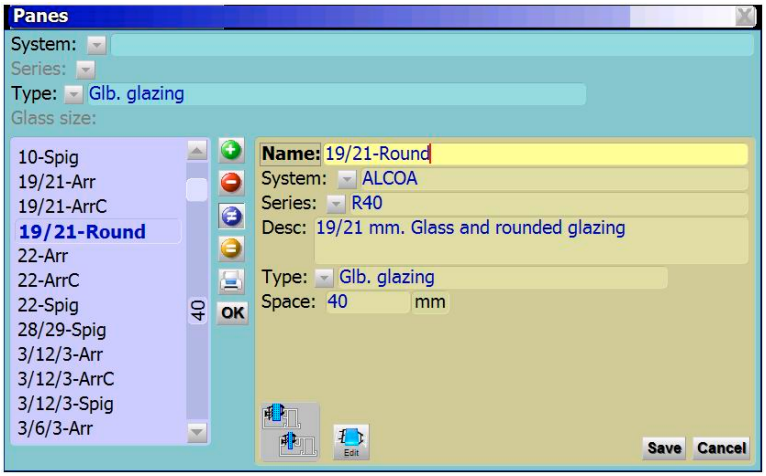
When this button is pressed, the *Object Data* field opens allowing you to change the icon and its size. A detailed explanation of the object data field is given in the Type File chapter, in the

button paragraph.

The button
This button connects directly to the operating system clipboard, that is, the temporary memory for images that have been scanned and opened using a suitable graphics program.

The Panes kit archive





This archive is necessary to add or modify the pane fitting kits.
It is possible to load whatever necessary to fit a pane such as gaskets, glass (or pane), glazing beads, adapters, accessories, etc. It will be possible to assign to the typology, the glass and the relative material in one operation.

Description of contents

Name
The kit code. Ex. 4-12-4

System and **Series**
Indicates the system and the series the kit belongs to.

Description
The kit description. Ex. *Complete assembly kit for glass 4-12-4*.

Type
Shows the fixing system of the glass. There are 5 possible types:

With glazing bead
Check this item in the case of a pane which includes glazing beads.

Marine glazing
Check this item in the case of a pane not including the glazing beads which will be fitted onto marine glazing typologies.

Gasket glazing
Check this item in the case of a pane not including the glazing beads which will be fitted onto gasket glazing typologies.

Glass
Check this item for a pane that includes only the glass (or pane).

Cover
Check this item for a pane relative to a roll shutter box cap.

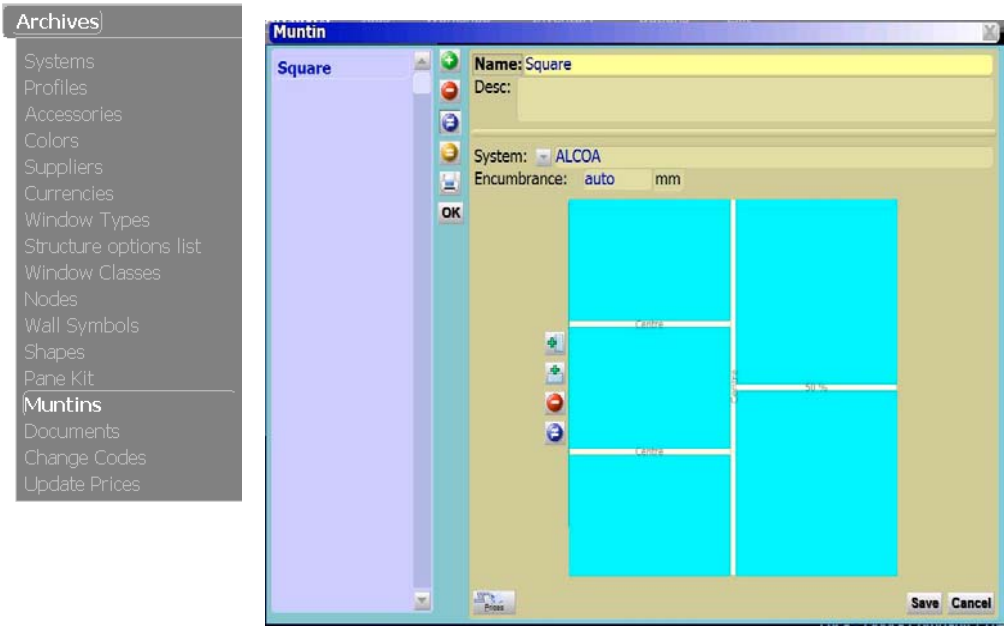
Space
This value indicates the glass space for which the pane is suitable.

The button

This button is necessary to add or modify pane materials (glass, gaskets, glazing beads…). The contents and function description is outlined in the **Typologies archive** chapter, in **The**

button paragraph in this section.

Muntins Archive



Within this archive being crated the schemes of *Glass muntins*, in many different solutions. The schemes are applied in the typology in the designing stage.

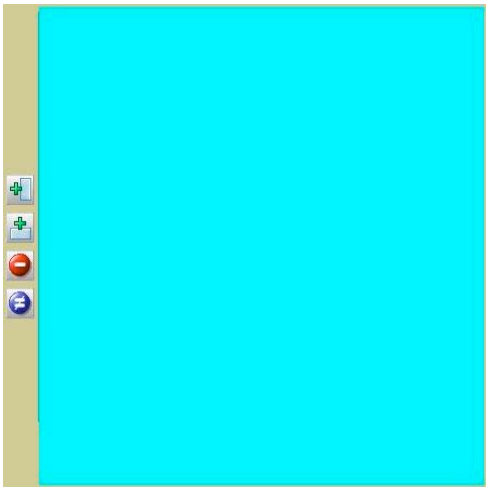
Glass muntin archive contents

Name / Description
They bear name and description who's been assigned by the user.

System
The button open the link with the archive of system, from which the user draws the system to associated the scheme. This operation is very important, because it make possible to associate a color at the muntin within the quotation.

Encumbrance
As we'll see little ahead is necessary to create a glass munntin profile in the archive. This box bear the encumbrance.

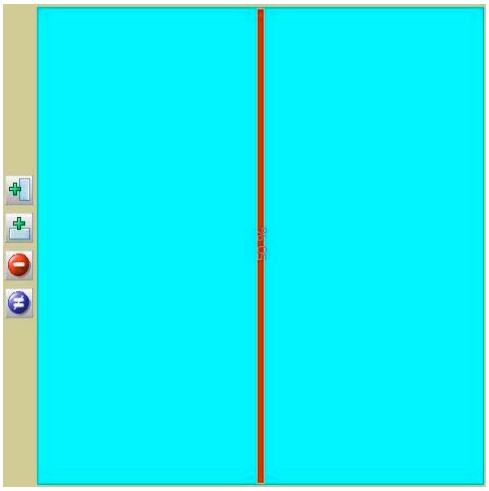
After these preliminary setting, the procedure goes on charging the profile in the scheme:



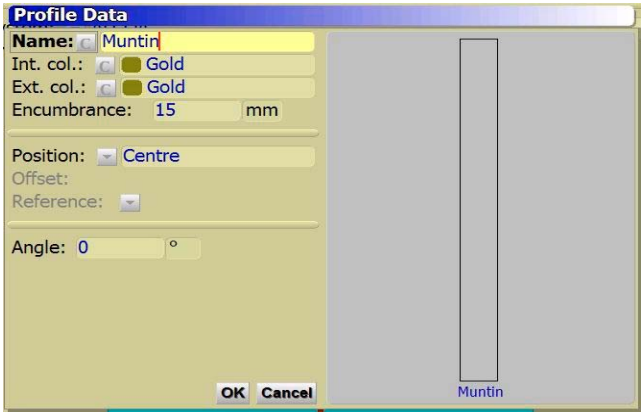
The above picture show the active area, where the operator interact with the program in orde to create the scheme:

The buttons

These starts the charging of a muntin either vertical or horizontal within the scheme. The user after pushing the button will move the mouse toward the active area. The program put the profile.

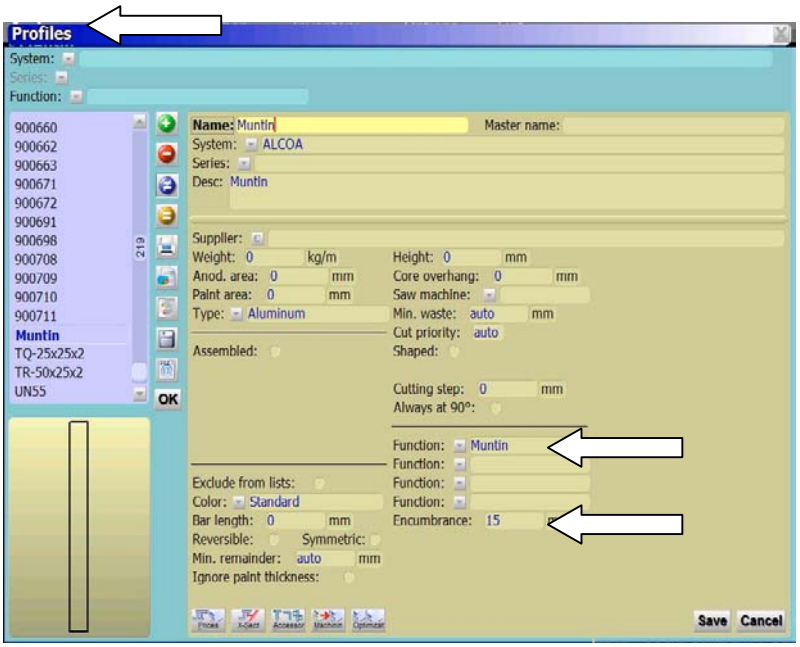


The mouse who pose as a cross wait for a push that confirm the profile position. When the confirmation come being displayed the muntin profile data:



Here are settled the muntin features:

Name
Reports the muntin name. At the box is associated a button, which links with the profiles selection then with the archive. Altough this funtion manage the muntins who are carved in the glass, is necessary to create a profile in the archive with thr function *Muntin*:



Encumbrance
This box bear the encumbrance value whom is assigned in the archive (see the above picture)

Position

Centre
Percentage
Offset
from the bottom

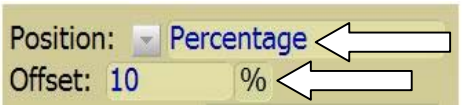
The associated curtain contain different kind of parameters to set the muntin within the usable area of the pane

Centre
It point the program the profile has to be charged in the middle

Percentage / Offset
The parameter *Percentage* allow to move in percentage according the muntin point of reference
The *Offset* foresee that the value is a linear misure. These values, percentage, the point of reference the linear measure are determined in the boxes consequently activated.

From the bottom
This allows to set a value by the base of the scheme. In this way is possible to manage different distances amid the muntins

Offset
This function then will be displayed according the position. It will bear the pecentage symbol (%) or the unit measure.



Riference

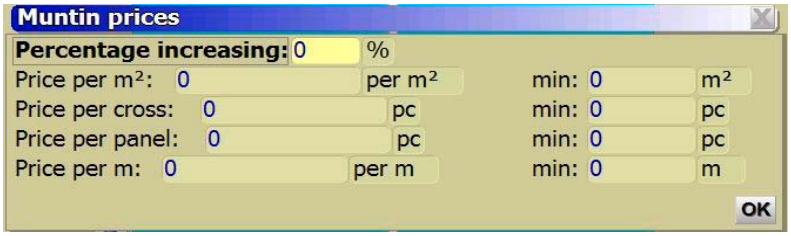
Exchange
Sill/L
Head/R

This function strictly linked to the previous one fix the reference of the parameter settled in the *position*. Therefore *Exchange* for both horizontal and vertical, *Sill* and *Head* for the horizontal, *L* and *R* for vertical

Angle
Allow to set the muntins oblique according the degree

The button

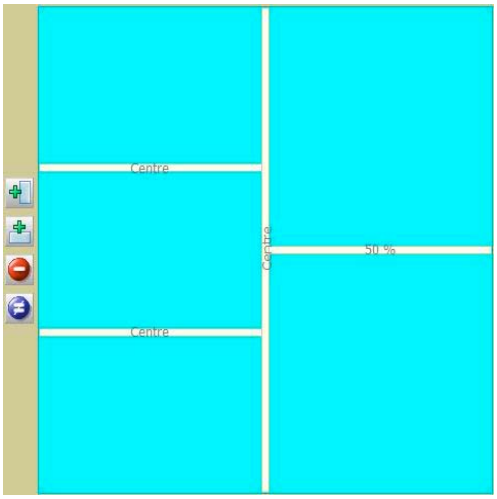
An important procedure is to settle the prices. The button open the *Muntin prices*:



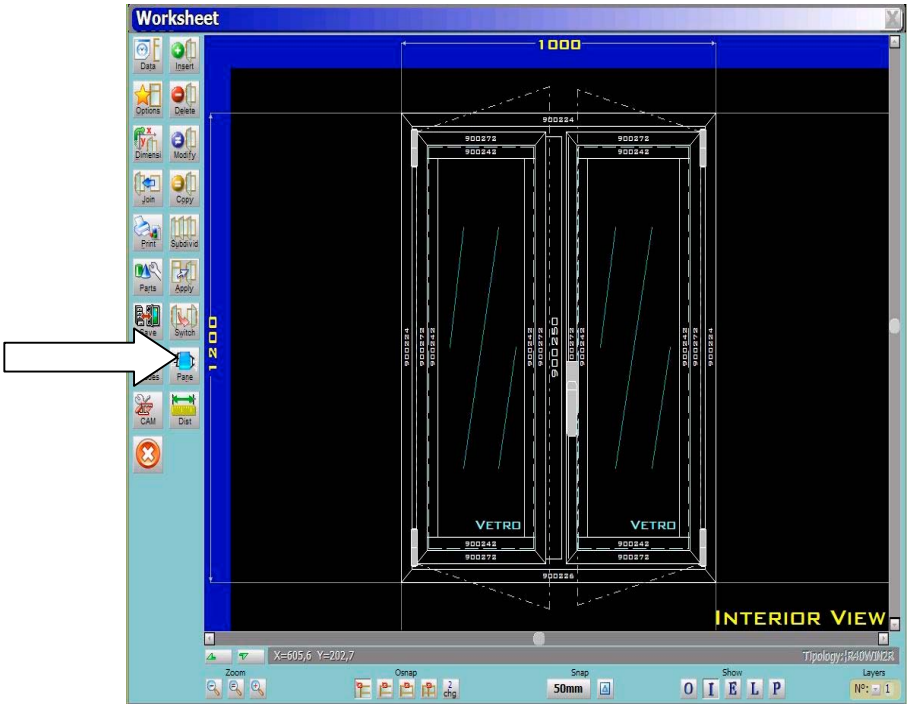
In this page the user has on disposal different kind of parameters to calculate the price, furthermore is possible to set a minimum purchase quantiy

The button
Erase a scheme's profile. The action is in all alike the charging one, that is after pushing the mouse it is a croos that wait to be pointed the profile to delete.

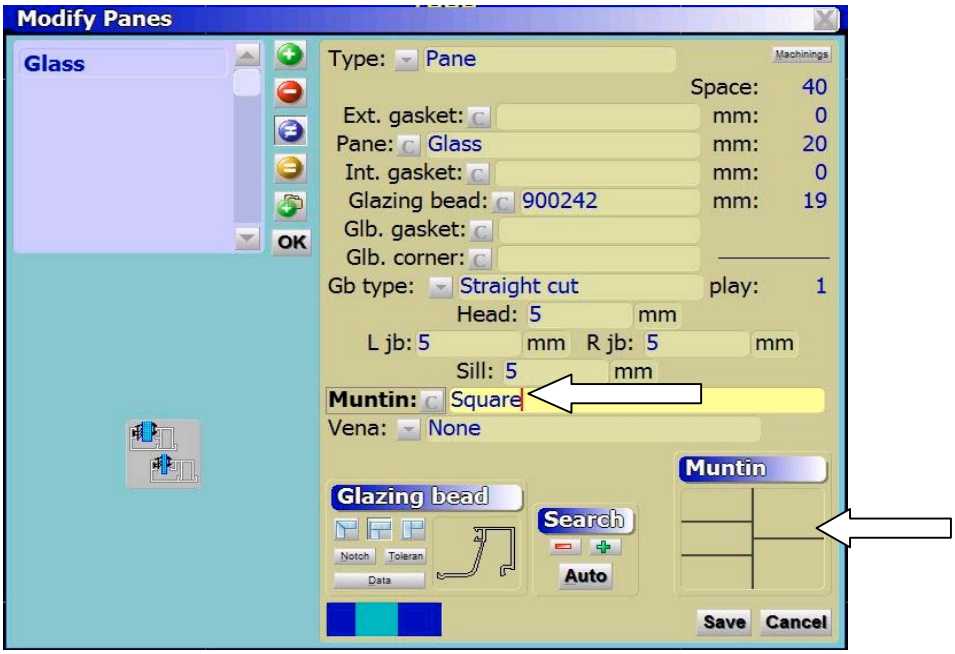
The button
Modify a profile within the scheme. The procedure follows the one explained for the erasing button, but will dispalyed the profile data.



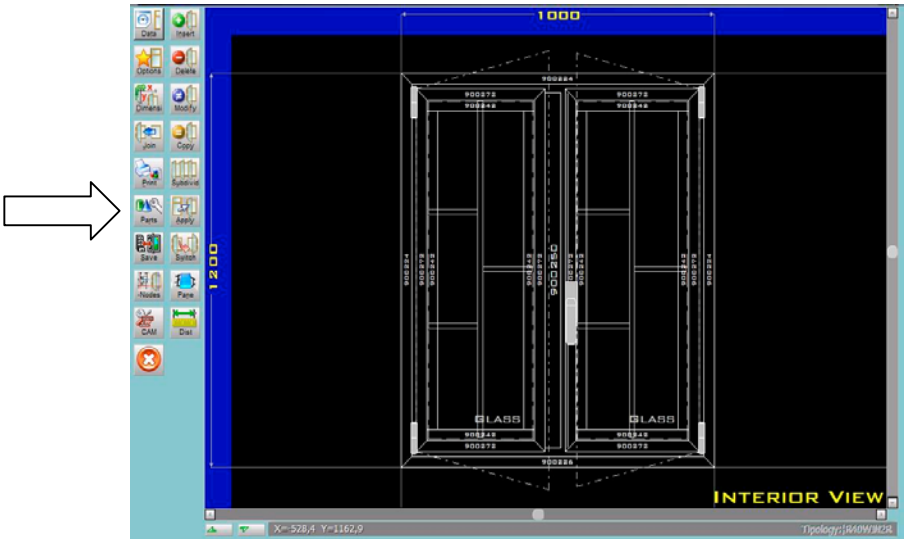
The scheme is ready to be charged upon the window. Let's see in the following how is the way to do it, and the effect on the quotation:



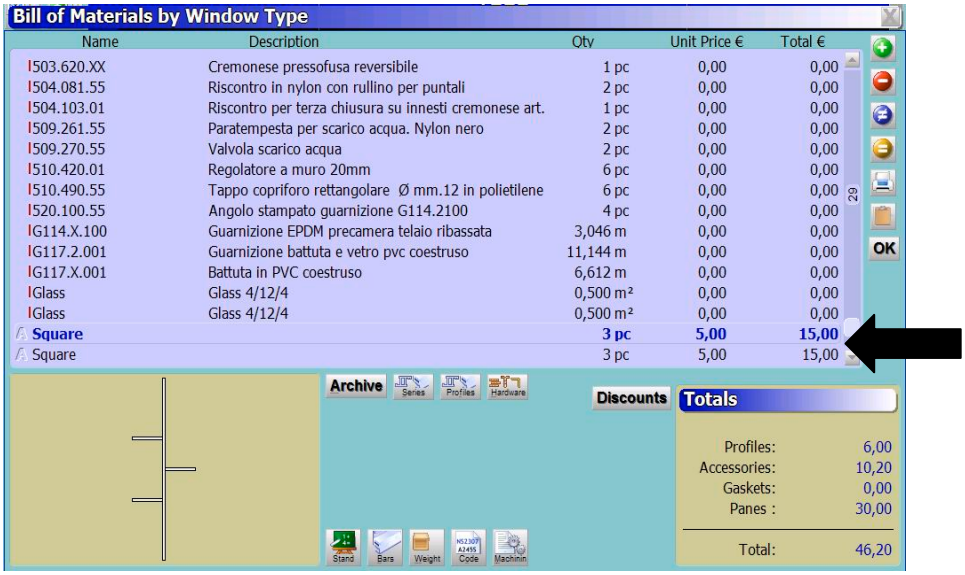
In the quotation the Panes button, lead in the screen where to set the glass:



In the picture is pointed the box **Muntin** at which is associated a button, whom pushed open the scheme selection:
When the scheme is chosen the program show a preview in the lower side down the screen as pointed by the arrow in the previous picture. Coming out from the screen the structure will be displayed with the scheme within the glass:



Now we can chekc the effect in the list of materials:

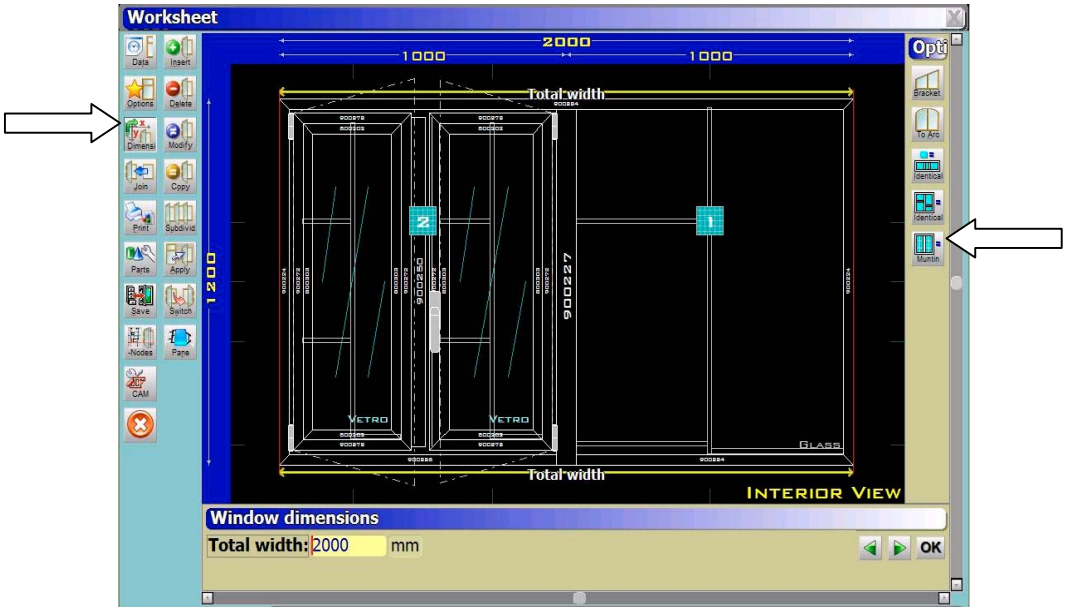


The arrow in the picture the muntin scheme who is counted in the cost according the price type settled in the archive

Another useful function linked to the glass muntin is the dimensioning when they are charged in assembled structures.

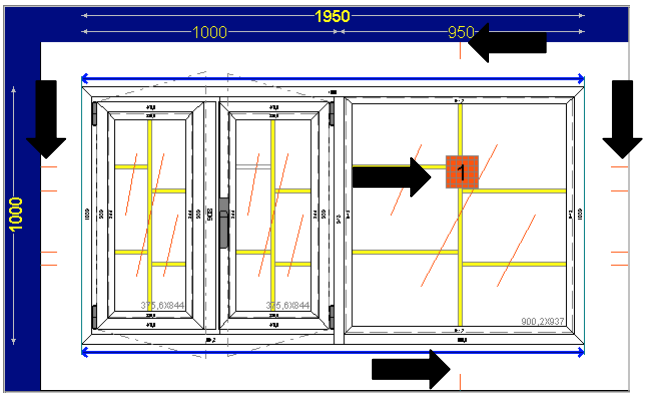
Through the button

in the worksheet:

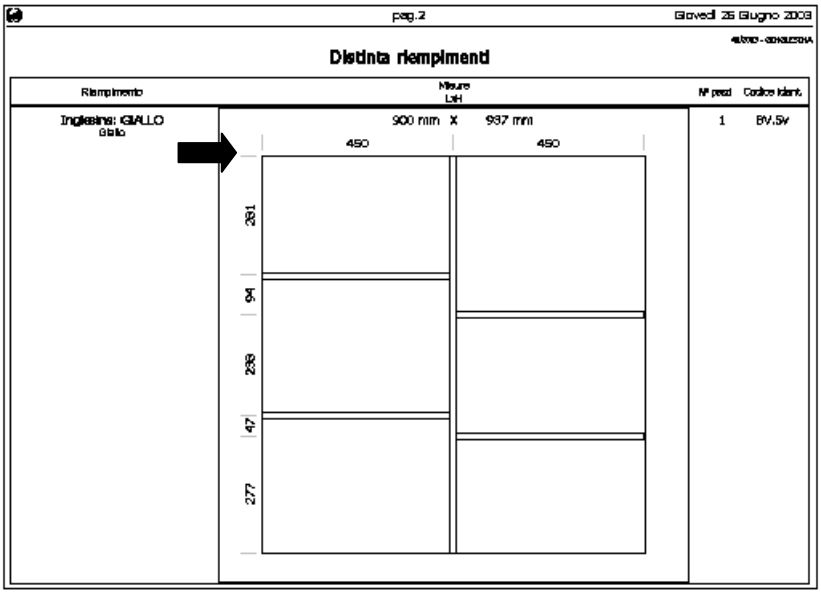


In the situation shown in the above picture, where in the worksheet there's a structure compound by a window with two sashes along with a side frame, obviously the muntin couldn't be aligned. To have in the same line is enough push the button

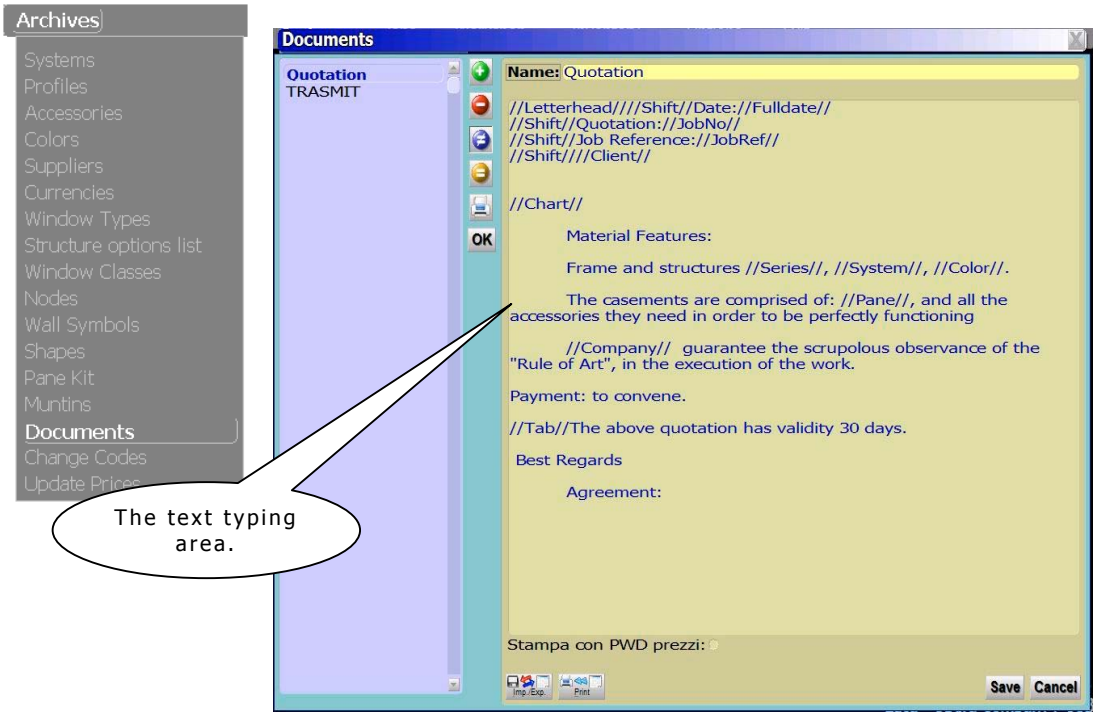
(pointed by the arrow), afterward the side of the structure who leads the dimension. The program will display the structure as following picture:



In the previous picture the Frame has been choosen to lead the muntin dimensions, it has been marked by the program with a numbered symbol. The ensuing confirm pushing OK cause the muntin alignment Surveying the pictures are visible aside the worksheet the muntin's dimension lines, who are printed even in the technical printout



The archive of Documents



This archive is necessary to add or modify the preset documents. These are documents written by you that will be used during work order management so to speed up the making of estimates or other documents necessary for the work order.

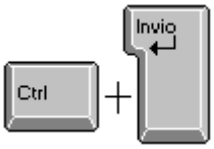
Description of contents

Name
The document code.

The text typing area

This part of the window is necessary to type the text. Please remember that:

To go to the next line



The text will automatically go to the next line at the end of each line, but you will also be able to start a new paragraph typing CTRL-ENTER, that is pressing the CTRL key and hitting ENTER.

To cancel a character or correct typing mistakes

On the keyboard you will find two cancellation keys :

The Backspace key, usually above the Enter key on the alphanumeric keyboard, is necessary to cancel characters to the left of the cursor.

The Canc key is necessary to cancel characters to the right of the cursor.

Relationship between displayed text and printed text

Often the text will not appear on the print out as it is displayed on the screen. Sometimes the text of a paragraph will be displayed on the screen on three lines but will be printed on two lines. It is therefore better to preview the document before printing it.

Symbols in the typing area

This symbol indicates that you have typed a *return to the next line* (that is CTRL-ENTER). Cancel this symbol and the lower text will go up a line.

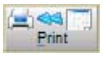
//…// A sentence between double bars indicates a *key word*.

Print PWD prices

In case has been put a password to forbid the access to prices, enabling this function the program will print the quote with the price of each single structure and the total, still not allowing altering them.

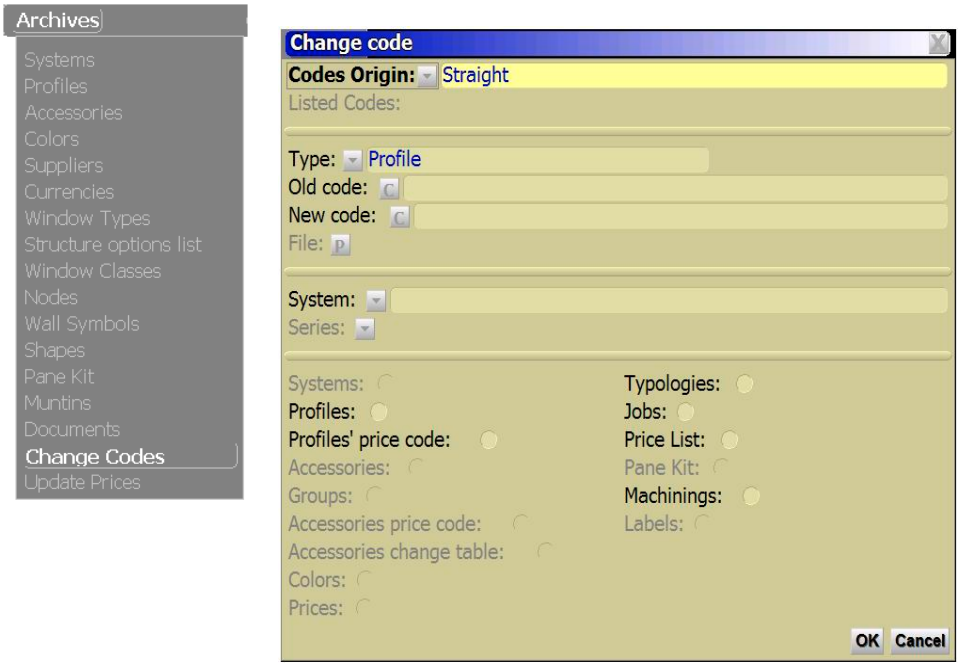
The button

Press this key to import or export text in ASCII format.

The button 

This key is necessary to print the document.

The Change Codes function



This function is necessary to replace a material code. It can be useful, for example, to replace a handle or hinge or profile code on a group of typologies in the archive.

Description of contents

Code Origin
This shows the origins of the operation, that is, it specifies whether one is working on a direct operation, inserting the code manually, or if the source of the replacement is taken from a text file.

Type
Shows the type of material to be replaced. It can be: **Profile**, **Accessory**, **Colour**, **System**, **Series**, **Supplier**, **Saw**.

Old code
The material code to be replaced. It can be typed in or found on the list.

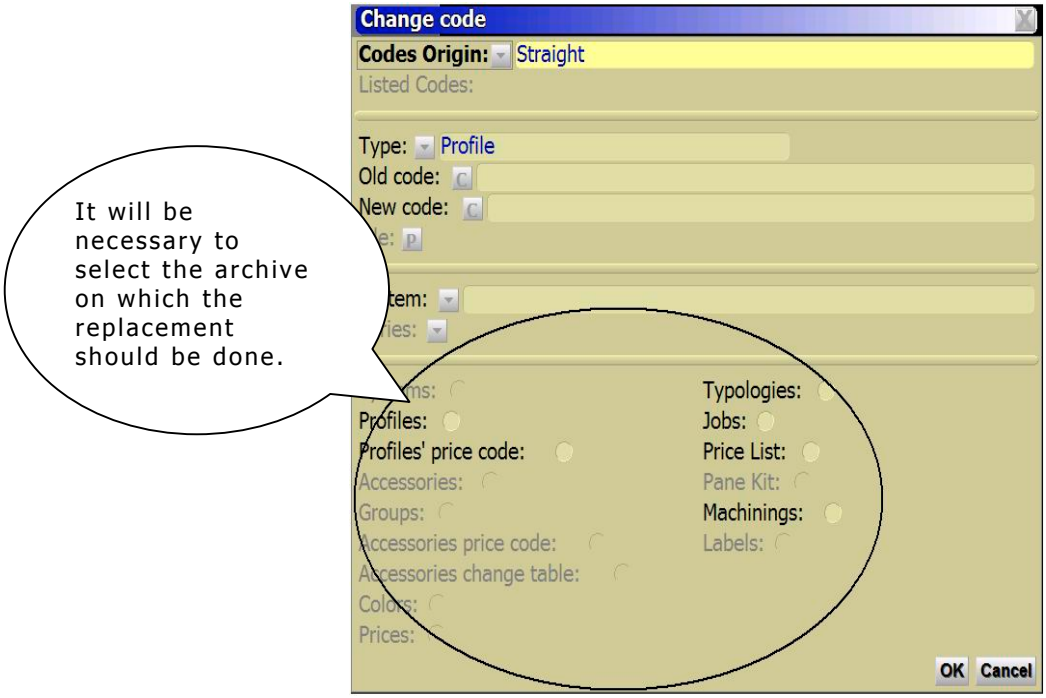
New code
The new code to be given to the material. It can be typed in or found on the list.

File
Indicates the path the program must follow to load the files containing the codes to be replaced.

System and **Series**
Indicates the system and series the material belongs to.

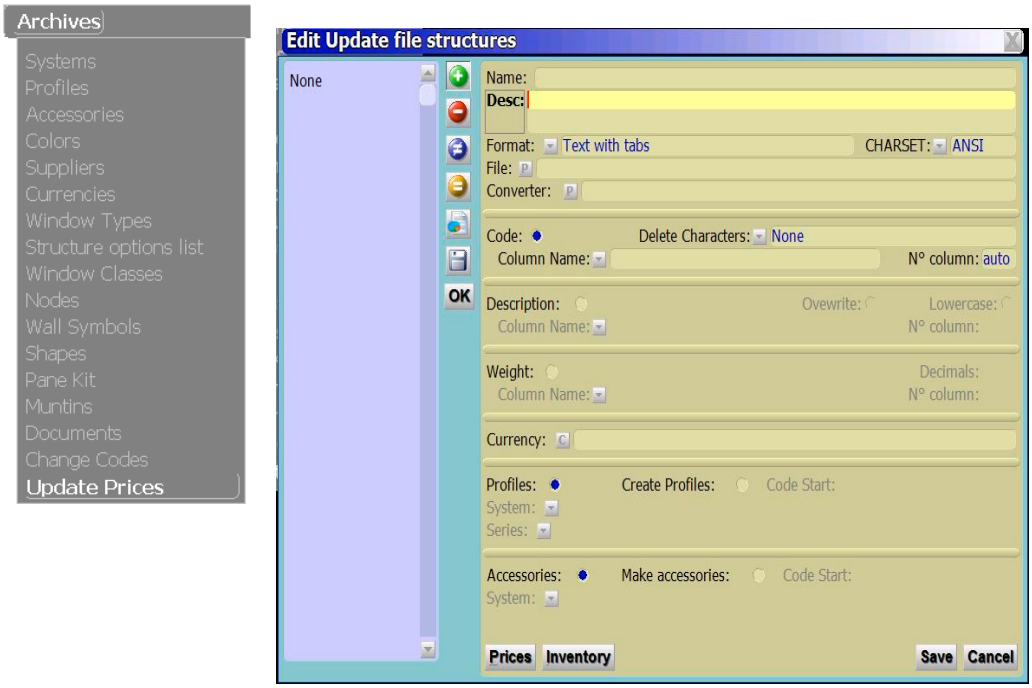
Interested archives

After setting out the previous values, it will be necessary to select the archive on which the replacement should be done.



Every archive is outlined by a *true/false* box. It is possible to select several archives at the same time. Remember to disable those archives on which the replacement should not be done.

Updating prices



This particular function allow to modify and update prices within the archives. The procedure is carried out through an elctronic file

> If you are not a skilled user we suggest to get in touch with the Technical Assistance Department of Opera Company.

Contents description

Name
It's the name assigned by the users

Descripitnion
It describes the operation's features

Format
From the list opened pushing the combined button is necessary to take the format of the importing file.

File
Here the users has to write the path the program has to follow to charge the importing files

Converter
Some files could have a format whom to be imported in Opera needs a converter program. In this box must be written the path which reports the position of this converter within the computer.
Code
Checking this flag the program draws the item code from the importing file

Delete characters
In this box the users inform the program which characters it has to delete: codes, spaces, points etc.

Column name
It's the column name referred to the code, as it is reported in the file text.

Column number/Column start/Column file/Field name/Column name.
According the file format will be activated the above cited boxes. Their action is to determine the field position in the column, or its dimension etc.

Description
Checking this flag the program draws the item description from the text.

Weight
Checking this flag the program draws the item weight from the text.

Decimals
They are the weight decimals automatically taken by the program

Currency
It's the currency with which Opera must update the prices

Profiles / Accessories
Activating one or the other of these boxes, inform the program where the action must be addressed

Create profiles / create accessories
As said the program is not only able to import the prices data, but it is even able to create new articles, therefore these boxes indicate the program to insert as new items the codes draws from the file, acting directly in the related archives.

The button
After the settling, this button start the updating operation

The button
Through this button is possible to take the text from an outer unity

The button

This button open the *Price Import Data*, where the user will set the updating prices for each finish and color

Type
From this list is established which price the program has to update.
As you know the program allow to work with four different prices per item

Suffix
This box is to set a code which identify the price color or finish.

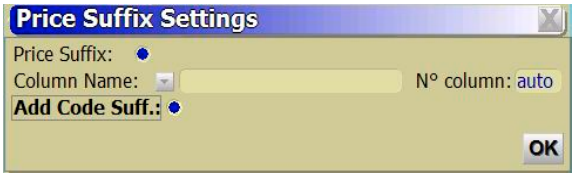
Decimals
It's necessary to write the existing decimals figures in the number

Column name
It's the column name referred to the code, as it is reported in the file text.

Finish
Through the combined button the user draws the finish which the prices refer to.

Internal color / External color
The button open the color list which the price refer to

The button



The Price suffix setting has the function to draw the eventual price suffix.

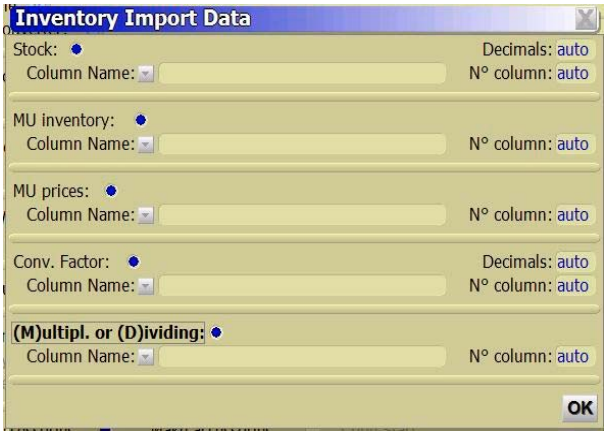
Price suffix
It activate the suffix selection from the importing file

Column Name / Column n°
Reports the column position related to the price suffix

Add suffix code
It adds the price suffix to the code

The button

This button open the Inventory Import Data where the user will set the warehouse update of Opera.



Stock
It act on the file column of the importing data, related the stock quantity.

MU inventory
It act in the file column related the quantity's measure unit

MU prices
Similar to the previous this flag is related the prices's measure unit.

Conv. Fact.
This act on the column related the conversion factor from Inventory measure unit to Prices unit measure.

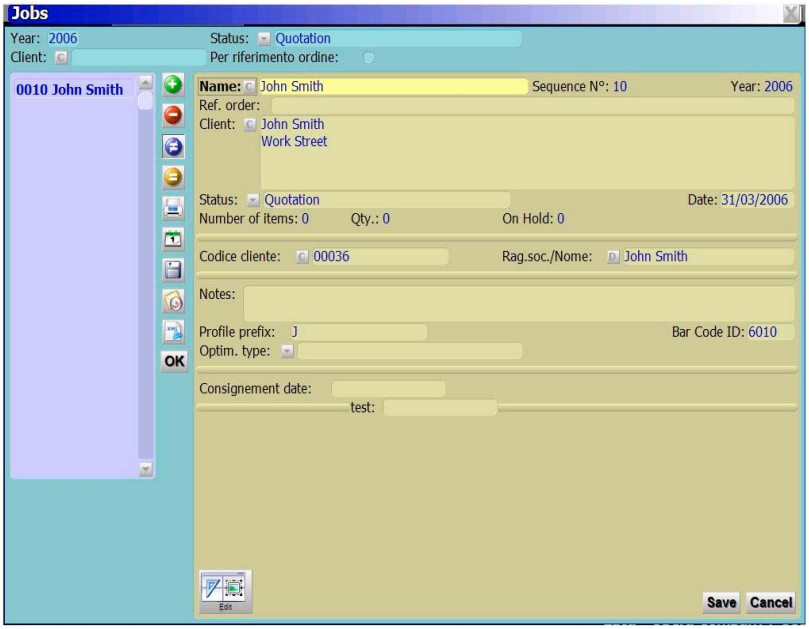
(M)ultipl. or (D)ividing
It act on the column related the conversion factor.

Section 2

The Job management menu

The following chapters describe the contents of the Job management menu and how it works.

Job management

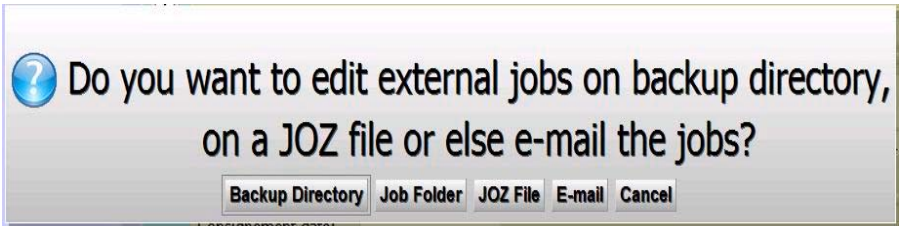


Creating quotations, modification and registration is managed by this archive. Furthermore all the commercial data (flat costs, selling prices, order quantity, wharehouse checkin and checkout, data export toward outer accounting programs) and technical (cutting list, optimization, machining assembling printout data transfer to workcenters and saw machines), are developed and managed in this side of theprogram. It's easy then to deduce that here the user spend most of his time of work within Opera.

Contents description of the job archive

The button
When this button is pressed, it allows the job list to be printed.

The button
The function of this button is to import and export jobs. This procedure is carried out in different fashions, let's see which:



Pushing the button show the question on what kind of operation you want to proceed:

Backup Directory

The export is carried out according the external backup path. The file can be restored only if in the program are working the same archive with whom it has been made from.

Job Folder

The file has the same extension and format of the one. The difference is about in this case the program is not compelled by the xternal backup path, but it open a research curtain to allow the users to place the file in some specific folder.

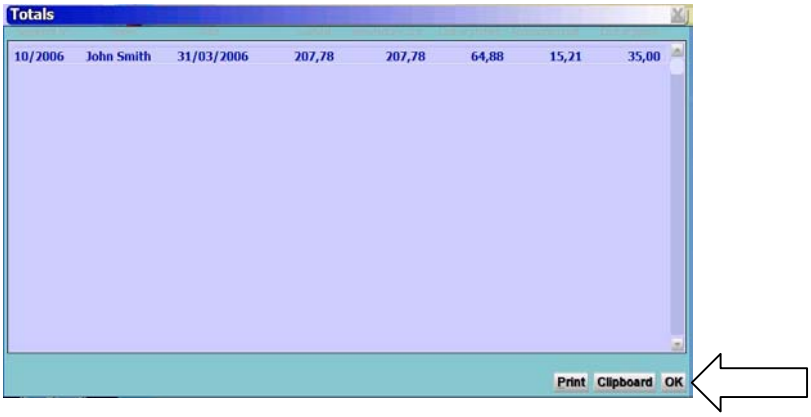
JOZ File

The file who's generated demand by the user to specify the saving file's position. When the file is restored it starts Opera in position to charge within the quotation.

E-mail

This file match with the previuos one, but in this case the procedure starts the e-mail program where the file is automatically attached. Is up the user to complete the operation sending the mail message

The button



As the previous picture shows this button display a total reports of the jobs archive. Underlined by the arrow, the buttons Print whom send in print the report, and Clipboard whom copy the report in the operative system clipboard, which can be downloaded in a calculating program.

The button
This button is very useful where a job has to be sent to the technical assistance department, for technical assistance on that current subject. When this button is pressed the *Send Job to the Opera Company* field opens. Here the operator can select the address for the technician he wishes to send the job to. Once the operation has been confirmed the program connects to the e-mail program and attaches the file containing the data for your quotation.

The button OK
Confirm the operations so far made and comes out of the archive

Name
Is the quotation code. Usually it refer the customer's name which is possible to draw opening the selection by the associated button.

Sequence N°
This is the sequence number of the job which is automatically assigned by the program. This is not modifiable.

Year
This is the year that the job was created. This data can never be modified.

Client
This is the client data, i.e. Company, address, city. This data can be printed in the estimate so you need to be very careful while typing.
The rules indicated in the Documents Archive chapter, section 1, apply when typing the necessary data.

Status
Shows the processing status of the work order. 7 different items are displayed :

Quotation
Set this item if the work order is still an estimate that has not been accepted by the client.

In production
Set this item if the work order is being processed.

Due
Set this item if the work order has been delivered to the client but the payment has not yet been received.

Paid
Set this item if the work order has been delivered to the client and the payment has also been received.

Accepted estimate
Set this item if the work order is still an estimate that has been accepted by the client.
Waiting confirmation
Set this item if the work order is still an estimate that has been discussed with the client but not yet accepted.

Order confirmation
Set this item if the document confirming the order has been received by the client.

Code
If needed the user can draw the custome's number of reference through the associated button rightly from the archive

Date
The complete creation date of the estimate. This can subsequently be modified.

Notes
Notes relative to the client or work order may be stored in this box.

The rules indicated in the **Documents Archive** chapter, in **Section 1**, apply when typing the necessary data.

VAT No. and Taxpayer's code
The client's VAT numbers and/or taxpayer's code.

Tel #1, **Tel #2** and **Fax**
The client's telephone numbers.

Profiles ID code
Shows the profiles identification code assigned to the profiles and panes of the work order.

> The identification code is used to make identification of the pieces and panes belonging to a work order easier during the assembly phase. This code will be automatically linked to the work order, even if it will be possible to change it afterwards.

No. of window types
Indicates the number of typologies included in the work order.

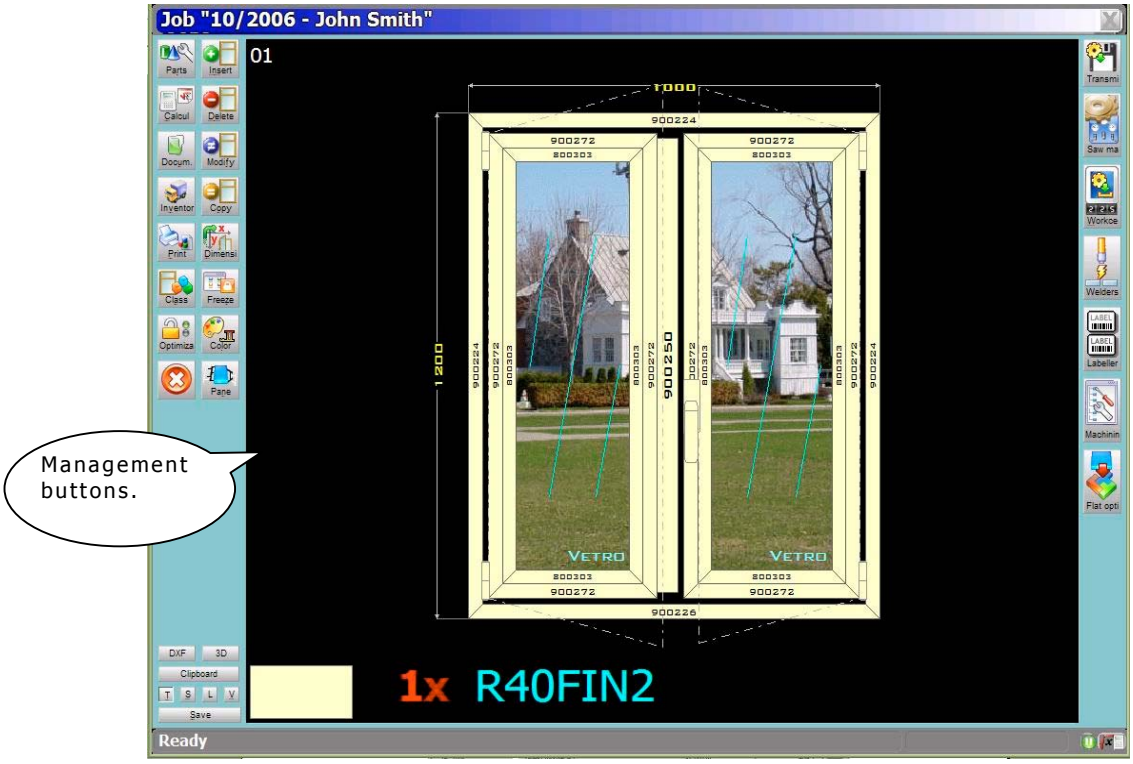
Qty
Indicates the number of items in the entire work order.

Frozen
Indicates the number of frozen typologies.

Type of optimisation
The active button in the box opens a drop menu that allows you to indicate the type of optimisation the program is to use for that particular job.

The button

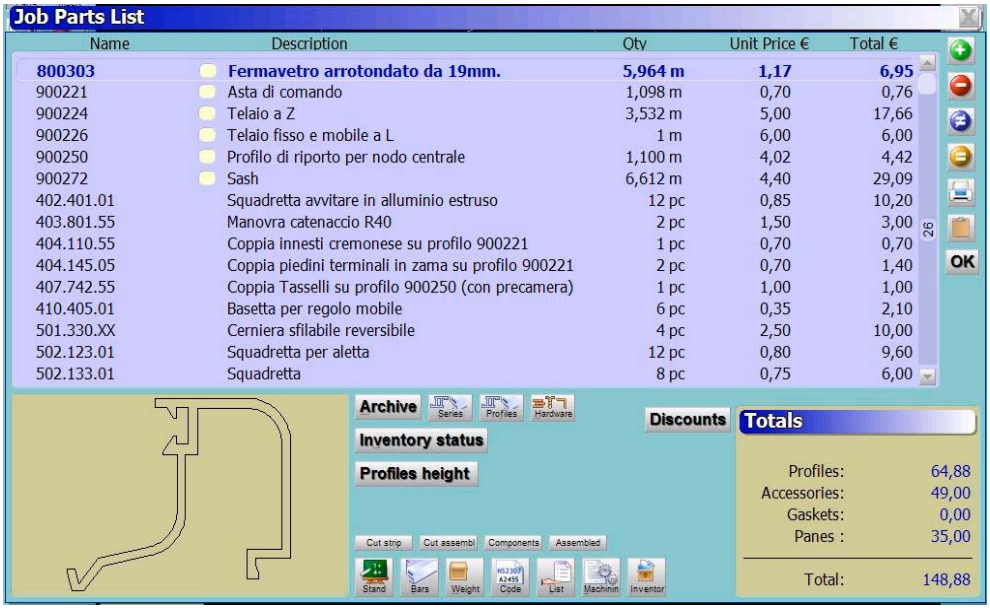
Press this key to open the job management screen.



Description of contents

The button

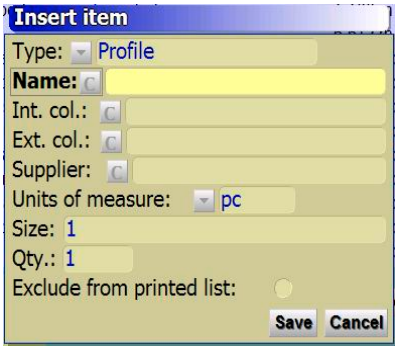
This key is necessary to open the materials management screen relative to the work order where all materials belonging to the work order typologies will be listed together with the relative weights, prices, stock situation, etc...



It is important to remember that this screen should be used only to refer to the input data. For example, to verify the quantity of materials, the correctness of prices and codes.. ; in fact, this screen should not be used to add or modify the work order materials, that should be done using the Worksheet.

The button

This key is necessary to add new material to the work order. The following screen will appear, whose contents are explained hereafter.



Type
Shows the material type, either **Profile** or **Accessory**.

Name
Shows the code of the material.

Int. Col. and Ext. Col.
Only if the type is *Profile*. Indicates the internal and external colouring of the profile.

Colour
Only if the type is *Accessory*. Shows the colour of the accessory.

Units (or Unit of measurement)
Shows the measurement unit to be assigned to the item.

Size
The material quantity according to the measurement unit.

Qty (Quantity)
The number of article items.

Exclude from form
When this box is activated, the program will not show this item on the supplier's order form.

> The material that has been input in this way will have the letter **M** next to the code.

The button
This button is necessary to cancel material from the work order.

The button
This key is necessary to replace the material with a different one.

The button
This key is necessary to copy material. It works like the 'add material' function previously explained in this paragraph.

The button
When this button is pressed, the content of a job can be copied, and automatically copied to an external word processor, or a worksheet.

The button
This key is necessary to print the materials list.

The button

This key is necessary to close the screen.

The button

This button is necessary to go to the archive relative to the highlighted material (profile or accessory): the program will open the archive and go straight to the code highlighted in the materials list.

The button

This key is necessary to open the price archive relative to the series of the highlighted profile. The explanations of the contents relative to this archive can be found in **The Systems archive** chapter in the **Description of Systems archive contents** paragraph.

The button

This key is necessary to open the prices archive relative of the highlighted profile. The explanations of the contents relative to this archive can be found in **The Profiles archive** chapter in the **Profile price assignment** paragraph.

The button

This key is necessary to open the prices archive relative of the highlighted accessory. The explanations of the contents relative to this archive can be found in **The Accessories archive** chapter in **The accessory price archive** paragraph.

The button

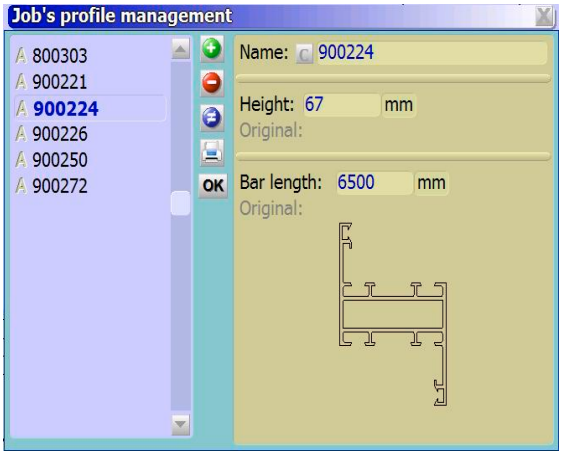
When this button is pushed, discounts included when the prices were entered in the relevant files can be calculated and applied.

The button

When this button is pressed, it is possible to run real-time checks of the availability of the materials in stock required for a job.

The button

Sometimes is possible that the profiles, due to manufacturing problems, do not respect the dimensions given by the catalogue and stored in the program. In order to avoid the data modification within the archive, using this function is possible for each single job to modify the profiles' height dimension. The button open the screen *Job's profiles management*



In this list the program dispaly the profiles used in the structures. To modify the profile's height and the bar's length is eanough to enter as a modification inside the selected profile and in the dedicated box write the new dimension. The program will report the *original* one too, drawing it from the archive.
The outcome will be that the cutting data will be developed according the new dimensions.

The button

This button is used to recalculate the materials list.

The button

The status of this button affects how the program will calculate the cost of the profiles.

- If it is disabled (default), the cost of the profiles will be given by the cost of the quantity really necessary plus a *wastage* amount. This amount, also called the *waste percentage*, is indicated in the company parameters in the **Options** chapter, in the **Company data** paragraph.

  Therefore, the client will have to pay for the pieces used to make the work order plus the yearly waste percentage output in the company data.

- If enabled, the cost of the profiles will be the total cost of the bars necessary to carry out the work order.

  Therefore, the client will have to pay for the pieces used to make the work order plus the entire remaining, including everything that is wasted during processing.

The button

This key is necessary to switch from the quantity displayed in metres to the quantity displayed in kilos and vice versa.

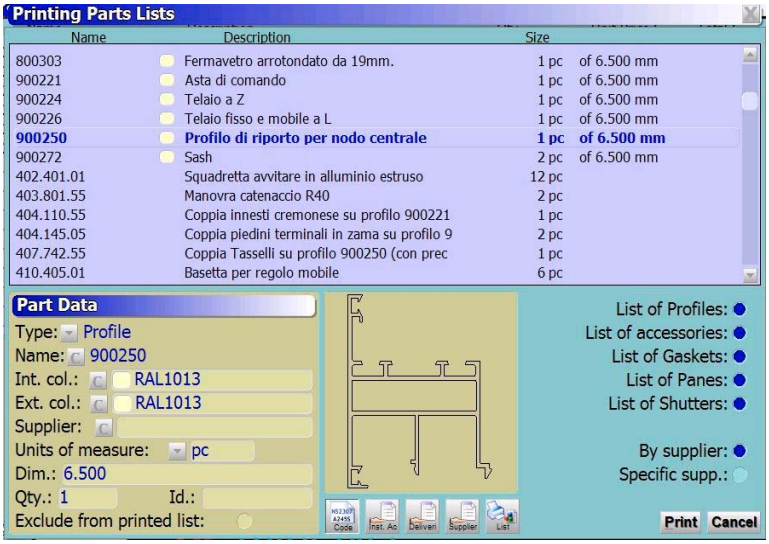
The button

This key is necessary to switch from the ordinary catalogue codes to the commercial codes and vice versa.

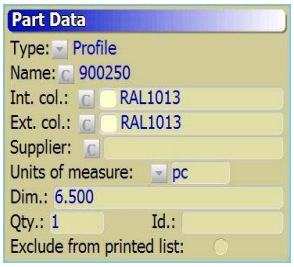
Some material manufacturers use two types of codes : technical codes, usually displayed in technical catalogues, and commercial codes, relative to the different prices of the material based on the different colours. It is usually necessary to use the latter codes in the order to the supplier.

The button

This key is necessary to print the materials order to the supplier. The program will open a screen where all materials necessary for the work order will be displayed, where it will be possible to make changes before printing the order.



The item data screen



You can open this screen clicking inside it. In this screen all data relative to the selected item will be displayed to make the necessary changes. For every item the following data will be displayed.

Type
Shows the type of material to be ordered, either Profile or Accessory. This cannot be directly modified.

Name
Shows the code of the material to be ordered. This cannot be directly modified.

Int. Col. and Ext. Col.
Indicates the colour of the material to be ordered. This can be directly modified.

Supplier
Shows the name of the supplier who provides the material.

Unit of measurement
Shows the measurement unit of the material to be ordered. This can be directly modified.

Dim.
Shows the size of the material to be ordered. This can be directly modified.

Items
Shows number of items of the material to be ordered. This can be directly modified.

Exclude from the list
It this box is enabled, the material will not be taken into consideration.

The Profiles list, Accessories list, Gaskets list, Panes list, Roller shutters list boxes
These boxes are used to choose the order relative to the materials to be printed. If you disable the boxes, the relative order will not be printed .

The *By supplier* box
Check this box and the print-outs relative to the orders will be sorted by supplier.

> The sorting by supplier can be done only if a supplier code has been linked to each material (found in the suppliers archive).

If this box is enabled, the **Specify supplier** box will be displayed, which, if activated, will permit selection of the supplier of the materials to be printed. This box is therefore necessary to print the orders relative only to one supplier.

The *Specific Supplier* box
When this box is activated it allows the supplier that provides the materials you wish to print to be chosen when the order is launched. This box is therefore used to print only orders relating to a particular supplier.

The button

Even in this case this key is necessary to switch from the ordinary catalogue codes to the commercial codes and vice versa.

The button

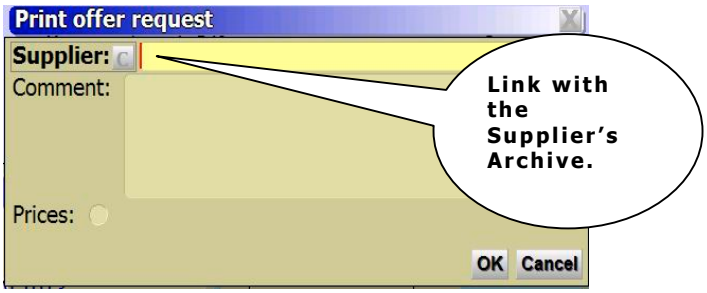
This starts the print only for those accessories whose have been recorded in the archive as *"Installation hardware"*

The button

This button printout a list of those accessories which have been checked the flag *Delivering list* in the archive.

The button

Through this button open the supplier's archive, where is possible to choose the supplier which the list has to be sent to:



The button

It prints the part list without icons, describing materials and quantity

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PROVA 4bmx - #ccx

Stampa distinta materiale

Nome	Descrizione	Dimensione
K1	Telaio	2 pz da 6.800 mm
K14	Fermavetro (per 35TT/62TT/69TT/70TT/70ES)	14 pz da 6.800 mm
K17	Fermavetro (per 55TT/62TT/69TT/70TT/70ES)	7 pz da 6.800 mm
K33	Telaio Fisso	17 pz da 6.800 mm
K35	Telaio	3 pz da 6.800 mm
K521	Asta di comando	4 pz da 6.800 mm
K55	Telaio mobile	18 pz da 6.800 mm
100	Squadretta per cerce aperta	120 pz
102	Squadretta a puntarla attorno	80 pz
1263	Chiusura per finestra a 2 Ante	10 pz
1264	Chiusura per finestra a 2 Ante	10 pz
2007	Tubetto di drenaggio	30 pz
277	Cofanaccio per finestra e portafinestra con telaio perimetrale	10 pz
347	Coppia tappi di tenuta centrale per finestra a due ante	10 pz
413	Registori	100 pz
4200	Mecherina scarico acqua	60 pz
510	Cerniera a due ali	60 pz
7901	Cremonese per finestra ad anta a antarbalta	10 pz
7911	Cremonese cladra per finestra a 2 ante	10 pz
8817	Angolo vulcanizzato per guarnizione 917	80 pz
906	Guarnizione per compensator K485/K494/K502	8,000 m
917	Giunto aperto	123,110 m
958	Guarnizione interna vetro per battente K485 (vetro 35 mm.)	39,780 m
9830	Guarnizione interna h=5 mm.	108,500 m
6945	Guarnizione esterna grande per vetri (vecchio tipo)	39,780 m
V4-12-4	vetro 4-12-4	20 pz da 679X1347
V4-12-4	vetro 4-12-4	10 pz da 647X1342

The

button

This key is necessary to open the stock archive, the contents of which are explained in **Section 4**.

The button Cut strip

Where the quotation includes types that have *compound profiles* pressing this button allows you to print cutting lists, broken down in terms of cuts for the various components.

The button Cut assembl

Pressing this button will result in the cutting list for *compound profile* components being cut together.

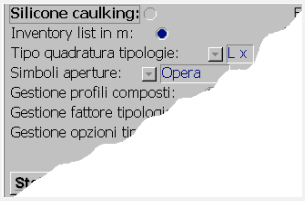
The button Components

When this button is pressed, access is gained to the *materials list* breaking down the profile and listing its components separately.

The button Assembled

Pressing this button in the *materials list* the compound profile will be listed along with its components.

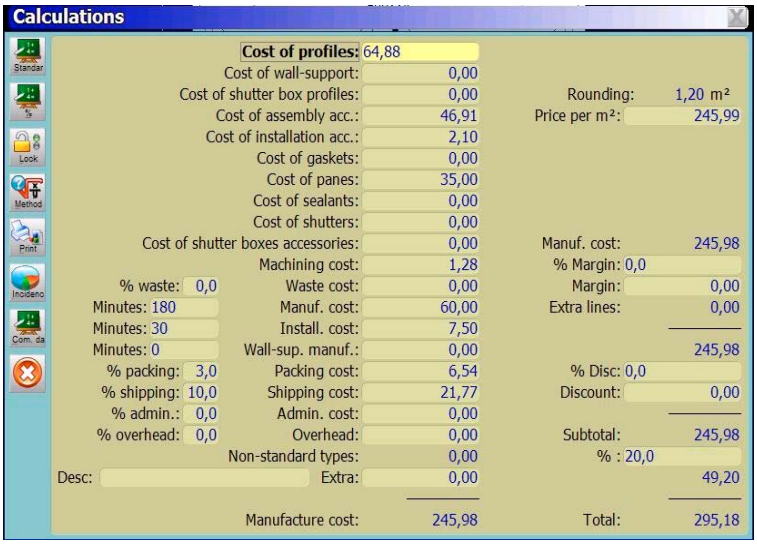
To make the program allow management of cutting of compound profiles, and to allow them to be included in the lists, the ***Compound Profile Management*** function in the **Company Data** section must be activated. This is explained later in this section.



Outside the material checking list back in the job's managing screen the user is about to verify the selling prices.

The button

This key is necessary to open the screen relative to the calculation of costs of the work order where the production costs and client costs are shown.



The button

Pressing this button allows you to recalculate costs where these are changed manually.

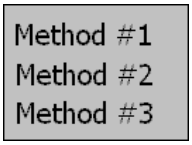
The button
This button allows you to modify the percentages used in ***company data*** when preparing a quotation.

The button

When this button is activated it prevents any manual changes to costs and percentages.

> It would be better to lock the calculation whenever you've checked the values and are about to print the quotation. This will avoid the program to calculate again, in case prices underwent modification in the archive

The button



The option of calculation can assume three different configurations. The first one consider the detailed costs of each single function of the item who make the structure. The second one sum up the costs puting on the screen more extra rows. The third one resemble the second but has in addition the box dedicated at the salesman rate.

The button

This button allows you to print a *general summary* of job calculations, under *type summary.* Thus this allows calculations for each type used in the job and a *type abacus* to be printed.

The button

When this button is pressed, the percentage effect of the most important cost items in a quotation is displayed.

The button

When this button is pressed, the program connects to the ***Company Data*** settings, that are fully described in section 4 of this manual.

The button
When this button the program change the currency displayed in this picture

> The users have to know that, to make work this button, must set the currencies in the *Currencies Archive*. You can see more in the *1st section*, in the *Currencies Archive's chapter*.

Cost of Profile, **Cost of Wall Support**, **Cost of Shutter Box Profiles**, **Cost of Assembly Accessories**, **Cost of Installation Accessories**, **Cost of Gaskets**, **Cost of Panes, Cost of Sealants, Cost of Shutters, Roll Shutter Box Acc. Cost.**
These boxes display the work order material costs. These can all be directly modified.

Machining cost
This box shows the cost of forming cambers. To make it operative, apply a camber to the type and enter the cost for forming the camber as explained in *Section 1* of the *Profiles* chapter, in the *"Assigning camber works"* paragraph.

waste %
The waste percentage to be charged to the client.
Waste cost
Shows the waste cost.

Minutes
Shows the total minutes necessary to process the work order.

Manuf. cost, **Installation cost**, **Wall support manuf. cost**
Indicates the processing costs of the work order based on the processing and installation times of the typologies and the hourly labour cost. These can all be directly modified.
Packing %
The percentage that has to be added to the industrial cost relative to the packaging material.

Packing cost
Shows the packaging cost based on the set percentage. This can be directly modified.

Shipping %
The percentage that has to be added to the industrial cost relative to transport.

Shipping cost
Shows the transport cost based on the set percentage. This can be directly modified.

Admin. %
The percentage that has to be added to the industrial cost relative to the time necessary to process the work order. This can be directly modified.

Admin cost
Shows the work order processing cost based on the set percentage. This can be directly modified.

Overhead %
The percentage that has to be added to the industrial cost relative to the expenses for work order processing (electricity, telephone, other materials).

Overhead
Shows the general expenses cost based on the set percentage. This can be directly modified.

Non-standard types
Shows the total cost of the extras relative to the work order typologies. This cannot be directly modified.

Desc
A brief description of extra processing added to the work order.

Extra
The value of extra processing added to the work order.

Manufacture cost
The total of production costs relative to the work order. This cannot be directly modified. This is given by the total of production costs.

Rounding (or Squaring)
The total of square metres of the work order. This cannot be directly modified.

This value can be calculated with or without the overlaps. Please see the **Options** chapter in **Section 4** as well.

Price per m^2
The cost per m^2 obtained dividing the work order total by the squaring. This can be directly modified.

This box can be used to re-calculate the work order based on a cost per m^2 freely input. This is very useful since it permits comparing the cost per m^2 calculated by the program with the one set by the client. In fact, if you type the cost per m^2 set by the client and press Enter, it will be immediately possible to see the profit percentage that would be obtained, thus evaluating the convenience.

Margin %(or Profit)
The profit percentage to be charged to the client.

Margin (or Profit amount)
The profit value.

Discount %
The discount percentage to be applied.

Discount
The value of the discount.

If you want, the discount may be applied in lira rather than indicating it in percentage in the previous box.

Subtotal (or Rateable value)
The total amount excluding VAT. This cannot be directly modified.

VAT %
The VAT percentage to be applied to the work order. This can be directly modified.
VAT
The VAT value. This cannot be directly modified.

Total
This is the client total, including VAT. This cannot be directly modified.

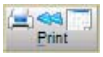
The button

Press this button to open the screen to add or modify the work order documents. Its use is explained in the **Documents archive** chapter in **Section 1**.

If a document marked with the symbol is present in the list, this is a model from the documents archive. See the **Documents archive** chapter in **Section 1**.

The button

This button allows the operator to import or export to/from another text or word processor, or to use the set-up for another program to print the quotation.

The button 

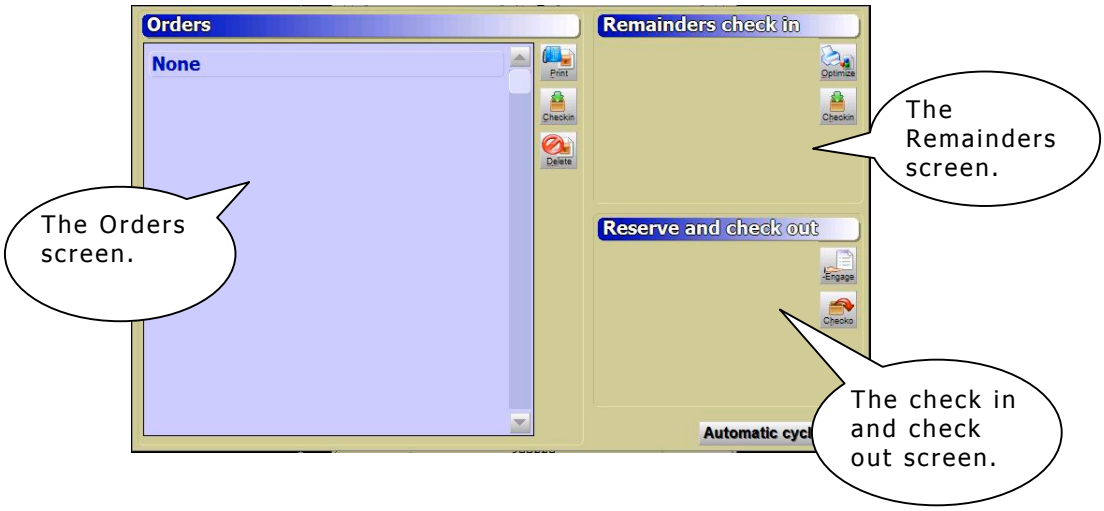
This button allows you to print while in the field, where changes must be made to document settings.

The button

This button is present below the typing area, used to save the document in the pre-set documents archive.

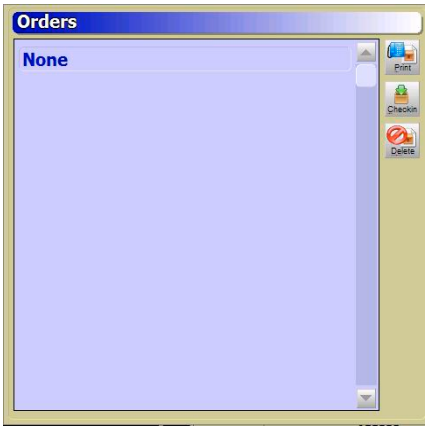
The button

This button is necessary to open the stock movements screen and carry out the operations relative to the work order materials.



The screen is divided into three parts to manage three different phases relative to the stock. Each window is explained hereafter.

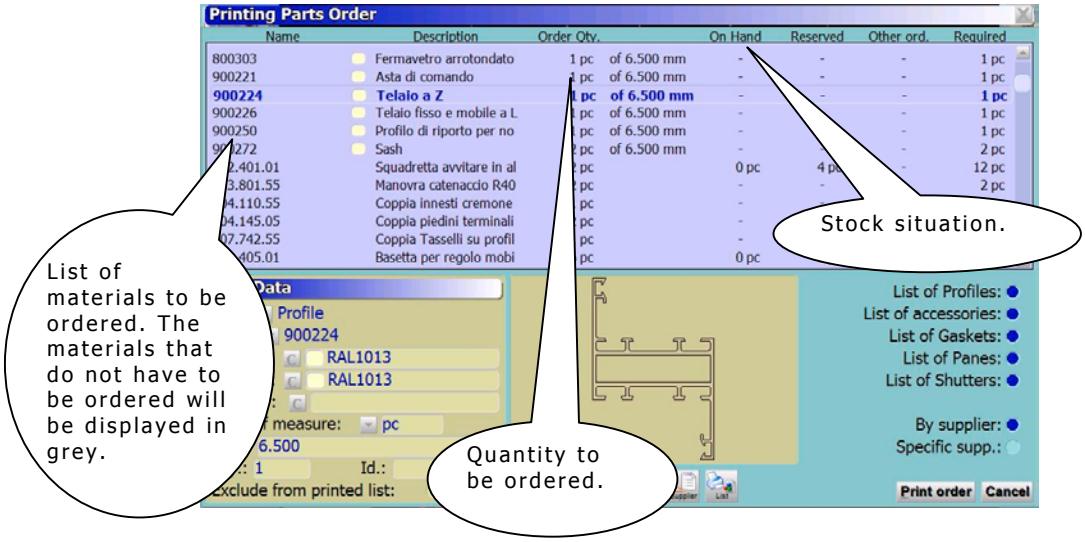
The Orders screen



This screen is necessary to print the orders and to load all materials into stock as soon as received. The list will output the rows relative to the orders to the suppliers, one row for each supplier that will include the load list that will be used to load the goods to stock.

The button

This button is necessary to print the order to the supplier. Press this button and the program will immediately check the stock to verify which materials have to be ordered and then will open the screen indicated in the picture.



The Profiles list, Accessories list, Gaskets list, Panes list, Roller shutters list boxes
These boxes are used to choose the materials order to be printed. If the box is disabled, the order will not be printed.

The *By supplier* box
Check this box and the orders will be printed, sorted by Supplier.

Sorting by Supplier will be done only if the supplier code has been linked to the materials.

If you check this box, the **Specify supplier** box will appear where it will be possible to specify the name of the supplier of the materials to be printed. This box is necessary to print only the orders relative to a specified supplier.

The Item data screen
Click inside this box to access this screen. Here there will be the data relative to the item highlighted in the list, necessary to modify the item data. The following data is shown for each item.

Type
Shows the type of material to be ordered, either Profile or Accessory. This cannot be directly modified.

Name
Shows the code of the material to be ordered. This cannot be directly modified.

Int. Col. and Ext. Col.
Indicates the colour of the material to be ordered. This can be directly modified.

Supplier
Shows the name of the supplier who provides the material.

Unit of measurement
Shows the measurement unit of the material to be ordered. This can be directly modified.

Dimension
Shows the dimension of the material to be ordered. This can be directly modified.

Items
Shows number of items of the material to be ordered. This can be directly modified.

Id.:
It bear the Id code in case it is about a reminders in stock.

Exclude from the list
Check this box and the material will not be taken into consideration.

The button

This button is necessary to switch from the usual catalogue codes to the commercial codes display and vice versa.

Some material manufacturers use two types of codes: technical codes, usually displayed on technical catalogues, and commercial codes, relative to the different prices of the material based on the different colours. It is usually necessary to use the latter codes in the order to the supplier.

The button

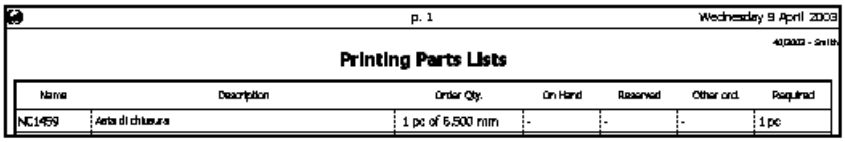
Using this function is possible to reserve the material at the order stage.

The buttons

These buttons have the same function they have in the Job Part List, previously explained, namely to make a selection of accessories recorded as *Installation hardware* , and to choose the supplier.

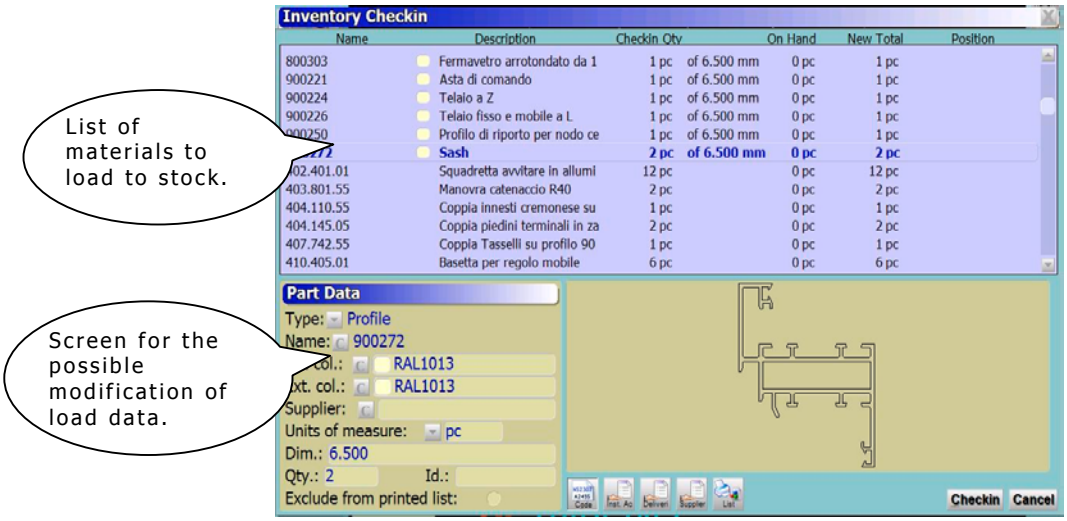
The button

This prints a sheet describing the material on order.
The print report further the qauntity, even the existing quantity in stock, possible material yet reserved for others jobs, other orders on course, and the needs for the current quotation.



The button

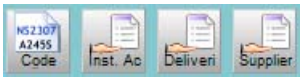
This button is necessary to load all materials to stock as soon as received relative to the orders fulfilled. In fact, as previously explained, there is a load list created automatically by the program for each order fulfilled.



After the load, if all materials have been loaded, the load list will be automatically cancelled from the order list. Otherwise, if not all materials

have been loaded, for example is some of them have not been received, the list will remain until the order is loaded.

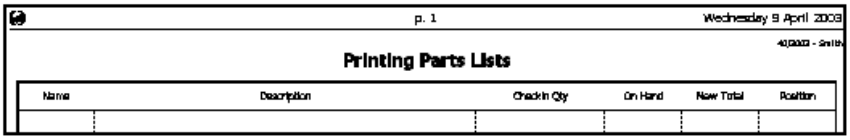
> This list can be directly modified if the materials received differ from the order or if some of them have not been received. See **The Item data screen** paragraph on this argument.

The buttons 

These have the same function they have in the Printing Parts Order

The button

Even this button has the funtion it has in the Printing Parts Order, what's different are the printed data:



As you see in the picture in this case the data refers to the checking quantity, the current existence, and the new one, namely the quantity after the checking, and very important the item position in the warehouse, whom make easy the material identification.

The button

It's pushing put under way the checkin procedure. By that moment the new quantities are stored updating the stock.

The button

This button is necessary to cancel the orders that have been fulfilled.

The load Remainders screen

This screen is necessary to manage the pieces. It is possible to reuse the pieces and to load the remainder into stock.
Below is the description of contents.

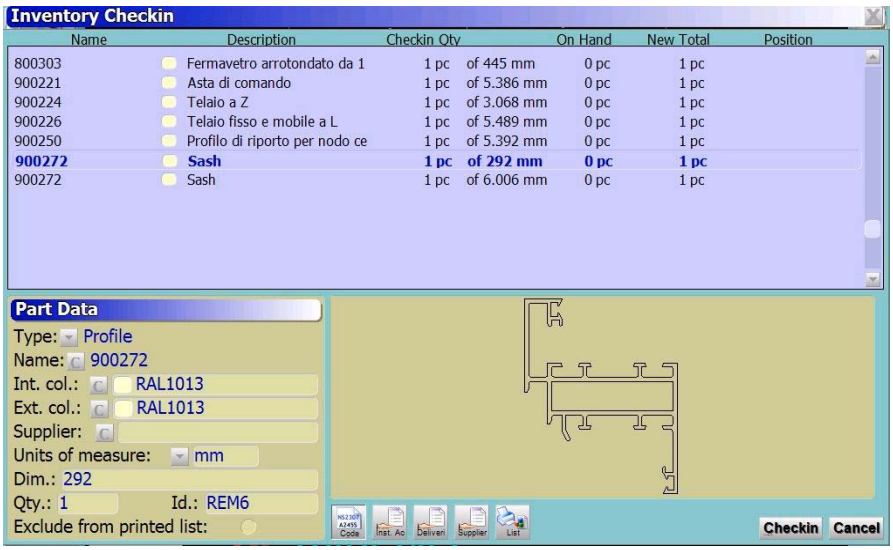
The button

Press this button to create an optimised cut list using the remainders in stock again. At the end, a load list relative to the remainders will be printed.

Prior to make to pint the optiomization is necessary to enable the function **Use reaminders** within the *Cuttin setting*

The button

Press this button to load the remainders indicated in the load list into stock, created during the optimisation outlined in the previous paragraph.



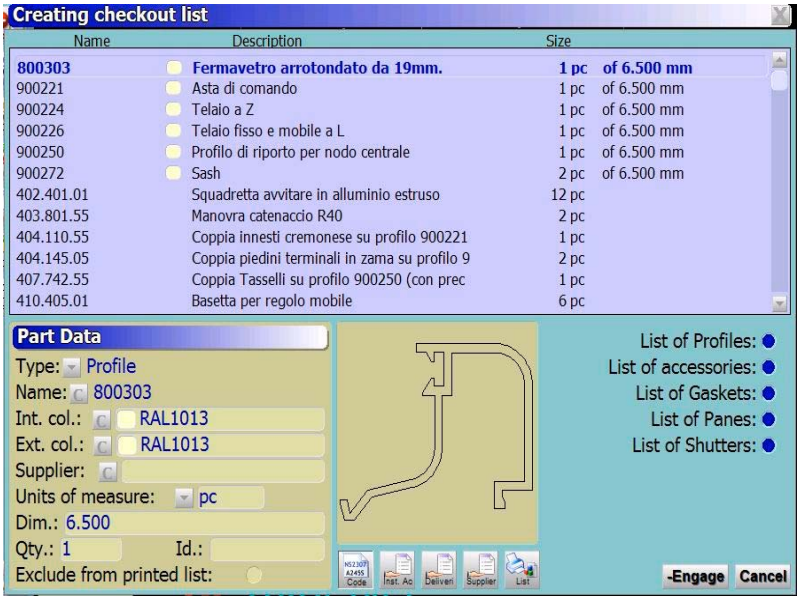
The functions of this screen retake those of the previous one, the button **Checkin** generate remainders with new dimension inthe warehouse

The Reserve and check out screen

This screen is necessary to book and unload the stock.

The button

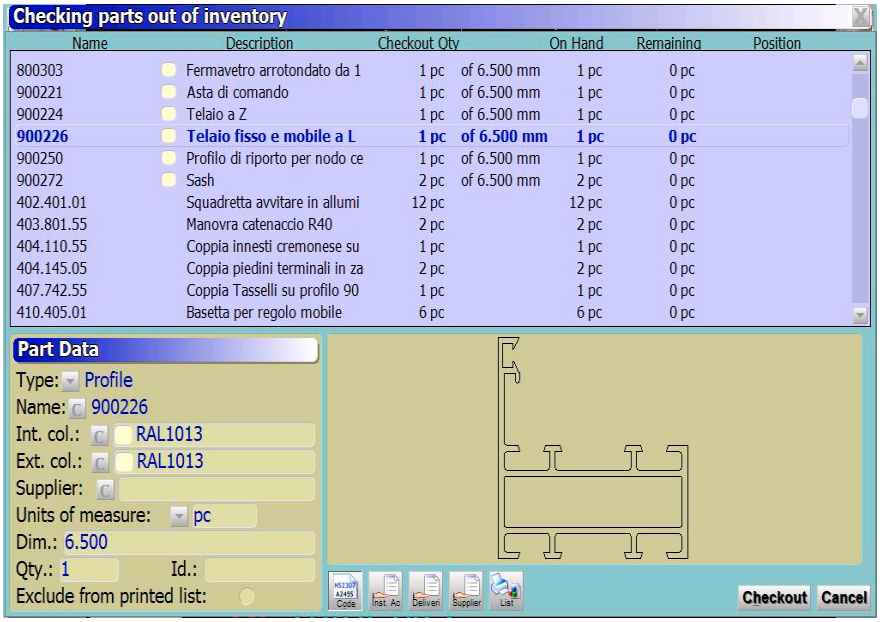
Press this button to book the materials. This should be the second action after order fulfilment. A brief list will be obtained to confirm the order and to make changes.



The functions of this screen retake those of the previous one, the button **-Engage** engage in the warehouse material needed for the quotation.

The button

This button is necessary to unload the material from the stock, used to carry out the work order. This is the last action of the stock management process relative to the work order. Also in this case there will be a pre-set unload list where you can make the necessary changes and confirm. The stock quantities will be updated at the end of the unload process.



The functions of this screen retake those of the previous one, the button

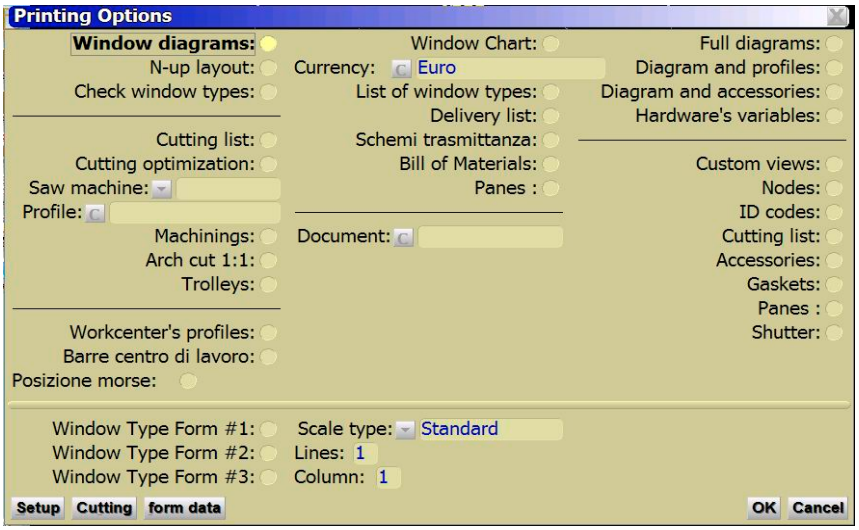
checkout the material used for the quotation.

When the material moving within the warehouse is ended, the job management goes on with technical printout

The button

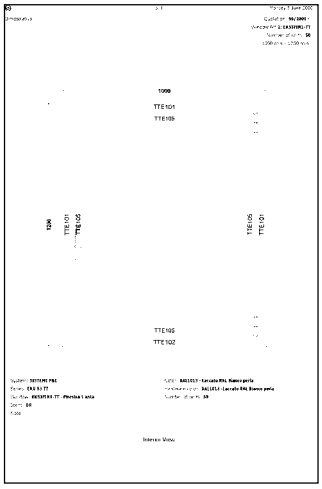
This button is necessary to print the processing cards of the work order.

Check the required boxes relative to the print-outs and press OK .



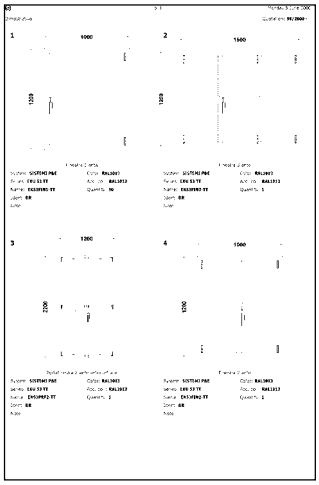
Description of contents

Window diagrams



This print-out is necessary to obtain the diagram of the typology on a single page. There will be a print-out for every typology of the work order.

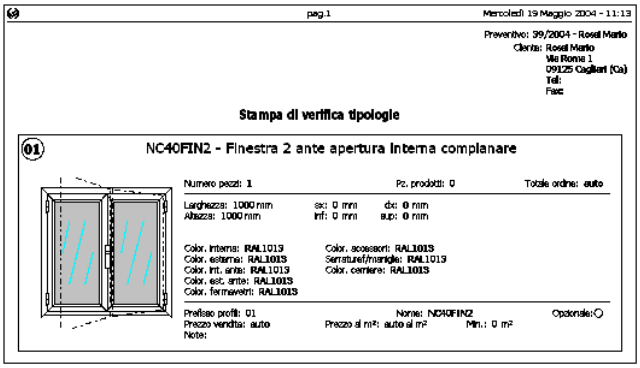
N-up layout (or Multiple diagrams)



This print-out is necessary to obtain several diagrams on a single page. The print-out will have a max. of 4 typologies per page.

Check window types

Basically this sheet retake the *General info* data, it's a verification of the structure features



pag.1 Mercoledì 19 Maggio 2004 - 11:13

Preventivo: 99/2004 - Rossi Mario
Cliente: Rossi Mario
Via Roma 1
09125 Cagliari (Ca)
Tel:
Fax:

Stampa di verifica tipologie

01 NC40FIN2 - Finestra 2 ante apertura interna complanare

Numero pezzi: 1 Pz. prodotti: 0 Totale ordine: auto

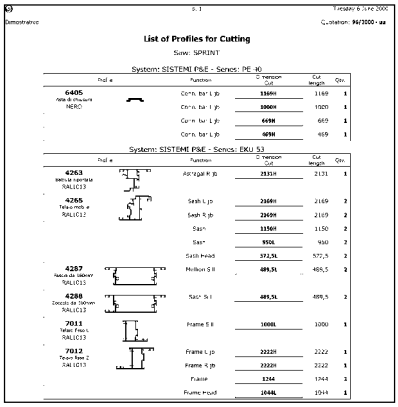
Larghezza: 1000 mm sx: 0 mm dx: 0 mm
Altezza: 1000 mm inf: 0 mm sup: 0 mm

Color. interna: RAL1013
Color. esterna: RAL1013
Color. int. anta: RAL1013
Color. est. anta: RAL1013
Color. fermavetri: RAL1013

Color. accessori: RAL1013
Serrature/maniglia: RAL1013
Color. cerniere: RAL1013

Prefisso profil: 01 Nome: NC40FIN2 Opzionale:○
Prezzo vendita: auto Prezzo al m²: auto al m² Min.: 0 m²
Note:

Cutting list



Pg. 1 — Tuesday, 6 June 2000

Demostrativo — Quotation: 96/3000 - aa

List of Profiles for Cutting

Saw: SPRINT

System: SISTEMI P&E - Series: PE 40

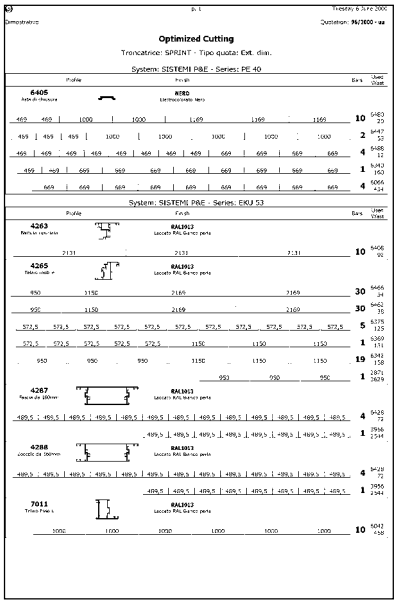
Profile	Function	Cut length	Qty.
6405 Asta di chiusura NERO	Corn. bar L jb	1160H	1160	1
	Corn. bar L jb	1000H	1000	1
	Corn. bar L jb	669H	669	1
	Corn. bar L jb	669H	669	1

System: SISTEMI P&E - Series: EKU 53

Profile	Function	Cut length	Qty.
4263 Bella in rame nera RALI013	Abrigall R jb	2131H	2131	1
4265 Telaio mobile a RALI012	Sash L jb	2160H	2169	2
	Sash R jb	2160H	2169	2
	Sash	1150H	1150	2
	Sash	950L	930	2
	Sash Head	572,5L	572,5	2
4267 Rasce da 100mm RALI013	Mullion S R	489,5L	489,5	2
4288 Coccio da 100mm RALI013	Sash S L	489,5L	489,5	2
7011 Telaio Fissa L RALI013	Frame S R	1000L	1000	1
7012 Telaio fissa Z RALI013	Frame L jb	2222H	2222	1
	Frame R jb	2222H	2222	1
	Fusile	1744	1744	1
	Frame Head	1944L	1944	1

This print-out shows the non-optimised cut list for all typologies of the work order.

Cut optimisation



Pg. 1 — Tuesday, 6 June 2000

Demostrativo — Quotation: 96/3000 - aa

Optimized Cutting

Troncatrice: SPRINT - Tipo quota: Ext. dim.

System: SISTEMI P&E - Series: PE 40

Profile	Finish	Bars	Used Wast
6405 Asta di chiusura	NERO Elettrocolorato nero		
1160 1000 1000 1160 1160		10	5480 23
669 669 669 1000 1000 1000 1000 1000		2	6447 53
669 669 669 669 669 669 669 669 669 669 669		4	6488 12
669 669 669 669 669 669 669 669 669 669 669		1	6492 160
669 669 669 669 669 669 669 669 669 669 669		4	6064 424

System: SISTEMI P&E - Series: EKU 53

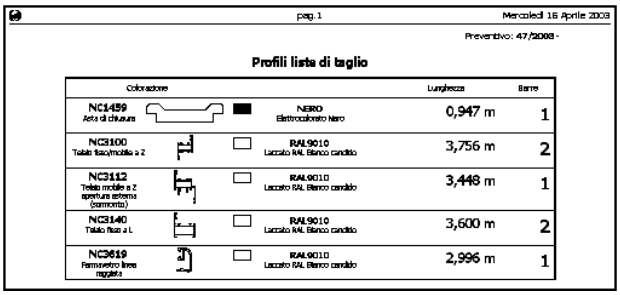
Profile	Finish	Bars	Used Wast
4263 Bella in rame nera	RAL1013 Laccato RAL Serie perla		
2131 2131 2131		10	6406 92
4265 Telaio mobile a	RAL1013 Laccato RAL Serie perla		
950 1150 2169 2169		30	6465 34
950 1150 2169 2160		30	6462 39
572,5 572,5 572,5 572,5 572,5 572,5 572,5 572,5 572,5 572,5 572,5		5	6376 125
572,5 572,5 572,5 572,5 572,5 1150 1150 1150		1	6369 171
950 950 950 950 1150 1150 1150		19	6341 158
950 950 950		1	1871 3629
4267 Rasce da 100mm	RAL1013 Laccato RAL Serie perla		
489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5		4	6425 73
489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5		1	2936 2544
4288 Coccio da 100mm	RAL1013 Laccato RAL Serie perla		
489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5		4	6428 71
489,5 489,5 489,5 489,5 489,5 489,5 489,5 489,5		1	2936 2544
7011 Telaio Fissa L	RAL1013 Laccato RAL Serie perla		
1000 1000 1000 1000 1000 1000 1000		10	6042 438

This print-out shows the optimised cut list.

Cuttin list / Optimization list

Both these printout lists are foregone by the screen *Profile cutting list selection*:

This screen has the function to allow a selection of profile to send in the cutting list. It is very useful when there are profile to erase from the list. The item can be deleted with a mouse pushing upon the associated flag, or using the space bar in the keyboard. Further through the button Print you get a preliminary profile list:



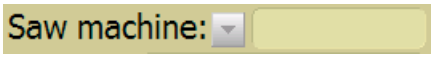
pag.1 Mercoledì 16 Aprile 2008

Preventivo: 47/2008 -

Profili lista di taglio

Codice	Colorazione	Lunghezza	Barre
NC1459 Asta di chiusura	NERO Elettrocolorato Nero	0,947 m	1
NC3100 Telaio fisso/mobile a Z	RAL9010 Laccato RAL Bianco candido	3,756 m	2
NC3112 Telaio mobile a Z apertura esterna (sormonto)	RAL9010 Laccato RAL Bianco candido	3,448 m	1
NC3140 Telaio fisso a L	RAL9010 Laccato RAL Bianco candido	3,600 m	2
NC3619 Fermavetro linea rotondata	RAL9010 Laccato RAL Bianco candido	2,996 m	1

Where are reported codes shapes and quantity of bar to take from the rack.

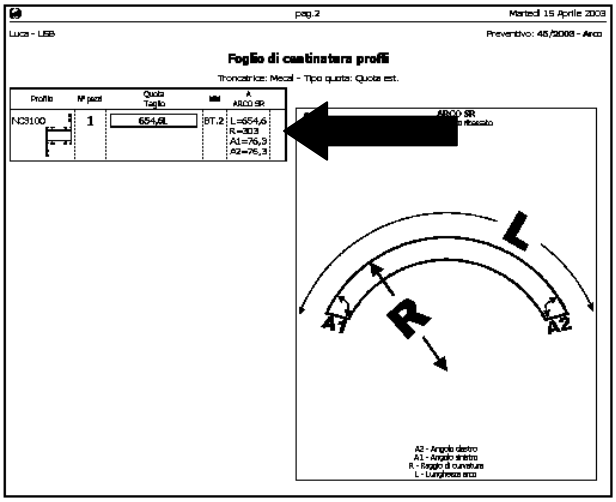


This box alloe to determine a specific saw machine to be associated at the cutting list. The button open the saw selection. To make it work correctly is necessary to specify the saw machine for each profile in the archive.

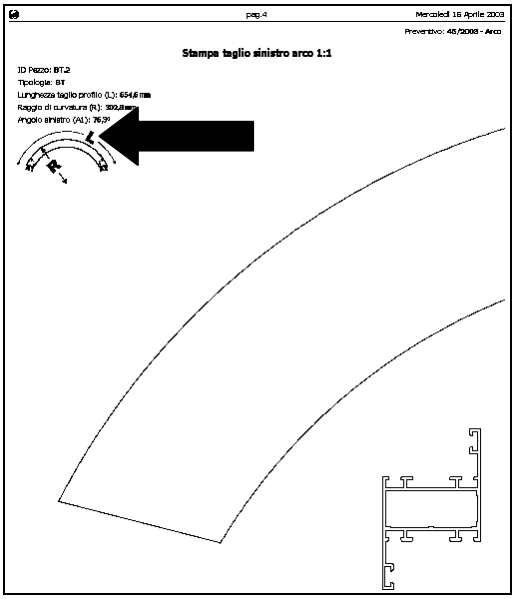
Allow to specify the profile to be printed. Using this function the list will report only the specified profile.

Cuts + machining
This sheet is developed specifically for centering procedures. It has in detail:

L= Profile length with the center addition
R= Ray value
A1= Cutting degree left angle.
A2= Cutting degree right angle



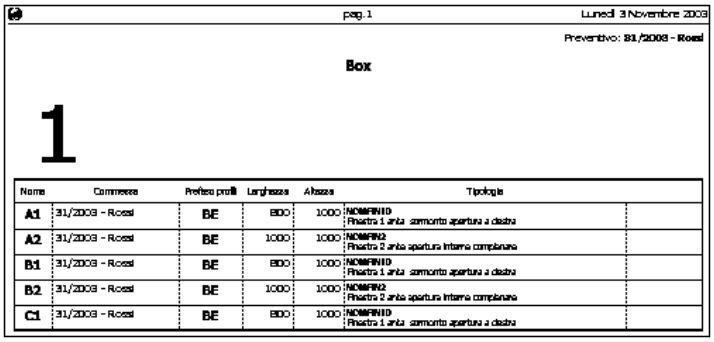
Arch cut 1:1
This print has the data of the final operation, namely to cut the additional measure with the correct deegre. The program develop a sheet per angle.



In the printout the user has all the data he need to end the whole centering procedure. Furthermore as we see in the above example, the program put in the sheet the profile final edge, this feature is very useful for the user who's going to cut, because the sheet can be laid upon the piece in order to set at best the machine parameters.

Trolleys

This function output a sheet with the trolleys layout with the relatives stocking box for remainders, according the setting made in the *Cutting parameters*


pag.1 Lunedì 3 Novembre 2003

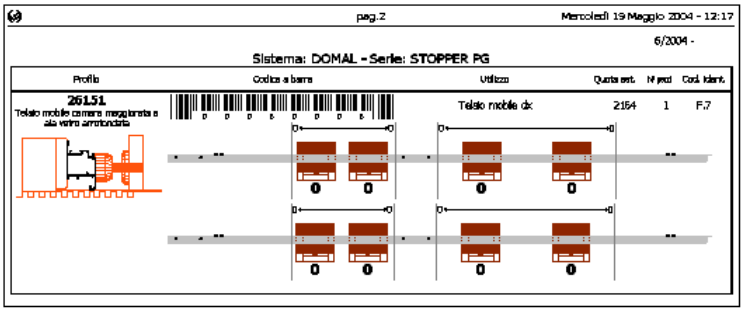
Preventivo: 81/2003 - Rossi

Box

1

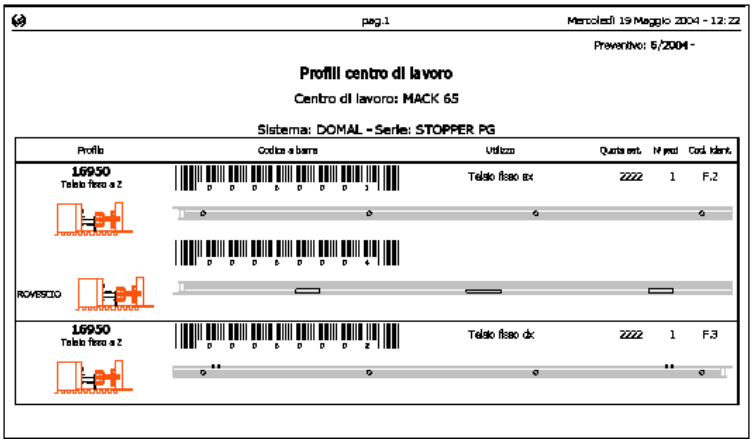
Nome	Commessa	Prefisso profili	Larghezza	Altezza	Tipologia
A1	31/2003 - Rossi	BE	800	1000	NOMFIN1D Finestra 1 anta sormonto apertura a destra
A2	31/2003 - Rossi	BE	1000	1000	NOMFIN2 Finestra 2 anta apertura interna complanare
B1	31/2003 - Rossi	BE	800	1000	NOMFIN1D Finestra 1 anta sormonto apertura a destra
B2	31/2003 - Rossi	BE	1000	1000	NOMFIN2 Finestra 2 anta apertura interna complanare
C1	31/2003 - Rossi	BE	800	1000	NOMFIN1D Finestra 1 anta sormonto apertura a destra

Workcenter's clamping



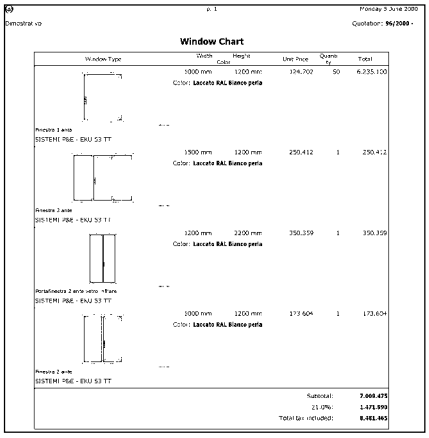
Is this a print about the *Timing + Machining*, where are displayed the profiles clamping features worked in the workcenter.

Workcenters' profiles



Alike the previous this display profiles whom will pass in the workcenter, with the machining features.

Window chart


p. 1

Monday 3 June 2000

Demostrat vo

Quotation: 96/2000 -

Window Chart

Window Type	Width / Color	Height	Unit Price	Quantity	Total
Finestra 1 anta SISTEMI P&E - EKU 53 TT	1000 mm Color: **Laccato RAL Bianco perla**	1200 mm	134.702	50	6.735.100
Finestra 2 anta SISTEMI P&E - EKU 53 TT	1500 mm Color: **Laccato RAL Bianco perla**	1200 mm	250.412	1	250.412
Portafinestra 2 anta vetro +Fiam SISTEMI P&E - EKU 53 TT	1200 mm Color: **Laccato RAL Bianco perla**	2200 mm	350.359	1	350.359
Finestra 2 anta SISTEMI P&E - EKU 53 TT	1000 mm Color: **Laccato RAL Bianco perla**	1200 mm	173.604	1	173.604

Subtotal:	**7.009.475**
21.0%:	**1.472.999**
Total tax included:	**8.481.465**

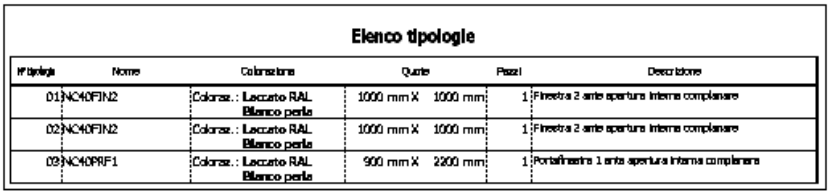
This print-out, suitable for commercial use, is necessary to obtain a detailed list of the costs and dimensions of the typology.

List of window type

Alike the previous one, but without prices.

Window type directory

It is a sheet which describe the structure without the scheme.


Elenco tipologie

N° tipologia	Nome	Colorazione	Quote	Pezzi	Descrizione
01	NC40FIN2	Coloraz.: **Laccato RAL Bianco perla**	1000 mm X 1000 mm	1	Finestra 2 ante apertura interna complanare
02	NC40FIN2	Coloraz.: **Laccato RAL Bianco perla**	1000 mm X 1000 mm	1	Finestra 2 ante apertura interna complanare
03	NC40PRF1	Coloraz.: **Laccato RAL Bianco perla**	900 mm X 2200 mm	1	Portafinestra 1 anta apertura interna complanare

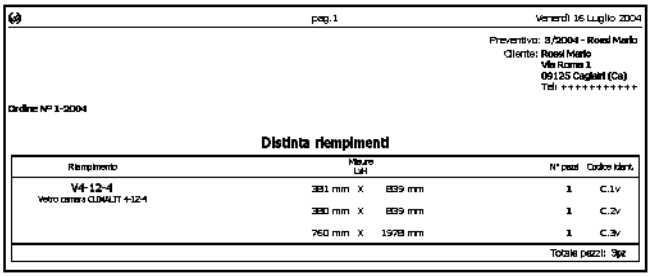
Bill of materials

Check this box to carry out the order to the supplier. The contents and function are the same as the button

explained previously in this section.

Panes

It is a order list of panes for the sctuctures within the quotation. It describe their dimensional features and quantity



pag. 1 — Venerdì 16 Luglio 2004

Preventivo: 8/2004 - Rossi Mario
Cliente: Rossi Mario
Via Roma 1
09125 Cagliari (Ca)
Tel: ++++++++++

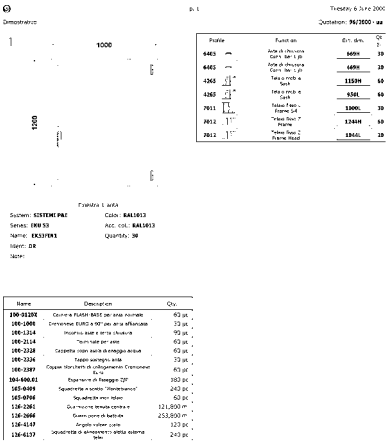
Ordine N° 1-2004

Distinta riempimenti

Riempimento	Misure L x H			N° pezzi	Codice klant.
V4-12-4 Vetro camera CLIMALIT 4-12-4	381 mm	X	839 mm	1	C.1v
	380 mm	X	839 mm	1	C.2v
	760 mm	X	1978 mm	1	C.3v
				Totale pezzi: 3pz	

Even in the *Scheme* is possible send in print the quotation. The associated button open a document selection whom determine the print features of the document itself.

Full diagrams

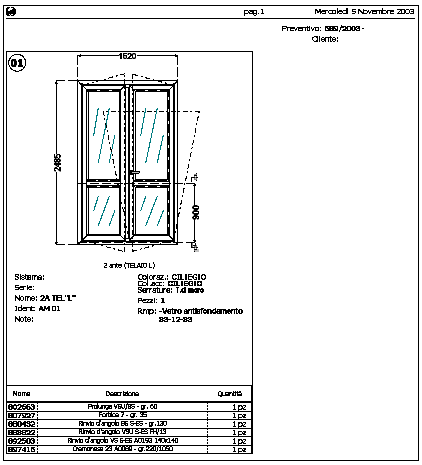


This print-out shows the complete processing list of the typology, with the diagram, the cut list and the list of all accessories to be fitted.

Diagram and profiles
This print is like the previous one but without the list of accessories.

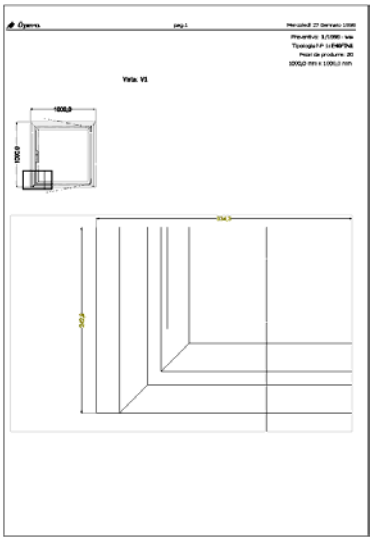
Diagram and accessories
Unlike the pevious one this reproduce the window diagram with the accessories.

Hardware's variables



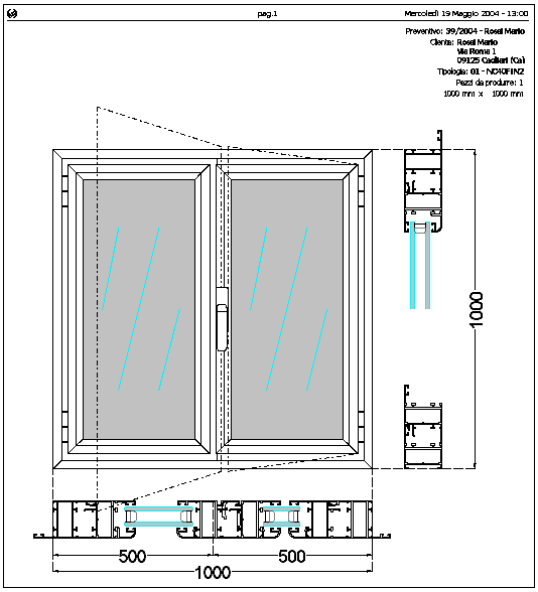
This is addressed for those who use the advanced step *Timing + Machining* has the aim to point the worker who assembly the structure which are the items to mount according the dimension. Will be reported only those items who comes from a *Auto selection* and depend by the variables *Lia* and *Hia*

Views

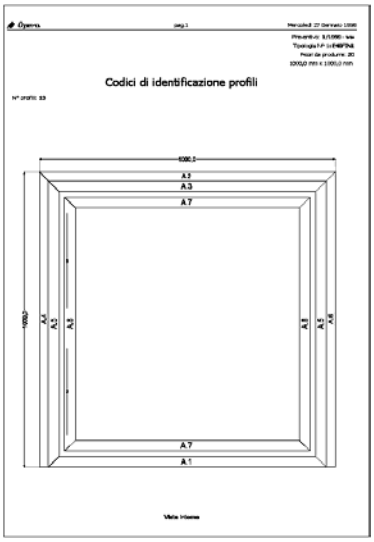


This print-out shows the detail, enlarged using the **View** function of the Worksheet (please see).

Nodes



This printout reproduce the windows along with its junctions. To get this sheet in necessary to create an archive of nodes



ID codes

This print-out shows the identification codes to assemble the profiles. It is used to correctly assemble the profiles on the typology, even if the assembling is carried out by a person who is not an expert. It is necessary that during the cutting phase, every piece is marked with the identification code indicated in the optimised cut print-out.

Cut list
This print-out contains the same information as the previous item. The only difference is that the cut list is relative to each typology of the work order, whereas the other shows the overall cut list for the work order.

Accessories, **Gaskets**, **Panes** and **Roller shutter**
These print-outs will show the accessory, gasket, pane and roller shutter lists required by the work order.

The button Setup
This button is necessary to open the print set-up screen whose contents are the same explained in **Section 4** in the **Print set-up** paragraph.

The button Cutting
This button is necessary to open the cut parameters set-up screen whose contents and function are the same as those explained in **Section 4** in the **Cut** paragraph.

The button

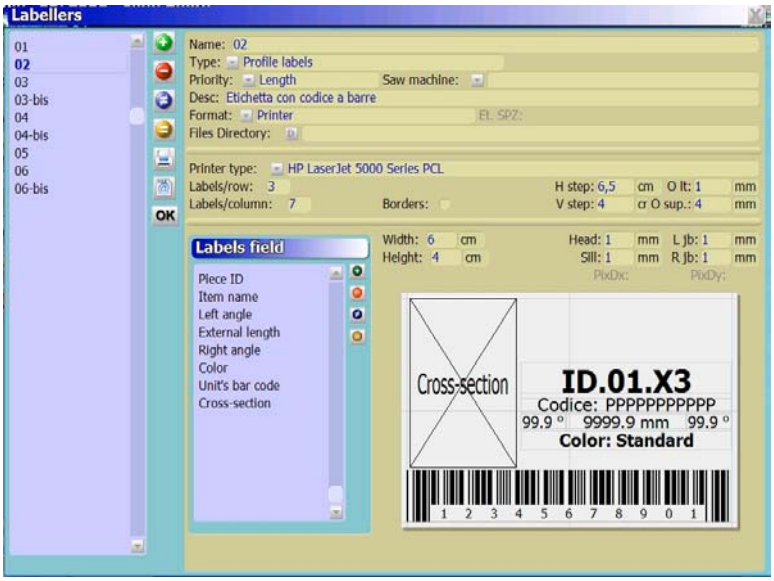
This button is necessary to transfer the cut data to the numeric control saw. It will be necessary to insert a diskette in the drive and save the data according to the protocol procedures saved in the saw parameters (see **Section 3** in the **Cut** paragraph). The disk will then need to be inserted in the computer of the saw where the data will be loaded using the procedures of the reading program.

The button

This button open the link with the saw machine, allowing verifications and possible modifications with non needs to get out from the quotation.

The button

This open the link with the archive of Labellers



Watching the above picture we understand as is possible to follow to procedure to settle the labels. First is the one we've previously analyzed, the other is what we see in this screen. From the archive is enough to choose the kind of label and start the printer. Deep analysis about this function you find in the **3rd Section** chapter **Labellers**

The button

This button is necessary to search for the other typologies belonging to the same typology category of the work order. The following screen will be opened, followed by the description of contents.

System, **Series**
Indicates the system and the series the typologies to be replaced belong to.

Please see the **Categories** chapter in **Section 1**.

The button

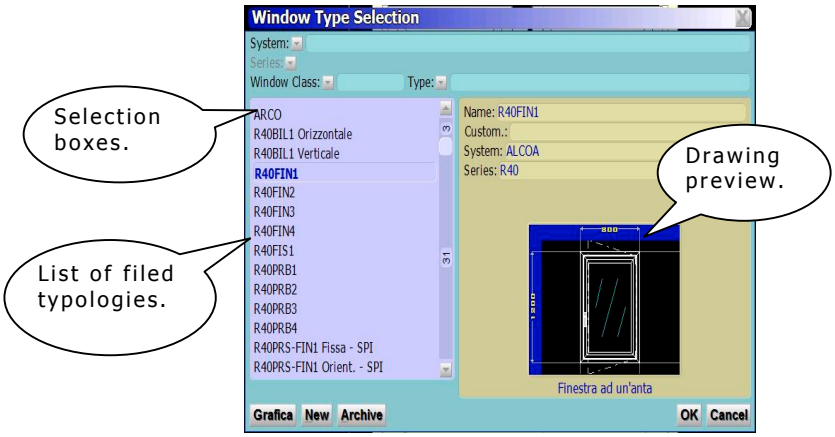
It has the task to lock the optimization procedure. The program memorize the calculation, thus that should the user call back the optimization it happen definitely in lesser time.

The button

This button is necessary to add the typologies, material, etc. to the work order. The screen outlined in the picture will be opened.

The button

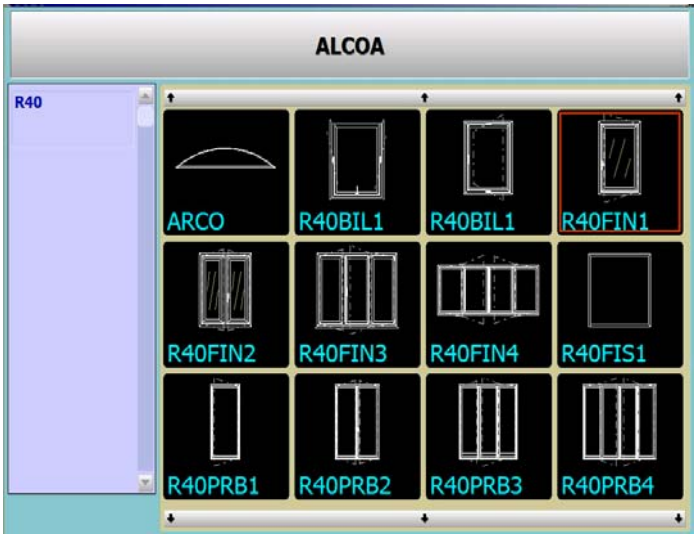
Press this button to add the typologies to the order, taking them directly from the archive. The screen to select the typologies, outlined in the picture, will be opened.



The search of the typologies can be carried out using the same technique used in record searches, outlined in **The interface** section.

The button

This buton turns the list screen of the sctructures' graphic:



The button

Press this button to realise a new typology. The general data screen will be opened where it will be possible to set the data and, pressing the relative button, to switch to the Worksheet to design and develop the new typology.

For the contents and function of the Worksheet, please see the **Typologies** chapter in **Section 1**.

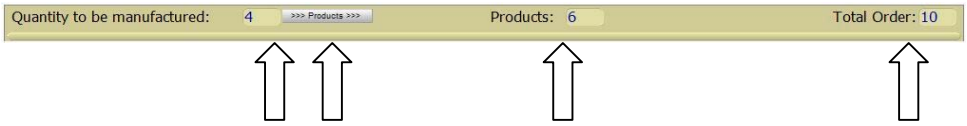
The button Archive

This button is necessary to access the typologies archive in order to make changes. For the contents and functions of the Worksheet please see the **Typologies** chapter in **Section 1**.

The general data of the typology

After having selected or realised the typology, the general data input screen outlined in the picture will be opened, followed by the description of contents.

Description of contents



The arrows points the box which allows to manage the structure quantity:

Total order

Here must be charged the total of pieces

Quantity

Here the produced number's structures

The button >>> Products >>>

Having established the produced number, this button will diminish the produced structures from the total.

Products
After have pushed the button in this box will be reported the produced number, therefore in the quantity there will be the remaining amount

Width and **Height**
They are the perimetric dimensions of the typology excluding the overlaps.

> When you set the typology dimensions you have to input the value of the opening on which you will install the typology taking out the space that has to be left between the wall and the frame. This space can be set directly on the typology as *clearance value between frame and wall*, so to calculate it automatically.

Lock eight
Even set the lock eight, its possible to do here in the general info.

L jb / R jb / Sill. / Head.
Within these box is possible to charge a clereance value between the frame and wall

The button

It links with the *Worksheet* to modify the window dimensions or make *Bracketed* or *Arched* windows.

The button

The button to set up the panes is now available in the General info, it allows to manage the pane for each single structure without the need to move in the worksheet.

The button

The switch avaliable in the worksheet too, allow to reverse the window opening side.

The color setting

In the color setting has been added the possibility to manage the sash color indipendently from the frame color

Profiles prefix
Shows the profiles identification code which will be assigned to the profiles and panes of the typology.

> The identification code is used to make it easier to identify the pieces and panes belonging to a typology during the assembly phase.

Name
The name to be given to the typology. It is automatically connected to the name (or code) of the archive, but can be easily changed for an easier understanding in the print-outs.

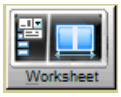
Optional
When this flag is active, the typology became optional in the job.

Final price
You can input the sale price of the typology in this box. The price must be input excluding VAT.

> If a total price is input, the program will not calculate any of the typology costs, but will consider the price that has been input to which it will only add the VAT.

Price per mq / Min. Chargeable
These two boxes do work, linked with those found in the Windows Archive, previously explained. Which means that if in the archive to the typology has been settled a price per mq and a minimum chargeable, when it's taken in the job, these boxes draws the value. However they can be filled manually altough in the archive the windows hasn't such values.

Note
Certain notes that will appear in the print-out of the typology diagram for the operators that will carry out the work.

The button 

This button is used to switch to the Worksheet to make changes to the typology.

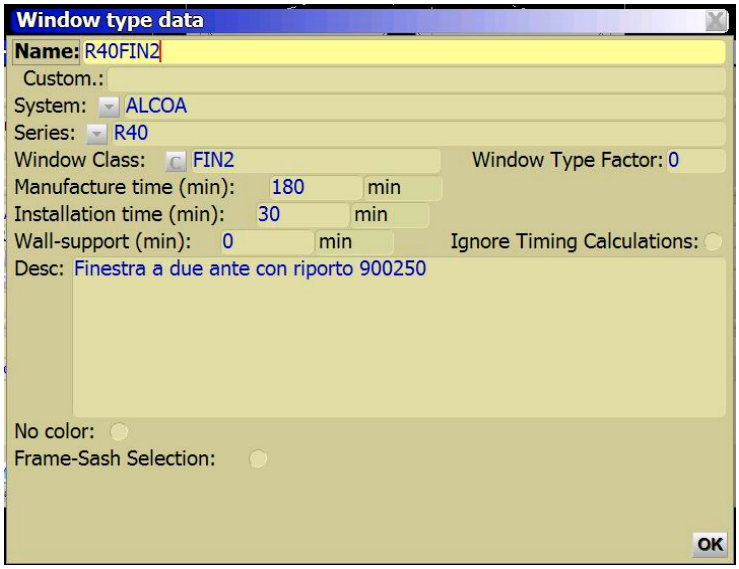
> It is worth noticing that the typology that has been modified for a specific work order can be saved as new typology. In fact, when you open the Worksheet, the

button can be enabled on this screen to save the typology in the archive.

The button

This button is necessary to make changes on the general data of the typology, such as the code, the labour minutes, the assembly minutes,

the sale price, etc.... The following screen will be displayed, followed by the explanation of contents.



Name
The code of the typology.

Pers. (or Customise)
An additional code used to customise the real code of the typology.

System and **Series**
Indicates the system and series the typology belongs to

Window class
Shows the category code of the typology. For clarifications relative to categories and category codes, please see **The Categories archive** chapter in **Section 1**.
Manufacture time, Installation time, Wall support time
Indicates the minutes necessary to make the typology, wall supports and for installation.

Desc
The technical description of the typology.

Ignore timing calculations
It's activation indicate the program that for this typology all the calcul developed by the timing module have to be ignored.

No colouring
When this box is activated the fields used for colouring for the type are deactivated, and no colours can be assigned.

Frame – Sash selection
In the chapter about the window type archive we met this function whom allow to modify in the general info screen the window's profiles. Hence is possible to enable this function even within this screen further the archive of typologies.

The button

This button is necessary to open the materials management screen of the typology where all materials relative to the typology will be listed including weights, prices, stock, etc. For the contents and function, see the explanation for the

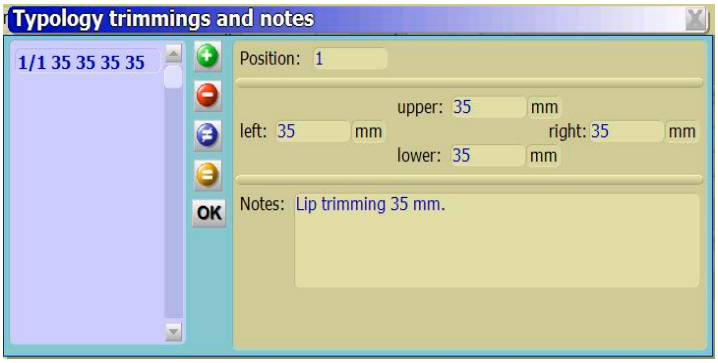
button at the beginning of this chapter.

The button

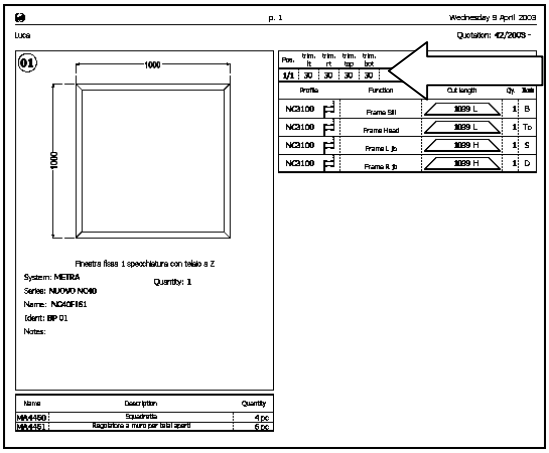
This button is necessary to open the costs calculation screen of the typology where you can find the production costs and the cost to the client. Only the two extra work input boxes can be directly modified.

The button

This button open the *Window types trimmings and notes* where is possible to establish an overlap trimming value:

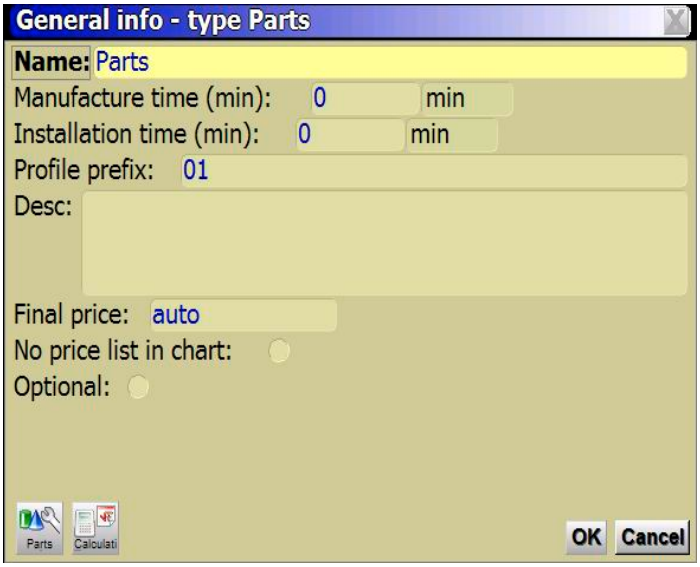


As is possible to see in the above picture, it's about to determine, in the fuor frame sides, the trimming measure. In the box **Position**, the program reports the number referred to the windows position in the job, while in the **Notes** the user can writes some data. The settled measures in this panel are reported in the *Full diagram* print



The button

This button is used to input the ordinary material in the work order, for example the groups of accessories, the profiles bars... The screen outlined in the picture will be displayed followed by the description of contents.



Description of contents

Name
The code to be assigned to the material.

Manufacture time, Installation time
Indicates the labour and installation minutes.

Profiles prefix
Shows the profiles identification code assigned to the materials.

Desc
The description of the material.

Final price
The total sale price excluding VAT.

No list in chart
If this box is enabled, the chart print-out will not show the detailed materials list, but only a line with the wording "*Loose material*".

Optional
When this flag is active, the parts became optional in the job.

The button

This button is necessary to open the materials management screen of the typology where all materials relative to the typology will be listed including weights, prices, stock, etc. For the contents and function, see the explanation for the

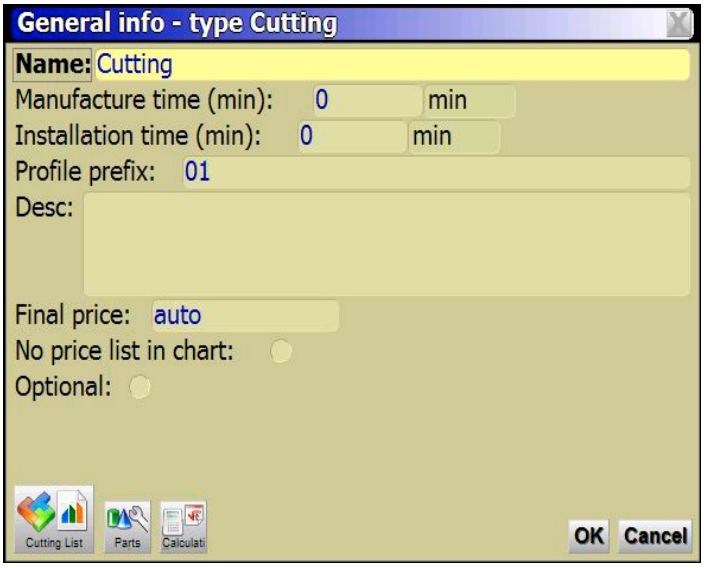
button at the beginning of this chapter.

The button

This button is necessary to open the costs calculation screen of the materials where you can find the production costs and the cost to the client. Only the two extra work input boxes can be directly modified.

The button

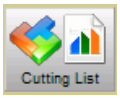
This button allows cut profile sections into the job, cut to specific measurements. The *Cut Type General Data* field appears.



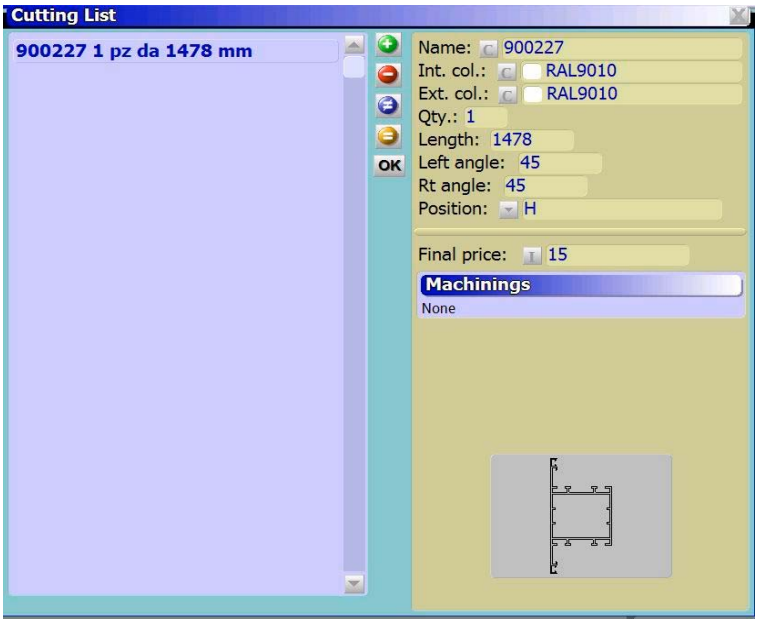
The operator enters the data for the name in the boxes in this field, that are to be attributed to the cut, enters the working time used by the program in order to calculate the relevant costs, describes the characteristics of the cut type, and a sales price can also be set that doesn't take the calculations carried out by the program into account. By activating the relevant box one can also choose to include the list when printing the Abacus.

No price list in chart
If this flag is enabled won't be reported in the window chart the whole detailed list of remainders but just a row with the description wrote by the user.

Optional
It turns the window as optional in the quotation. It will be pointed out in the Job management screen.

The button 

When this button is pressed the Cutting List field opens. The contents of this field are described below.



Name
The code to be assigned to the material.

Int. col., **Ext, col.**
The colouring of the profile.

Qty
The number of items to be made.

Length
The length of the piece in mm.

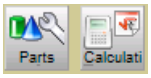
Left angle and **Right angle**
The value of the cut corner of the two sides of the piece, expressed in degrees.

Position
This is the position of an *H* or *L* type profile.

Final price
This allows the price to be determined, without taking the automatic calculation done by the program into account.

When this button is pushed it allows a type of working to be assigned, for forming a camber on the profile. This is possible where the

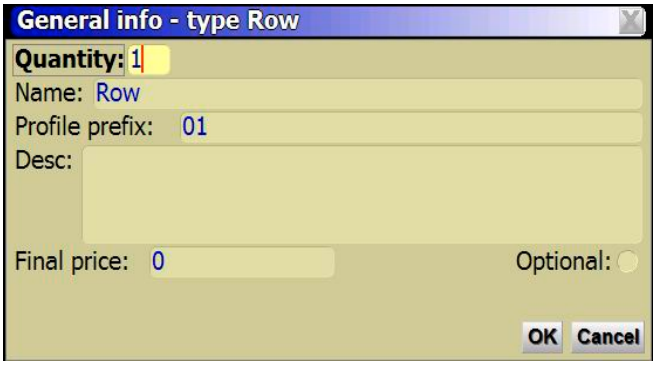
Working and related costs have been entered previously (see Section 1, *Profiles* Chapter, *Assigning camber working* paragraph).

The buttons 

When the materials button is pressed, the material content for the cut type is shown. When the calculation button is pressed, the calculation of the costs related to the cut type is shown.

The button

This button is used to input a generic quantity of material to be produced in the work order. The screen outlined in the following picture will be displayed, followed by the description of contents.



No. of items
The number of items to be produced.

Name
The code to be assigned to the material.

Desc
The description of the material.

Sale price
The total sale price excluding VAT.

Optional
When this flag is active, the job line became optional in the job.

The button

This button is used to cancel an element (typology, material line...) from the work order.

The button

This button is used to modify an element (typology, material line...) from the work order. If there is only one element in the work order, the modify screen will automatically be opened, whereas if there is more than one element, the item to be modified must be clicked on.

The button

This button is used to copy an element (typology, material line...) of the work order. If there is only one element in the work order, the modify screen will automatically be opened for entering the general data or making changes, whereas if there is more than one element, the item to be copied must be clicked on.

The button

This button is used to change the dimensions of the typologies (width, height, handle position, etc.) of the work order. If there is only one typology in the work order, the modify dimensions screen will automatically be opened, whereas if there is more than one typology, the one to be dimensioned must be clicked on. The contents and function of this part are the same ones explained in **Section 1** in the **Worksheet** explanation relative to the

button.

The button

This button is used to *freeze* (temporarily suspend) an element (typology, material line...) of the work order, so that the program will not take it into consideration in the calculations of costs and materials until it is *unfrozen*. If there is only one element in the work order, it will be immediately frozen, whereas if there is more that one element, the item to be frozen must be clicked on.

The button

Press this button to change the colour of the typologies of the work order.

The button

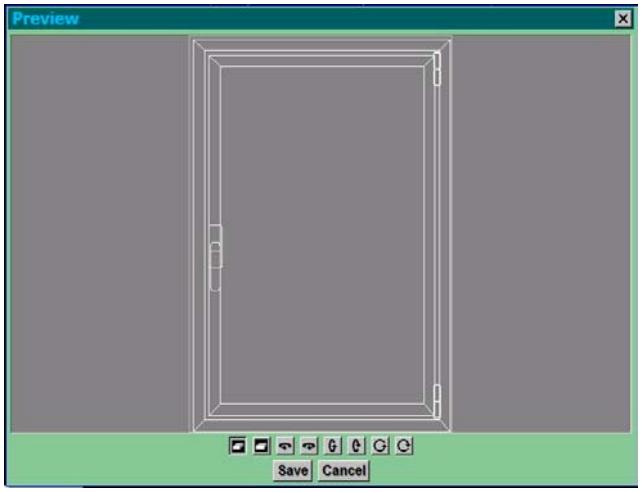
Press this button to open the screen to add or modify the panes of the typologies in the work order. The contents and function of this part are the

same ones explained in **Section 1**, in the **Worksheet** explanation relative to the

button.

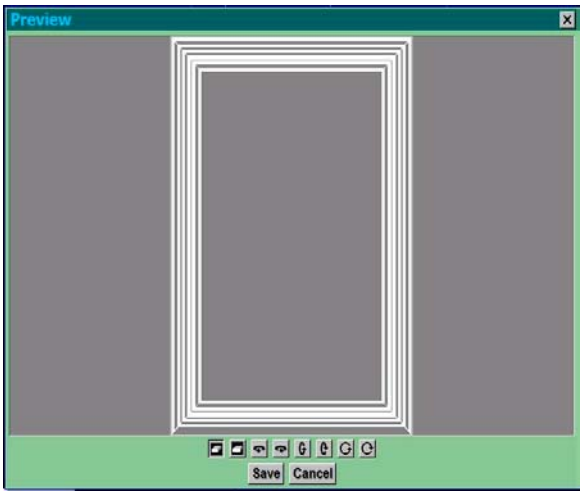
The button

This button allow to print the structure drawing in DXF format. It possible only if the profiles in the arhive have the section in DXF or DWG format.



The Button

Alike the previous but the drawing is 3D dimensions



The buttons

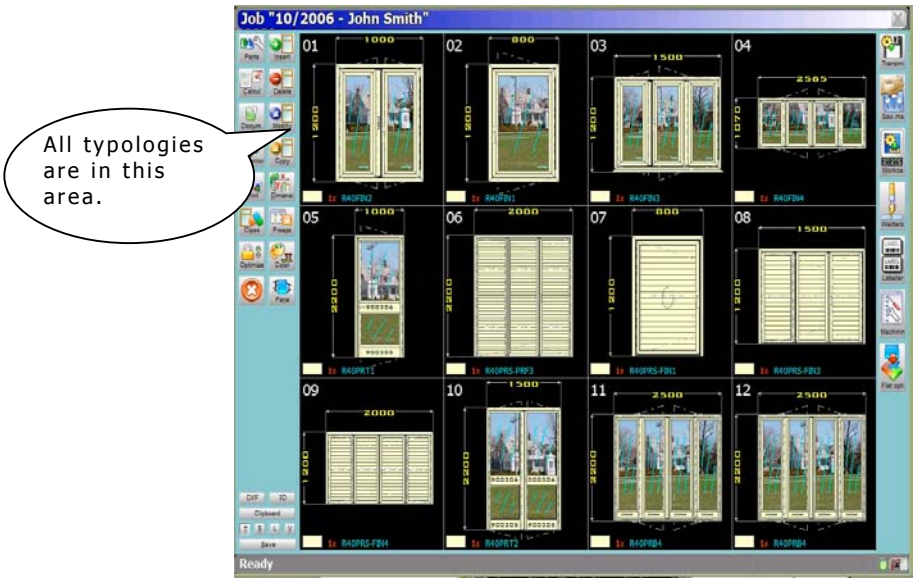
These buttons are used to change the display mode of the elements area. Find details below.

The button

When this button is pressed, the list of types included in a job in the operating system's temporary memory will be shown. This list can be opened using a suitable text or word processor.

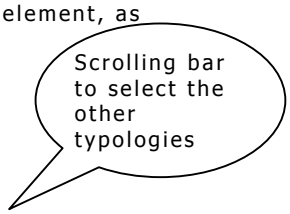
The button

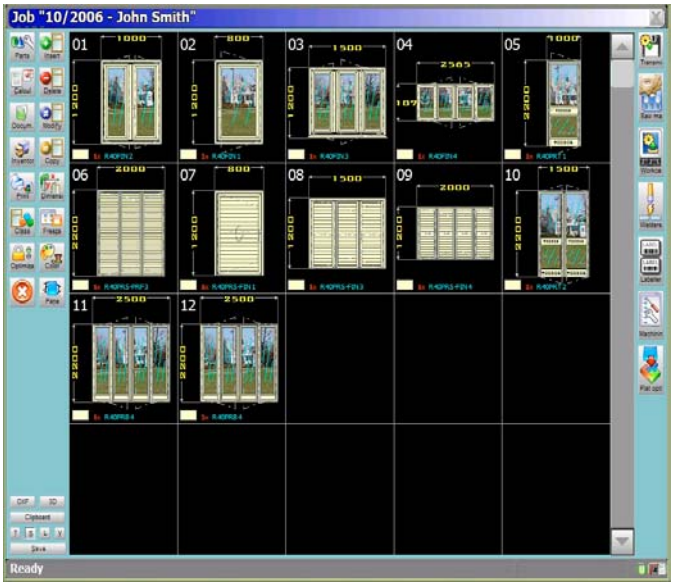
If this button is enabled, the program will try to place all of the elements in the area with no limitations in number, as indicated in the following example.



The button

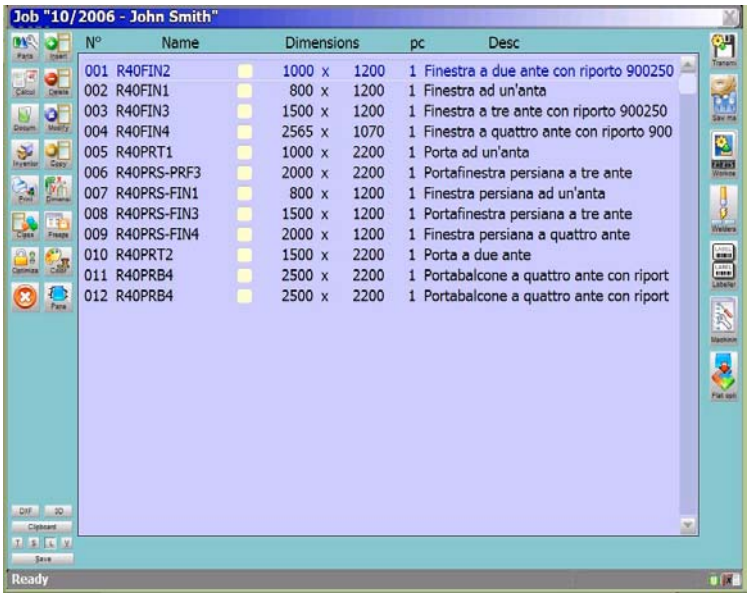
If this button is enabled, the program will only place a limited number of elements in the area. It will therefore add a scrolling bar on the side of the screen in order to scroll the area to get to the required element, as indicated in the following example.





The button

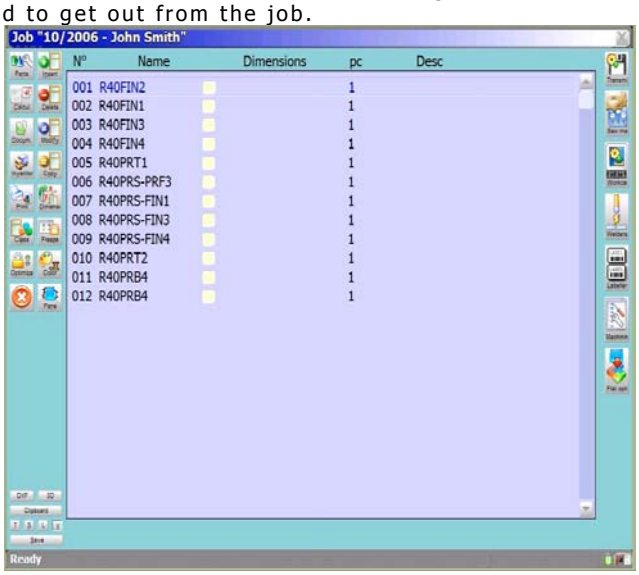
If this button is enabled, the program will display a list with the element's general data and in particular *Quantity*, *Name*, *Dimensions, Number of items*, *Description* .



The button
If this button is enabled, the program will display a list with the general data of certain elements and in particular *Quantity*, *Name*, and *Number of items*.

The button

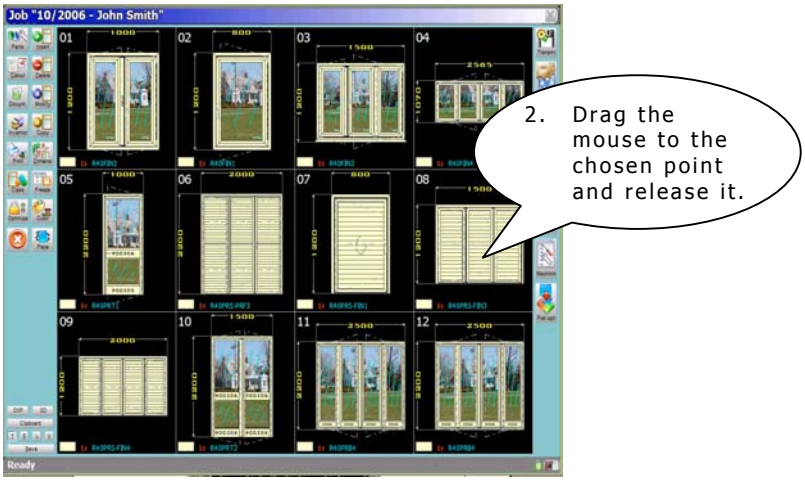
This button allow to save the work while loading structures on the quote with no need to get out from the job.



Sort and move the elements inside the area

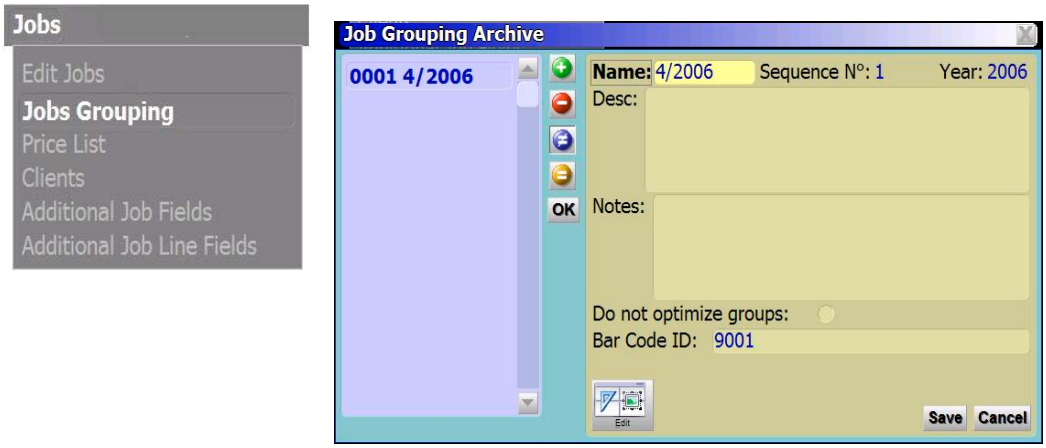
The elements will be displayed in the area in the same order they have been input. In any case, this order can be changed using the *dragging* technique. To drag an element simply carry out the operations shown in the following example.

1. Click on the element to be repositioned and hold the mouse



The two elements will switch place. It is possible to drag the elements only in the T or S display mode .

The Job Grouping



The Job Grouping is a function which allow to join several quotation orders thus to carry out certain management operations in a single action, such as the supplier order, the optimised cut list, transfer to the saw, etc...

Description of contents

Name
Shows the code of the work order.

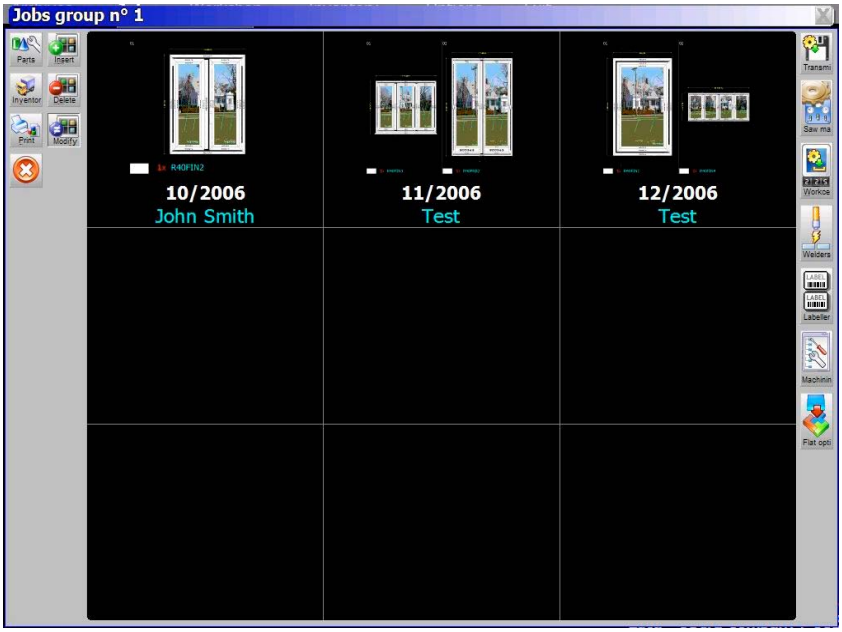
Sequence No.
The progressive number of the work order inside the archive.

Year
Shows year of the work order.

Desc / Note
Shows the client's data.

The button

It open the *Job grouping* screen, who has the task to take in charge the quotation to be grouped:



The button

This button is necessary to open the materials management screen of the typology where all materials relative to the work orders will be listed including weights, prices, stock, etc. For the contents and function, see the explanation for the

button in the **Job management** chapter.

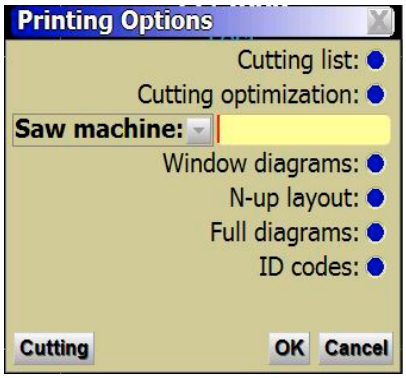
The button

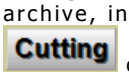
This button is necessary to open the stock movements screen and carry out the operations relative to the materials of the work orders. For the contents and function, see the explanation for the

button in the **Job management** chapter.

The button

The button alike in the single job open the technical printout selection:

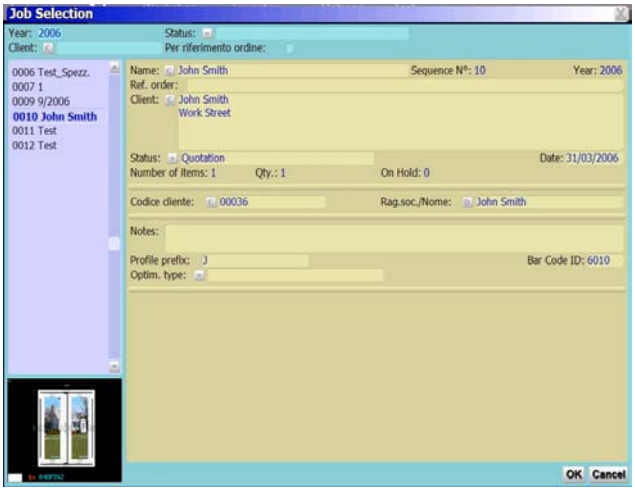


As we see the screen recall the print functions seen in the single job management, the box **Saw machine** open the saws' list stored in the archive, in case the user want to cut with a specific device. The button 

open the cutting parameters where are settled the standard cutting data.

The button

x
This button links with the job's archive, which the quotations to group are drawn from:



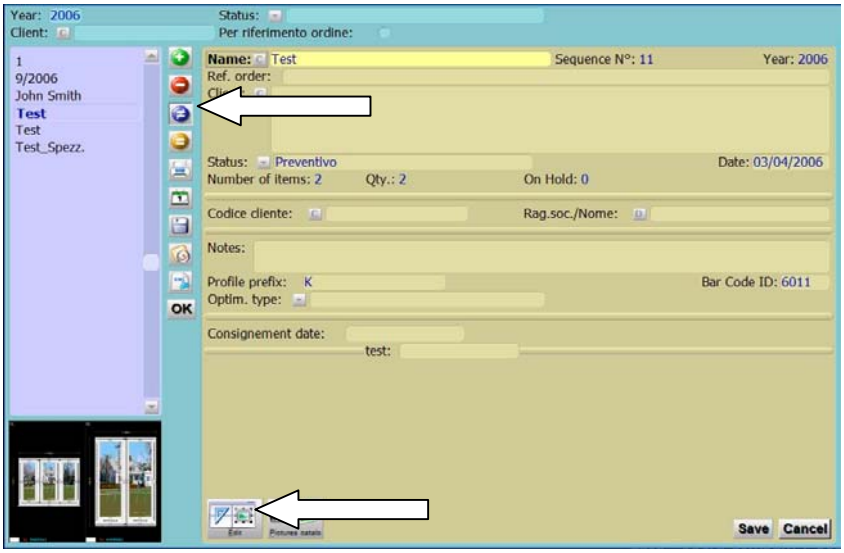
Is enough to select the job and confirm with OK.

The button

The delete button cause the ealimination of jobs from the grouping. The sequence is to push the button and afterward select with the mouse upon the job to erase.

The button

In case it is needed it allow to intervene on each single job. In fact it link straight with the archive of jobs:



As is visible in the above picture the user can follow the usual procedure to modify the quotation. Whe the changing is done the button Save take back the program in the grouping, where is enough to push and again Save and the group is stored in the archive.

The button

This button start the file creation containing the cutting data. Usually it being copied in a diskette,but it could be saved in a dedicated directory linked with the saw machine. The diskette is taken in saw where it being decoded. We remind the users that in order to make this function properly is needed to settle the saw machine in the archive along with its format.

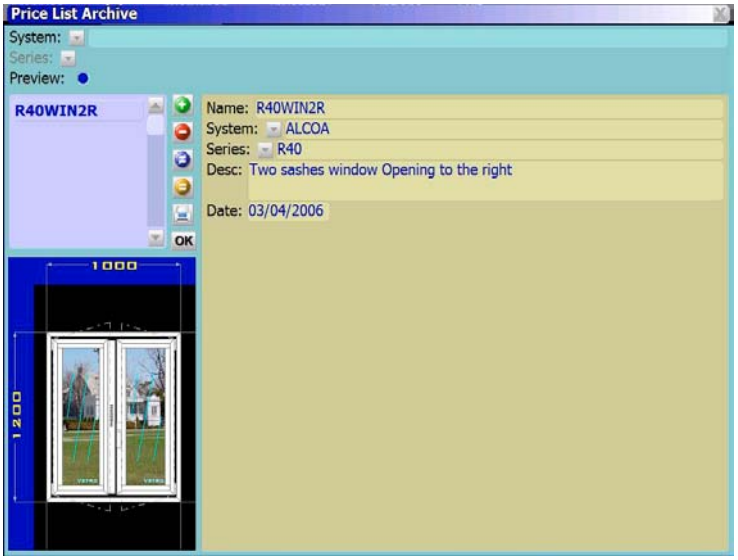
The button

It's a direct link with the saw machine archive, possible checking and modification can carried out with no need to get out from the grouping

The button

Open the link with the labeller archive, where the user draw the label he mean to use to codify the cuttings

The Price List



Those who use OPERA JOB MANAGEMENT can make use of price list. The kind of developed list table-like basis per height. Is possible to printout the price lists.

Description of contents

Name
The code of the typology.

System
Indicates the system the typology belongs to.

Series
Indicates the series the typology belongs to.

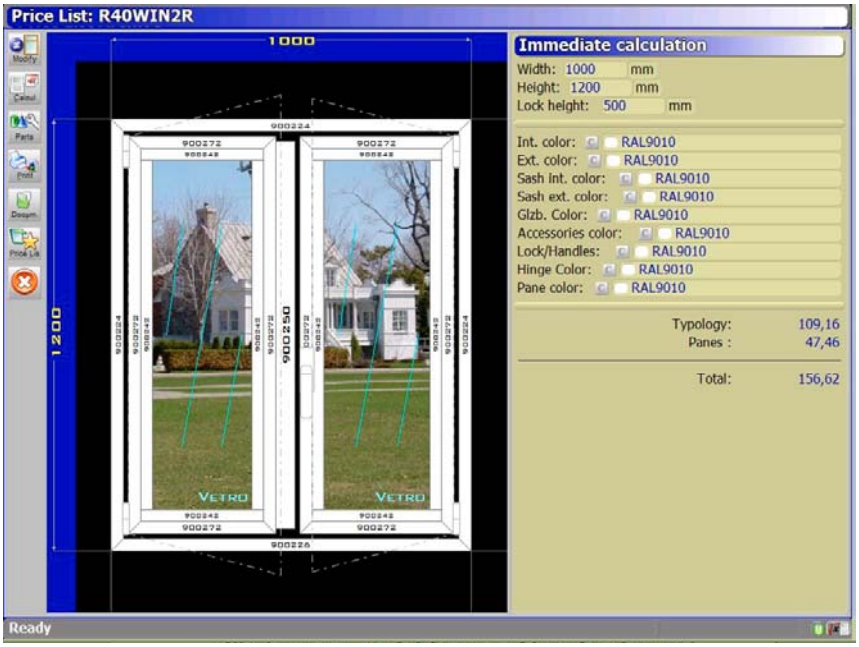
Desc
Describes the characteristics of the typology.

Date
The creation date of the list.

Prices in thousands
When this box is activated decimal values will be excluded in calculating prices.

The button

Press this button to open the management screen of the list indicated in the following picture, followed by the description of contents.



The button

Press this button to modify the general data or the structure of the typology.

The button

This button is necessary to open the calculation screen of the costs relative to the typology.

The button

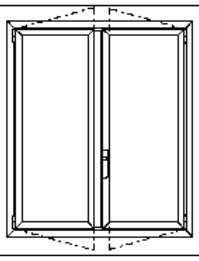
This button is necessary to open the materials management screen of the typology where all materials relative to the typology will be listed including weights, prices, stock, etc.

The button

This button is necessary to print the list.

Listino prezzi

Sistema:
Serie:
Tipologia: F2A -
Data generazione listino: 19/07/2004
Colorazione: RAL9010 - Laccato RAL Bianco candido9010
Col. accessori: RAL9010 - Laccato RAL Bianco candido9010
Riempimenti:



Vista interna

Listino prezzi

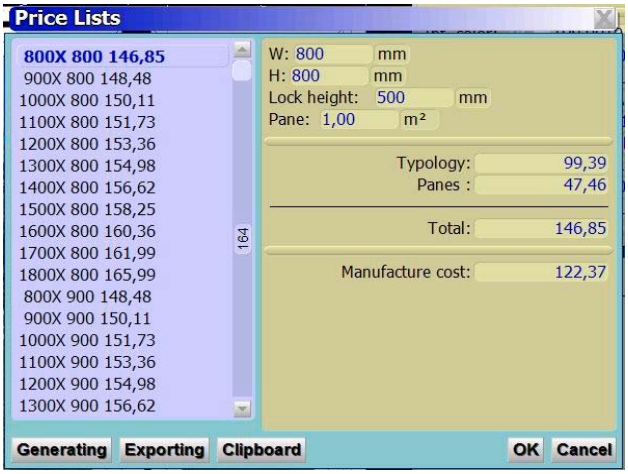
HL	500	700	900	1100	1300	1500	1700	1900	2100	2300	2500
500	50,85	55,47	60,09	64,73	69,35	73,97	78,59	83,21	87,83	92,45	97,06
700	60,25	64,87	69,49	74,12	78,73	83,38	87,99	92,61	97,24	101,85	106,48
900	69,66	74,28	78,89	83,52	88,14	92,77	97,38	102,01	106,64	111,26	115,89
1100	79,06	83,68	88,30	92,93	97,54	102,17	106,79	111,40	116,03	120,66	125,29
1300	88,47	93,09	97,70	102,33	106,95	111,57	116,19	120,81	125,44	130,06	134,68
1500	97,87	102,49	107,11	111,73	116,35	120,98	125,59	130,21	134,84	139,46	144,09
1700	107,28	111,89	116,51	121,14	125,75	130,38	135,00	139,62	144,24	148,87	153,49
1900	116,68	121,30	125,91	130,54	135,16	139,79	144,40	149,03	153,65	158,28	162,89
2100	126,08	130,70	135,32	139,95	144,56	149,19	153,81	158,42	163,06	167,67	172,30
2300	135,49	140,10	144,72	149,35	153,97	158,59	163,21	167,83	172,45	177,07	181,70
2500	144,89	149,51	154,13	158,75	163,37	168,00	172,61	177,23	181,86	186,48	191,10

The button

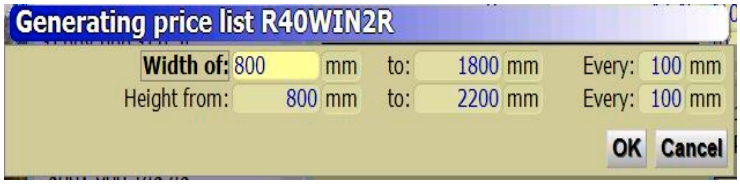
Press this button to open the screen to add or modify useful documents, as for example, to give an immediate estimate to a client without having to make the work order. It has the same function explained in **The Documents Archive** in **Section 1.**

The button

Press this button to open the screen to create or modify the list as indicated in the following picture, followed by the description of contents.



The button **Generating**
This button is necessary to create the list. The following screen will be displayed, followed by the description of contents.



Width from and **Height from**
The initial dimensions.

to
The arrival dimension.

Every
The increase value for the height or width.

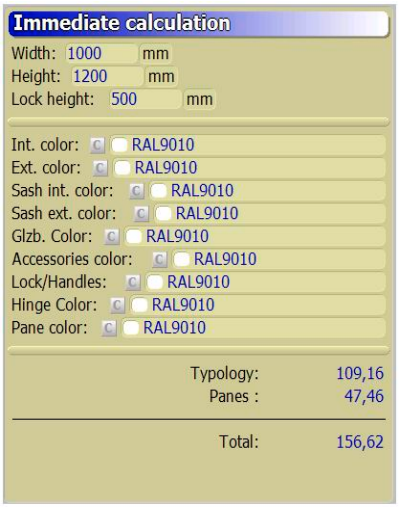
> The list will be created taking into consideration the settings input in the **Immediate calculation** box explained hereafter.

The button **Exporting**
This button is necessary to export the list data to a .TXT format file.

The button

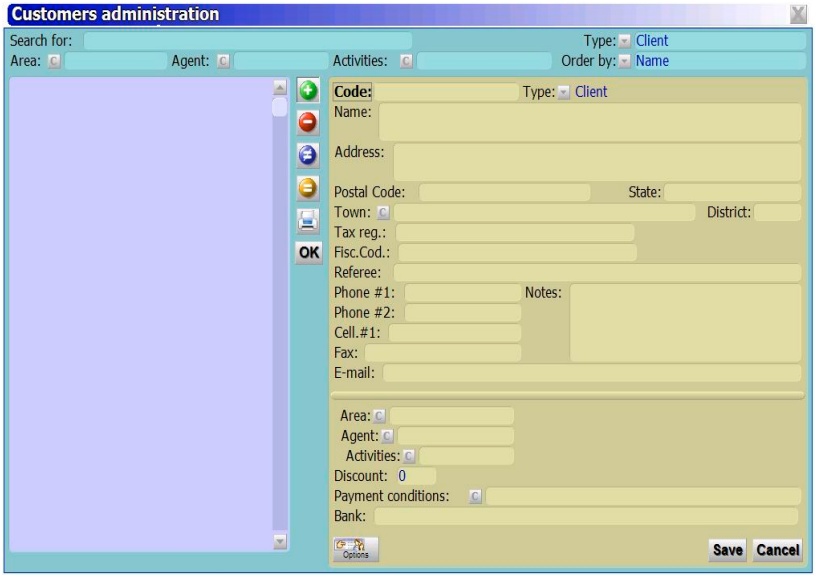
When this button is pressed, the list is temporarily *copied* to the operating system's memory, from which it can be recovered and *pasted* into a worksheet outside Opera.

The Immediate calculation screen



This screen is necessary to immediately know the total cost of a typology based on a given dimension, colour, glass, etc.., and to establish the settings for the list that is being created. To access this screen, click inside it and then set the dimensions, the colour, the glass and the roller shutter, if necessary, and press Enter to calculate the cost.

The Archive of Clients



The Customer administration is a database to store the client personal and trading data. While developing the quotation they are drawn by the program who fill automatically the related fieds.

Description of the content of the client file

In the above picture we see the filters who speed the research of a specific client, and in the aim to tidy up the list according the user needs.

The button
Output a printout which is the client list of the whole archive:

The user has on disposal two kind of list

List

Is got a printout in alphabetical order of clients

Phone directory

The printout gotten through this button is a phone directory divided in sheet marked by the letter they belong to

Code
This client code is assigned automatically by the program but can be changed.

Name, Address, Post Code etc.
These are registry entries for the client, that will be shown on printed documents.

Tax reg., Fiscal code
They are the trading data of the client

Referee
It bear the referring seller's name which the client rely on.

Phone 1, Phone 2, Cell. Fax , E-mail, Note
They are the traceableness client's data

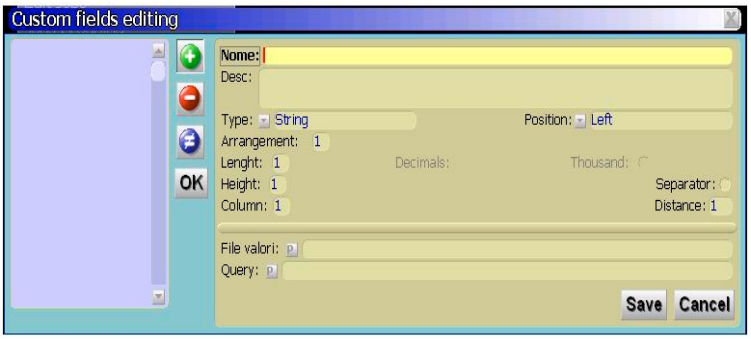
Area Agent, Activity,
These boxes allow you to indicate that a client falls within a particular business area, and the agent operating in that area.

Discount
Percentage discount to be applied for the specific client.

Payment conditions
This is the payment period agreed with the client (e.g. 30-60 days \60-90 days)

The button Options
The function of this button rely to the *Options* management applied upon the accessories. If the client use accessories or hardware with specific features, they can be dealt directly on the client

Addition Job fields & lines

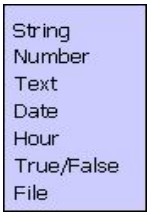


The *Additional fields* for jobs and jobs' lines derive form a particula function of the program which allow to create adding in the told sides where the user can reproduce useful information regarding the quote. After the information have been generated they can be reproduced in prints named *Window type form*. We shall see in this section how.

Contets of the adding fields

Name / Description
These are the fields to name and describe the adding field

Type



The button opens the list of adding fields type

String
This is a generic field, which allow to reproduce alpha numeric codes, letters and numbers, with the more divers reference pertaining the job

Number
Field strictly dedicated to reproduce numbers.

Text
Similar the previous *string* the field text allow to reproduce a box with dimension and format able to contain alpha numeric characters.

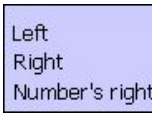
Date
The *Date* field repoduce numeric characters only, which the pogram *translate* automatically in a date format. The field dimension is not changeable, it is managed by the program.

Hour
Alike the *Date* in this field are allowed only numeric characters translated by the program in hour format in the sequence hh:mm. In this case too its dimension is managed by the program and is unchageable.

True / False
This parameter make in the job a field unwritable but it can be *enabled*, namely a circular field whom being enabled with a click, and disabled in the same way.

File
Make an extra field with an associated button through which the user searchs the file within the system. It is useful in those cases for example when to the job is associated a text file with informations pertaining the quote itself, in this way it is straight reachable by the program.

Position



The list in this function, reports the field position within the job's screen and the job line

Arrangement
It being compiled automatically by the progiram, nevertheless it is changeable, establish the displaying order of the field in the quote screen.

Lenght / Height
These are the extra field dimensions. Whether they are not enabled according the selected *type*, this means that the program manages them.

Column
Establish the column on which the field being placed in the job's screen.

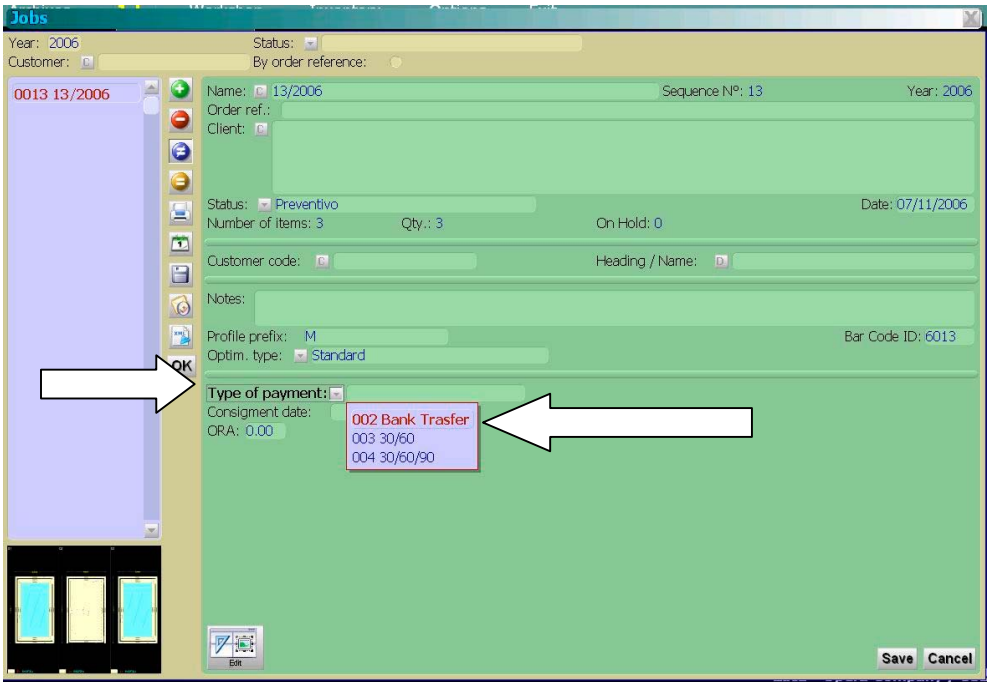
Decimals
It is active only with the type *Number* establishes the number of decimals in the format of the reproduced value.

Thousand
This function too works only for the type *Number*, enabled it show the separator in thousands figures.

Separator
When enabled this fuinction make a separating line between the fields

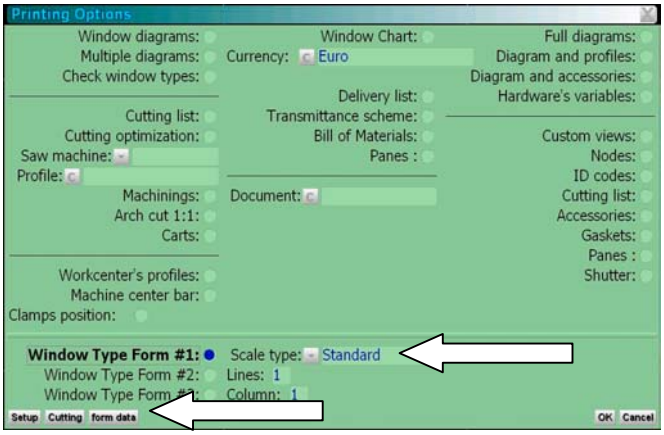
Distance
The value here written determines the distance between two fields.

Files
This function allow loading a file that contain the so called *value of the field*. Let's think to create a field who requires to specify the sale's agent or the type of payment. Choice must be done time by time from a list. With a simple text file contaning this informations placed somewhere in the computer and taken by this function it becomes a list of different choices of the field.



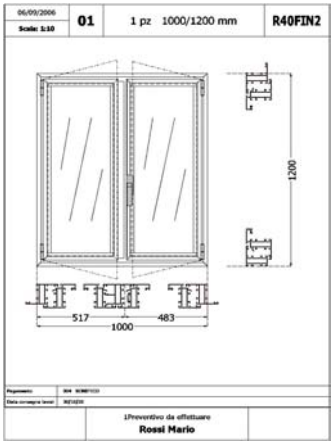
Query
This function is very useful for those who use to flank Opera with outer programs able to receive XML format files. Basically is about to identify the linking path with that part of the program which will open in the field a possible list of a parameter to report in the field itself, alike the previous *Files*.

Many informsation that have been generated from the extra fields can printed. Within the job management in the screen *Printing Options*:

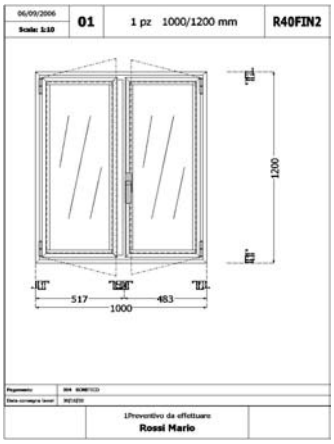


In the above picture the arrows points the part of the options more linked with the extra fields.

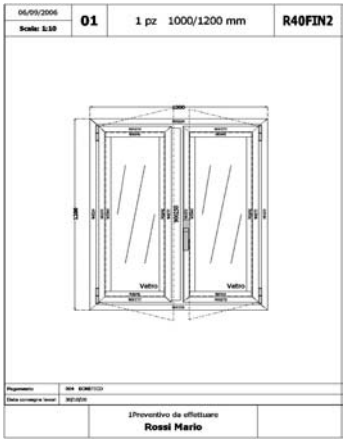
Window type format #1 / #2 / #3
The three different *Window type format* do exist in the program because each one of them output a print with features slightly different. The **format #1** report in the sheet the window along with the nodes in scale. **Format #2** reports the window along with the nodes sized according the dimension of the window in the sheet. **Format #**report the window without the nodes.



Format #1



Format #2



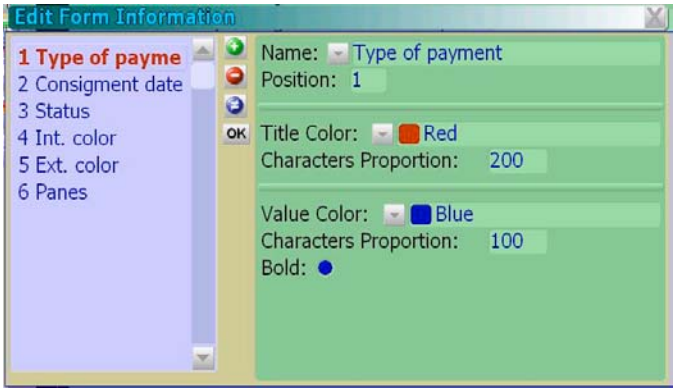
Format #3

Scale type

The selected parameter determine the scale used by the program to print the window format

Lines / Columns
The values here written have the function to divide by lines and columns the window format

The button form data
This button open the screen *Edit form information*



To the *Window format* which has a number of information managed by the program is possible to add some others, customizing the format.

Name

The associated button opena list of *fields* to add to the format. In this list there will be even those made by the user

Position
The value in this field determine the field's positione in the printout

Title color
It open a list of colors do combine with the title of the field.

Characters proportions
Establish the characters proportion of the titles, in percentage compared with standard proportions.

Value color
The list of this function contain the colors to assing to the value of the field.

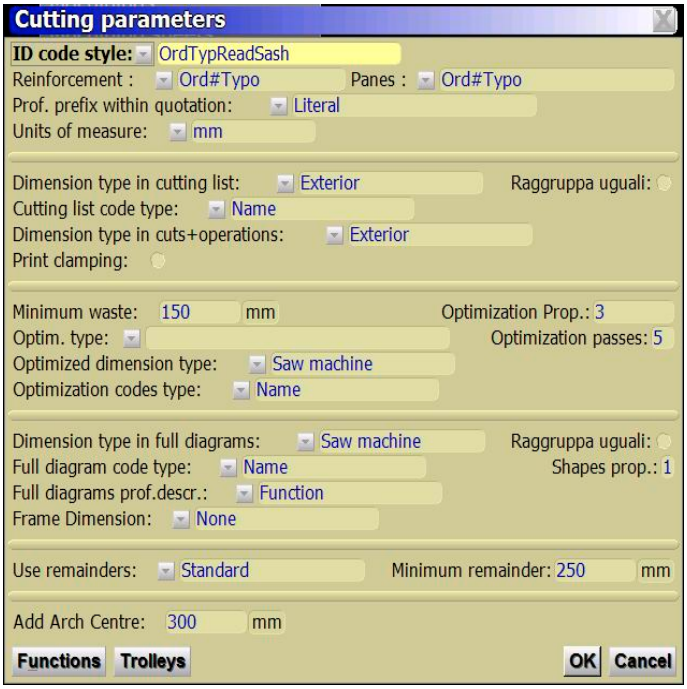
Bold
It determine the character's feature in the printout.

Section 3

The Workshop menù

The following chapter describes the contents and functioning of the Workshop menù

Cutting parameters setup



The cutting parameters have a huge importance in Opera. By them the program draws the data to apply in the technical developement of the quotation. It is wise by the user lend the due attention while filling these fields in the aim to avoid either mistakes and inconsistencies.

Description of contents

ID codes style
In this box you can select nine different ways to display the identification code.

The identification code is used to make identification of the remainders and panes belonging to a work order easier during assembly. This code will automatically be linked to the work order and can be changed.

Ord#Part#
Check this item to display the identification code of the work order followed by the progressive number of the remainder. Ex.: CK.26

Ord#TypoPart#
Check this item to display the identification code of the work order followed by the identification code of the typology followed by the progressive number of the remainder. Ex.: CK.FIN.26

Job
Check this item to display the work order identification code. Ex.: CK

Ord#Typo
Check this item to display the identification code of the work order followed by the identification code of the typology. Ex.: CK.FIN

SashSide
With this parameter the program develop a code to mark with a number each window side.

TypSashSide
Alike the previous , but further the number it will be a code who identify the structure.

SashSideOrdeTyp
Even this one is in all alike the previous, with in addition a code for the quotation.

Window Type
Check this item to display the identification code of the typology. Ex.: FIN

Part#Typo
Check this item to display the identification code of the typology followed by the progressive number of the remainder. Ex.: FIN.26

WH
This kind of ID code is about the width and height upon the related side of the window.

TypWH
This parameter develop an ID code who identify the window and the profile position in width and height

Win.WH.Job
This is basically identical at the previous plus an ID code for the job.

ReadSash
This is and Id code which identify the profile position **L (left) / R (right)**

TygReadSash
As the previous plus a code for the window.

OrdTypReadSash
This is and Id code which identify the profile position **L (left) / R (right)**, the window, the job

SashType
This generate an ID code marking the sash as **L (left) / R (right)**,and **Central**

TpgSashType
Alike the previous plus an Id for the window.

JobTpgSashType
Alike the previous plus an Id for the job

Reinforzcement
This box act on the reinforcement charged as a profile's component, specifically in Pvc Profiles. It's possible to determine the parameters to report in the Id Code print. That's useful whether is wanted to specify differently the profile and their reinforcement.

Panes
Alike the previous it is about the setting to develop an Id code for the pane.

Profile prefix within the job

Literal
Sequence N°
Name 1 charac.
Name 2 charac.
Name 3 charac.
Name 4 charac.

This function works on the ID prefix of the job. It is well known that Opera when the new quotation has been created it make a code who identify the quotation itself, that ID code is reported within the technical printout

Literal
The ID code will bear two alphabetical characters

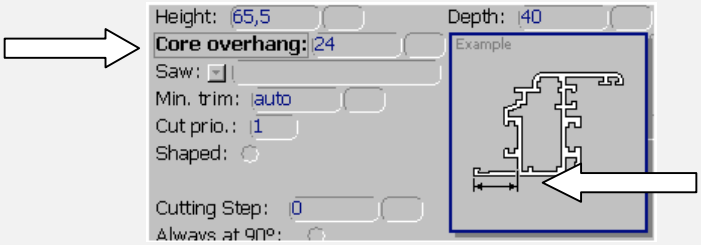
Sequence N°
The code will report the progressive job number.

Name 1 / 2 / 3 / 4 characters
The code will refer the name given by the user to the job, reporting of it according the choise 1,2,,3,4 beginning characters

Unit of measurement
This is the preferred unit of measurement for setting and displaying cuts and optimisations.

Type of dimension in cutting list
This is the type of dimension the program is to include in the printout of the cutting list – *External* for calculating the dimension to the furthest point on the ledge, and *Internal* when not calculating the ledge.

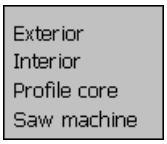
If the chosen parameter is **profile core**, then in the profiles archive is necessary per each profile to add in the dedicated field which is the overlap value



Cutting codes type

The parameter taken from this list report in print either the profile name as it has been recorded in the archive, or the color code that has to be inserted in the profile prices.

Dimension in cuts+machinings



It's the type of dimension you want to take in the cut+machining printout

Print clamping
Shows within the cutting list the profiles' clamping position. Such position has to settled by the user inside the saw machine's *Dictionary*.

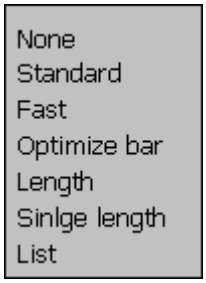
Minimum waste
Input the profile quantity that is lost every time you make a new bar, in mm.

This is usually equal to the cut of the bar ends. In any case, this value can change depending on the profile and, in fact, may be assigned to every profile as explained in **Section 1** of the **Profiles archive** chapter.

This value will be taken into consideration during the calculation of the optimisation cut of the bars.

Optimization Prop.
Is the bar's acceptable factor of waste in the group optimization

Optimisation type.



This sets the type of optimisation. Four types are provided for.

None
Check this item and optimisation will never be carried out.

Standard
Check this item and optimisation will be carried out following the steps necessary to obtain the best possible cutting system. This is the recommended option.

Fast
Check this item and optimisation will be carried out in the fastest possible way to obtain the best possible cutting system. This option might not give satisfactory results.

Optimise bar
This allows bars to be optimised, without considering the standard lengths of the profile, but on the basis of lengths set individually for the profiles in the file. See *Section* 1 of the *Profile File* chapter

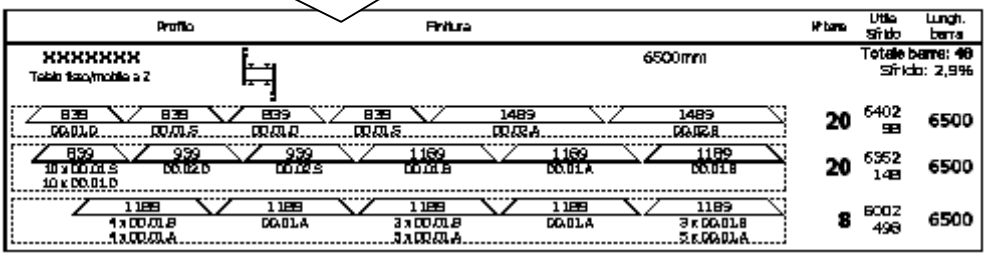
button paragraph.

Lenght
If happen the case to take on cutting a job with many structures, therefore to cut several bars of the same profile, is possible through this parameter to reduce the time of cutting making more fluent the procedure. It develop the optimization gathering ***almost*** all profiles at equal lenght

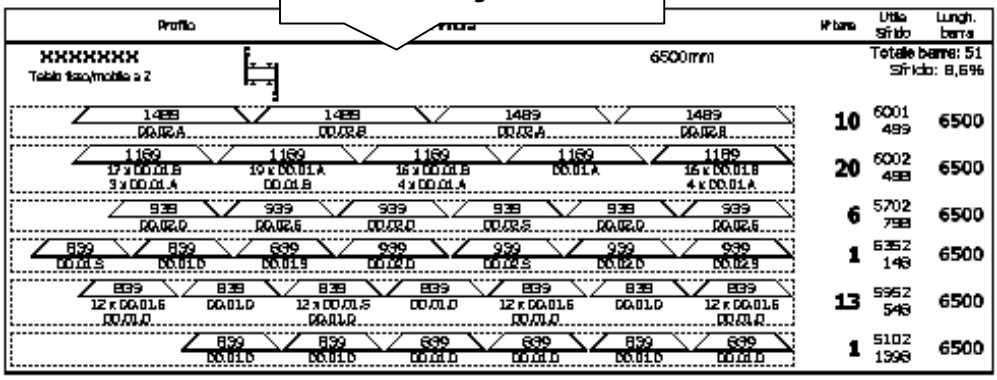
Single lenght
Thi function follows the logic of the previous *Lenght*. But in this case the program gather ***completely*** the equal lenghts

These last functions just now analyzed *Lenght* and *Single lenght* which are enabled only installing the advanced step **Smart Optimization**, are born in the aim to turn more efficient in terms of time the cutting procedure. Is unavoidable that this kind of setting means, even if in contained measure a major use of material. Let's see then the following pictures where's visible the difference amid the three parameters:

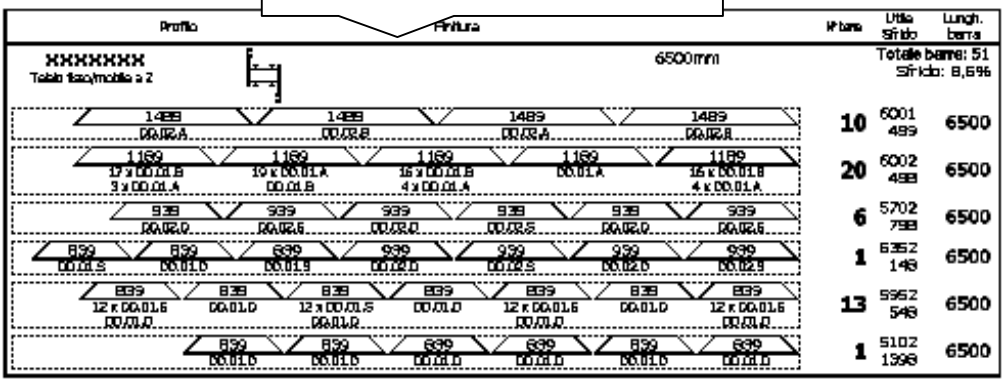
NORMAL



Lenght



Single Lenght



List
The optimization is developed calculating the values within the *list* settled in the archive of profiles.

Optimization passes
It is a value who indicate the measure for the optimization's changing passes. Usually this value is written by the programmer. Therefore we suggest not to modify the value or at at least get in touch with Opera Company techical department

Type of dimension for optimization

Exterior
Interior
Profile core
Saw machine

This is the type of dimension the program will include on the optimisation list – internal or external or core dimension.

Type of codes in optimization

Name
Code

This is the code of the profile you want to include in the printout of the optimisation list.You have two choose the *Name* or the *Code* of the profile itself.

Compact optimization
When enabled this function changes the optimization order compacting the optimization printout

Dimension type in full diagrams

Exterior
Interior
Profile core
Saw machine

This is the type of dimension the program will include in printing complete layouts.

Full diagram code type

Name
Code

This box affords the operator the possibility of choosing whether the article *name* is to be printed with complete layouts, or the *code* the item takes depending on its colouring.

Full diagram profile description.
This box allows the operator to choose whether to include the use or description of the profile's characteristics in Cutting Lists for Complete Layouts.

Frames dimension
Alike the previous this printout act on the full diagrams as well, it put on the sheet the external frame dimension.

Shapes prop.
The herewith value determine the profiles' shapes dimension in the *Full diagram* printout

Use remainders
Shows the way to re-use the stock remainders during the calculation of the optimisation of the bar cut. Three types exist.

None
Check this item and re-use of the remainders will not be carried out.

Standard
Check this item and re-use of the remainders will be carried out.

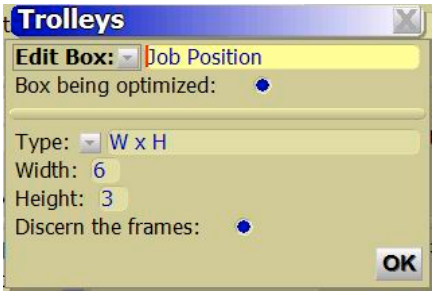
Minimum offcut
This is the minimum measurement the program will use to consider the offcut from a bar as being useable.

Add arch centre
This value determines an addition to the measurement of a profile being cambered.

The button Functions
This button is used to specify the uses that have to be printed in the work lists (cut list, optimised cut…). They are usually all enabled. The uses that are not to be considered must be disabled.

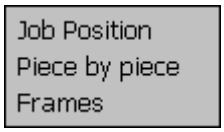
The button

This button open the screnn *Trolleys*:



This screen has the task to allow the codification of trolleys where the cutted profiles are placed.

Edit Box



The parameters ofthis list determine the profiles' codification in the box

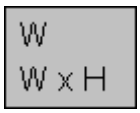
Job position
This code is about a unique box who contain all the job's profiles

Piece by piece.
In this case being generated a code for a box which contain each sinlge structure of the job.

Frames
This is about a box containing separately the profiles of the frame side and the profiles of the sash side.

Box being optimized
Report in the printout the box's number per piece in the optimization

Type



If in the workshop being used *trolleys* subdivided in different boxex in width and height, then through these parameters is possible to settle the pieces subdvision.

W (width)
Point the program that the box is divided in witdh.

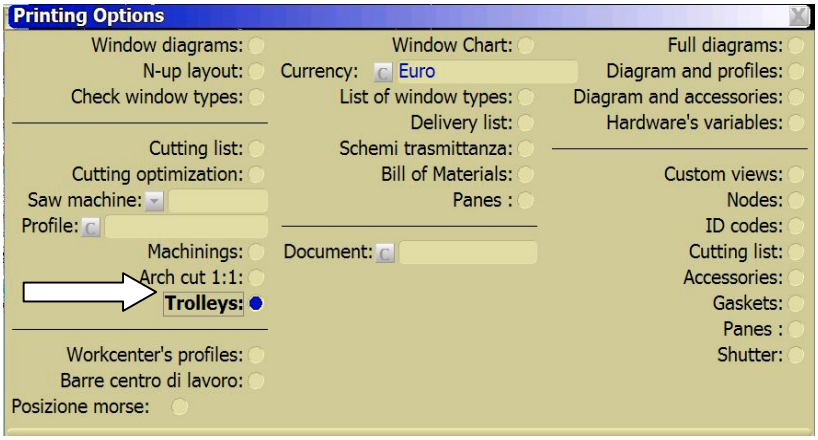
W x H (width per height)
The box is subdived along its width and its height.

Width
Is this field has to be reported the number of boxes who are along the trolley's width

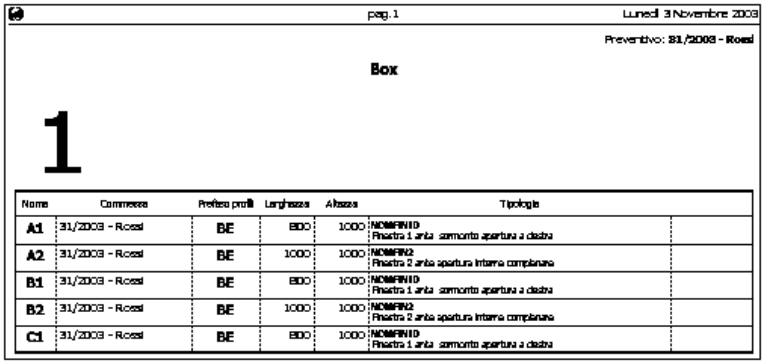
Height
Alike the previous here has to be reported the number of boxes along the trolley's height

Discern frames
This function determine the distinction of frames in comaprison with other profiles.

The functions related with trolleys and their boxes cause a printout by the *Printing options*. Furhter the codification of profiles in the optimization, even a sheet of the piece charging in the trolley's box:



who show the result of the previous setting:



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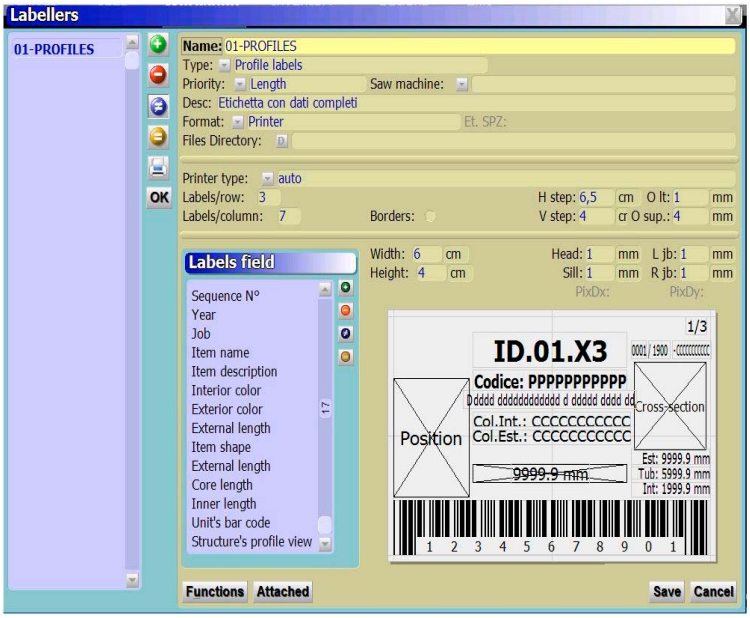
Preventivo: 31/2003 - Rossi

Box

1

Nome	Commessa	Prefisso profili	Larghezza	Altezza	Tipologia
A1	31/2003 - Rossi	BE	800	1000	NOMFIN1D Finestra 1 anta sormonto apertura a destra
A2	31/2003 - Rossi	BE	1000	1000	NOMFIN2 Finestra 2 anta apertura interna complanare
B1	31/2003 - Rossi	BE	800	1000	NOMFIN1D Finestra 1 anta sormonto apertura a destra
B2	31/2003 - Rossi	BE	1000	1000	NOMFIN2 Finestra 2 anta apertura interna complanare
C1	31/2003 - Rossi	BE	800	1000	NOMFIN1D Finestra 1 anta sormonto apertura a destra

Labellers



In the above picture is the *Labellers' archive*. In this part of the program the user create his own label whose can be customized according the needs. As a macter of fact we'll see as the program put on disposal a quantiy of parameters to be charged within the label

Contents description:

Name
Usually the labels are printed out distinctly by profiles, panes, typologies. Hence in this field the user will set e code in order to distinguish the label.

Type

The button open the list where to choose the label's type

Leftover label
Opera can make a label for the leftover to stock and afterward reuse. If you take advantege by the technology of the Opera *SprintLabel* is it possible to develop a tag for the leftover whom has to be indicated in this field, thus to allow the program to output a label of the remainder to stock.

Priority

Length
Optimization
Saw machine

These parameters effect the label's printout order. *Length* print following the cutting list order. *Optimization* follows the optmized list, hence if the saw start the bar cutting the longest piece ending with the shortest, the following bar will start by the shortest cut. *Saw machine* is a parameter which works according the parameter settled in the archive *Optimize blades shifting*

Description
It is the feature description of the label.

Format
Opera trasmit the print information to a common printer, but it can send the data to a printer installed in the saw machine. To enjoy this function it needs to provide the program with the step.**Label trasmission.**

Files directory
Here has to be specified the path the program needs to follow in order to deposit the file that contain the trasmission data

Printer
If there's no labeller in the saw machine then in this field must be indicated the printer where you want output the label from.

Labels/row
Specify the number of horizontal label within the sheet.

Labels/column
Specify the number of vertical label within the sheet.

Borders
Enabling this field the program will mark the edge of the label for a better alignment

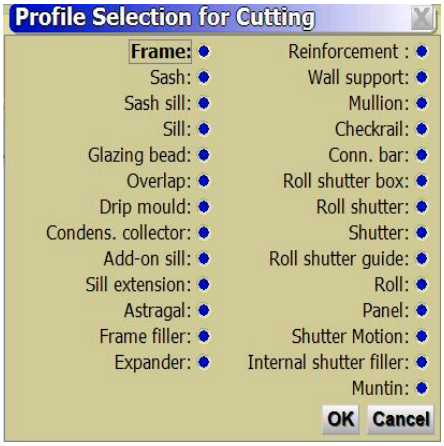
H Step / V Step
The values in this box establishes the horizontal and the vertical step of each label, comprised the space amid the labels of the same row and column.

O lt / O sup
These functions have the task to set a left and upper margin upon the sheet

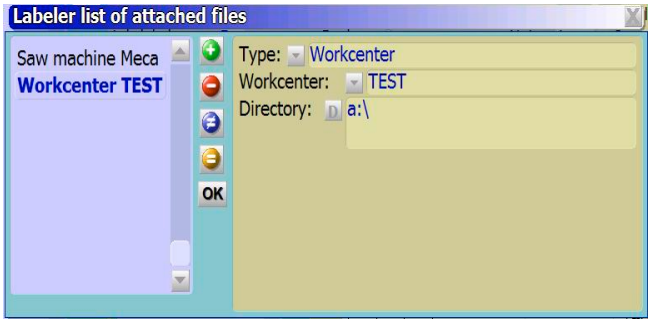
Head. / Sill. / L jb / R jb
The herewith values establishes a margin of the informations printed out within the label.

Width / Height
Label's dimensions in width and height

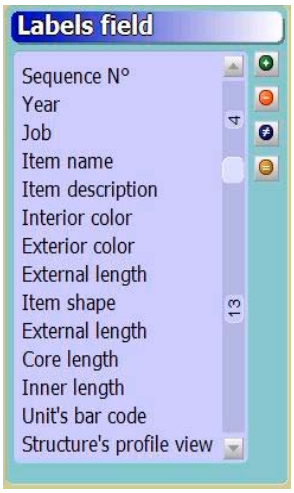
The button Functions
The *Profile selection for cutting* has the function to establish at which profiles responding to a certain function the label has to be printed to. Pushin the button open a list of *Functions* to activate in order to be considered for the label.



The button Attached
This function's addressed mostly for those user who take advantage by the advanced step ***SprintLabel***.
When the file containing label's data being moved to the labeller it is possible to attach along with that file the cutting and the machinings' data. When the sprint label download the labels' file, at the same time will turn to the saw machine and workcenter their files

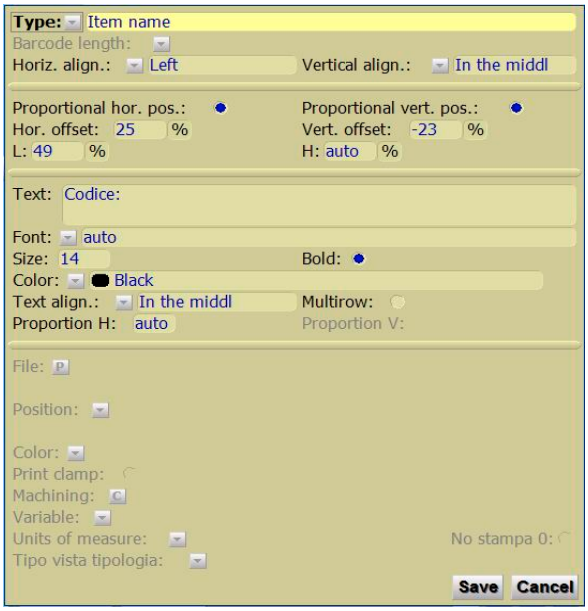


Labels filed



Within this section the user customize the label, establishing which data report in the label.

The button open the screen where to settle the fields to print in the label.



At the beginning of the chapter we met the box *Type* where's determined the kind of label to create, whether for pofiles, typologies, frames or glasses. The choice of these parameters establishes the layout explained in the following.

Type
The button open a list to drawn the kind of field to print in the label.

Text
This parameter enable in the screen a box to write the text to be printed in the label

Sequence N°
This is to report in the label the sequential number of the label itself.

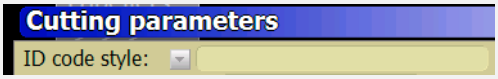
Year / Client
These print in the label the quotation's year and the client's heading

Item name / Item description
The item name and its description being printed selecting these parameters

Itam shape
Put in print the item shape whom the label refer to. For example if it is a label for typlogies, it will be printed in the label.

Job Id / Structure Id / Piece Id
These put in the label an ID code for job, typology profile.

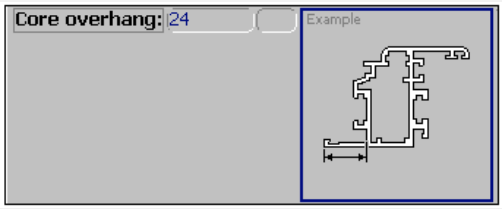
Before to set this field is advisable to check the function *ID code style* in the Cutting parameters.



Since the parameter in the label depend by what is established in this box.

External length / Inner length / Core length
They report the values about the profile's cutting dimension

Remember that the *core length* is drawn by the program only if has been established a value within the *Core overhang* in the archive of profiles.



Labels meter
If it is necessary to number the label following the printing order, then this is the parameter.

Left angle / Right angle
Their task is to report in the label the profile's cutting degree.

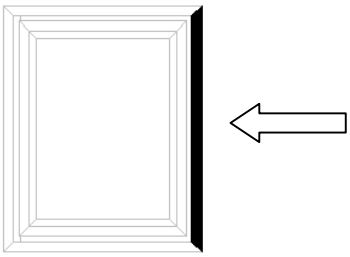
Cross section
This parameter specifically used for profiles report in the label the shape of them.

Unit's bar code / Pane's bar code
Developing parameters for barcode, specifically used for structures and panes

Order reference
Put in the label the *order reference* drawing it from the archive of jobs.

Piece number
Specific for structures, reports the typology number following the inserting sequence.

Structure's profile view
This parameter prints the entire structure pointing out the side the profile belong to.



Item's bar code
This parameter resemble the one for typlogies and glass, but in this case it is for profiles

Image
This allow to insert in the label a picture. In box the must be written the path the program has to follow in order to draw the picture.

Interior color / External color
They report in the label what's the window's color

Code
It print the item's name as it has been saved in the archive

Width / Height
Item's dimensional values, structure or pane.

Job
Prints in the label the quotation's name

Machinings / Machining color ref.
These parameters are addressed for those who use the step *Machining*. In the archive of machinings is possible determine either characters and colors as a reference in the label. The program draws them selecting these parameters.

Box
Report in the label the rack's code where profiles, frames, structure are placed.

Reinforcement
Prints the reinforcement's code.

Reinforcement length
Cutting dimension for reinforcement in the label

Reinforcement section
Prints the refinforcement shape.

Profile progressive
Within the cutting file profiles are numbered. This parameters allow to report in the label the profile's sequential number as it is enlisted in the file

Clamping
Prints in the label the profile placed upon the workcenter's clamp. Its task is to report the clamps' position. For those workcenter who don't have the automatic positioner the user will find very usefull to read the information he needs in order to place the clamps along the board. This function is on disposal only with *Timing + Machining*.
Furthermore to make work this function is essential to set the profile upon the clamp in the workcenter's *dictionary* and draw within the *CAM* the machining sequence.

Clamping text
It is about one or more characters that develop a code who identify the clamp in the label. That code is nothingl else that the clamp's name with which it has been saved in the archive

Job data
Draws in the label the sequential job's number along with the date of creation.

Barcode ID
The ID code developed by the program comprise a specific for the quotation. This field allow to report that part of the code who regards the quotation

Clamping name
It is the clamping definition which the profile being associated with.

Variable
It is the variable of the machining to reproduce in the printout. To male it work properly is needed to indicate from which machining the program has to take the variable.

Cut length
It is the cutting value of the saw machine

Frame desc.
Describe on the label the winsow's frame

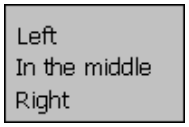
Typology dimension
It report both high and width of the window

Typology height / Typology widht
Are these data that is possible to print separately upon the label

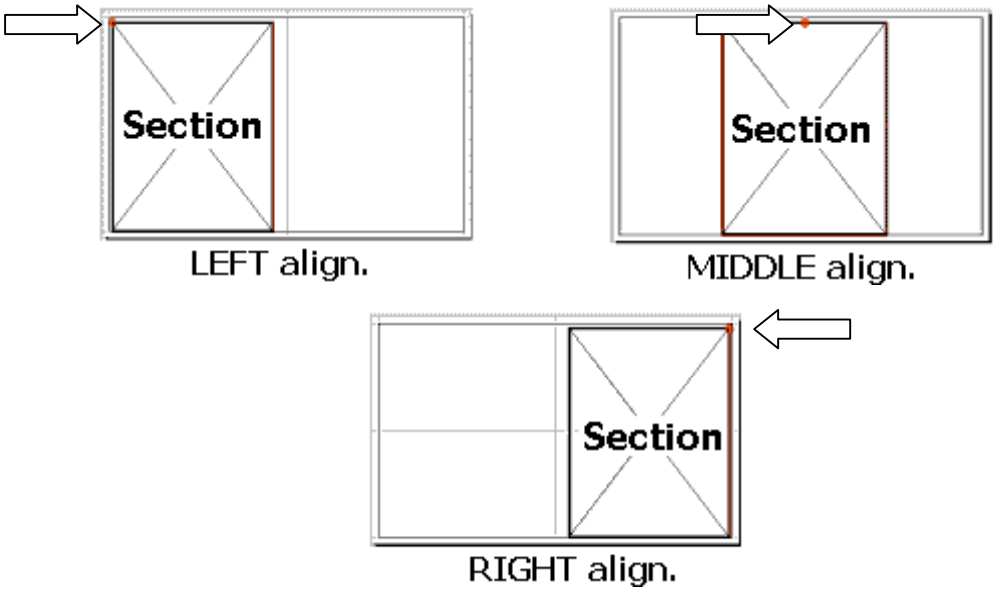
Barcode lenght

The associated button open a list where to draw the type of bar code according the needs. The number determine the qauntiy of characters, the letter is about the kind of item:
P= profiles
T= frames
W= tipologies

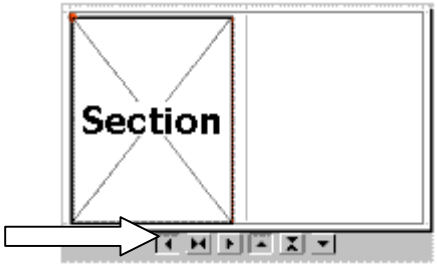
Horiz. align.



The parameters of this list settle the aligning position



Is possible to manage the position even using the push-buttin panel on disposal in the screen



Vertical align.
This has the same function as the previous, acting in vertical sense. It too can be enabled by the button panel showed in the previous picture.

Proportional horiz. position / Proportional vertical. position
The function of these two fields is closely connected with the followings two. Their activation arrange the label contents according the proportion of the label itself

Horizontal offset/ Vertical offset per mm. or %
These fields displayed according the previous two, cause the horizontal and vertical shift from the label's edges. If the fields of proportional setting are not enabled, then it is about to digit a value in mm., on the contrary the value is according the label's proportion

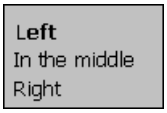
W / H per mm. or %
Both these set the dimension in width and height. Even in this case according the choice proportional or not, the values will be in percentage or mm.

Text
This field bigger than the others, allow to write a text or some characters to be printed in the label.

Font.
The button open a list with an amount of font. The user take the fittest according his taste.

Size
The numerical value in this field, set voice's dimension in the label.

Text align.



The parameters chosen from this list determine the voice's position in the label

Proportion H
The value in this field develop the voice's dimension in proportion of the label's horizontal dimension

Bold
To print the voice in bold characters enable this field.

Multirow
If a text is being printed, enabling this function the text won't be in one row, hence streamlined, but it will divided in more than a row.

Proportion V
The value in this field develop the voice's dimension in proportion of the label's vertical dimension

File
When the parameters yuo choose is *Image*, here has to be written the path where the program has to load the picture from.

Position

This field who works with the parameters *Cross section, Clamping, Item shape* establishes where the program has to draws the profile's position from, as if from the saw machine or the workcenter. It activate a farther field which has the task to report the machine the parameters refer to.

Color
The button open a selection with different structure's parts at which the color in the has to refer. It is enabled with the parameter *Color*.

Print clamp
Alike the previous, it is enabled with the parameter *Cross section*. It report the profile's shape along with the clamp.

Machining
The button open the list of machining. To make work properly this label field the user must specify the machining.

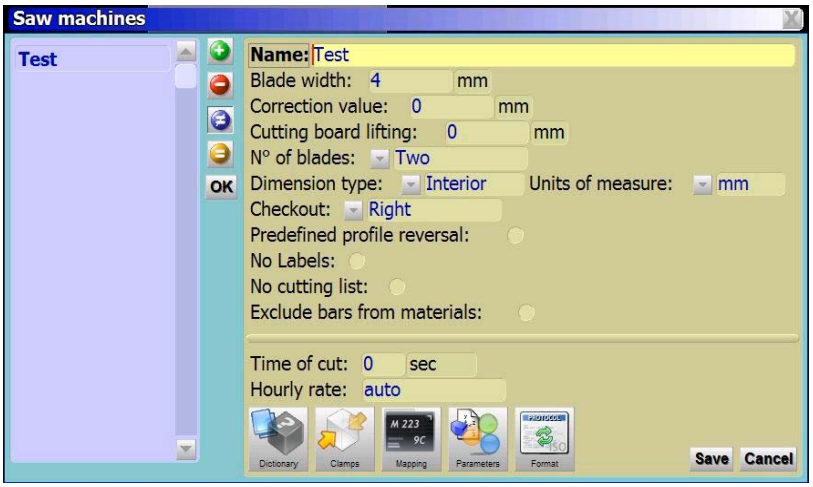
Variable
This field is for the variable of reference associated to the previous function. The user can even use this field in order to report other values not necessarily deriving from a specific machining, as the lock height etc., taking the varible from the list opened by the button

Unit of measure
It establish the unit of measure with which must be reported the variable's value

Typoly sight
It is the type of dispaly of the window upon the label. *Original* straight from the position of the structure in the *Worksheet*. *Internal sight* and *External*

sight not considering the position in the worksheet but according the chosen parameter.

Saw machine archive



The saw machine archive is that part of the program who take in charge all the data about the technical feature of the saw itself. By them the program draws the informations in order to output a correct optimized list, the profiles' clamping, the electronic file export and more

Contents description

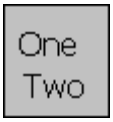
Name
The code assigned to the saw.

Blade width (or thickness)
The thickness of the blade.

Correction value
The possible additional dimension to set out on the pallet to obtain the actual cut dimension. Leave the value at zero if you do not use it.

Cutting board lifting
This field reports the thickness value of a possible leaning slab upon the cutting board, it indicate the distance amid the profile's leaning point and the cutting board.

Blades



It is the quantity of blades the saw machine work with

Dimension type
The type of dimension that has to be indicated in the cut print-out. Obviously valid for 45° cuts. Three choices exist.

External
Check this item and the cut measure will refer to the outer ends.

For Z-shaped profiles (frame or sash), these concern wall overlaps.

This can be used for a single-head saw.

Internal
Check this item and the cut measure will refer to the internal ends.

For Z-shaped profiles (frame or sash), these concern glass overlaps.

This can be used for double-head saw.

Profile core
This function set the cut drawing the measure clean of overlap

If *profile core* is your choice, then is needed in the archive, for each profile to set the overlap value in the **Core overhang**.

Checkout
The type of useful item display in the print-out of the optimised cut. There are two possible types: **Right** and **Left**. The useful item will be displayed to the right or to the left.

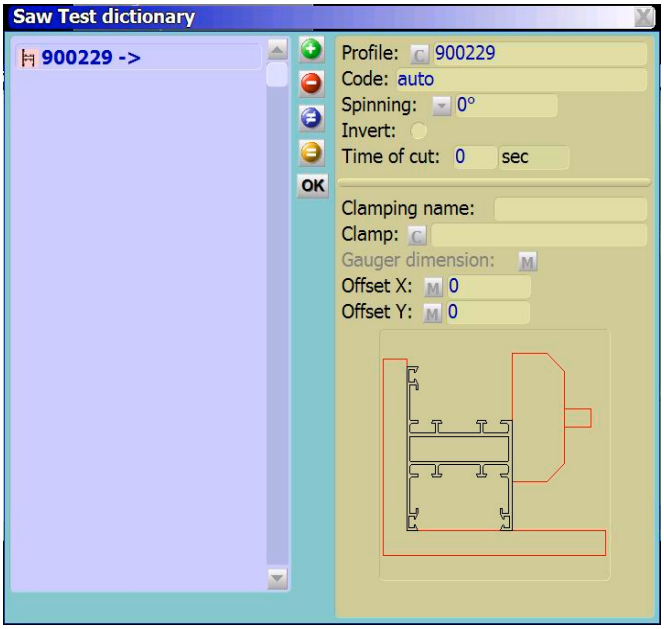
Predifined profile spin
This indicate the program the profile has to be always spinned in the cutting board.
No labels
When this box is activated, the program inhibits printing profile labels.

No cutting list
When enabled this function erase from the cutting list profiles associated with this saw machine

Exclude bars from materials
With this function enabled the under measure cuts won't be considered in the calculation of bars.

The button

This button introduce within the *Saw dictionary*:



The dictionary's task is to settle for each profile some essential features for a correct execution of the cutting procedure.

Profile
The associated button open the profiles selection to take the wanted profile

Code
This functin interact with the file the program generate and move to the saw machine. There are system of profiles who such a quantity of characters impossible to be recognized by some machine, hence this useful function give the chance to write a smaller code, overcoming the saw impediment to read a longer code.

Spinning

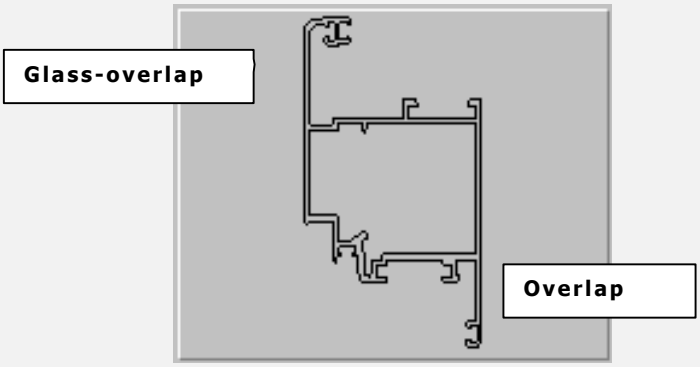
0°
90°
180°
270°

The spinning allow to place the profile acoording its real position on the cutting board

Invert
Its activation reverse the profile, and for those who use *Timing + Machining* being reversed all the machining positions

Concerning this matter we need to stop and tell exactly how the profiles' shapes must be charged in the *Archive of profiles* in order make work properly the dictionay's functions.

Every profile in the archive has to have the position at inner sight with the overlap downward



All the profile positions who are not suitable with those settled in the archive must be established in the saw machine's dictionary

Moreover is important to remind that all profiles can be reversed in predifined fashion

Pre-defined profile reversal:

Seconds of cut
It indicate the program how much seconds each cut takes.

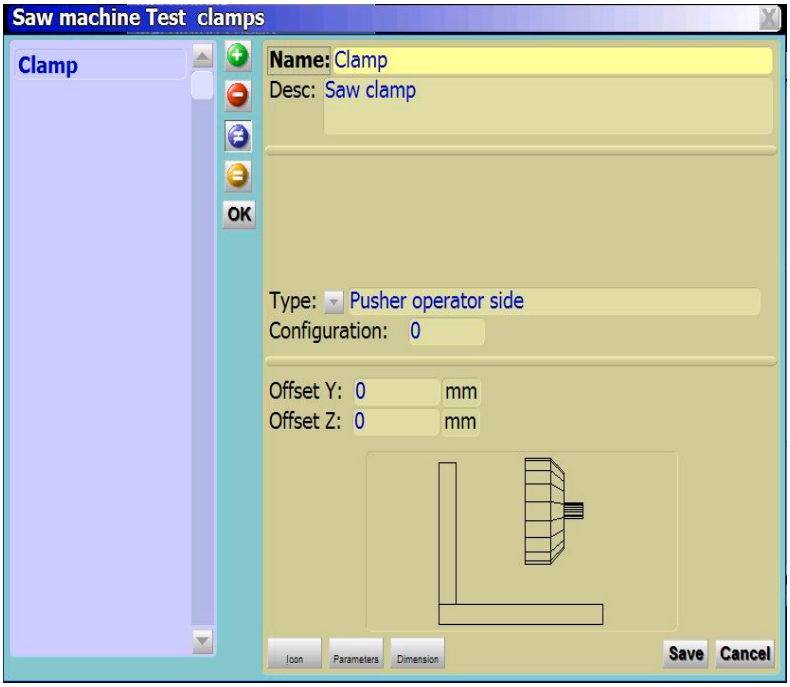
Clamping name
It is the clamping code, in case more clampings are needed due to different position to work with in the clamp

Clamp
By default the program suggest the profile clamped in a generic picture. Nevertheless the clamp's shape can be imported. The button open the selection where the user draws the clamp previously charged in the archive

Offset X / Y
Here is possible to type values which cause a profile shifting horizontal or vertical upon the clamp.

The button

The page opened by this button is the *Archive of clamps*.



Type

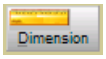
Pusher operator side
Pusher machine side

The parameter indicate the closing pusher's position onto the clamp

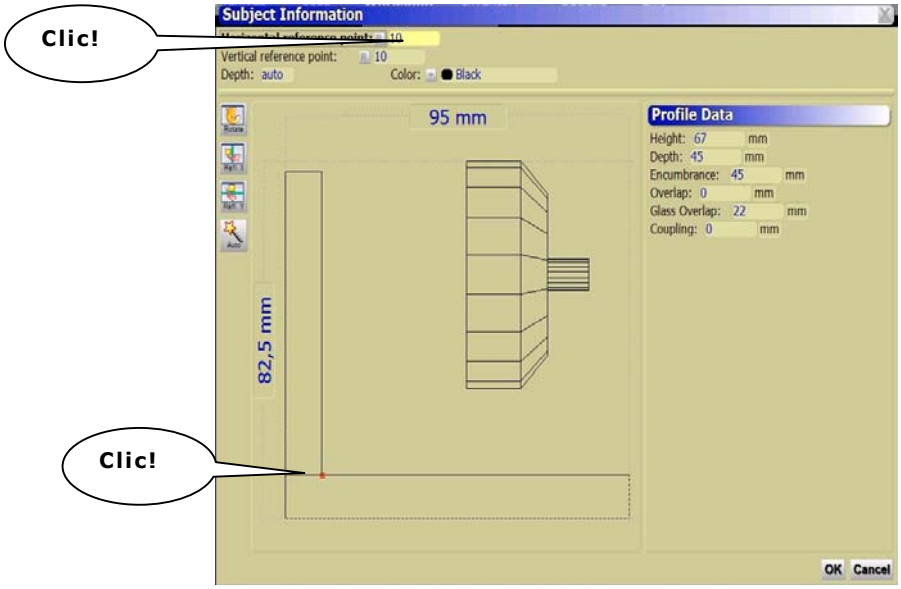
Offset X / Y

These fields have the function to determine a shifting of the profile in the clamp respectively along the axes **X** and **Y**, in the case the clamp has a shim who affect the clamping of all pieces. Furthermore if the user has available a shape of the clamp, it can be imported through the button

whom follows the usual procedure to charging pictures.

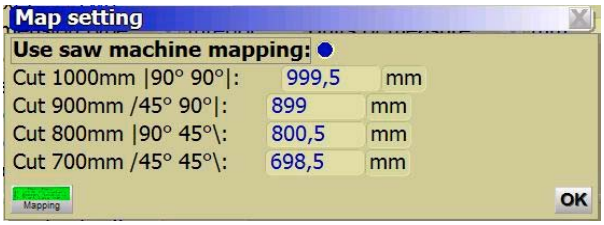
Charging the clamp in DXF format, through the button 

which lead in the *Subject information* page, the user must fix the point of reference upon which the profile being laid:



The button

The mapping of the cutting dimensions is a function that allow to make a test in order to sort out and correct possibles differences in the real cutting measures. The button open the screen *Map setting*:

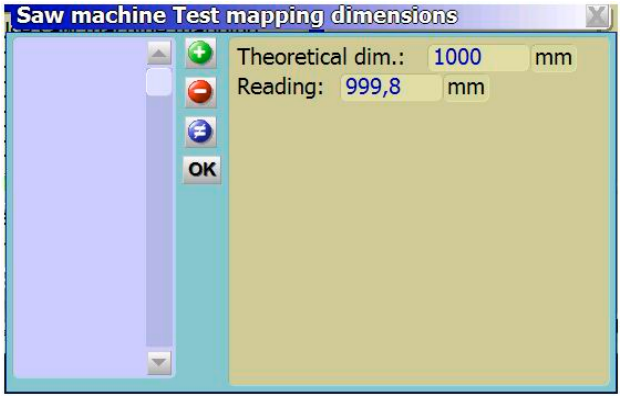


In the above picture the values rely on a test made in order to correct differencies caused by the blades movement. The test is made by cutting a piece at the measure reported in the screen, then writing writing the real

measure drawn after the cut in proper field. Are foreseen four different test according the angle combination in 90° and 45°

Inside the screen is repeated the button

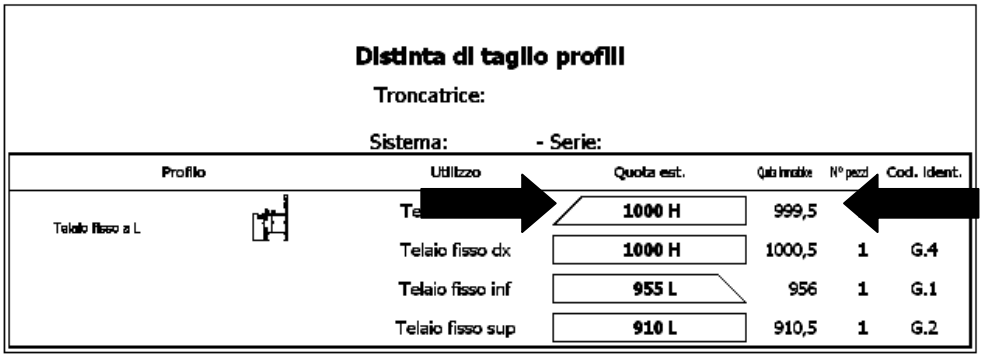
in this case it lead to the *mapping dimensions*:



In the previous example the test aimed to draw differencies caused by the blades' movement, on the other way around the test made in this case aim to draw differencies caused by the template movement upon the saw machine.

In a different way in this page the user must write either the *Theoretical dimension* (guess 1000 mm.) and the *real* dimension drawn after the cutting procedure.

The outcome is taken in charge by the program who calculate the differencies, which are corrected in the cutting list:



Distinta di taglio profili

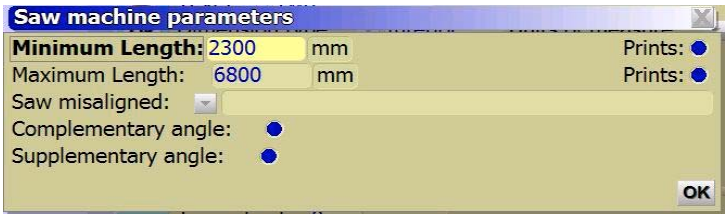
Troncatrice:

Sistema: - Serie:

Profilo	Utilizzo	Quota est.	Qta lmrobile	N° pezzi	Cod. Ident.
Telaio fisso a L	Te[redacted]	1000 H	999,5		
	Telaio fisso dx	1000 H	1000,5	1	G.4
	Telaio fisso inf	955 L	956	1	G.1
	Telaio fisso sup	910 L	910,5	1	G.2

The buttton

The *Saw machine parameters* are about to write the saw features of length and cutting angle.

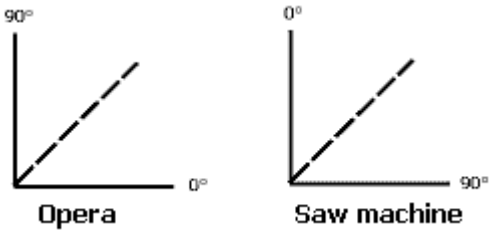


Minimum length, maximum length
They are the minimum and maximum limits whom the program will refer to, in case the dimension will exceed these values the profile won't be considered suitable for cutting.

Saw misaligned
Here must be charged the saw machine which deal the exceeding cut. This function is bound with the file the program develop and send to the saw. There are some machines who are not able to cut with a double blade, under a certain dimension, however they manage a protocol for the exceeding cuttings. Therefore what's needed is to create in the archive the saw machine with the misaligned protocol, and charge it here in this box in the main saw machine.

Prints
Enabling this flag the program output a printout for the exceeding cuts, separate from the standards cuts.

Complymentary angle
It is possible that some saw machines do consider the angle in 90° where Opera does in 0°:



This difference between the program and some saws, can be ground of confusion for the worker, mostly in misaligned structures, used as they are to work according their machine. Hence enabling this function the program

does comply the 0° with the machine's scale, turning easier the cutting list's reading

Supplementary angle
This functon answer the need to send at the machine the cutting degree according the so called *supplementary angle*, in other words for those saws which the value of 45° is reported in 135°

The button

Within the screen *Saw machine format parameters* being settled those data used by the prpgram in order to export the electonic cutting file

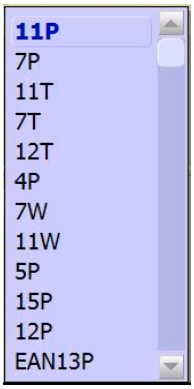
Format
Shows the code relative to the data transmission protocol.

> The program can transmit the cut data to the numerical control saw as long as it knows the transmission protocol.
>
> If you have a numerical control saw, open the list to reveal the suitable protocol.

Files directory
It is the path the program has to follow to transmit the cutting data. At the button is associated a button whom open a searching page.

Converter
It is the path which indicate where is located a possible converting program of the transmited data

Barcode length



This function settling act on the label printout. By the box is combined a button which open a list of possible bar code length. That length can change according the machine who is being used, and the quantity of information it needs to work properly as well.

Labeller
The button open the selection from the archive of possible labellers installed on the saw.

Exclude assembly
Enabling this flag means to exclude the welding dimension from the saw machine's data. It is addressed for PVC profiles. In fact the program foresee for this kind of material a measure which is exploited in the welding procedures after the cutting

Use gauger
It changes data within the file, in case the machine format forsee the use of a gauger to check the profile dimension.

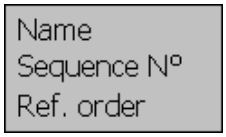
Optimize blades shifting
It is possible to choose as to make move the blades in one-way direction or bidirectional. If the machine ends the bar at the minimal dimension is about to decide whether in the following bar the cut starts from the minimal dimension too.

Start from the shortest
As a rule Opera optimize starting by the longest measure, this function when enabled reverse that rule, as a consequence the optimization will begin by the shortest measure.

Trimming
This field enabled only with particular saws format (in order to know with which fomats contact the Technical Assistance of Opera Company), has the function to allow the *overlap trimming* of a Z profile when it is assebled with a L profile. To make it work is necessary to make in the *Archive of machining* an operation dedicated and load it here.

Variable tr.
This is consequent to the previous, given that in the *Archive of machining* . along with the machining must be created a specific variable. It wil be specified here in this field. To execute the trimming operation on the profile is needed to associate the machining to the profile itself in the *Archive of profiles*, indicating the overlap trimming value.

Job reference



The parameters in this list act in the exported file. They report according the choice the job's *Name*, the sequential *Number*, the *Order reference*. It can be even printet out in the label output by the machine

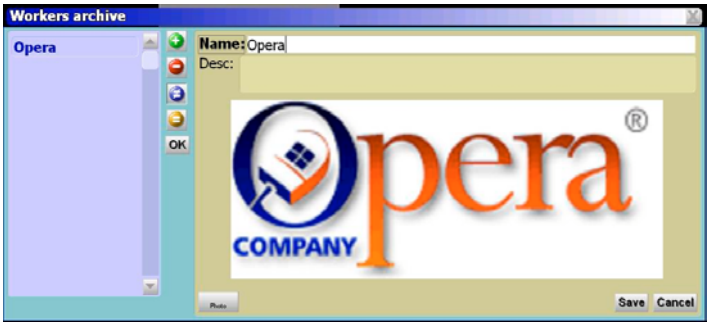
Diversify per ID code
Even this function effect the file for cutting. It has the task to diversify the cutting order for those pieces who have a different ID code.

Diversify per bar code.
It is alike the previous one. Only in this case it diversify the cutting order for those pieces who have a different bar code.

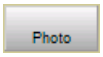
Code bar workcenter.
It export the bar code only for those pieces who are to be worked in the workcenter

Max of rows per file
This is the number who indicate the program how much rows the software of the saw machine is able to decipher for each transmitted file. Therefore if the number of rows exceed that number being created a new file

Workers



The archive of workers combine with the module *Sprint Label*. In this archive being registerd the workers whom have the duty to label profiles.

Afther naming the worker the button 

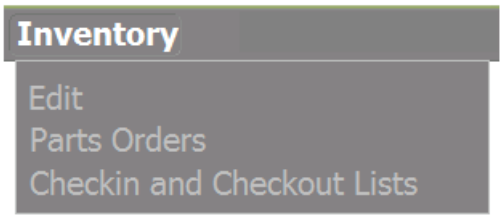
allows to load a picture to associate at the worker

When the *SprintLabel* take in charge the job the program propose the list of workers to associate with the job.

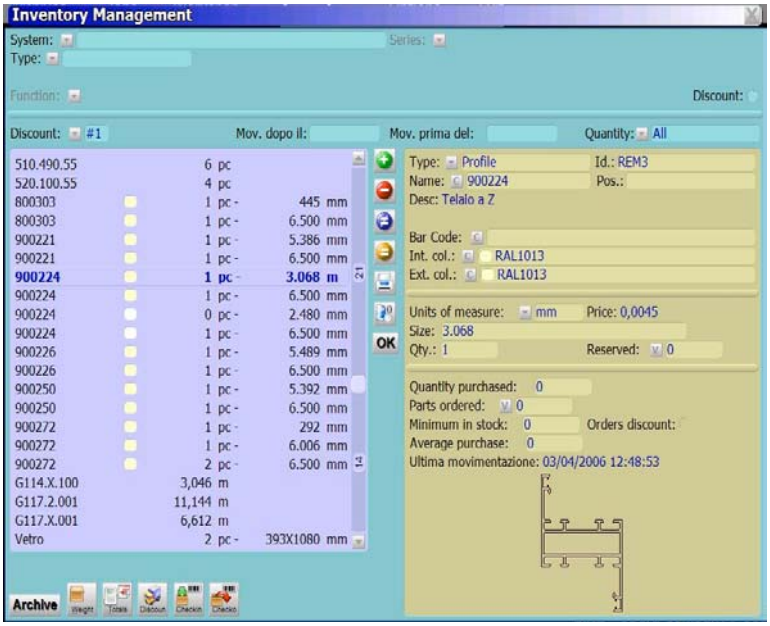
Section 4

The Inventory menu

The following chapters outline the functions and contents of the **Inventory** menu.



Management of stock items



In the warehouse the program take in charge the stock on hold. It keep in control the quantity, the minimum in stock, the reserved, and develope a code for the usable reminder. The stock on hold being constantly updated by the program when the user develop the quotation.

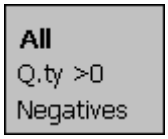
Description of contents

The above section display the usual filter of item's research and visualization

Discount
The enabling of this box makes the program clalculate and visualize the items with the discount settled in the archive

Worked after / Worked before
These are just filters useful to check item in stock worked within a specific period of time.

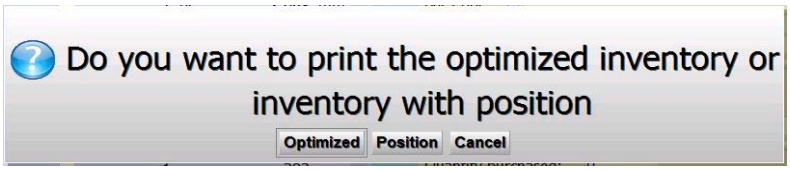
Quantity



Even this is a sort of filter. Accrording the choise these parameters dispaly the items. ***All*** display all the items in stocks. ***Q.ty>0***, list only items whom quantity is up to zero. ***Negatives*** reports items whom quantity is down zero.

The buttons
These are the regular buttons used for entering, cancelling, changing and duplicating recorded data.

The button
When this button is pressed, the stock list for the stores is printed.



The chance is to printout the stock with values in euro, or just one item with its position.

The button
When this button is pressed, it allows all items with a zero stock level in the stores to be deleted.

Inside the screen we are going to analyse the functions which cause the warehouse's stock

Type
The item type. It can be **Profile**, **Accessory**, **Others**.

Name
The item code.

Id.
The ID code of the item.

For profile remainders, the program will automatically assign this code and will use it for identification during the re-use phase.

Pos. (posizione)
E' una posizione di inserimento che può essere assegnata dall'operatore in fase di caricamento della giacenza.
Desc
The item description.

Bar Code
The program is able to manage and update stocks through an optical devise of bar codes. This function is on disposal installing the advanced step ***Warehouse barcode***.

Int. Col. and **Ext. Col.**
Only for *Profile* type. Indicates respectively the internal and external colouring of the profile.

Units (or Unit of measurement)
Shows the measurement unit to be assigned to the item.

Price
Is up to the program to fill this box, who calculate the value according what's reported within prices in the archive

Size
The amount of material based on the pre-set measurement unit.

Qty
The number of items based on the measurement unit and the dimensions that have been set.

For example, if you are loading a profile remainder, the number of existing items with the set dimensions must be input.

Reserved
The quantity that has already been booked.

Quantity Purchased
The quantity of the purchased item.

For the items that are purchased separately, as for example the profile bars, quantity 1 can be input, whereas the others, such as corners or hinges, have to be input indicating the quantity contained in the package.

Parts ordered
It reports the quantity being part of an order underway. This field is compiled by the program according the bills already saved. Bills can checked pushing the associated button

Minimum in stock
The minimum quantity which must be maintained in the stock.

For example, if you want to always have on hand at least one box of hinges, you will need to input the number of hinges in the box.

Orders discount
The function being enabled by the program when the minimum quantity to restore the minimum in stock has been ordered.

Average purchased
The average purchase quantity.

The average purchase value is the quantity that is usually purchased. For example, if you usually buy 2 boxes of corners containing 200 pieces each, the average purchase value will be 400.

Pos. (position)
It is a position which might be referred to the items positions in the racks, making easy to trace when needed.

Last move
This field unchangeable, it is updated by the program. It reports the date of the last *moving* of the item.

The button

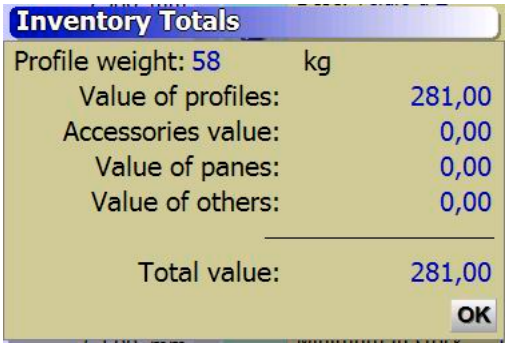
This is a direct link with the archives of the items. The user can go within with no needs to get out from the stocks.

The button

This key is necessary to switch from the quantity display in items to the display in Kg. and vice versa.

The button

Press this button to open the screen which shows the totals whose values are displayed by type.



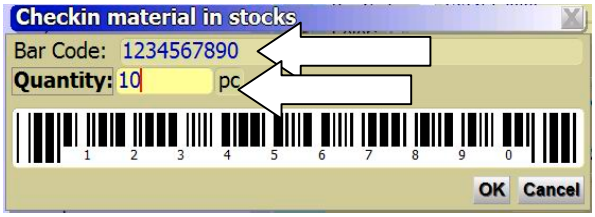
The totals refer to the items in the list.

The button

This button allows you to check all materials whose stocks are low.

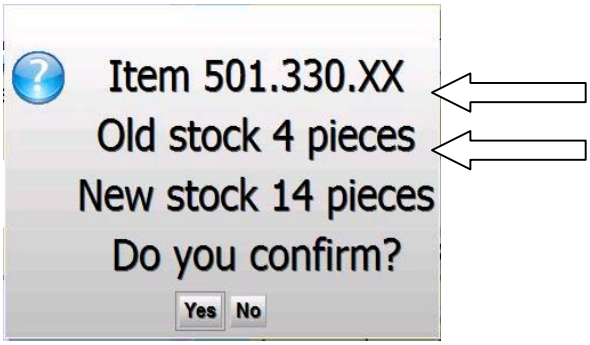
The button

It is through thid button that the optical device carry out the loading procedure of coming materials.
At the time it catch the codes the program display the screen:



In this screen the box **Bar Code**, being filled by the optical device.
The above picture simulate an incoming package with its related quantitiy reported in the box **Quantity**. Should be needed it can be modified. Pushing the button

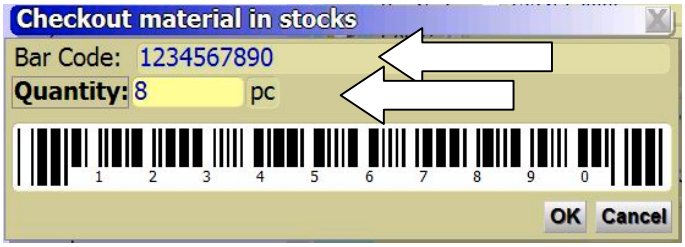
the program look for the correspinding code within the codes' archive then show the message:



A positive response generate the new stock.

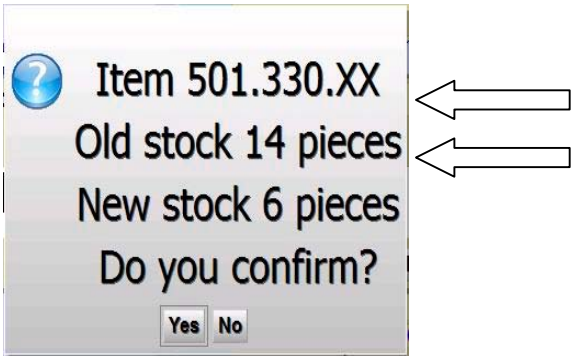
The button

The Checkout button manage the outgoing quantity. Pushin it the program open:



As in the previous precedure the box **Bar Code** being fille by the optical device, and in this case the example guess the outgoing of loose materials, hence in the box **Quantity** there is the average value previously established.

Pushing the button OK the program look for the correspinding code within the codes' archive then show the message:

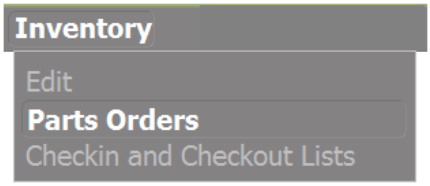


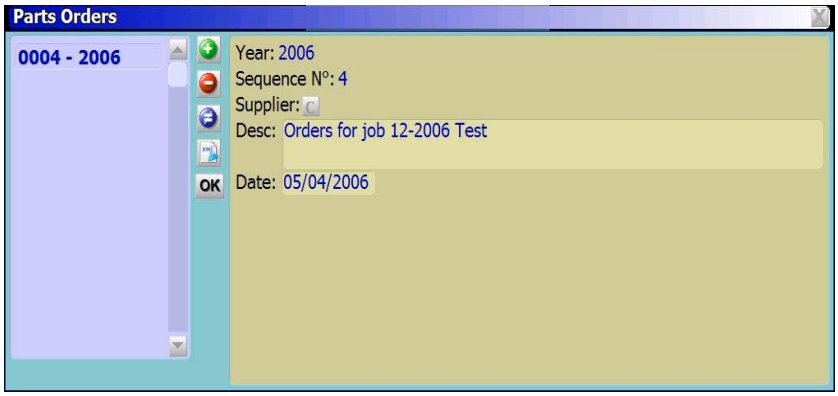
So the new stock is saved in the warehouse.

After this procedure to end the operation push No and then Cancel on the contrary pushing Yes the program go ahead updating the stock.

Even the function dealt by the buttons Checkin and Checko operate only with ***Warehouse barcode*** installed.

Management of material orders





When an order is processed using the stock movement screen, the list relative to this order will be created and filed in this archive. This list will be automatically cancelled when the materials are loaded using the stock movement screen during processing of the work order.

New orders not connected to the work orders may also be carried out.

Description of contents:

Year
Indicates in which year the order has been made.

Sequence No.
The progressive number of the order.

Desc
This box contains the data of the work order which the order belongs to.

Date
The processing date of the order.

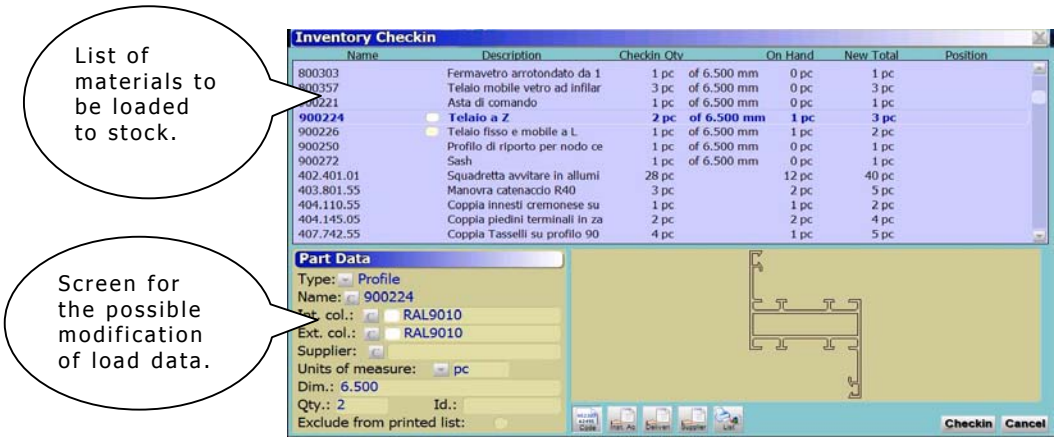
The button

This button is necessary to open the materials management screen where all materials belonging to the order will be listed, together with their weights, prices, stock situation, etc. The contents and function are the same as those explained in the **Work order management** chapter in the explanation of the button

.

The button

This button is necessary to load all materials relative to the orders that have been processed into the stock as soon as they are received. As already explained, every processed order will have a load list created automatically by the program.



After loading, the load list will automatically be cancelled by the orders list if all of the materials have been loaded. On the other hand, if all of the materials have not been loaded, for example because some did not arrive, the list will be left until the order has been entirely loaded.

This list can be modified directly in the **Item data** screen when the quantity of materials received differs from the order or when some have not been received.

Management Checkin and Checkout Lists

This function is necessary to manage (add, modify, cancel...) the load lists of the remainders or the booking lists, being processed by the work orders using the stock movement screen.

Description of contents

Year
Indicates in which year the list was created.

Sequence No.
The progressive number of the list.

List type
The description that determines the list type, either *Load* or *Unload*.

Desc
This box contains the data of the work order the list belongs to.

Date
The processing date of the list.

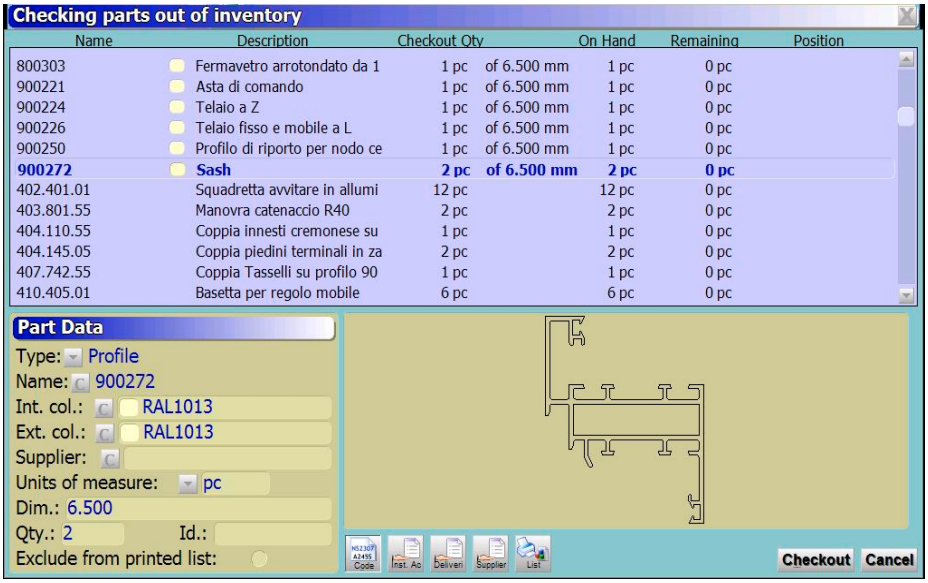
The button

This button is necessary to open the materials management screen where all materials belonging to the order will be listed, together with their weights, prices, stock situation, etc. The contents and function are the same as those explained in the **Work order management** chapter pressing the

button.

The button

This button is necessary to load the load list of the remainders obtained after optimisation into the stock .

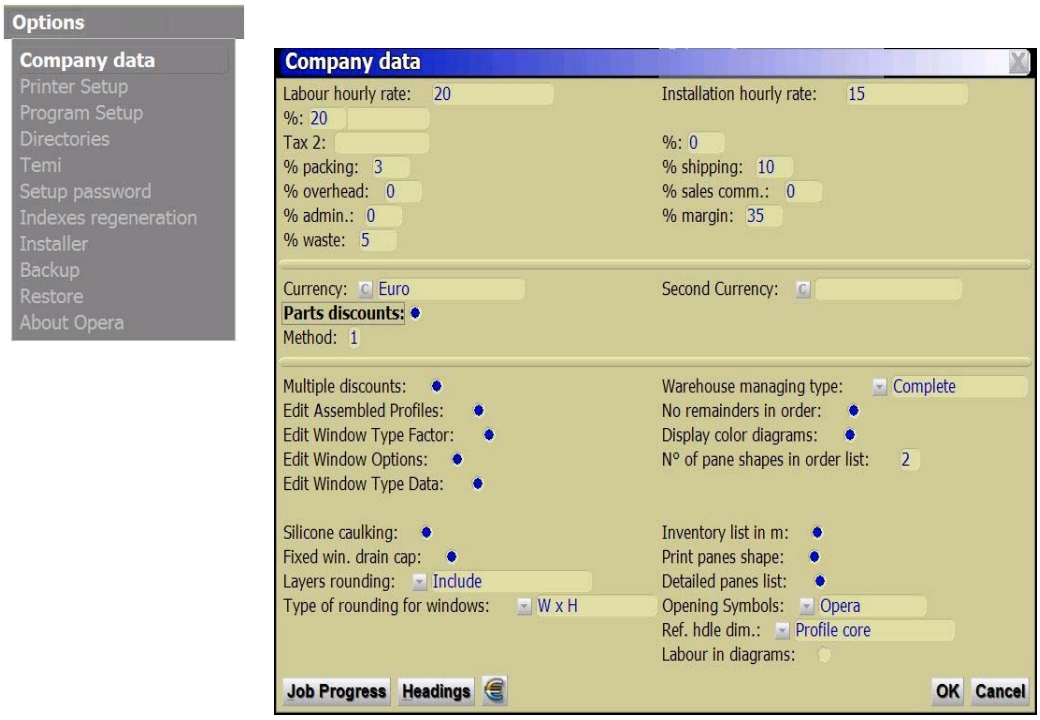


Section 5

The Options menu

The following chapters describe the function and contents of the **Options** menu.

The Company data



This function is necessary to insert or modify the Company parameters. This part is examined by the program during the various work order calculation phases. For example, when calculating labour costs, interests, etc...

Description of contents

Factory labour and **Installation**
The hourly costs for labour and installation

Tax or VAT %
The VAT percentage to be charged in the work order.

Packing %
The percentage that has to be added to the industrial cost relative to the packaging materials.

Overhead %
The percentage that has to be added to the industrial cost relative to the work order processing expenses (electricity, telephone, other expenses,…)

Admin %
The percentage that has to be added to the industrial cost relative to the time spent to process the work order

Waste %
The waste percentage calculated over one year. It usually is around 8-10%.

It is known that a lock manufacturing company usually has around 10% waste over one production year.

Shipping %
The percentage that has to be added to the industrial cost relative to transport.

Sales comm. %
The percentage that has to be added to the industrial cost relative to transport.

Margin % (or Profit %)
The profit percentage to be charged to the client.

Currency
This box is used to indicate the principal currency to be selected – that is, the currency in which prices in the files are to be stated.

Second currency
This box allows a second currency to be selected, which will result in the program providing a double set of figures in printing a quotation.

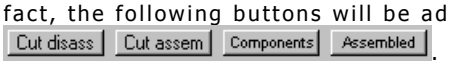
Material or Parts discounts
When this box is activated the program allows discounts in the price file to be managed and calculated when preparing a quotation.

Method
The method used to calculate the work order. There are three different methods, each of them with its own peculiarities.

- Method 1 calculates the work order cost completely;
- Method 2 calculates the work order cost without taking into consideration the waste percentage;
- Method 3 is similar to method 2 and permits adding a percentage for the sales rep.

Multiple discounts
When this box is activated the program will make it possible to apply a number of discounts for each price in the file.

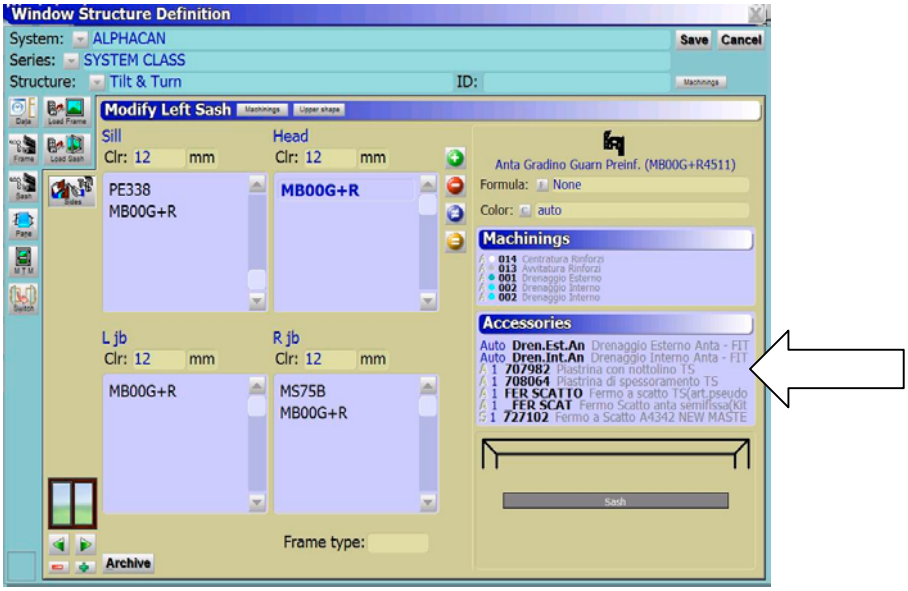
Edit assembled profiles
Enable this box for more complete management of the assembled profiles. In fact, the following buttons will be added to the Work order material screen



.

Edit window type factor
This function allow to set a value per each typology to be used in the whole cost calculation.
Edit window options
When this box is activated it allows the accessories for types to be managed in optional mode.
Edit window type data
When the operator is creating a type made up of a number of structures, activating this box prevents the type data field from being opened in the design sheet, while compiling the type.

Expand groups within structure
This visualize the group of accessories in the *Window structure definition*, and as well in the modification panels in the *Worksheet*



The above picture report an example in the *Window structure definition*, where in the selected side, are visible the accessories charged by a group.

Warehouse managing type

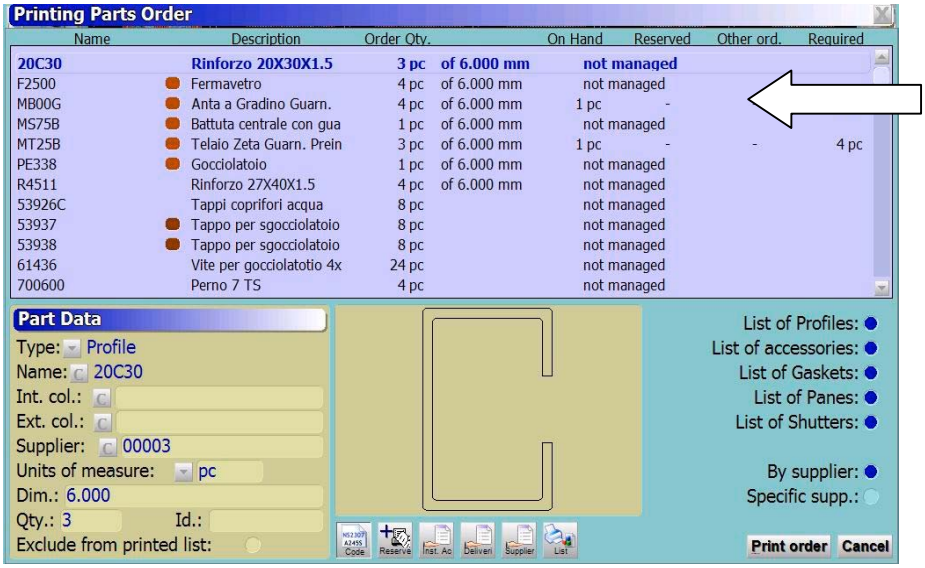
Complete Only managed

By the title of this box is easily intuitable that this function is about the warehouse. It allow to determine the warehouse's management type

Complete
Questo parametro imposta la gestione nel modo solito e già conosciuto dagli utenti, ossia Opera movimenta tutti gli articoli presenti nella distinta d'ordine.

Managed only
This parameter predispose the program to deal only with item yet saved in stock. In other words through this function is possible work in stock only a selection of items. It could be very useful because avoid to have in stock big quantity of items which aren't to be managed.

It of course effect the data displaying method in the order, checkin and checkout phases:



Watching the above picture are easily identifiable the ***"not managed"*** items, these so marked are not managed in the procedures who determines the stock update In case a not managed item has to be managed anyway it can be activated checking the flag *exclude from list* located in the left side down within the screen

No rmainders in order
Enabling this function the program doesn't consider reminders in the optimization, as a consequence the order will be made only by complete bars.

Display layouts in colour
When this box is activated the program displays the type layouts in the *Job Management* field, in the colouring selected during loading.

Pane shapes in the order list
The reported value point the number of shapes per page of the panes' order.

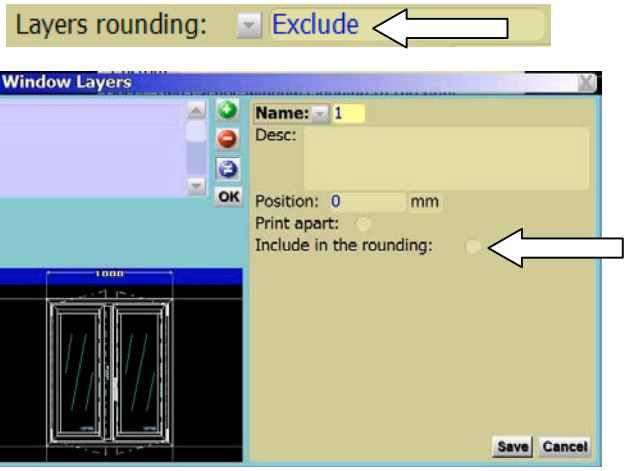
Silicon caulking
Indicates that silicon must always be assigned to the outer side of the typologies.

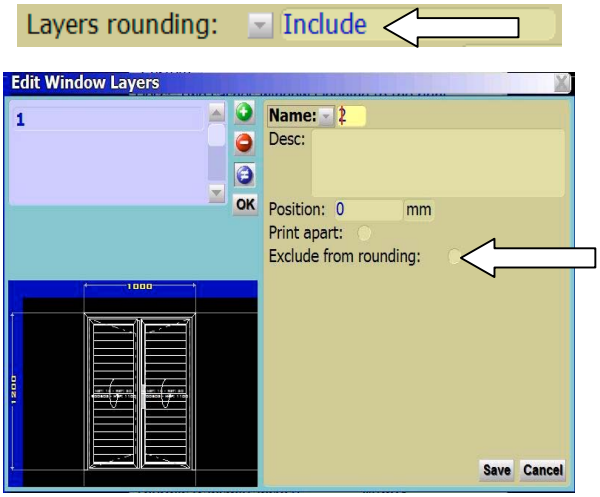
> During automatic assigning of the pane, the program will always indicate silicon as the external gasket if the **Auto** button is pressed in the panes management screen.

Fixed win. drain cap
When this box is activated the program accepts the inclusion of water plugs for the type of structure as ***Fixed.*** Where the operator prefers not to include the water plug in the fixed structure type, this box must be deactivated.

Layers rounding

Previously in this manual we've explained the function *Exclude from rounding* who allows, in structures biult in different layers, to dela with the rounding calculation. Hence the function of this field is to standardize this procedure, avoiding to change the parameter per each typology. The choice will set the parameter within the screen *Layers*





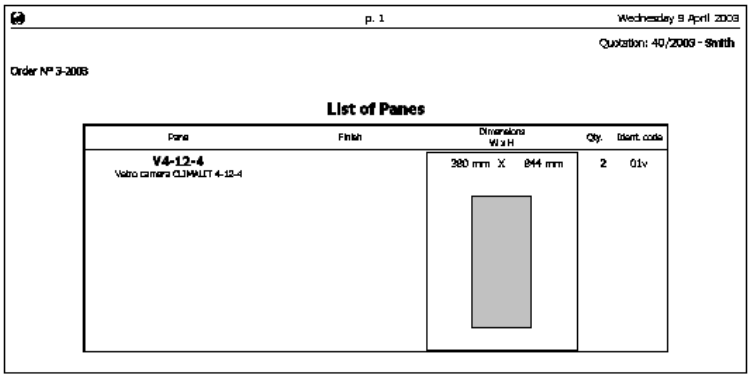
Type of rounding for windows
Used to set out the calculation of the typology squaring. Two items are taken into consideration.

W x H
Check this box and the squaring will be calculated without taking the overlaps into consideration.

Outermost overlap
Check this box and the squaring will be calculated taking the overlaps into consideration.

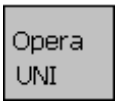
Inventory list in m
When this box is activated the stock check is printed in metres.

Print panes shapes
This function when activated allows to put in the print the panes shapes, even when it isn't about Arched or Bracketed structures.



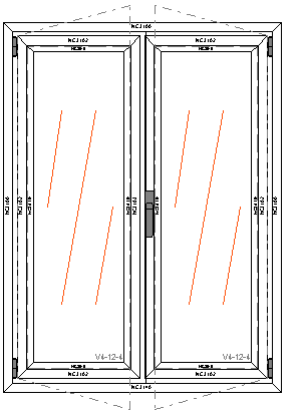
Detailed panes list
Pintout the panes list with code and color of each piece

Opening Sympbols

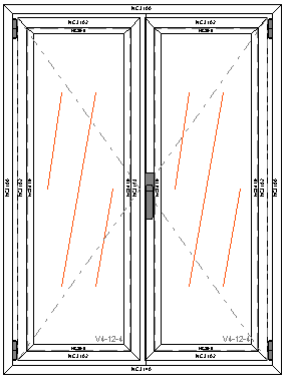


The parameter determine the type of opening

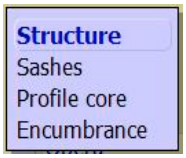
OPERA



UNI



Ref. Handle dimension



To the box is combined a short list from which the user can determine for all the structures as standard the handle measure, when this one depend by a group of accessories, and isn't possible manually to modify it.

Structure
The dmension is referred from the handle axis to the wall base.

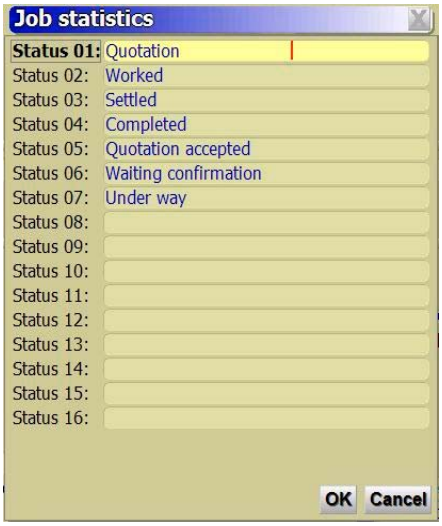
Sashes

The dimension is referred from the handle axis to the sash overlap

Profile core
The dimension is referred from the handle axis to the sash less the overlap

Labour in diagrams
When this box is activated the program includes labour times when printing Type Layouts.

The button Job Progress
This button is necessary to open the screen to add or modify the status of the work orders where up to 16 items may be added.



The button Headings
When this button is pressed the *Set scroll decorations* field opens.

Each of these boxes refers to print-outs. It is possible to insert an image in each of them, such as your company's logo, or a background. If the button is clicked the program will temporarily save the image on the

operating system's clipboard – that is, the part of the memory used for temporarily storing text or images. If your image or text is not stored on the clipboard, but in a directory on the hard disk, it can be recovered by pressing the active button P in each of the boxes.

The button

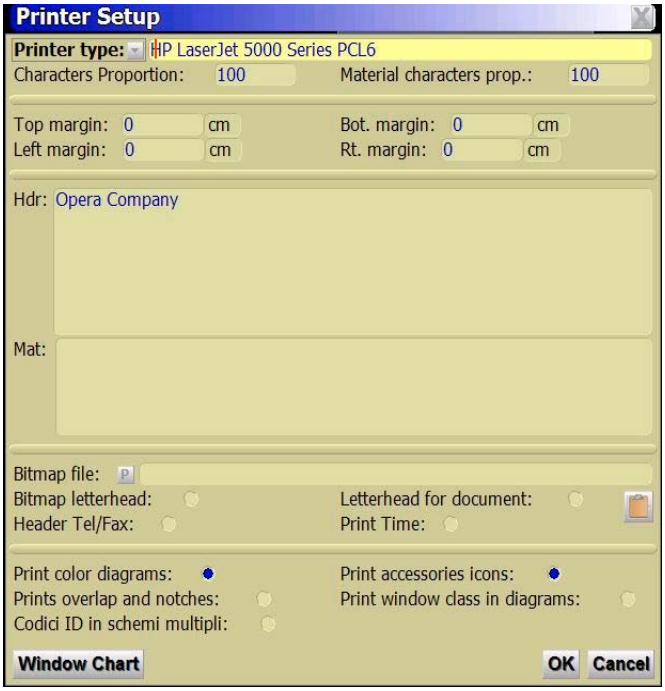
When this button is pressed it allows all the prices in the files to be converted. When pressed, the *Currency Conversion* field opens.

To allow this operation to be carried out, the currency to be converted must be entered in the *New Currency* box. This will then be used by the program in calculating costs and prices. The new currency must be one previously stored in the *Currency File,* along with the relevant parameters.

When the OK button is pressed, the program proceeds with the operation.

The operator should bear in mind that the program does not convert the currencies in the price file, where in the SYSTEMS FILE \ PROFILES OR ACCESSORIES FILE \ or in the PRICE OF INDIVIDUAL ITEMS, a Supplier has been indicated, who in turn has a purchase currency attributed to them in the suppliers file.
Basically, if the price files includes a supplier that uses a different currency, the operator can continue to manage those prices in the supplier's currency, while the program will calculate costs and prices in the program's main currency.

Printout settings



This program screen is necessary to set out some of the parameters relative to print-outs.

Description of contents

Printer
The name of your printer. The associated button opera a list which bears the printers who are installed in the system

Print Font
Defines the character type to be used in the print-outs.

Printer Title Font
Defines the character type to be used in the print-out headings.

Character proportions
Defines the character proportions in the print-outs.

For example, if you set the size to 200, it will be double compared to the normal size, whereas if you set it to 50, the size will be reduced by 50%.

Material character prop.
It establish the characters' proportion size within the order list.

Margin Top / Bot. / Left / Right
The values in these boxes establishes printout margins from the sheet's edges

Hdr
The heading of your company that will be printed on the documents.

Mat
The text typed in this box will be printed in the supplier order after the heading, useful to indicate the modes of payments, the shipment of materials, etc...

BitMap File
The file name including the search path containing the drawing (in BMP or TIFF format) that you want to use as heading in the print-outs.

In fact, the program will let you print a company cliché in the document heading that you can make using a common drawing program capable of saving the file in BitMap format. The file will have to consider dimensions relative to the printer resolution you want to use. These dimensions can be obtained multiplying the division factor of the printing resolution by the width and height of the cliché. To find the dimensions that the BitMap has to have, do the following: measure up the width and height of your cliché. Let's suppose you have a width = 8cm and a height = 5 cm. Multiply 8 by the division factor of the resolution. Let's suppose you want to use a laser printer with a resolution of 150dpi and its division factor is 59. Therefore the width of the BitMap will be 8x59=472. The height of the BitMap will be 5x59=295. Therefore, 472x295 will be the dimensions of the BitMap for printing the cliché on a laser printer with 150 dpi resolution.

The following table indicates the multiplication factors based on the print resolution.

Laser		9 Pins		24 Pins		Ink jet	
Resolut.	Factor	Resolut.	Factor	Resolut.	Factor	Resolut.	Factor
75	29,5	72	28,3	180	70,9	90	35,4
100	39,3	144	56,7	360	141,7	180	70,9
150	59						
300	118,1						
600	236,2						

BitMap letterhead
Check this box if you want to use the BitMap heading instead of the one indicated in the previous **Int** box.

Header Tel. / Fax
Prints in the quotation either telephone and fax number.

Print time
It is about to print the quotation's issuing hour.

Print colour diagram
When this box is activated type layouts will be printed in colour.

Print the hardware icons
Check this box and the accessory icons will be shown in the print-outs.

Prints overlap and notches
This function reports in print and display in job management the structure's overlaps and notches, but only if the typology has been settled with color.

Print window class in in diagrams
Report in the full diagrams print the structure's belonging class.

The button Window Chart
When this button is pressed the program opens the Set Abacus Type Print field, which allows the operator to set the print parameters.

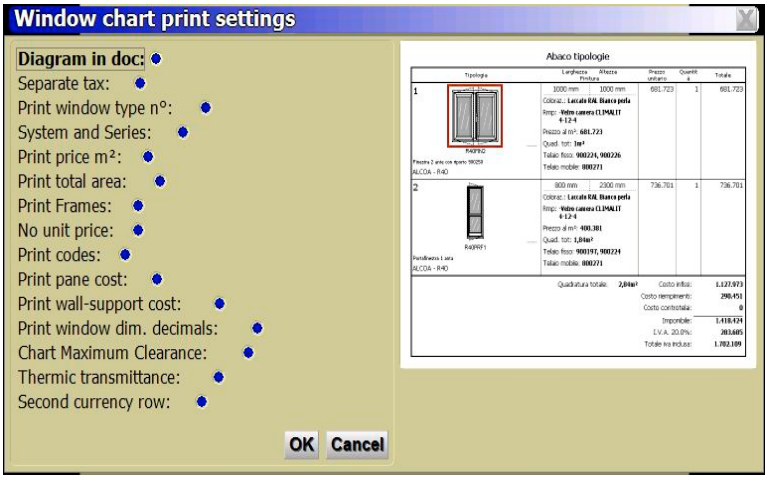


Diagram in doc
Check this box if you want to print the typology drawing in the chart.

Separate tax
Check this box if you want to separately print the amount, the VAT, and the net amount in the chart.

Print window type N°
Activate this box to enter the type number.

Sistem ande series
Report in print the system abd series at which the typlogy belongs

Print price per m^2
Check this box if you want to print the price per m^2 of every typology in the chart.

Print total area
Check this box if you want to print the squaring of every typology in the chart.

Print frames
Activate this box if you want the coded names for fixed and opening frames that make up the type, included in the printout of the Abacus.

No unit prices
When this box is activated the program deletes the cost for each individual type.

Print codes
Check this box if you want to print the typology code in the chart.
Print pane cost
Check this box if you want to separately print the amount, the pane cost, and the total in the chart.

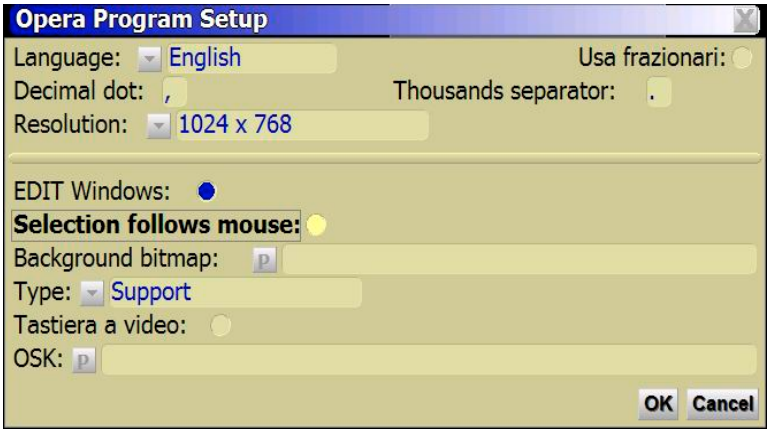
Print wall-support cost
Check this box if you want to separately print the amount, the wall support cost, and the total in the chart.

Print window dim. decimals
Activating this box allows decimals to be included in dimensions for types that are printed, when the unit of measurement used is "**m.**"

Chart Maximum Cleareance
Activate this box if you wish the type's maximum overall dimensions to be included in printing the Abacus.

Second currency row
Print the total of the second currency per each row of the quotation

Program setup



In this screen the program being configured. The user establishes resolution, language, type of characters etc.

Description of contents

Language
This allows you to select the language you wish to work in. The fpllpw picture show you wich languages are available:0

Decimal dot / Thousand separator.
In these boxes the user establishes which characters as if dot or comma for decimals and thousand separator.

Resolution

640 x 480
800 x 600
1024 x 768
1280 x 1024

Setup of the screen size. The higher the resolution, the larger the quantity of information that can be displayed.

EDIT Windows
When this box is activated it will be possible to use the field selection function that can be used like the Windows copy and paste function.

Background BitMap
The name of the file together with the search path where the drawing is stored (in BMP or TIFF format) that you want to use as the program background.

Type

Support
Centre
Expand

This function works on the program's wallpaper. In this list the user fix the picture's position.

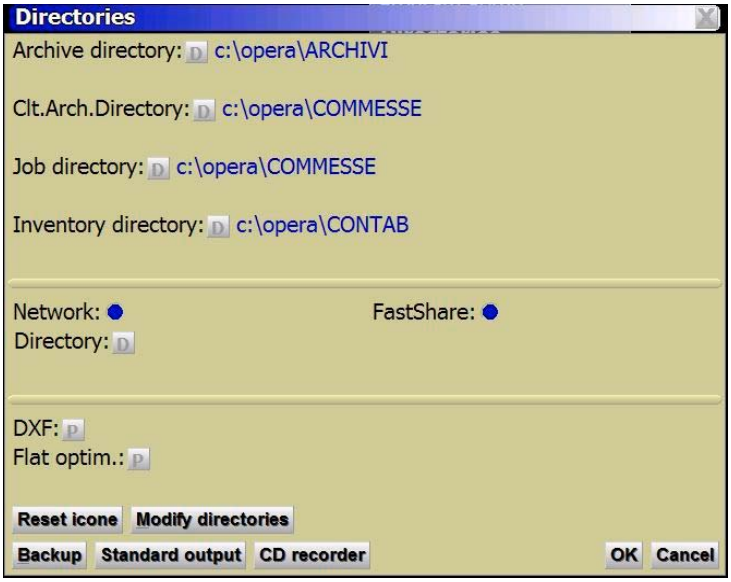
Support
The immage is splitted, making a number of immages. Flanked side by side covering the area used by Opera on the screen

Centre
The picture will be placed in the middle of the screen

Expand
The immage will be expaned on the whole screen. According the extension it could loose quality

Keyboard on scree
Enabling this function the program dispaly a little kayboard upon the screen.

Directories setup



Directories leads the program toward the archives' folders. Therefore their wrong compilation hinder the program starting procedure. On this matter we advise to get in touch with the technical assistance of Opera Company to have more informations.

Description of contents:

Some of this boxes cannot be accessed directly; to access them close the program on all terminals, go to Start, select Run..., and activate the Run: c:\opera\wopera /setup command.

Archive directory
The path where the material archives are stored (profiles, accessories and typologies). Usually **C:\OPERA\ARCHIVI**.

Clt.Arch.Directory
The path where the Clients' archive is stored. Usually **C:\OPERA\COMMESSE**.

Job directory
The path where the work order archives are stored. Usually **C:\OPERA\COMMESSE**.

Inventory directory
The path where the stock archives are stored. Usually **C:\OPERA\CONTAB**.

Network
Check this item if you want the archives accessible on the network.

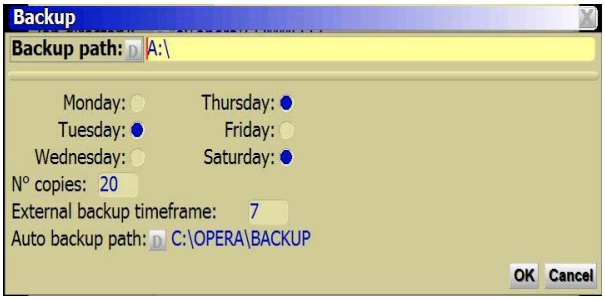
FastShare
Attivata questa casella abilita la condivisione veloce degli archivi in rete.

Directory
The name of the server folder where the program is stored. For example, **E:\OPERA**.

Max files open
This function is useful for those who works in network. To allow a faster data exchange it is possible establish a maximum number of files simultaneously open

DXF P
Profiles and accessrories' shapes can be modified through Opera in the graphic program. Here in this box must be specified the path that indicate the position of the starting file.

The button Backup
This key is necessary to add or modify the parameters of the *backup* or safety copies. The settings of these parameters will allow you to make back up copies either on the hard disk or on an external support, and to decide on which day of the week the copies should be made.



Description of contents

Security copies path
The name of the drive where the backup files should be saved. Usually **A:**.
-8
Monday, Tuesday, Wednesday.....
Enable the box relative to the day in which you want to make the backup.

No. of copies
The number of backup copies that should be kept.

External backup period
The interval that indicates how often the external backup should be made.

The button Modify directories
This button must be pushed if you want change the path

The button CD recorder
This button open the screen *CD recording setting*. There are requested some setting in order to use the recorder to save backups.

Type

mkisofs
DAO
NeroCmd

This has the task to specify the type of the software used to burn.

According the choice different boxes being activated

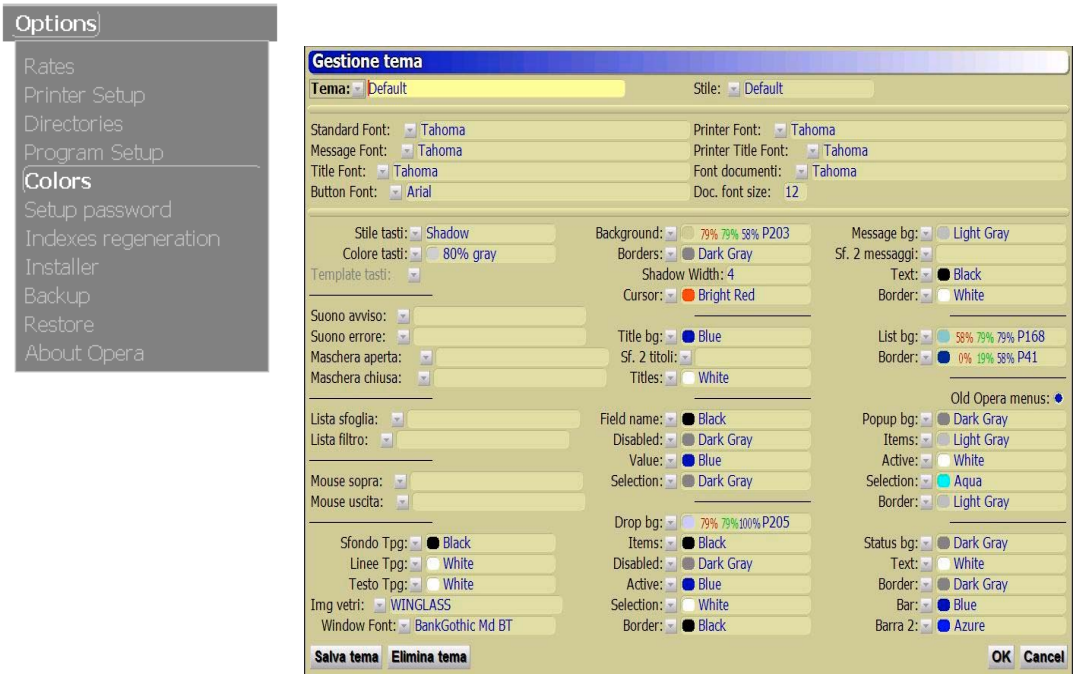
Path mkisofs
Here is the complete path of the software who create ISO pictures.

Master
Is the complete path that indicates the burning software position.

Path DAO
This is the utility path of DAO burning type

ID CDR
It is the ID recorder path, only with the parameter NeroCmd

Templates



Screens and writing within the program can be modified in nunances and colors. In the *Color selection* the user choose the color he likes for all the fileds of the program.

Password setup

The entry within the program or just in some parts of it can be forbidden. In fact is possible to set ***numerical codes***, to allow the access only to whom knows the keys. That code is written in the hasp plug.

Description of contents

Access password
The secret word that is requested every time the program is started and to access password setup.

Price password
The secret word that will be asked to access the prices.

Archive password
The secret word that will be asked to access the archives.

Prices and archives password
The secret word that will be asked to access both the prices and the archives.

Index regeneration

This function is necessary to reorganise the archives. **We suggest carrying out this operation at least once a week.**

Installing file updates

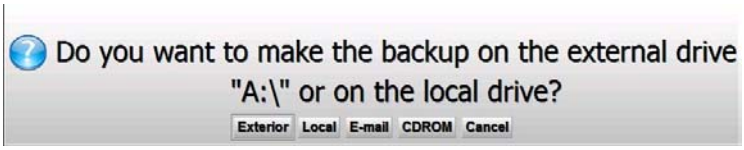
This function is used for updating files. When activated it provides input to the program to look for the file using the floppy reader (A:\), from which it will see to updating the files.

Making backup copies

This function is necessary to make backup copies.

We strongly suggest making backup copies at least once a day to avoid the unrecoverable loss of data (profiles, typologies, work orders...). The loss of data can be caused by a sudden breakdown of the computer, or by a *virus* program that has unrecoverably damaged the data, or by a fault to the hard disk, or by other reasons. In all of these cases, the data cannot be recovered without the backup copies and therefore it is not possible to start work again. On the contrary, with backup copies, it would just be a matter of restoring them on the hardware in order to begin work again.

When this function is started, the following message will appear:



Description of contents

The button Exterior
Press this button to make the copy on the external support, such as a floppy disk, tape unit, etc. using the drive indicated on the **Paths** screen.

Please see the **Paths** chapter for explanations relative to the Backup button outlined earlier in this section.

The button Local
Press this key to make the copy on the internal support, that is the hard disk, precisely in the Backup folder located under the Opera folder.

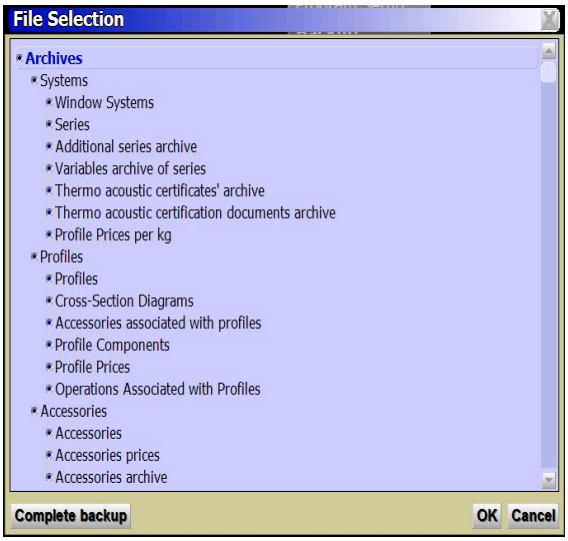
In both cases the following message will be displayed, followed by the description of contents.

The button E-mail
When this button is pressed, the program will open the "Send to Opera Company" field. The operator can find the address for the technician he wishes to send the safety copy, and then confirming this choice. Opera will

create a file that will be attached to the e-mail program. This function is very useful in cases where you need to send your files to the assistance centre at the Opera Company.

The button

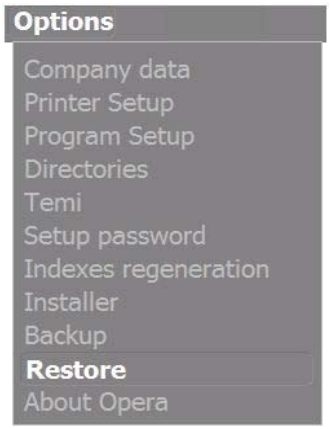
Starting this button the program dispaly the archive selection:



In the file selection the user choose whether to save the whole archive or make selection of some files. To disable the files which are not to be saved the

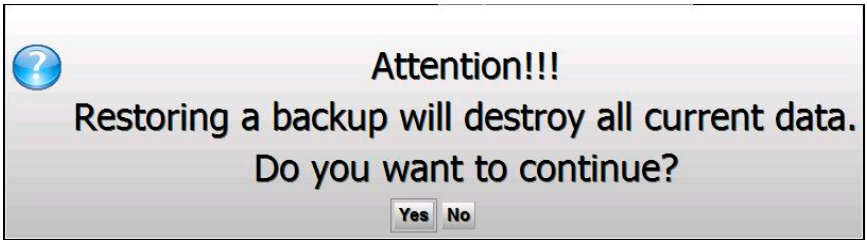
user has to select the field and pushing upon with the mouse or the keyboard's space bar. To reactivate follows the same procedures.
When the selection has been made the button OK put under way the saving procedures.

Restore the backup copies

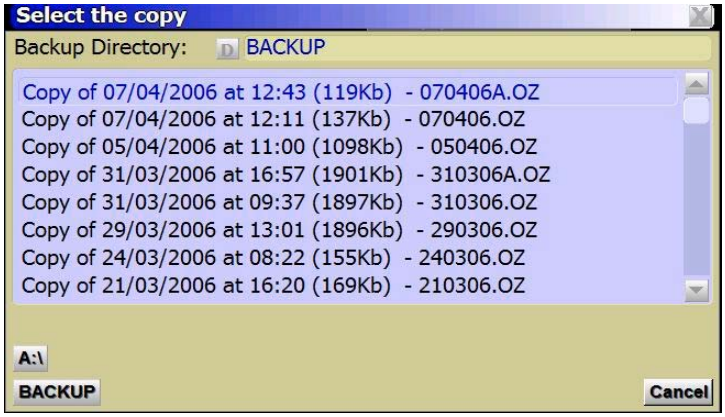


This function restore backup copies. Should happen to lose data this is the only mean to retrieve them. Nonetheless it is a procedure which has to be carried out with the utmost care, because any restoring cause the overwriting of all the existing data at the moment the procedure starts. On this matter is **advisable to get in touch with the technical assistance** prior to start this operation

When this function is started, the program will inform you that the restoration of backup copies will cause the loss of the current data that will be replaced by the backup data stored on the copies.



If you choose to go ahead, the program will display the list of backup copies saved up to that moment, as outlined by the following example,



Percorso backup D

The standard backup path is in the local folders of the program. Nevertheless is possible to set a different path form where the program has to retrieve the restoring file. In this aim the program open the following screen

Hence is up to the user the manual research of the file who is charged by the program in the restoring procedure.

The button A:\

This button links the backup file with an outer drive. According the path the button's name change. For further information we recommend the user to read the chapter regarding the program directories, back in this section.

The button BACKUP

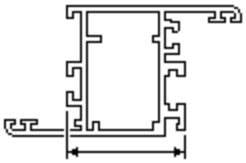
In case has been selected an outer path or a driver different from the one of the local directory, thi button take back the path to the local restoring file, avoinding to do manually

Appendix I, Technical data of the profiles based on their function

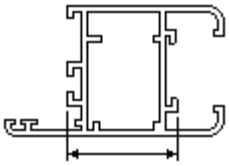
In the following pages we will analyze each single profile's function. In the archive some fields who bears the technical data being shared amid profiles. Others fields instead being activated according the profile's function. For a better learning of the following explainations though is necessary that the reader take advantage about the Profiles' archive chapters, in this manual

Frame

Encumbrance
The value of the dimension measured perpendicularly to the thickness, excluding only the value of the wall overlap and the glass overlap.

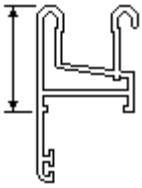


Real example of the encumbrance value of a frame profile



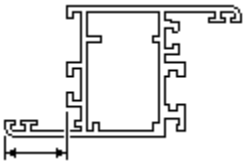
Real example of the encumbrance value of a frame profile with a marine glazing system.

If it is a frame for sliding windows, the encumbrance value is given by the height, excluding the overlap.



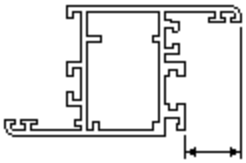
Example of encumbrance for a sliding window frame

Overlap
The length of the wall overlap.



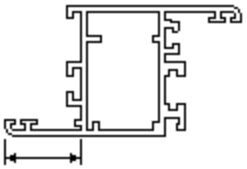
Example of wall overlap

Glass overlap
The length of the glass overlap.



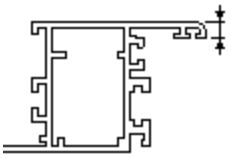
Example of glass overlap

Core overhang
The length of the overlap measured up to the profile core.



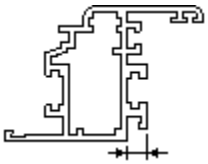
Example of a value relative to the profile core difference

Overlap depth
The thickness of the glass overlap where the gasket has to be fitted.



Example of glass overlap thickness

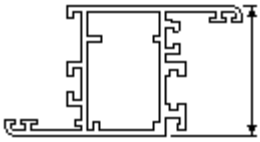
End milling correction
The End milling correction height that affects the mills.



Example of a frame profile End milling correction

During the calculation of the cut length of a transom or mullion, *Opera* also considers the milling operation and therefore considers the End milling correction height of the profile it has to be linked to.

Depth
The profile thickness measured on the glass holder side.



Example of profile thickness

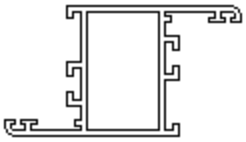
Clearance
The space that has to be left between the glass and the profile.

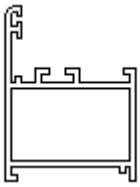
It usually indicates the bulk value of the adjustable supports. This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the glass clearance value. That is, the first value to be examined is the one set on the pane. If this value is 0 (zero), then the value on the glazing bead will be examined, and if this is 0 (zero), then the value set on the frame profile (fixed or sash) will be examined.

Shape
Shows the shape code.

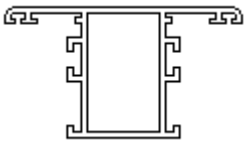
Three codes can be used: Z, L, T. The correct setting is the shape code that will allow the program to understand if the cross section you are making is suitable for internal or external openings.

Example of a Z-shaped frame





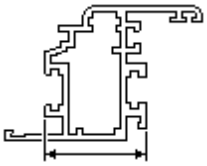
Example of an L-shaped frame



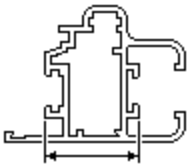
Example of a T-shaped frame

Sash

Encumbrance
The dimension value measured perpendicularly to the thickness, excluding only the value of the overlap and the glass overlap.

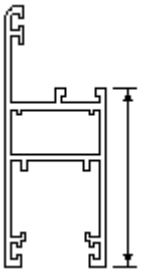


Example of the encumbrance value of a sash profile



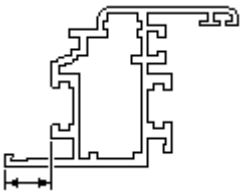
Example of the encumbrance value of a sash profile with marine glazing or shutter

If it is a sash for sliding windows, the encumbrance value is given by the entire height, excluding the glass overlap.



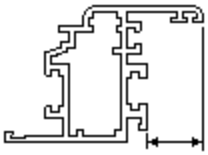
Example of the encumbrance value of a sash profile for sliding windows

Overlap
The length of the overlap.



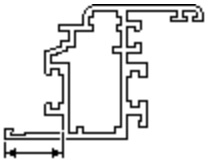
Example of a sash overlap

Glass overlap
The length of the glass overlap.



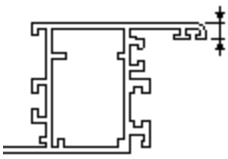
Example of a sash glass overlap

Core overhang
The length of the overlap measured up to the profile core.



Example of a value relative to the profile core difference of a sash

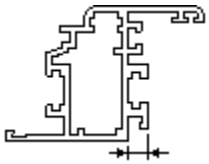
Overlap depth
The thickness of the glass overlap which the gasket has to be fitted onto.



Example of glass overlap thickness

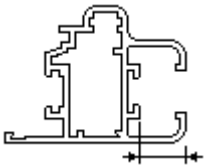
End milling correction
The End milling correction height that affects the mills.

During the calculation of the cut length of a transom or mullion, *Opera* also considers the milling operation and therefore considers the End milling correction height of the profile it has to be linked to.



Example of a End milling correction of a sash profile

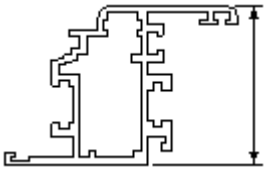
If it is a marine glazing profile, the End milling correction value will correspond to the negative value of the glass overlap height.



Example: **-22**

Example of End milling correction for a marine glazing sash profile

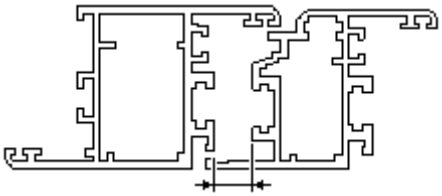
Thickness
The profile thickness measured on the glass holder side.



Examples of sash profile thickness

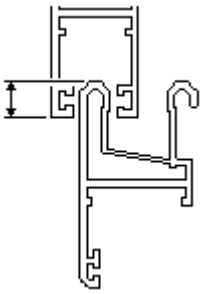
For the marine glazing profile, this is the glass holder thickness.

Clearance
The distance between one profile and the other measured from the initial encumbrance of one profile to the initial encumbrance of the other one.



Example of clearance value between frame and sash

If it is a sash for sliding windows, this value has to be negative and will be equal to the sash entry value.



Example of clearance value between frame and sliding windows sash

Clearance
The space that has to be left between the glass and the profile.

It usually indicates the bulk value of the adjustable supports. This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the glass clearance value. That is, the first value to be examined is the one set out on the pane. If this value is 0 (zero), then the value on the glazing bead will be examined, and if this is 0 (zero), then the value set out on the frame profile (fixed or sash) will be examined.

Shape
Shows the shape code.

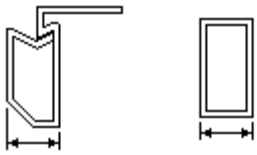
Three codes can be used: Z, L, T. The correct setting is the shape code that will allow the program to understand if the cross section you are making is suitable for internal or external openings.

For shutter profiles, the shape is to be set to T to obtain the display of the external opening typology.

Coplanarity
This function is addressed to the junctions or nodes. For those profiles who have a coplanarity, as between frame and sash, charging the values in this box, when the program draws the profile's picture in the Node definition window, it consider this value, placing the sections with the coplanarity value.

Wall support

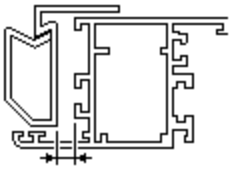
Encumbrance
The encumbrance value.



Examples of wall support encumbrance

Core overhang
The overlap length measured up to the profile core.

Clearance
The distance between the frame and the wall support measured from the initial encumbrance of one to the initial encumbrance of the other one.



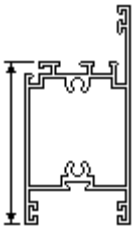
Example of clearance between a frame and wall support

End milling correction
The End milling correction height that affects the mills.

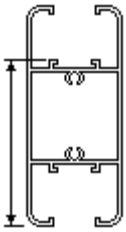
If the frame has to be milled to the wall support, *Opera* will consider the End milling correction height for the correct calculation of the frame cut length.

Sash sill

Encumbrance
The dimension value measured perpendicularly to the thickness, excluding only the value of the glass overlap.

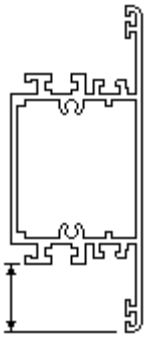


Example of sash sill encumbrance



Example of marine glazing sash sill encumbrance

Overlap
The overlap length.



Example of sash sill overlap

Glass overlap
The glass overlap length.

Core overhang
The overlap length measured up to the profile core.

Overlap depth
The thickness of the glass overlap which the gasket has to be fitted onto.

End milling correction
The End milling correction height that affects the mills.

Depth
The profile thickness measured on the glass holder side.

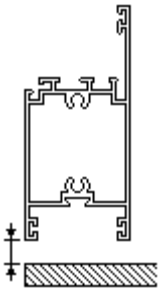
Mill to
Informs the program that it has to take the value set out in the **mill** box into consideration.

The add value relative to the milling is usually the End milling correction of the profile which the profile to be milled should be linked to. It is in any case possible to instruct the program to consider **another add value.** That is, the one set out in the **mill** box.

Mill
The profile lengthening value for the milling operation.

This value is considered only if the **Mill to** box has been activated.

Clearance
The space between the floor and the sash sill profile.



Example of sash sill clearance

Glass clearance
The space that has to be left between the glass and the profile.

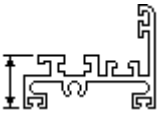
It usually indicates the bulk value of the adjustable supports. This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the glass clearance value. That is, the first value to be examined is to one set out on the pane. If this value is 0 (zero), then the value on the glazing bead will be examined, and if this is 0 (zero), then the value set out on the frame profile (fixed or sash) will be examined.

Shape
Shows the shape code.

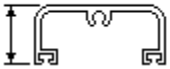
During the assignation phase of the sash sill to the typology, if the shape code is T and the extension sill will not be added, the program will display an error message "*An inconsistency has been found in the profile overlaps of the sash. Probable opening impossible*". See Appendix III for clarifications and solution of this problem.

Sill

Encumbrance
The bulk value measured perpendicularly to the thickness, excluding the value of the overlap and the glass overlap.

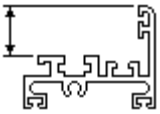


Example of encumbrance of a sill profile with glass overlap



Example of encumbrance of a sill profile without glass overlap

Glass overlap
The length of the glass overlap.

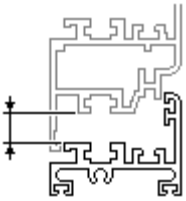


Example of glass overlap of a sill profile

Core overhang
The overlap length measured up to the profile core.

Depth
The profile thickness measured on the glass holder side.

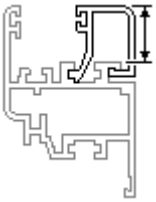
Clearance
The distance between one profile and the other measured from the initial encumbrance of one profile to the initial encumbrance of the other one.



Example of clearance between sill and sash

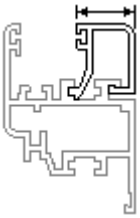
Glazing bead

Encumbrance
The bulk value measured up to the beginning of the profile encumbrance to which it is linked.



Example of glazing bead encumbrance

Depth
The glazing bead thickness.



Example of glazing bead thickness

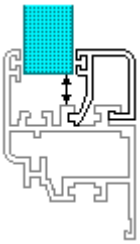
This value will be considered in the space-glass calculation phase of the profile which the glass will be fitted onto.

Gb type (glazing bead type)
Shows the definition of the aesthetic appearance of the glazing bead. 12 definitions are taken into consideration.

Definition	Example	Definition	Example
Straight cut		**Adapter**	
Champfer		**Round with clips**	
Champfer with clips		**Rustic**	
Round		**Rustic with clips**	

Type 1, Type 2, Type 3, Type 4.

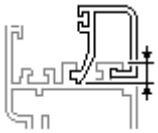
Glass clearance
The space that has to be left between the pane (glass or pane) and the glazing bead.



Example of clearance between glass and profile

This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the glass clearance value. That is, the first value to be examined is the one set out on the pane. If this value is 0 (zero), then the value on the glazing bead will be examined, and if this is 0 (zero), the value set out on the frame profile (fixed or sash) will be examined.

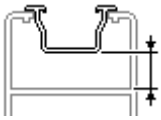
Coupling
The part of the profile that will couple up beyond the encumbrance of the profile it is linked to.



Example of coupling

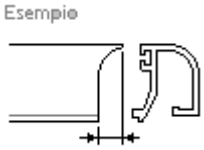
This value is taken into consideration during the calculation of the glazing bead cut measure when they are cut at 45°.

In the case of a glazing bead adapter, the coupling value will be obtained measuring the distance between the end point of the profile and the beginning of the profile encumbrance to which it is linked.

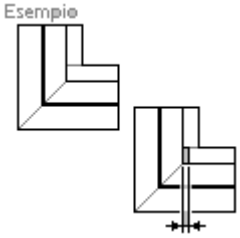


Example of glazing bead adapter coupling

End mill corr.
It is the value who determine the milling dimension

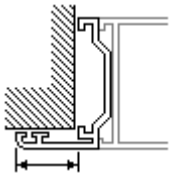


Tolerance
They are values of tolerance calculated in the GB cutting in 90°



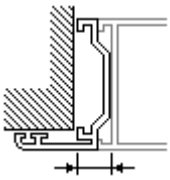
Overlap

Overlap
The wall overlap length.



Example of overlap

Coupling
The part of a profile beyond the overlap.



Example of overlap coupling

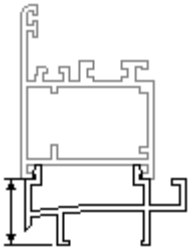
Drip mould

Encumbrance
The bulk value of the profile.

Tolerance
Each side of the profile will be reduced by the value indicated in this box. If the value is negative, the profile will be lengthened.

Condensation collector

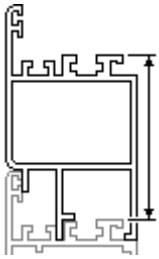
Encumbrance
The bulk value of the profile.



Example of a condensation collector encumbrance

Add-on sill

Encumbrance
The bulk value of the profile.



Example of encumbrance of an add-on sill

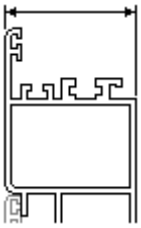
Glass overlap
The length of the glass overlap.

Core overhang
The overlap length measured up to the profile core.

Overlap depth
The thickness of the glass overlap which the gasket has to be fitted onto.

End milling correction
The End milling correction height that affects the mills.

Depth
The profile thickness measured on the glass holder side.



Example of add-on sill thickness

Mill to
Informs the program that it has to take the value set out in the **mill** box into consideration.

The add value relative to the milling is usually the End milling correction of the profile which the profile to be milled should be linked to. It is in any case possible to instruct the program to consider **another add value**. That is, the one set out in the **mill** box.

Mill
The profile lengthening value for the milling operation.

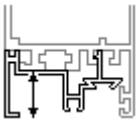
This value is considered only if the **Mill to** box has been activated.

Glass clearance
The space that has to be left between the glass and the profile.

It usually indicates the bulk value of the adjustable supports. This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the clearance value. That is, the first value to be examined is the one set out on the pane. If this value is 0 (zero), then the value on the glazing bead will be examined, and if this is 0 (zero), then the value set out on the frame profile (fixed or sash) will be examined.

Sill extension

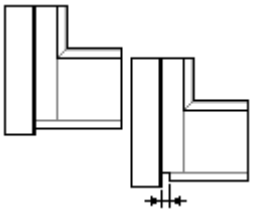
Encumbrance
The bulk value of the profile.



Example of sill extension encumbrance

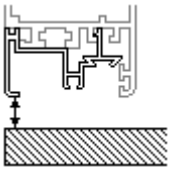
Core overhang
The overlap length measured up to the profile core.

Tolerance
It the value of tolerance by the ends



Example of add on sill tolerance

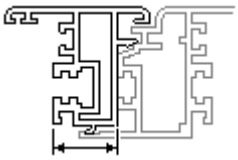
Clearance
The distance between the encumbrance and the floor.



Example of sill extension clearance

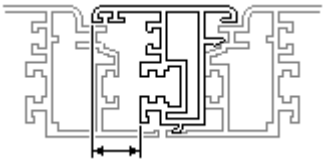
Astragal (or Centre frame filler)

Encumbrance
The bulk value of the profile.



Example of centre frame filler dimensions

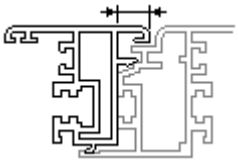
Overlap
The length of the overlap.



Example of centre frame filler overlap

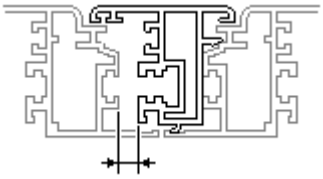
Core overhang
The overlap length measured up to the profile core.

Coupling
The protruding part of the profile starting from the encumbrance to the longest extremity.



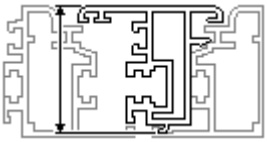
Example of centre frame filler coupling

Clearance
The distance between one profile and the other measured from the initial encumbrance of one profile to the initial encumbrance of the other one.



Example of centre frame filler clearance

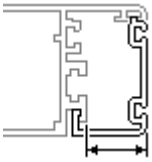
Depth
It is the profile's thickness measured on the sash leaning side.



Example of astragal's depth

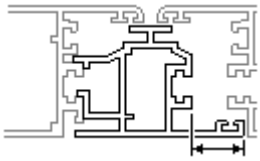
Frame filler

Encumbrance
The bulk value of the profile.



Example of swing door frame filler encumbrance

Overlap
The length of the overlap.



Example of a frame filler overlap for swivel

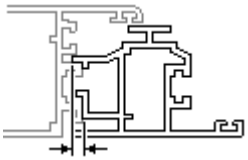
Glass overlap
The length of the glass overlap.

Core overhang
The overlap length measured up to the profile core.

Overlap depth
The thickness of the glass overlap which the gasket has to be fitted onto.

End milling correction
The End milling correction height that affects the mills.

Coupling
The remaining part of the profile after excluding the overlap and the encumbrance.



Example of coupling value for a swivel frame filler

Z <-> T
Indicates that the profile it will be connected to will be transformed into a T or vice versa.
Depth
The profile thickness measured on the glass holder side.

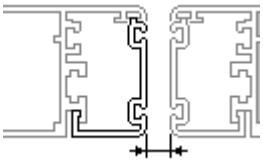
Mill to
Informs the program that it has to take the value set out in the **mill** box into consideration.

The add value relative to the milling is usually the End milling correction of the profile which the profile to be milled should be linked to. It is in any case possible to instruct the program to consider **another add value** That is, the one set out in the **mill** box.

Mill
The lengthening value of the profile for the milling operation.

This value is considered only if the **Mill to** box has been checked.

Clearance
The distance between one profile and the other measured from the initial encumbrance of one profile to the initial encumbrance of the other one.



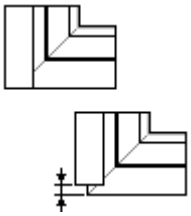
Example of a frame filler clearance for a swing door

Glass clearance
The space that has to be left between the glass and the profile.

It usually indicates the bulk value of the adjustable supports. This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the glass clearance value. That is, the first value to be examined is the one set out on the pane. If this value is 0 (zero), then the value on the glazing bead will be examined, and if this is 0 (zero), then the value set out on the frame profile (fixed or sash) will be examined.

Expander

Tolerance
It's the value of the dimensional tolerance



Example of Expander's tolerance

Reinforcement

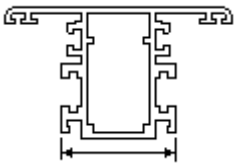
No value required.

Joint

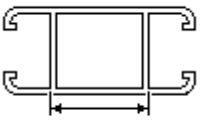
No value required.

Mull. Trans.

Encumbrance
The bulk value of the profile.

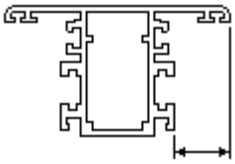


Example of transom/mullion encumbrance

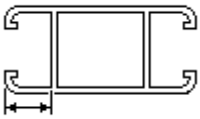


Example of marine glazing transom/mullion encumbrance

Overlap
The length of the overlap.



Example of transom/mullion overlap



Example of marine glazing transom/mullion overlap

Glass overlap
The length of the glass overlap.

Core overhang
The overlap length measured up to the profile core.

Overlap depth
The thickness of the glass overlap which the gasket has to be fitted onto. This is not taken into consideration in the case of a marine glazing transom/mullion.

End milling correction
The End milling correction height that affects the mills.
In the case of a marine glazing transom/mullion, the End milling correction value will be equal to the negative value of the glass overlap height.

Depth
The profile thickness measured on the glass holder side.
In the case of a marine glazing transom/mullion, the value will be equal to the glass space.

Mill to
Informs the program that it has to take the value set out in the **mill** box into consideration.

> The add value relative to the milling is usually the End milling correction of the profile which the profile to be milled should be linked to. It is in any case possible to instruct the program to consider **another add value**. That is, the one set out in the **mill** box.

Mill
The lengthening value of the profile for the milling operation.

> This value is considered only if the Mill to box has been activated.

Glass clearance
The space that has to be left between the glass and the profile.

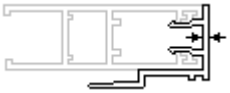
> It usually indicates the bulk value of the adjustable supports. This value is taken into consideration during the calculation of the pane dimensions. It is anyway important to know that there is a priority scale that the program considers during the verification of the glass clearance value. That is, the first value to be examined is the one set out on the pane. If this value is 0

(zero), then the value on the glazing bead will be examined, and if this is 0 (zero), then the value set out on the frame profile (fixed or sash) will be examined.

Min. dist. set screw
Its function is to determine a minimum distance between the screw and the profile either mullion or transom. This function works with the advanced step *Timing + Machinings.*

Checkrail

Encumbrance
The bulk value of the profile.



Example of a sliding window frame filler encumbrance

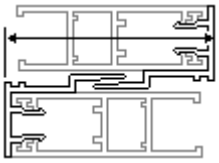
Overlap
Not taken into consideration.

Core overhang
Not taken into consideration.

End milling correction
Not taken into consideration.

Coupling
Not taken into consideration.

Clereance
It is the checkrails' clereance of the central junction.



Example of Checkrail's clereance

Swivel checkrail

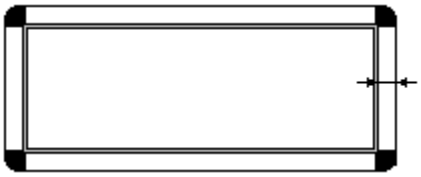
See Frame filler

Connection bar

No value required.

Roll shutter box

Encumbrance
The bulk value of the profile. This is taken into consideration in the calculation of the dimensions of the roll shutter box pane with cover.



Example of encumbrance of a roll shutter box profile

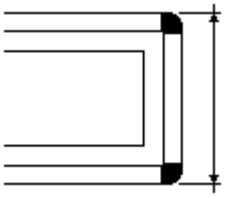
Glass clearance
The space that should be left between the pane and the profile.

Tolerance
The lengthening or shortening value.

To input a shortening value, this must be input as a negative. Ex. –100.

Roll shutter box cutting
If checked this box allow to choose the cutting type of the shutter box profile.

End Cap
The value is considered as the cap's height. Its modification consequently is forbidden in the dimensioning action in the worksheet



Example of End cap height

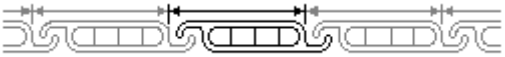
Do not extend shutter box
Do not take the shutter box's width until the overlaps of the beneath structure

Roller shutter blade

By roller shutter blade, we mean the single roller shutter profile and also the roller shutter PCV sheet counted per m^2.

Entry value
The roller shutter quantity in mm that remains inside the roll shutter box.

Every
The bulk value of the profile. This value has to be taken from an assembled roller shutter.



Example of roller shutter blade step

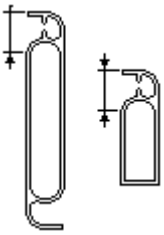
Min. purchase
It is the value in square meters of the minimum dimension on bill

Terminal roll shutter

Every
The bulk value of the profile. This value has to be taken from an assembled roller shutter.

Shutter, Terminal blade

Coupling
The overlapping measure of the two thin plates.



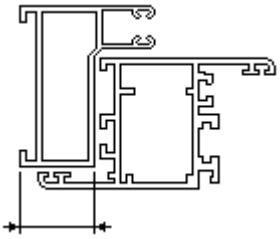
Example of coupling of the shutter and the terminal blade

It is used together with the *blades step* value (indicated in the shutter-kit accessory) for the calculation of the number of thin plates in the panelling in the case in which shutter kits are used with automatic quantities as with the lateral caps for fixed thin plates. In this case the number of blades is given by the following operation:

$$\frac{\text{Hsp-Coupling}}{\text{Blades step}}$$

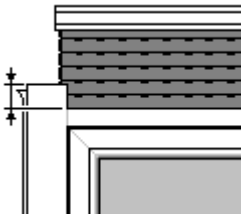
Roll shutter guide

Encumbrance
The bulk value of the profile.



Example of encumbrance of a roll shutter guide profile

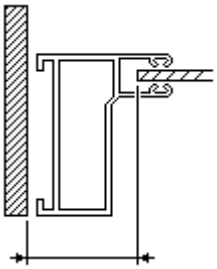
Entry value
The entry value in the roll shutter box.



Example of entry value

Roller shutter distance
The distance of the roller shutter sheet from the guide.

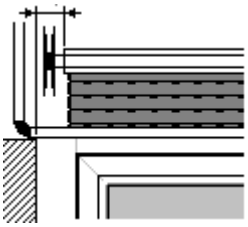
This value has to be measured starting from the hole to the roller shutter sheet.



Example of roller shutter distance

Roll

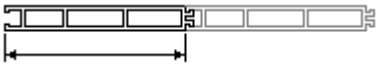
Clearance
The distance of the roll from the hole.



Example of roller shutter roll distance

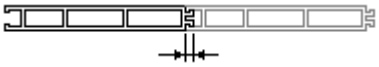
Panel

Encumbrance
The bulk value of the profile.



Example of encumbrance of a panel profile

Coupling
The remaining part of the profile after having excluded the encumbrance. It usually represents the overlap that joins onto the other panel.



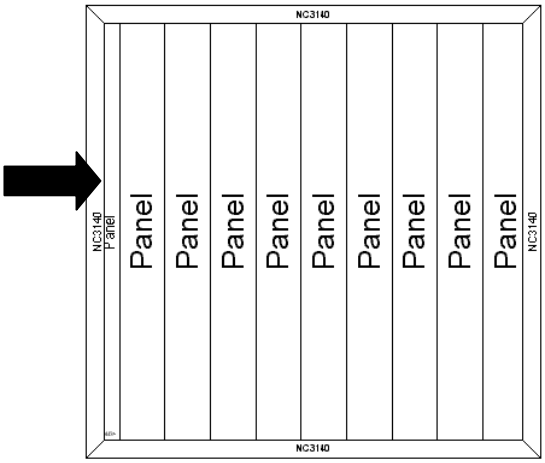
Example of coupling value for a panel profile

Depth
The panel thickness.

Example of panel thickness

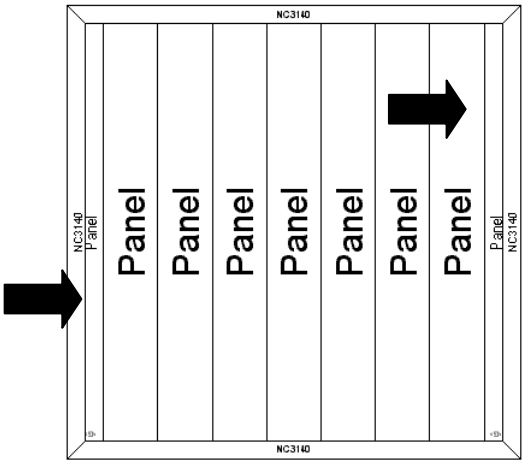
Clereance
It is the space which has to remain between the stave and the profile

Simmetry
Opera deal the cut measure for the last stave - more detailed explanation ahead in this chapter-. When the program draws the cut measures, impose it only in the stave of one side. Activating this box Opera allot symmetrically, the measure in each terminal stave. The next picture help us to understand the action of this function



Deactive

Surveying the picture it's clear how Opera, with THE FUNCTION DEACTIVATE, compel the measure at one terminal stave.



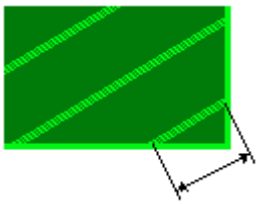
Active

Surveying this picture it's clear how Opera with THE FUNCTION ACTIVE, divide equally the dimension amid the two teminal stave.

In the following pages we'll analyse the stave's quantity managing and how to deal with last one.

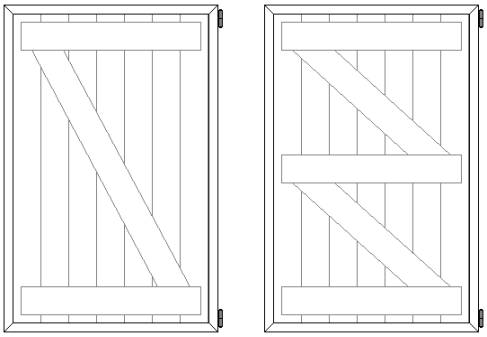
Minimum cutting length

This value establish the minimum cutting length

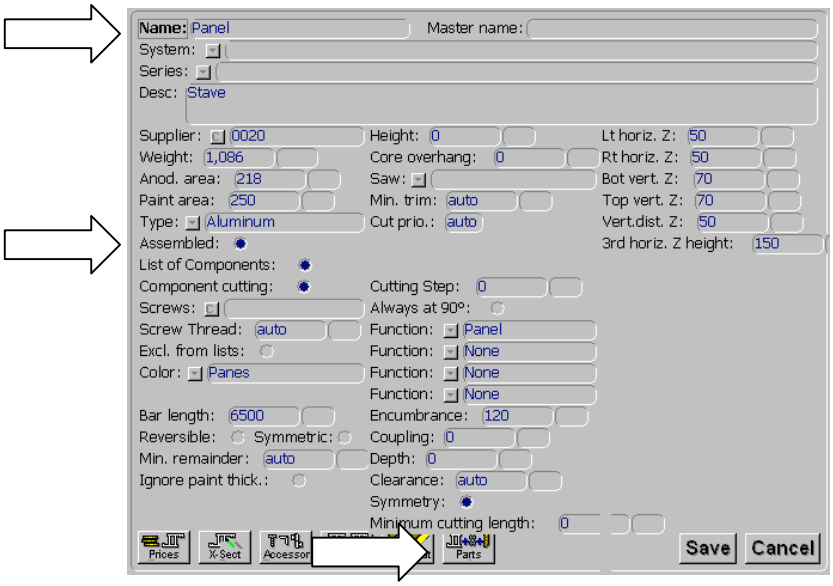


Example

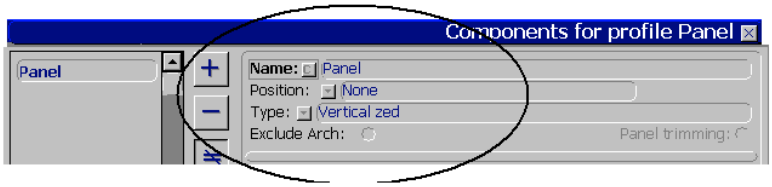
The following fields have the function to activate the stave at Z for the so called *scuroni*:

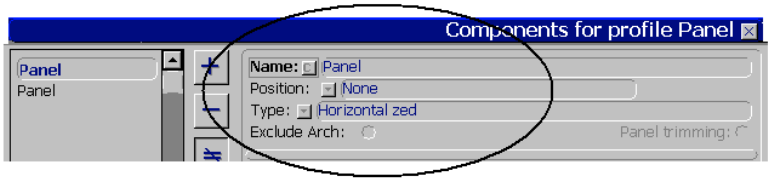


To be able to create structures as those in the above pictures, is needed to carry out some preliminary procedures, namely to make a profile compaunded by th staves who will be placed either oblique and horizontal

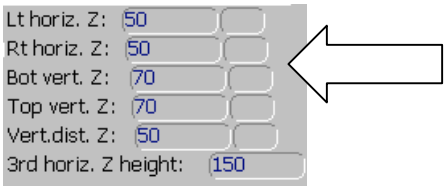


After these first operations the dedicated button, shown in the above picture, open the mask *Components for profile* where are charged the profiles who make up the compounded

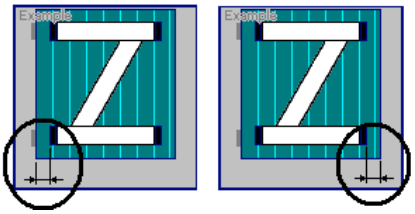




As in the pictures the stave has to be charged 2 times, one as a *Vertical zed* and the other as *Horizontal zed*. The component in its data in the archive must have specified possible distances for a correct *zed* composition, hence must be determined the values within the setting fields of the type of zed.

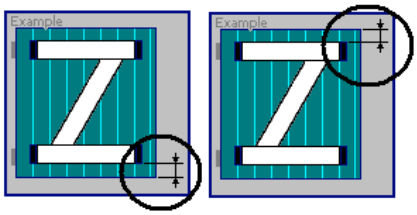


Left horizontal Zed / Right horizontal Zed



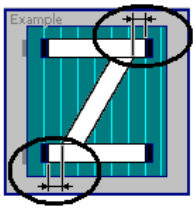
They are the values which determine the distance of the horizontal profile for both the left and right edges

Bottom vertical Zed / Top vertical Zed



These are the values which determine the distance of the orizontal profile from both the upper and lower brims

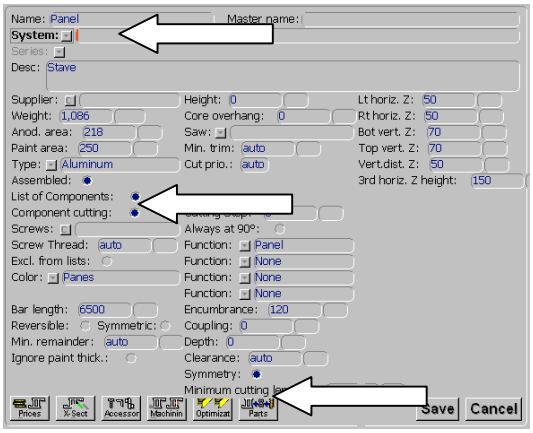
Zed vertical distance



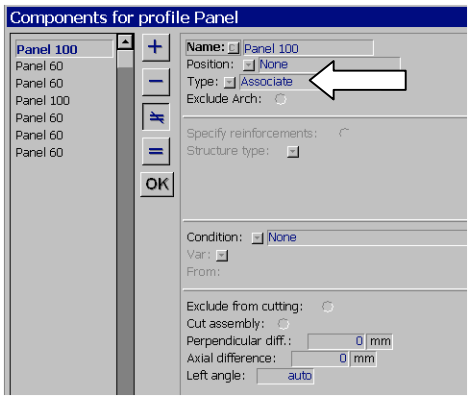
It is the value which determine the distance from the edge of the oblique profile

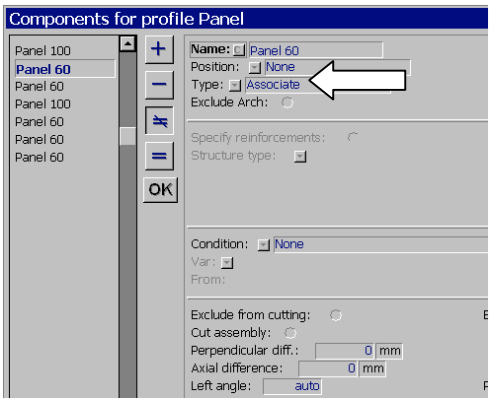
3rd horizontal Zed height
It is the value which determine the third Zed position

The last stave
Another remarkable function about the stave, is the number of entire staves managing, and the trimming measures for the last one.
The program is able to draw, according the stave's encumbrance and as well to the available panel space, how many staves have to be insertet entire, and on which measure has to be trimmed the last stave in order to fill the remaining space.
Furthermore for those users who use staves with different encumbrance, trimmed as last stave, it's possible to create an *assembled* stave, from a selection of other staves which are inserted entire or trimmed according the values determined in the *Components for profile*'s page.
The preliminary procedure are those to have in the archive, a profile with function *Panel* and with the inserting functions active:

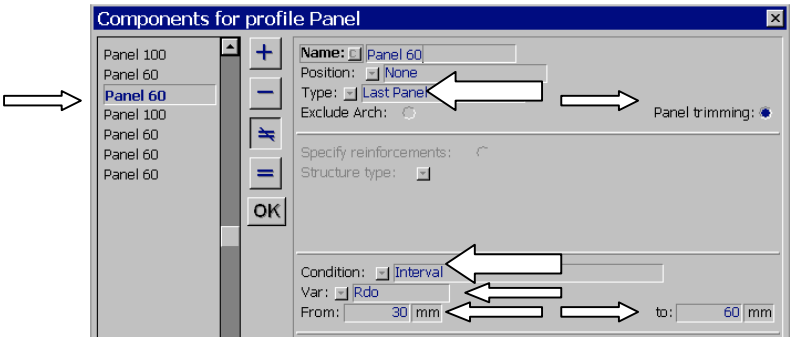


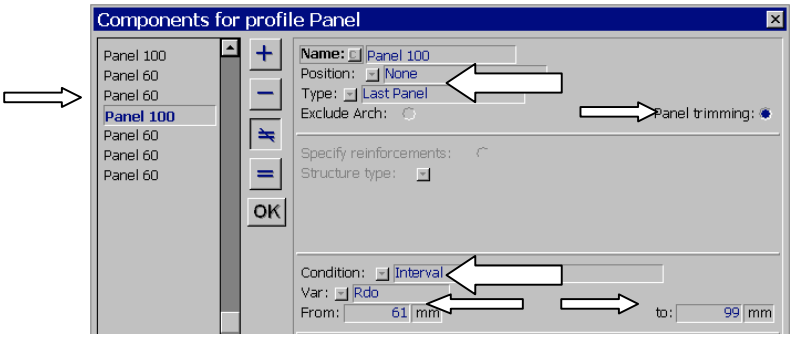
Hence in the Components for profile's page, will have to be inserted the staves that the program must consider entire or trimmed. The examples examined in these pages are about a staves with encumbrance of 60 and 100 mm.
As is seeble in the following pictures the profile are inserted both with the **Associate** parameter in the *Type* box,





After the two staves, charged with the *Associate* parameter, it proceed creating a sort of a auto-selection of measures, which determines the last stave inserting, but above all the trimming measure of the last charged stave.





In the previous pictures is visible which are the parameters who turns active the function, and we are going to analyze the boxes where the action is needed:

Type
In this box the parameter has to be *Last Panel*, that indicate to the program the profile's position

Panel trimming
This flag must be activated in order to apprise the program that the stave has to be trimmed, when the space for the last is less of its encumbrance.

Condition
Is from this box where begin the setting who determine the trimming caclulation. Here the condition must be *Interval*.

Var. (variable)
From the linked list, is necessary to take a parameter whom activate in the program the calculation of the remaining measure for the last stave, and that parameter is *Rdo*, namely Panel remainder

From / to
Here are established both the minimum and maximum values, that is considered by the program in order to insert the most suitable stave, according the trimming measure.

Special

No value required.

Shutter motion

Encumbrance
It is the encumbrance value of the profile by the frame cavity.

Coupling
It is value who determine the side of the profile who must be coupled with the frame

End mill corr.
It is the tooth value which effect the mullion and transom facing

Internal shutter filler

Encumbrance
Bulk value of the profile

coupling
It is value who determine the side of the profile who must be coupled with the frame

End mill corr.
It is the tooth value which effect the mullion and transom facing

Mill to
Informs the program that it has to take the value set out in the **mill** box into consideration.

The add value relative to the milling is usually the End milling correction of the profile which the profile to be milled should be linked to. It is in any case possible to instruct the program to consider **another add value**. That is, the one set out in the **mill** box.

Mill
The lengthening value of the profile for the milling operation.

This value is considered only if the Mill to box has been activated.

Muntin

Encumbrance
Bulk value of the muntin.

Appendix II, Explanation of technical data of accessories accrording their function.

Table for the automatic determination of quantities

The following data represent the *Table for the automatic determination of quantities* that is explained ahead of time since it is common to the majority of uses. Reference to this chapter will be made every time this argument is touched upon.

The Table for the automatic determination of quantities is used so that the program will determine the accessories quantity necessary, according to the dimensions of the typology.

Required value	Description	
Up to	indicates the limit within which the quantity will remain fixed.	***Ex.:*** *1700*
minimum	indicates the quantity to assign within the limit set in the previous cell.	***Ex.:*** *2*
Every	indicates the value within which the accessories quantity has to be increased.	***Ex.:*** *700*
add	indicates the quantity of accessories that has to be added.	***Ex.:*** *1*

In this table, the example indicates that the accessory has to be input in quantities of *2 items* if the limit goes from *0* to *1700mm* ; whereas one will be added every *700mm*. In fact, from *1701* to *2400mm 3* items will be added, from *2401* to *3100mm 4* items will be added, and so on...

Assembly accessories

These are the accessories used during the assembly of the typology.

Up to, minimum, Every, add
See *Table for the automatic determination of quantities* at the beginning of this chapter.

Distance
The herewith value establish the accessory position by the profile's end.

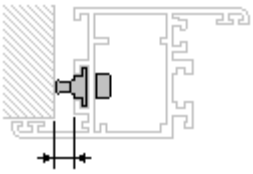
Installation accessories

Accessories used during the installation of the typology.

Up to, minimum, Every, add
See *Table for the automatic determination of quantities* at the beginning of this chapter.

Depth
The bulk thickness of the accessory fitted on to the typology.

It is usually the set screw thickness, as indicated in the picture. This value is usually considered in the calculation of the cut lists of the profiles.



Example of installation accessory thickness

Distance
The herewith value establish the accessory position by the profile's end.

Position

It set the position upon profile. This function is more specifically addressed for those accessories who have machinings. According the type and the machining to carry out, is often needed the position.

Cap

This use can be applied to condensation collectors, water drip moulds, caps for centre frame fillers, hole caps, etc...

Depth
The bulk thickness of the cap when fitted on the profile.

Change dimensions
Indicates if the thickness set out changes the cut length of the profile to which it is linked.

Up to, minimum, Every, add
See *Table for the automatic determination of quantities* at the beginning of this chapter.

Position

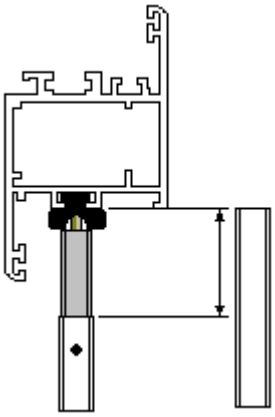
None lower upper Exchange

It set the position upon profile. This function is more specifically addressed for those accessories who have machinings. According the type and the machining to carry out, is often needed the position.

No panes multiplied
This function works only with the technical symbol *Drain cap*, it is used in order avoid that the program in case of compounded structures does apply the quantity range considering each structure as a single one, having as a consequence an unsuitable quantity.

Shooter

Depth
The bulk thickness of the accessory fitted on the connection bar.



Example of the thickness of a shooter

Gasket

Type
Shows the type of gasket. 5 different types are taken into consideration:

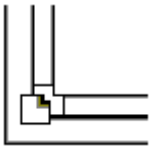
normal
This type should be indicated if it is a single overlap gasket or pre-printed corner or central overlap.

internal
This type should be indicated if it is a gasket for an internal glass overlap.

external
This type should be indicated if it is a gasket for an external glass overlap.

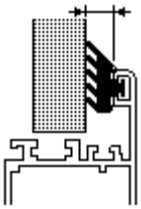
marine glazing
This type should be indicated if it is a gasket for marine glazing glass overlap.

glazing bead corner
This type should be indicated if it is a corner for glazing beads, as shown in the picture.



Example of glazing bead corner

Depth
Valid only for glass overlap gaskets. This is the gasket bulk thickness measured from the glass and the glass overlap which the gasket should be fitted on.



Example of glass overlap gasket thickness

Sealant

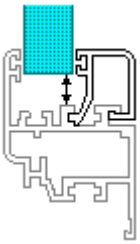
No technical data required.

Pane

Usually valid for glass, panes, and laminates in general.

Depth
The thickness of the pane.

Clearance
The space that should be left between the glass and the profile.



Example of clearance between glass and profile

This value is considered during the calculation of the pane dimensions. It is important to know that there is a priority scale that the program considers during the verification of the clearance value. That is, the first value to be examined is the one set out on the pane. If this value is 0 (zero), then the

value on the glazing bead will be examined, and if this is 0 (zero), then the value set out on the frame profile (fixed or sash) will be examined.

Squaring
The waste value set by the supplier.

Min purchase
The value relative to the invoicing minimum set by the supplier.

Width and **Height**
The pane dimensions.

These values are input only for fixed measure panes.

Muntin
Indicates the muntin.

Muntin price per m (Connection bar price per meter for the Muntin)
Shows the price of a muntin connection bar.

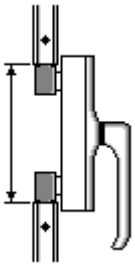
Average width
Shows the value relative to the distance between the connection bars of the Muntin.

The program will try to keep the same distance between the connection bars and will automatically calculate their number. In any case, during the assigning of the glass with Muntin to the typology, the desired number of horizontal and/or vertical panels may be indicated in the pane management window.

H encumbering profile
For double glazing. It is the value who determine the height of the spacer profile of the double glazing

Lock

Clearance
The distance between the link feet of the connection bar.



Example of clearance value

This value is considered during the calculation of the cut measurement of the connection bars.

Asymmetry
If the position of the feet is asymmetric compared to the centre of the handle, the distance between the interaxis of the feet and the centre of the handle must be specified.

Locking bar
Indicates that there is a locking bar and the insertion point will be requested during the dimensioning phase.

This option is used for locking bar systems that use connection bars. The connection bar will be broken into two and the distance between the two pieces will be determined by the value indicated in the **Clearance** box.

Band lock
Indicate the program the lock must fixed upon the horizontal transom which works as a dividing band

Lock position
The height where the lock has to be fitted.

Position

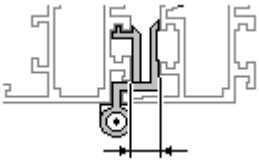
Interior Exterior Int.-Ext.

It is parameter who determine tho lock position

Hinge

Up to, minimum, Every, add
See *Table for the automatic determination of quantities* at the beginning of this chapter.

Clearance
The space that has to be left between one profile and the other so to allow the installation of the hinge.



Example of hinge clearance

Distance
The herewith value establish the hinge position by the profile's end.

Position

It set the position upon profile. This function is more specifically addressed for those hinges who have machinings. According the type and the machining to carry out, is often needed the position.

Clutch for swivel

Clearance
The space that must be left between one profile and the other so to allow the installation of the clutch.

Max load
It is the maximum load of hinges for swivel typologies.

Tilt sash kit

Clearance
See **Lock** usage

Asymmetry
See **Lock** usage

Corner

No technical data required.

End cap for shutter

Depth
The bulk value of the cap.

This value affects the calculation of the profile cut lists of the roll shutter box.

Height
The height of the cap.

On the Worksheet, if the roll shutter box is a "Pre-assembled roll shutter box" type, the height will be automatically determined by the program according to the cap height.

Roll shutter box kit

Depth
The bulk value of the cap.

This value affects the calculation of the profile cut lists of the roll shutter box.

Height
The cap height that is enclosed in the kit.

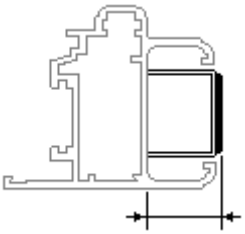
On the Worksheet, if the roll shutter box is a "Pre-assembled roll shutter box" type, the height will be automatically determined by the program according to the cap height.

Shutter kit

No. of blades
The max. number of blades that the kit can fit.

Depth
The thickness of the kit.

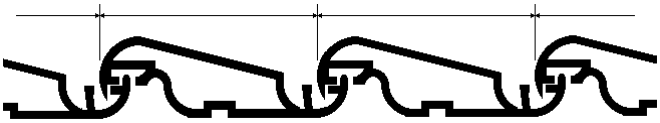
This value affects the calculation of the blade cut lists.



Example of shutter kit thickness

End shutter thickness
Indicates that the kit bulk value, indicated in the previous Thickness box, must also be applied to the end slat.

Blades step
The value of the blade step. This value has to be measured on an assembled shutter.



Example of shutter blade step

Adjustable
If it is about a kit for adjustable shutter, enabling this field dispaly in the structure the shutter's moving

Automatic selection

This special use allows the realisation of an accessory that comprehends a group of accessories able to automatically determine when and in what quantity they have to be assigned to the typology.

The *autoselection* accessory is useful for example when the dimensions of the typology must be changed. A typical case is given by the moving mechanisms of the shutter blades (also called *Shutter kit*) as they change according to the dimension of the typology. It is therefore necessary to make an accessory that has the *Auto-select* function and that would have the lists of mechanisms and the measures in which it should be applied. The auto-select accessory must be assigned to the typology and not to the specific shutter kit, as the autoselection accessory will automatically determine the right one according to the dimensions of the typology.

General data of the auto-select accessory

Do not expand in the list
If the box is empty, the determined accessories will be listed in the materials list of the typology. Otherwise, only the name of the autoselection accessory will be displayed.

Up to, minimum, Every, add
See *Table for the automatic determination of quantities* at the beginning of this chapter.

Hardware
Specify the automatic selection has made by hardware.

Structure
The button open a list with several type of structures, by which the users draws type related to the automatic selection.

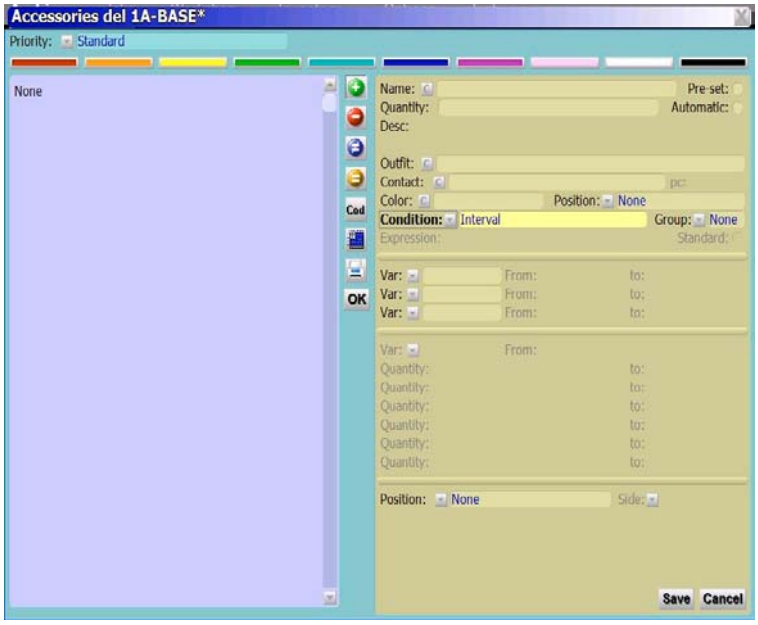
Upper clereance
The selection's clereance value being added to the clereance of the upper profile.

Change measure
If enabled it modify the profile's cutting dimension according the value written in the *Upper clereance*.

Loading of accessories in the auto-select list

The button

This is used to open the auto-select list to load or modify the accessories.



Description of contents

The colors

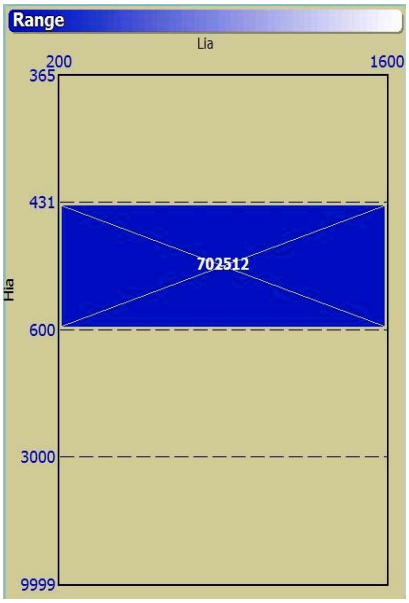
The accessories loaded within the list can be gathered, according either their features and the function they perform in the structure, assigning them colors. They research in the list is made easier recalling then the color.

The

button
When this button is pressed the Code Replacement field opens, to allow you to replace a code for an accessory selected automatically.

The button

This button displays the action radius for the accessory.



Name

The code of the accessory.

Description

It bears the items description loaded within the list

Pre-set

This field enable the conditions *Interval* and *Optional*, it allow to set the accessory as fixed choice when loaded in the window. A practical example being afforded by the locks and their possible exentions. As we know Opera to load the locks reads in the structure its *Hia* value (Internal sash height). Afterwards it looks within the automatic selection for the lock of which the applicatory range fit with the sash's *Hia*. We even know that the lock has a fixed *Hsr* value (lock height). Hence if is necessary to change the lock height Opera in order to make possible this operation can use either a shortest lock with an extention or a different lock which support the modified lock's height. Let suppose to have within the list a lock with an extention and an entire lock who have the same *Hsr*, then the program will apply that one who comes to be the cheaper, hence the entire one. But if for whatever motive you want to use the lock with the extention, then you need to enable this function, and the program won't take the cheaper lock but the pre-setted one within the list.

Quantity

The quantity.

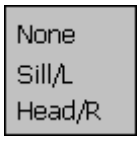
Automatic
indicates that the quantity has to be automatically calculated according to the quantity determination table set on the accessory.

Outfit
In the *Outfit* field is possible to charge an additional accessory. By the associated button who open a selection.

Contact
This function being used to support the lock loading, the associated button open the selection from the archive of accessories from which the user draws the code about the contact to combine with the lock. Hence this change all the developing procedure of the Automatic selection, because by now all the contact won't be loaded within the list as accessory apart but it is determined as associated to the lock itself.

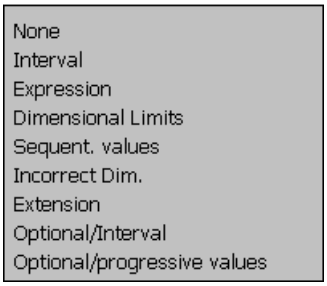
Color
This field is addressed to the hinges' cover loading, the button open the color selection, by which the user take the color to combine with the cover. At the coloring stage of the structure in the quotation, setting the hardware color the program will draw the items to the color associated as they have been loaded in the automatic selection's list.

Position



This function complete the previuos one, namely after the color has been determined is possible to establish the accessory position on the profile. The program will place the accessory in the position settled within this box

Condition
shows the condition to be taken into consideration before the program assigns the accessory to the typology. It indicates 3 conditions.



None
Check this item and the accessory will always be assigned.

Interval
Check this item and the accessory will be assigned only if the condition expressed in the **Var, from, to,** boxes is verified (see after).

Expression
Check this item and the accessory will be assigned only if the condition expressed in the Expression box is verified *(see below)*.

Dimensional limits
Choosing this parameter is necessary to establish a variable and a range of minimum and maximum dimensions at which the program will refer loading the accessory in the structure.

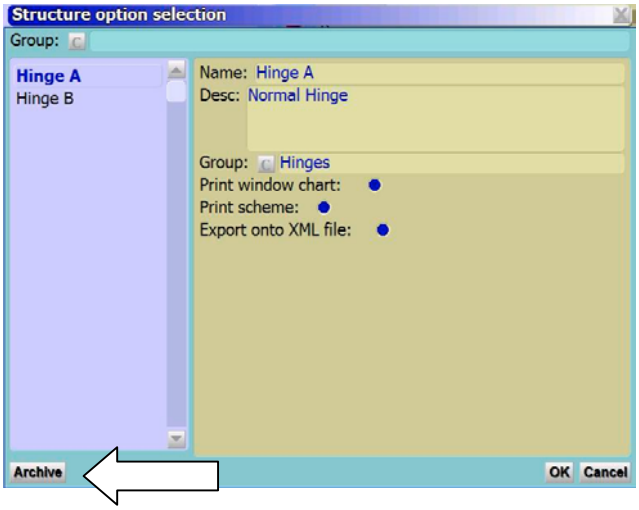
Sequent values
In this case still with a variable being established an interal of dmensions and a progressive quantity of accessories.

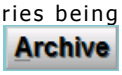
Incorrect dimension
It allows to load accesories in the structure according a unusual range of dimensions.

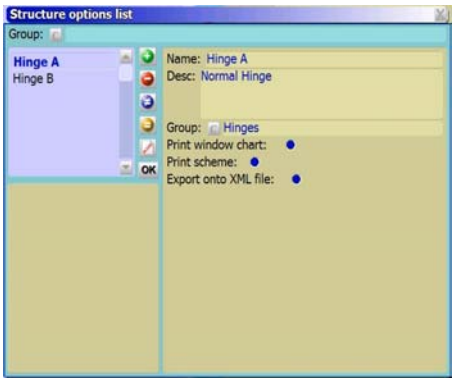
Extension
If the loaded item is a lock extention, this function allows to establish the using dimension of the item.

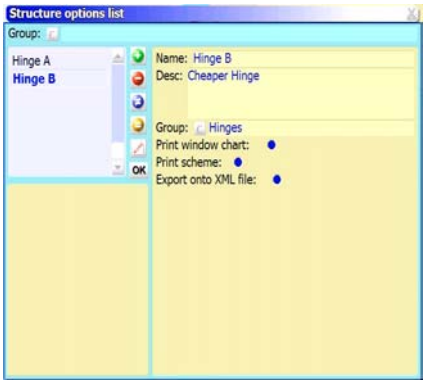
Opzionale
This field allows to load within the automatic selection a group of accessories who sharing the same option being charged in the structure. Choosing this condition being activated the following functions:

Structure option
As said this field being enabled choosing the condition *Optional*, the associated button open the link with *Structure option selection:*



In order to understand how this function works is necessary to learn how to create either the Options and the Groups at which the accessories being associated, in the previous picture the arrow point the button 



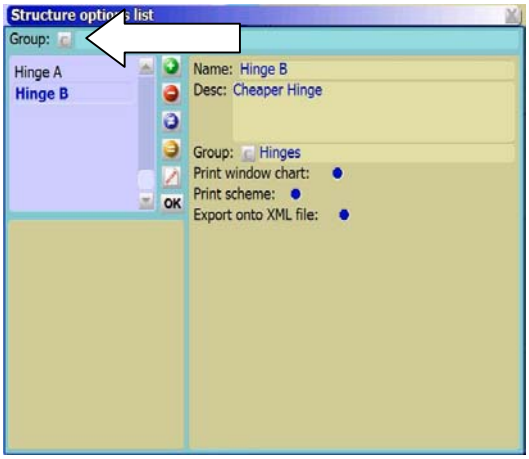


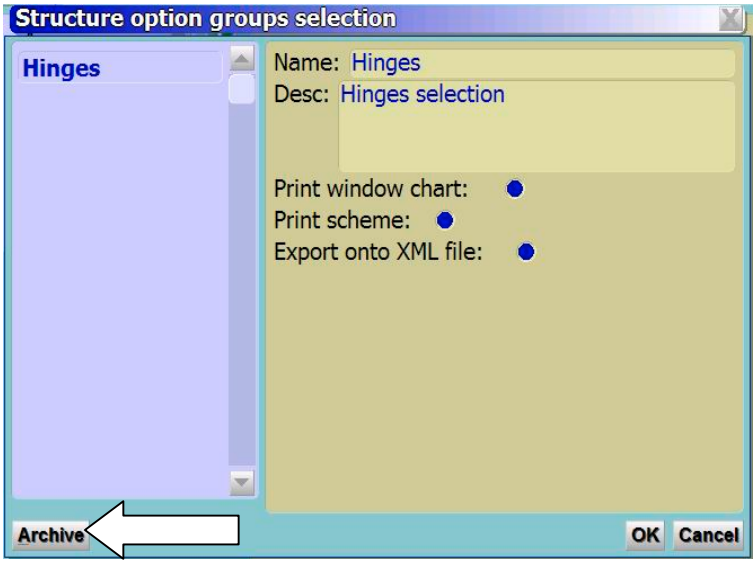
The above example show a option for hinges, let see the functions meaning

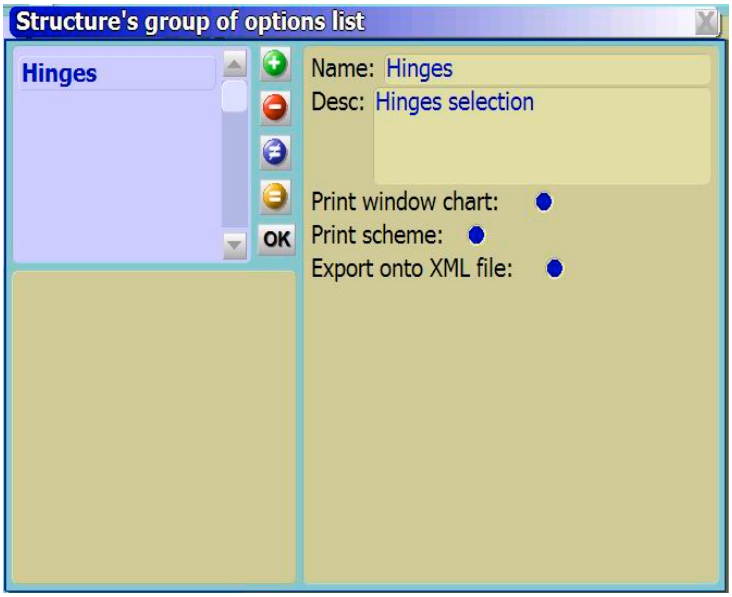
Name
It is the option name which as a convenience could be a code who identify the accessory's features.

Description
Reports the option features.

Group
This function has a paramount importance to make work properly the whole procedure. The options made in this archive needs to share the same group, so to be considered as possible choice. Therefore is necessary to create a group in the dedicated archive



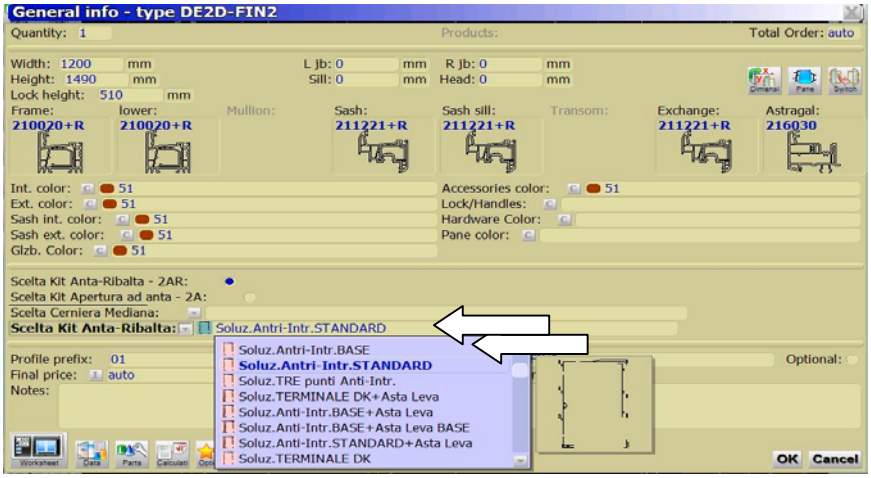




So in this archive being created the *Groups*, in other words containers who comprise a series of accessories whom diversify one another because their features, quality, price, etc. The different type of accessories being established by the *OPtions*

Standard
Enabling this field the option will be considered as first choice.

Lets try now to summarize, the fields functioning and the way to set them. Then we have the chance to load a group of accessories whom according the situation can be or not changed within the structure. To make this procedure possible is necessary to create ***Options*** who identify the accessories' features. In their turns the options must identified by the ***Groups*** to allow the program to activate the choosing function. In the examples of the previous pages we made options for hinges, named *Hinge A* and *Hinge B* and a group named *Hinge*. Of course the procedure can be applied even for other accessories, Now in the following pages we'll see how the Option's choice being enabled:



The above picture reports the *General info type*, the arrows points the side of the screen where the options have been enabled. Each box has been named after the *Group* and have its associated button which open the *Options'* list, by whom the user carry out the choice, in case he needs to change the standard option.

In the case we've examined to explain how the function works, was about loading single accessories within an aoutomatic selection. Nevertheless this function is able to deal option for automatic selection loaded within other automatic selection. Try to think for example to an automatic selection who has within automatic selection of perimetral hardware for PVC or Alluminium wood, whom set as optionals being charged in the structure according the needs with all the material necessary to fix this kind of structures.

Expression
The expression that determines the assignation of the accessory (only if the Expression condition has been set in the conditions list).

An expression can include numbers, symbols, variables names, operators and functions. For examples, an expression that determines the assignation of the accessory only if the sash height is over 1000 mm is as follows : *Ha>1000*. To assign the accessory only if the number of sashes is greater that 5 and their height is not over 1200 mm, the expression is as follows :

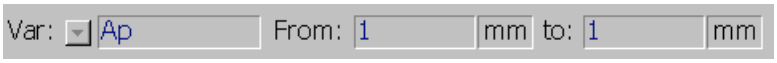
Na>5 and Ha<=1200. As for the names of variables, symbols, operators and functions see ***Appendix III "Explanation of variables, symbols, operators and functions"***.

Var
shows the name of the variable that has to be considered.

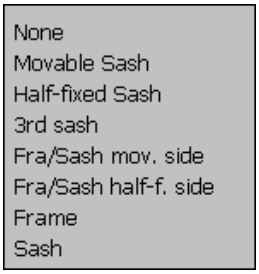
From, to
The value contained in these boxes depends on the variable set in the *Var* box.

The example in the following picture shows the setting of a variable that controls the width of the sash (*La*): the accessory will be placed only if the sash width is between *1200* and *1800mm.*

The example in the following picture shows the setting of a variable that controls the opening direction of the sash (*Ap*): the accessory will be placed only if the opening direction is to the left.



Position
It has the function to set the accessory position in the structure. The button open the list:



Movable sash
Position who refer to the sash who bears the lock

Half fixed sash
Position who refer to the sash who **doesn't** bears the lock

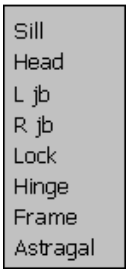
3° anta
Position who refer to the possible accessory application on the third sash

Frame/Sash mov. side.
Position who refer to that side of the frame who correspond with the movable sash

Frame/Sash half-f. side.
Position who refer to that side of the frame who correspond with the half fixed sash

Frame / Sash
The accesory is charged either in the frame and the sash without any specific position

Side
The previous function was about which part of the structure the accessory has to be applied, whether in the frame or what type of sash.
This function instead allow to set the position, namely precisely in which side of the sash or frame



Appendix III, *"Explanation of variables and symbols"*

To get the suitable hardware, drawing it from a group, to insert the right terminal shutter blade, to determine the profiles components inserting according specific dimension, or the last stave with a trimming dimension; for all those applications and further more, as you know is often needed to use the so called *Variables*. In the following pages the whole list of variables, in the order they are reported within Opera

Variables

Name	Description
A	Sash number of whom the profile belongs. A=0 is the frame; A=1 is the first sash from the left; A=2 is the second sash from the left,etc..
A1	Cut angle left or lower of the profile on which the formula is applied, or the profile on which the accessories is combined. Worth 45° or 90°
A2	Cut angle right or upper, of the profile on which the formula is applied, or the profile on which the accessories is combined. Worth 45° or 90°
Ap	Opening side. Ap=1 worth left opnening side; Ap=worth right opening side
Alt	Height of the combined profile
Av	Glass overlap dimension
Bin	Rail (Appicable only for sliding windows)
Cam	Profile encumbrance value, as it is recorded in the archive.
Comp	Shutter blade compensation ratio
H	Structure height
Ha	Sash height, till the external overlap tip
Hav	Roll Shutter height
Hf	Single structure height, glass overlap flattened
Hia	Sash height for hardware calculation, overlap flattened
His	Single structure height, overlap flattened

Hs	Single structure height
Hsa	Sash pane height
Hsp	Vertical space glass area.
Hsr	Lock height
Ht	Transom height
Ht2	Transom height
Hta	Sash core height, overlap and mill flattened
Hts	Single structure height, overlap and mill flattened.
L	Window width.
La	Sash width till the external overlap tip
Lato	Side number. It determines in which side the variable has to act
Lav	Roll Shutter width
Lf	Single structure width, glass overlap flattened.
Li	Profile core lenght on which the formula is applied
Lia	Sash width, overlap flattened
Lis	Single structure width, overlap flattened.
Lp	External tip lenght, of the profile on which the formula is applied
Ls	Single structure width.
Lsa	Sash pane width
Lsp	Glass area width
Lt	Related value of the cutting dimension
Lta	Sash width, overlap and mill flattened
Lts	Single structure width, overlap and mill flattened.
N	Hardware number This function does exist only in the *Machining* version. Not available in the base version
Na	Sash number in the structure
Nst	Number of blades in the shutter
Pa	Sash total weight

Pav	Roll shutter weight. It draws the total roll shutter weight.
Pm	Mullion position
Pm3	Mullion position
Pos	Assembling hardware position. This function does exist only in the machining version. Not available in the base version
Posp	Profile position within the structure.
Pt	Total frame weight
Pz	Hardware total pieces
Qt	Computed dimension by the program. This function does exist only in the *Machining* version. Not available in the base version
Quad	Rounding measure per sq.m.
Rdo	Stave remainder, it draws the trimming dimension for the last stave.
Rif	reference
Rst	Shutter blades remainder, namely the remaining dimension after the blades assembling, it allows to establish the suitable terminal blade
Sav	Roll shutter surface, it draws the shutter area.
Spes	Combined profile depth
Spr	Panes depth
Sr	Contact shifting
TA1	Profile left angle
TA2	Profile right angle
Te	Structure type. Worth from 1 to 15 acconding the structure. Ex.: Fix Frame=1; Turn and tilt=4; ……..Roll shutter box=15
Tfs	Out-squared type (0= flat / 1=bracketed / 2=arched)
Tpt	Frame position type
Tub	Core overhang

Symbols

Name	Description
+	Addition
-	Subtraction
*	Multiplication

/	Division
>	Greater than
<	Lower than
>=	Greater or equal to
<=	Lower or equal to
=	Equal