Real Cut

by CLIF DESIGNS

STYLING & PROTECTION

WORKING MANUAL

Contents

Installation

System Requirements

CPU	1Ghz x86 compatible CPU
RAM	Minimum 4Gb for Windows XP SP3, 4GB or more for Windows Vista, Windows 7/8/8.1/10 4Gb or more is recommended RAM size
Disk Space	1.5Gb + size of the RAM x 2 of the free disk space is required
Display	Minimum 1024x768px resolution 1280x1024px or higher resolution is recommended
Operating system	Windows 7/8/8.1/10 Both x32 and x64 versions of operating listed above are supported
Video card	No special requirements

Program USB Protection Key (USB dongle)

The program comes with a USB protection key (USB dongle), which limits the use of the PC to which it is connected. With the PC turned off, place the USB protection in a USB port.

Program Installation from DVD

To install the program, insert the DVD provided into your DVD drive and the installation program will start up automatically. Once started, please follow the instructions shown on the screen or if a DVD is not supplied to load the software call your distributor for further assistance to set up the software.

If Autorun feature is disabled, then browse the root of the DVD and launch “start.bat”.

Program Registration

You need the Key Number (the license number) and your license password to perform the registration. You can find the Key Number on your USB dongle.

Launch the Client tool, in the main menu open the “Registration”, the Registration form will appear. Enter your Key Number and password and then click “Register”. The Client tool will send the request to the server and then receive license information. Please, check, that information is correct, otherwise contact the tech support.

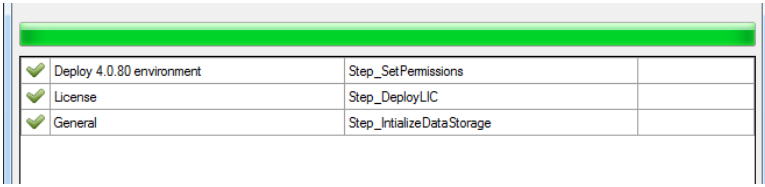
If you do not have a password, then you can request it by clicking the “I do not have Password or Activation key” link located under the “Register” button. The system will send your password to the e-mail address specified for your account.

Make sure you have the registration sheet stub on hand, as it contains your program registration number. This number will have to be quoted to your Distributor whenever technical support service is needed, or when upgrades are required

License Deployment

Normally the license deployment runs automatically right after successful Registration.

If Program cannot find the license, you need to deploy it manually. To do this, open the Client tool, go to the tab “Emergency” and click the link “Deploy …”



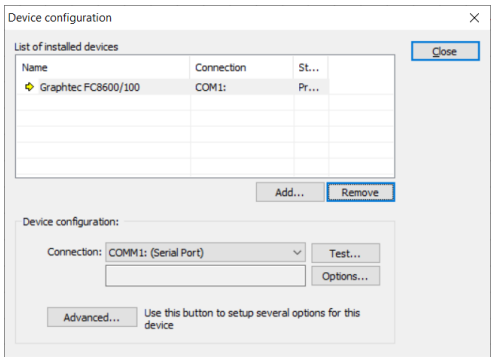
Make sure that all items have green checks, otherwise contact tech support.

Installing Plotters

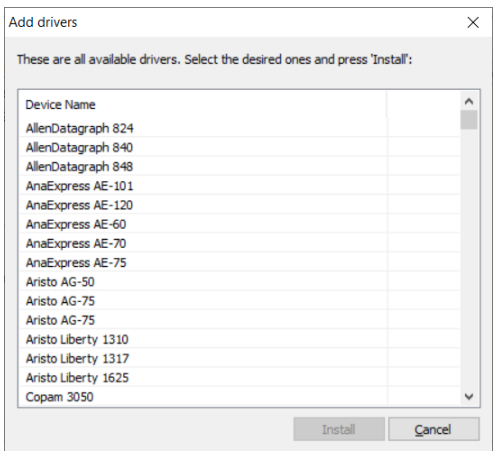
To start using the cutting option of the FVD Film Designs 4.0 (the program), you need to install a plotter (plotters). When you install the program for the first time, or when you want to add a new plotter or change the existing one, you need to install it into the program.

When running the program for the first time, during the startup process the **Device configuration** window will appear.

To install a plotter, click the **Add** button (unless you have acquired the program net support) and you will be able to access the window containing the lists of available plotters.



Find your plotter and press **Install**. If your plotter does not appear in the list, consult your dealer to check for possible replacements.



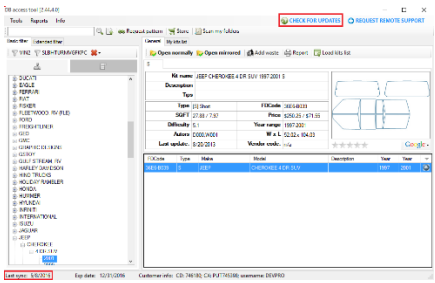
You need to configure each plotter you plan to use, the way it will be connected to the computer (communications port) and whether you want to send your work straight to the device or use the job manager.

After you selected the plotter and clicked on the **Install** button, you will be taken back to the **Device configuration** window, where you need to select the **Connection** type.

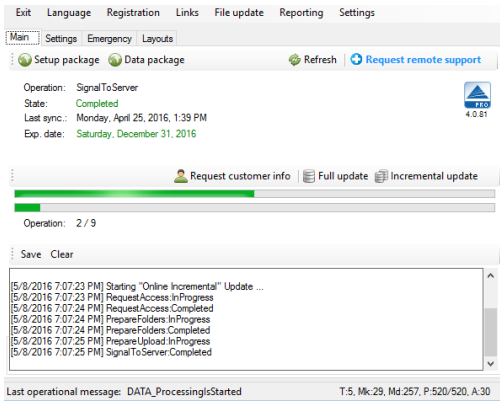
The **Advanced** button allows you to configure the specific advanced options for each plotter (see corresponding section).

Data Update

At the bottom left corner of the DB access tool window you can find the **Last sync** date.



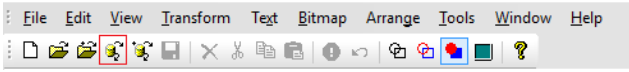
When it starts to blink, it is a signal for you to check for the program updates. You should click on the blinking **CHECK FOR UPDATES** button at the top right corner of the DB access window. The following pop up window will appear:



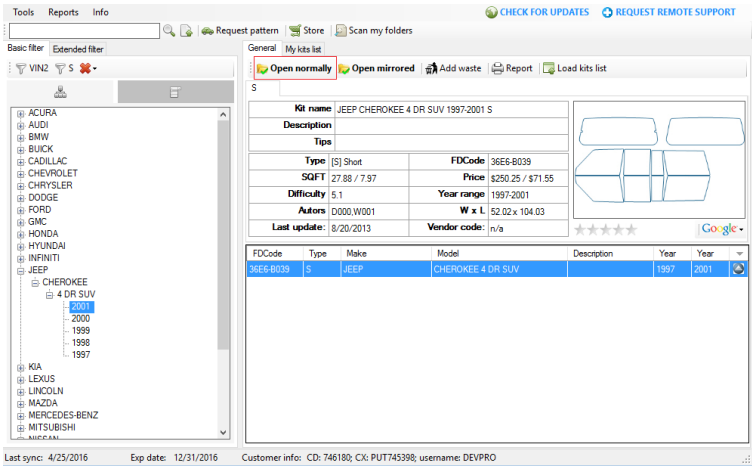
The program will install all latest updates and put the latest **Last sync:** date.

Open a Pattern

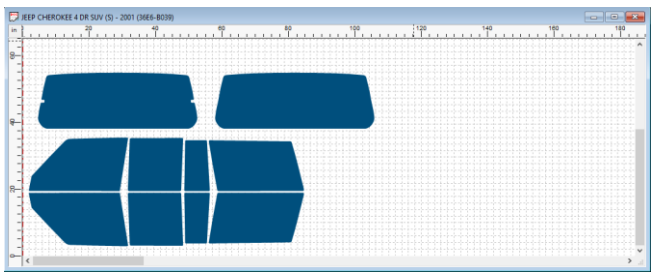
To open a pattern, click the **Open pattern from the database** button on the Tool Bar.



The **DB access tool** window will appear.



Select the pattern you plan to cut and click the **Open normally** button. The following window will appear.



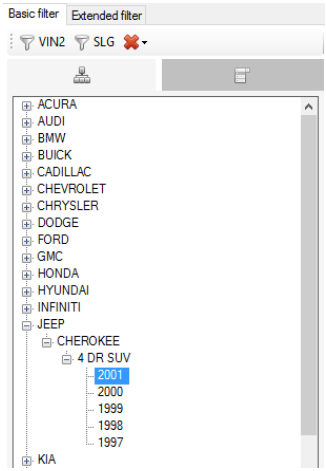
Please note that the height of the Working Area corresponds to the width of the bobbin, while the base of the working area corresponds to the length of the bobbin. Please, make sure that any design, which can be seen horizontally in the window, appears alongside the bobbin. If this is not the case, either the plotter or the program is configured incorrectly.

Click the **Open mirrored** button if you want to open a pattern in a mirrored format.

DB Access Tool Filters

The **DB access tool** window contains two filter bookmarks: **Basic filter** and **Extended filter.**

Under **Basic filter** bookmark you can find two different representations of the pattern views: the tree view and the drop down view .



The tree view sorts the patterns in the following order:

Make -> Model -> Trim -> Year.

For example:

Jeep -> CHEROKEE -> 4 DR SUV -> 2001.

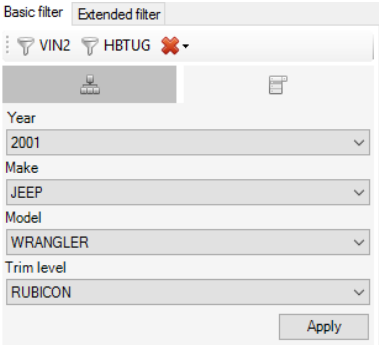
You need to find and select the patterns you need by expanding each category.

The drop-down view proposes different order of pattern type categories:

Year -> Make -> Model ->Trim

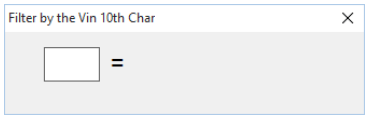
For example:

2001 -> Jeep -> WRANGLER -> RUBICON

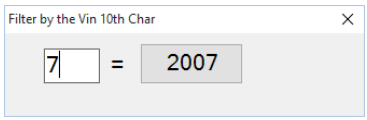


Under **Basic filter** bookmark you can filter patterns by the VIN 10th character (year) VIN2 or by pattern type SLG. Please note, that letters in the pattern type filter (in our example SLG) denote the pattern types that are selected at the moment. They can differ from your preferences.

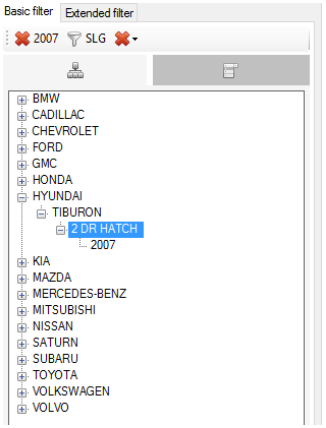
To **filter by the VIN 10th character (year)**, click the VIN2 button. The following pop-up window will appear:



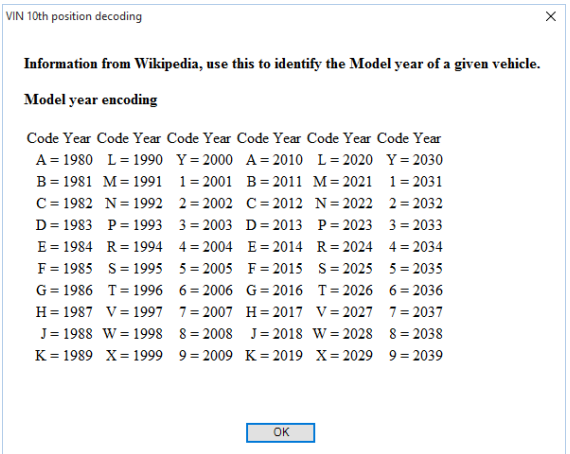
Type the last number of the year you want to select, and the desired year will show to the right of the equal sign.



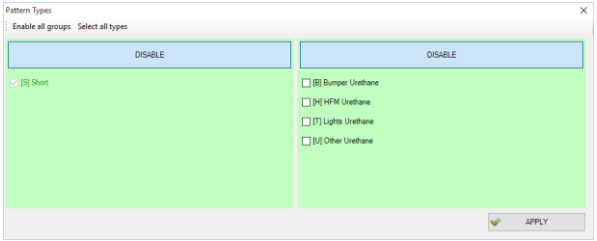
Click on the field to the right of the equal sign that displays the year you want to select (in our example, 2007) and the filter will be set to that year. The patterns tree will display only patterns for the year selected and the filter button will be changed to inform you about the filter applied 2007. In case, you want to cancel the filter selection, click on the red cross on the filter button.



Under the menu **Info -> VIN 10th char**, you can find the VIN 10th position decoding table.



To filter by pattern type, click the funnel-button (pattern type filter). The following pop up window will appear:



You can select from the following pattern types[1]:

[S] Short – patterns that fit the car element precisely from edge to edge.

[L] Long – patterns that have a small margin around the car element edges.

[B] Bumper Urethane – patterns for bumper protection.

[H] HFM Urethane – patterns for hood, fender, and mirror protection.

[T] Lights Urethane – patterns for lights protection.

[U] Other Urethane – all other types of patterns (like signs, for example).

Check the pattern types you want to select, or click the **Select all types** button at the top left corner to select all available pattern types.

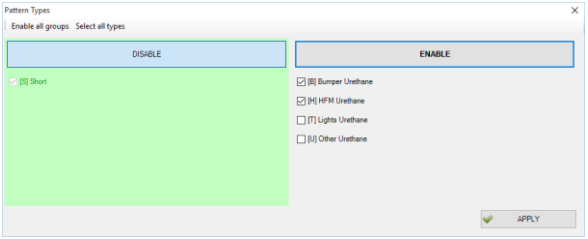
Click **Apply** button at the bottom right corner to apply the selection.

Please, note that letters that appear on the filter by pattern type button on the DB access tool main window correspond to the pattern types selected. For example, if you select [B] Bumper Urethane and [H] HFM Urethane, the button will look like this 

(the pattern type [S] Short, cannot be removed from selection).

You can also disable groups of patterns by clicking on the **DISABLE** button at the top of the pattern type group column. The button will change to the **ENABLE** button.

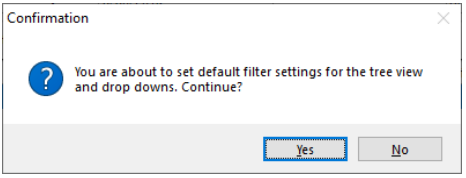
[1] Please, note that different types of users have different sets of pattern types available to them. Current manual describes the Demo Subscription.



To enable the pattern type group, click on the **ENABLE** button or **Select all groups** button at the top left corner of the Pattern Type window.

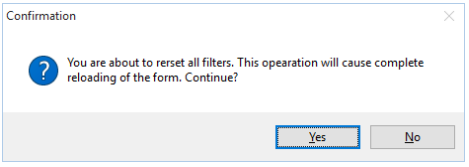
The Reset filter drop down box  has two options: **Set default** and **Reset all**.

If you select the **Set default** option, the following confirmation window will appear.



When you click **Yes** button, all tree view and drop down settings will be set to default.

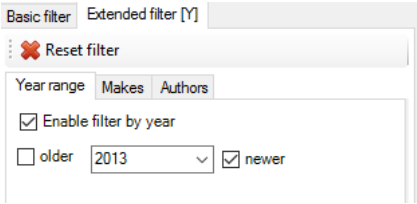
If you select **Reset all** option, the following confirmation window will appear.

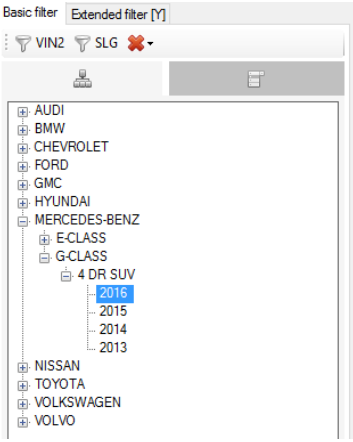


When you click the **Yes** button, all forms will be reloaded and all filters will be reset.

Extended filter allows you to tune Basic filter according to your needs. You can define the Year range and Makes of patterns that will be shown in the Basic filter, as well as limit the patterns to the ones produced by certain Authors only.

The **Year range** bookmark allows you to define the time span of the pattern list displayed in the Basic filter.



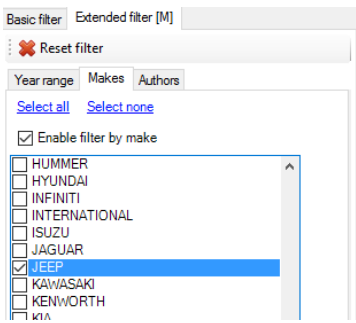


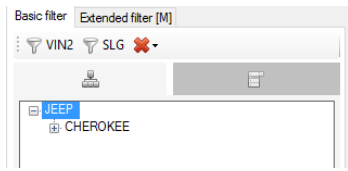
Check the **Enable filter by year** check box, to activate the year drop down box. After you select the year, you can pick to display all patterns older or newer than this year. So, if you selected all the patterns newer than 2013, the Basic filter will contain only patterns newer than the year 2013.

Click the Reset filter button to cancel manual filter tuning.

The **Makes** bookmark allows you to define Makes displayed in the Basic filter.

Check the **Enable filter by make** check box, to activate the Make list. All available Makes will be selected by default. If you want to deselect all Makes, click the **Select none** option. In our example, we selected only one make – Jeep. In this case, the Basic filter will display only patterns for Jeep.





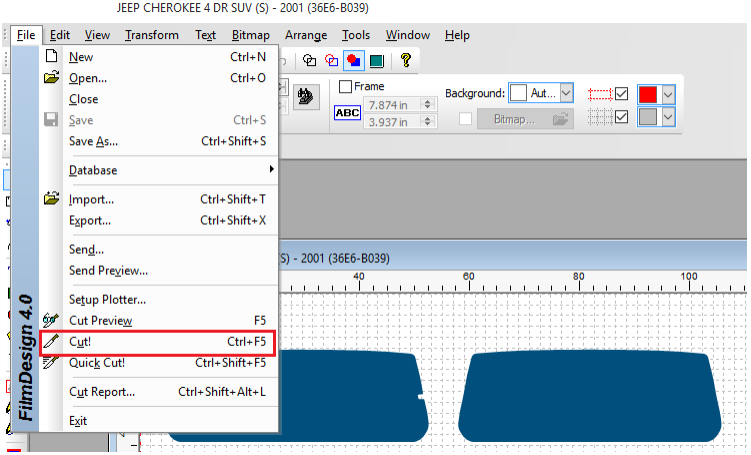
The **Authors** bookmark allows you to limit the list of patterns displayed in the Basic filter only to selected Authors.

Check the **Enable filter by author** check box, to activate the Authors list. All available Authors will be selected by default. If you want to deselect all Authors, click the **Select none** option. Then select only those authors whose patterns you want to see in the basic filter.

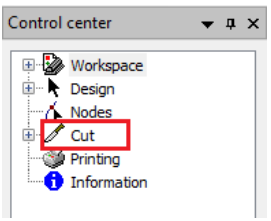
Cut the Pattern

To cut the pattern:

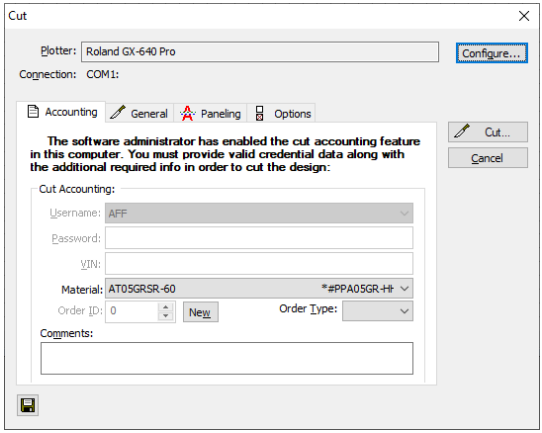
- Press the “Ctrl+F5”, or
- In the File menu, select the **Cut!** Option, or



- In the **Control Center** form, click the **Cut** button.



On the pop-up form, click the **Cut** button to proceed with cutting.

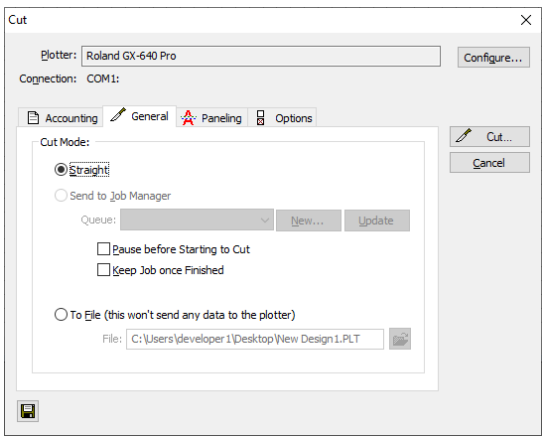


As you can see on Pic.9, the **Cut** window contains four bookmarks: Accounting, General, Paneling, Options.

Accounting: Here you can specify the Username and Password for the Accounting program. In this case, the cut info will be automatically transmitted into the Accounting program.

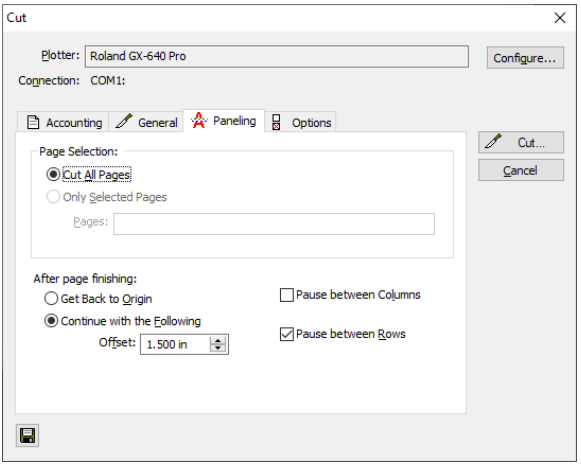
You can also specify the **Order Type** – Purchase, Repair, Waste Process, or Waste Vendor.

General: Here you can specify the **Cut Mode**, make the program pause before cutting (**Pause before Starting to Cut** check box) and keep the job open after the cut is done (**Keep Job once Finished** check box).

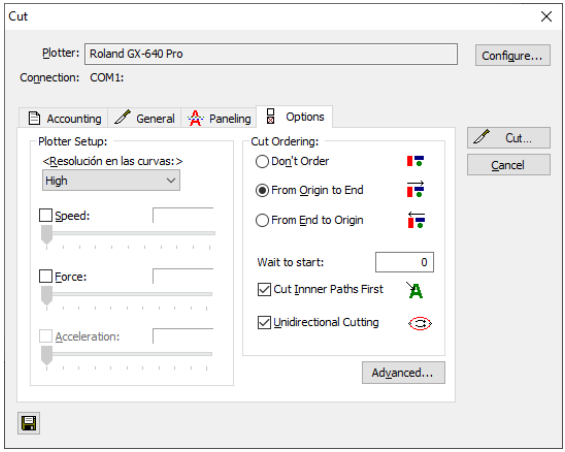


Paneling: Here you can choose to **Cut All Pages** of the design or **Only Selected Pages**. If the design fits into one page, the **Only Selected Pages** option will be disabled.

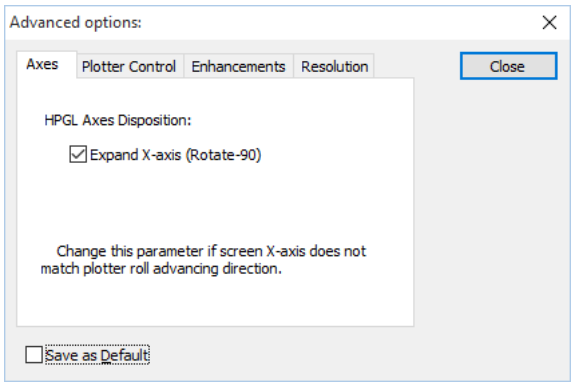
You can also select the program behavior after the program is done cutting the selected design. You can set the program to **Get Back to Origin** or **Continue with the Following** design. The **Offset** can also be set manually. You can choose to **Pause between Columns** or **Pause between Rows**.



Options: Here you can choose the level of **Curve Cutting Resolution** (from highest to lowest), as well as cutting **Speed** and **Force**. You can also select the cut order **from Origin to End**, **from End to Origin**, or no order at all. You can choose to **Cut Inner Paths First** and **Unidirectional Cutting.**

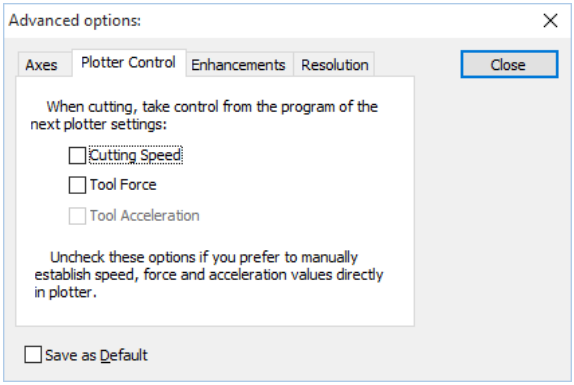


The **Advanced…** button will take you to the following window with four bookmarks **Axes**, **Plotter Control**, **Enhancements**, **Resolution**.

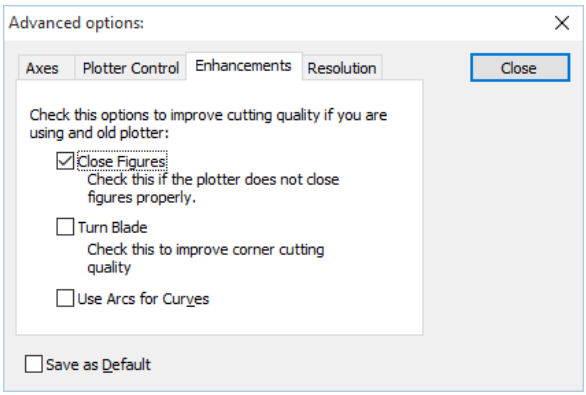


Axes: Here you can change the **HPGL Axes Disposition** by clicking on the **Expand X-axis (rotate-90)** checkbox. You need to change this parameter if screen X-axis does not match plotter roll advancing direction. You have an ability to save this setting as default (**Save as Default** checkbox).

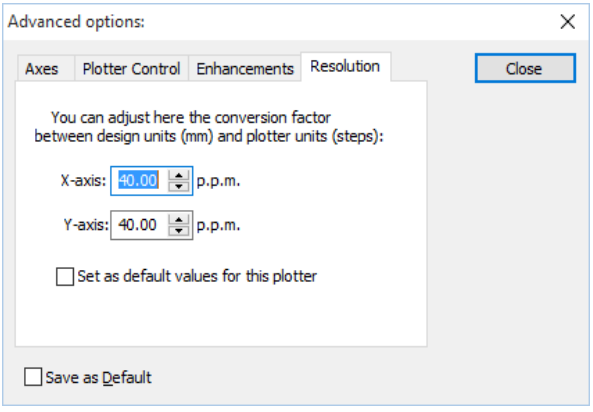
Plotter Control: You can control **Cutting Speed, Tool Force,** and **Tool Acceleration** from within the program. Uncheck these options if you prefer to set the plotter manually. You have an ability to save this setting as default (**Save as Default** checkbox).



Enhancements: In you are using an old plotter; you can enhance the cutting quality by selecting the following options within the program. Check the **Close Figures** checkbox, if the plotter does not properly close figures. Check the **Turn Blade** checkbox to improve the corner cutting quality. You can also select the **Use Arcs for Curves** option. You have an ability to save this setting as default (**Save as Default** checkbox).



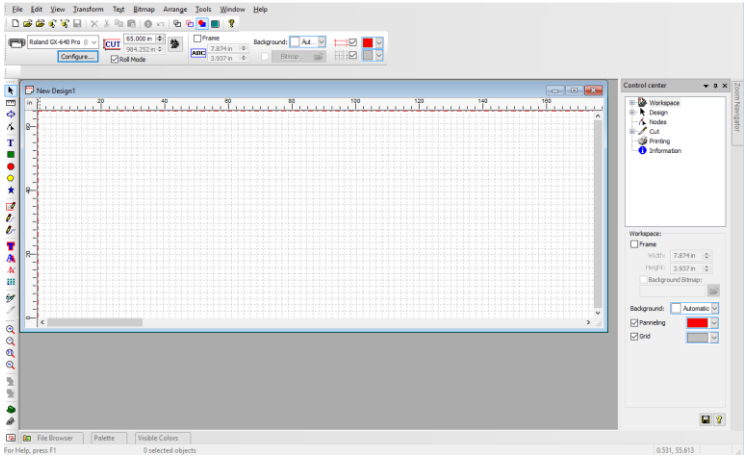
Resolution: Here you can adjust the conversion factors between design units (mm) and plotter units (steps) by X and Y-axis. You can also set them as default values for the plotter (**Set as default values for this plotter** check box). You have an ability to save this setting as default (**Save as Default** checkbox).


Advanced options:
Axes
Plotter Control
Enhancements
Resolution
Close
You can adjust here the conversion factor
between design units (mm) and plotter units (steps):
X-axis:
40.00
p.p.m.
Y-axis:
40.00
p.p.m.
Set as default values for this plotter
Save as Default

The Program Interface

Main Window

When you launch the program, the program greets you with the introductory window containing the program version and its registration number. Wait a few seconds and the program working area will appear.



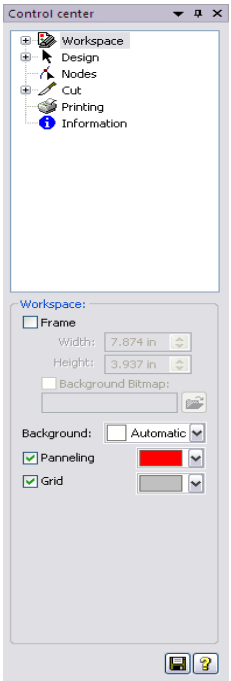
It contains the following elements:

- The title bar with the control menu on the left and the maximize / minimize buttons on the right.
- The window border, which allows changes to window dimensions when not totally extended.
- The menu bar from which you can choose different actions.
- The buttons bar with the most frequently used options.
- The tools bar where the creation tools and the zoom are located.
- The program working area, where the designs are located. Above and to the left of this window there are instructions, which help you to find out the sizes that you are working in. These instructions can be disabled, if you wish.
- The scroll bars, located in the bottom right-hand corner, below the working area, allow you to see the part of the design hidden in the top right-hand corner, above the working area.
- The lower fly out menu.
- The status bar, where the program shows you data on the design that you are working with.

- The Control Center, from which you can carry out all the necessary transformations, as well as configure the plotter and establish the parameters for the cut.

Please note that the height of the Working Area corresponds to the width of the bobbin, while the base of the working area corresponds to the length of the bobbin. Please, make sure that any design, which can be seen horizontally in the window, appears alongside the bobbin. If this is not the case, either the plotter or the program is configured incorrectly.

The Control Center



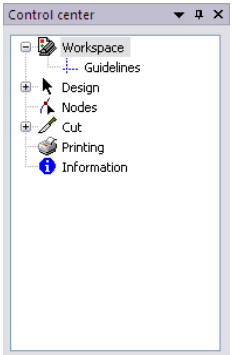
The Control Center is a fly out dialog box, which is used to control most of the program functions along with its configurations.

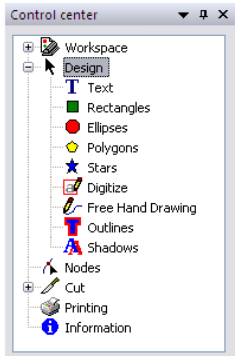
It can be placed in any part of the working area, or set as a part of the main window, by moving it to the right or left of the main program window. In this case, you will see that the Control Center is integrated into the main program window, and it changes the working area so that the window becomes visible and not hidden below the Control Center window.

The operation tree appears at the top of the Control Center. These functions appear and disappear, depending on the objects selected and the possible actions that can be performed at every given moment.

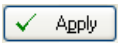
There are functions that appear within the main section and are shown as branches of the main section.

If a main section contains hidden branches, a “+” sign appears in front of it. To display all the hidden branches, click the “+” sign, which will then convert to a “-“ sign. To hide the branches click the “-“ sign.



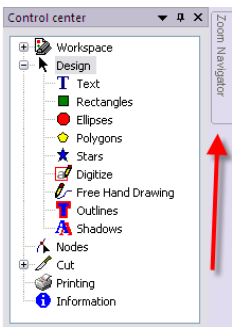


 You will see the **Undo** button in many of the Control Center windows. This has the same function as the Undo button in the Transformations Bar or the Undo action of the Menus Bar. It is used to cancel the carried out action.

 Many of the actions that are carried out from the Control Center require the use of the **Apply** button. To apply changes from manual value modification you need to click the **Apply** button as well.

 The **Help** button appears in all the program windows. By clicking this button, you can access the available context help.

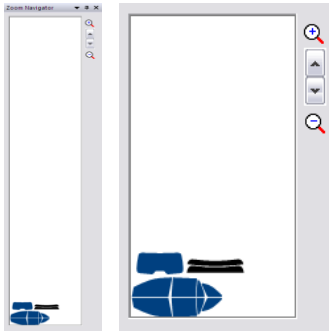
The Navigation Window



The Navigation window is a utility for managing the viewing of the program working area. This includes all the zoom functions, and a window where the whole design and the area displayed in the current working area can be seen.

To access the Navigation window you can select the Zoom Navigator button next to the Control Center. In the Navigation window, you can see a rectangle or frame, with a point in the center that covers all or part of the design displayed within it. This rectangle, or frame, shows the view being displayed in the program working area.

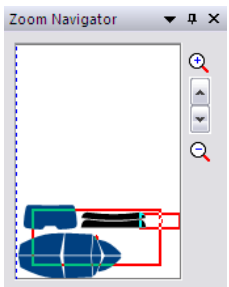
According to the size of the design, a dotted line may be seen showing the lower horizontal limit (position 0) of the working area. Remember that you must not situate objects below this line since they would not be cut.



By clicking the central point of the panel, the panel can be moved to the area you want. By doing this, the part of the design that is within the panel will be displayed in the working area.

If you wish to create a new frame in any area of the design, click the Navigation window and drag the mouse pointer to form the frame. This will be the new view of the working area. The new frame will adapt to the real area displayed. Thus, for example, if you make a very long frame, this will change and become squarer, keeping to the proportions of the working area.

To modify the size of the frame, increase or reduce the zoom level of the working area, click on one of the corners of the panel. When the cursor is in these corners, its shape changes. Without releasing the mouse button, move the cursor to enlarge or reduce the rectangle.



There are two buttons available just to the right of the Navigation window to increase or reduce the size of the frame; in other words decrease or increase the zoom level of the working area.

The Main Menus

File

New
This action menu allows you to clean the screen of all previous drawings and to begin a new one. If previous drawings had not been saved, a pop-up message will give you the opportunity to save them.

Open
This action menu allows you to load a previously saved file. The standard Windows Open File dialog box unfolds. Select the file with the cursor and click the Yes button, or just double-click on the needed file. You will see a sample on the preview window. If it does not appear, it may be that the file is from an older version, in which case, load this file and save it again. Next time the preview will appear.

If you want to change the default directory, double-click on the directory you want to set as a new default (yellow file symbol). If the directory you are looking for does not appear on the list, click the first file twice (corresponding to the root directory of the current disc unit) and repeat the search.

Close
This action menu allows you to close the active window, reminding you that you must save the changes, if you have not previously saved them.

Save and Save As
Standard file save menu options.

Import
This action menu allows you to import (open) an already existing in the database file.

Export
This option allows the file to be saved with different format which is the same as or different to the one the program generates.

Setup Plotters
This action menu allows you to configure the program in accordance with your plotter specifications and to control some of plotter parameters. For further details, please, see the Plotter Options section.

Usually, the plotter configuration has to be carried out only when you install the software for the first time, although you will have to gain access to this window if you are using materials of different sizes, since the software has to know the width of the bobbin you are using.

Cut! Preview
This action menu allows you to view how a pattern will be located on the film roll before you actually cut it. This feature promotes the efficient film use and lets you save, minimizing waste.

Cut!
This action menu allows you to cut the active pattern. In the pop-up Cut window, you can specify and configure plotters and enter information for the Accounting application.

Quick Cut!
This action menu allows you to quickly cut the pattern without entering any additional information.

Cut Report
This action menu allows you to view all cuts performed within the selected time period.

Exit
This is the last option in this section and it is used to quit the program. When you select it, it will close down the program without leaving the Windows environment.

Edit

Undo, Multiple undo
With this option, any modification you have made will always go back one step. The menu will be deactivated when you cannot undo. The number of steps that can be undone is shown in the preference screen. Remember that a very high value for undoing requires a lot of memory.

The multiple undo allows you to choose from which action you wish to undo. This is the same as clicking the undo button several times until you have the design the way you want it, but it is much more convenient, and as the list shows all the actions done, it is much easier to return to a previous state.

Cut, Copy, Paste
By clicking Cut, the selected object is copied to the clipboard, and the design is deleted. If you click Copy, the selected object is copied to the clipboard without the design disappearing. By clicking Paste, the objects in the clipboard, which are compatible with the program, will be added to the design.

Delete
This option allows you to delete selected objects. If you choose this option by mistake, remember that you can undo the action and restore the deleted.

Duplicate

This option allows you to duplicate the selected objects. In other words, an identical copy of selected objects will be made. The objects' position in relation to the original is controlled by the Preferences dialog (Edit->Preferences).

Cancel

While the program is performing any process like effect calculations or cutting, you can select this option to cancel the process.

Select All

Use this option to select all of the objects in the design. This can also be done by pressing F6.

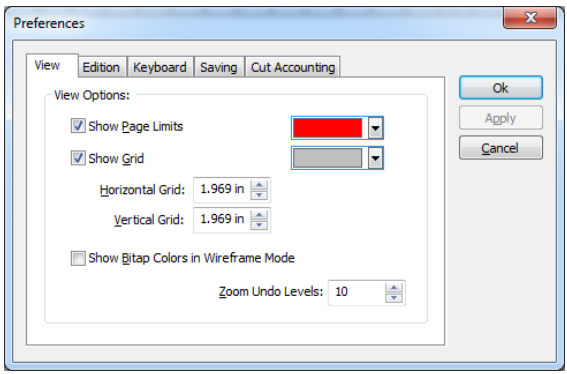
Unselect All

With this option all the objects which have been selected will be deselected.

Invert Selection

This option allows you to deselect the objects currently selected, and select all the other objects (not already selected).

Preferences - View



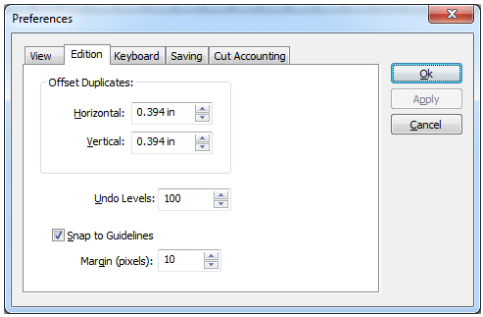
When you activate the **Show Page Limits**, a broken line appears on the screen, showing the limits of the selected page (usable limits of the material loaded into the plotter). You can also select the color of the page limits line in the drop down box displayed next to the Show Page Limits option.

Show Grid - this refers to a grid pattern which appears as a background in the working area and is used as reference for situating different objects in the working area. Click the drop down color box and you can modify the color of these lines. It is possible to set the measurements of this box by controlling its width and height. To do this, enter in Horizontal Grid and Vertical Grid values.

The option **Show Bitmap Colors in Wireframe Mode** allows you to visualize the color images and not grey ones while you are working in the lines mode.

Zoom Undo Levels: This adjustment controls the number of times you can go back in the zoom tool. Remember that the undo levels use up memory.

Preferences - Edition

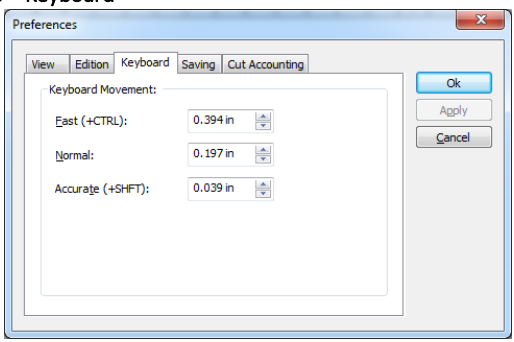


Offset Duplicates - allows you to set the size in which the objects duplicated with respect to the original will be offset. It is possible to enter a value to control the horizontal and vertical movements separately.

Undo Levels - this can be used to adjust the number of times that you can undo finished actions. Remember that increasing this amount may consume a lot of memory.

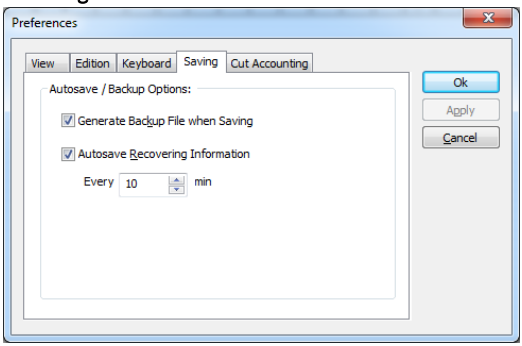
Snap to Guidelines - you can establish whether you wish the guidelines to have a “magnet”. In other words, when an object comes close to a guide, it moves until it touches the guide. Activating this option you can also fix the Margin in pixels (screen resolution points) from which the object will be attracted.

Preferences – Keyboard



Keyboard Movement - in this section, you can set the movement the selected objects will make when they are moved using the cursor keys. The movement can be controlled by pressing the cursor key together with the control and shift key. By combining these three keys an object can be moved accurately or quickly.

Preferences – Saving



In this window, you can determine whether you want a Backup copy to be generated when the job is saved. In other words, if a job that already existed is being altered, the previous one will be saved with another extension, and the file will be updated. You can also activate the **Autosave Recovering Information** that is generated in case there is any problems, and the whole job will not be lost if we have not been able to save the information.

If this option is activated, you can set the time interval that will elapse from the first time the safety copy was made. The operation of making the safety copy is barely noticed, since it is done quickly, making use of the operating system's multi-tasking.

View

This allows you to control the shape and size of the design on the screen. There are seven sub-menus:

Workspace

This menu allows you to decide which utilities will appear in the program working area.

There are sub-menus offering the following options:

- Standard - refers to the buttons bar, which contains the buttons for actions such as open, save, etc.
- Tools - refers to the buttons bar, which contains the buttons for selecting, node editing, creating objects, special effects and cuts.

- Zoom - this refers to the buttons bar, which contains the buttons for zoom actions.
- Rulers - these are the rulers, which appear above and to the left of the working area.
- Status Bar - this is the information bar which shows the properties of the selected objects, the position of the cursor, etc.
- Control Center - this refers to the window from which all the effects and the set-up of the plotter are controlled.
- Properties - this is the bar, which contains information about the selected objects and other options.
- Actions - this refers to the button bar, which contains the buttons for transformations.
- View Navigator - this window lets you control the view of the working area and make zooms.
- Color Palette - this refers to the horizontal bar, which is found above or below the working area and which consists of small squares containing the colors available that can be assigned to the objects.
- Visible colors - show or hide the visible color window.
- File Browser - show or hide the file administrator to view all the designs we have.
- Customize - this allows customizing all the menus, bars and short cuts of the program interface.

Wireframe

In this mode we see the designs in the working area represented by the lines of their outlines (which is what will actually be cut), along with all the lines of the same color. This mode is sometimes handy for representing objects which are white, and which would be almost invisible in another mode.

Color Wireframe

In this mode the lines of the pattern outlines can be seen, but each line has the color of the object it represents, so that all the colors of the design can be distinguished.

Preview Mode

In this mode the objects are displayed filled in with color, showing how the finished job will look.

Alternate Mode

In this mode, we can go from the lines in color mode to the preview mode. You can use the F9 key to shortcut the process. In other words, by pressing this key, the objects go from being seen with fill-ins to being visible in the line mode.

Zoom

There are 8 related zoom submenus that allow you perform all kinds of zoom variations with the pattern.

Full Screen
In this mode the program working area appears as big as possible with the hidden caption bar and menu bar.

Redraw
This mode allows you to redraw the whole screen in case any object(s) have been badly drawn for whatever reason.

Transform

Convert to Curves
This function allows you to edit the nodes of any object. Please, note that all properties of the object will be lost, and could not be brought to the original version.

Text

Weld Characters
This joins the characters of a text. In the case of letter types whose letters overlap when the text is entered, this function will join these characters.

Normal Text
To place the text horizontally.

Vertical Text
To place the text in a vertical position.

Fit Text to Path
To place the text on a path.

Convert to Curves
This function lets us edit the nodes of a text, but the properties of the text are lost, and we cannot edit them later. There are four ways of converting curves: the whole text, by line, by word and by character. For example, in the last case, an object is generated for each letter.

Separate
This separates a paragraph of text into lines or words so that we can manipulate them individually.

Bitmap

Scan
This allows you to directly activate any TWAIN-compliant device, usually a scanner.

Configure Scanner
A dialog box will appear where you will be able to select the TWAIN device you wish to use in order to obtain the image (if you have more than one TWAIN device installed).

Import Bitmap
This functions allows you to import any image from a storage unit, disc, hard disc, CD-ROM, etc.

Export Bitmap
This function allows you to save a bitmap object to a file in any of the support bitmap formats.

Automatic Trace
With the vector tool, it is possible to convert an image from bitmap into lines and curves.

Photocut
With this function, it is possible to reproduce a photographic image in strips, which reproduce the image's gray levels

Arrange

Combine
This option converts several objects into one object, while keeping the attributes of the first object. Once combined, these objects will become one and will be selected and manipulated as one object.

Break Apart
This option breaks a complex object into several simple objects. That is to say, as many objects will be created as there are curves or paths in the initial object.

Group
This option groups all selected objects into one object – group - which can then be selected and manipulated as a single object. Several groups can be grouped into a larger group, and groups of images, texts, curves and other groups can also be grouped into a single group.

Ungroup
This option allows you to ungroup the objects that had been grouped using the group option. If there are different levels of groups, this option will ungroup the upper level group.

Ungroup all
This option allows you to separate grouped objects and, if the group was composed of other grouped objects, it will separate the objects until they are all ungrouped.

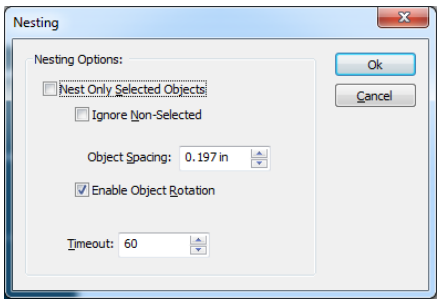
Order

This is divided into 5 sub-menus. The results of these functions affect the order of the objects, and the result can only be seen when the View->Preview Mode menu is activated.

- To Forward - this option places the selected object over the other objects.
- To Back - this option places the selected object under the other objects of the design.
- Forward One - this option places the selected object one step forward in relation to the other objects.
- Back One - this option places the selected object one step back in relation to the other objects.
- Invert Order - the Invert Order option reverses the order of the selected objects in relation to the current order.

Auto Nest

The program has a special function to order the objects within the working area so they occupy the minimum possible space which allows you to save the material.



Nest Only the Selected Objects - it will arrange only the selected objects without moving those which are not.

Ignore NON-Selected: When arranging the selected objects the space occupied by non-selected objects will not be taken into account. As a result, some objects might be placed on others. This feature might be useful, for instance, if there is a large square around the objects but we want to arrange only the objects inside the square, not the square itself.

Object Spacing - minimal separation that must exist between all objects.

Enable Object Rotation - when activated, it allows the program to search for the most efficient object placement, accounting for object rotation, if needed.

Timeout – if you have many objects, the time for the calculation of the best position could be very long. By limiting the calculation time to a certain value, you can guarantee a fast enough result.

Window

New Window

Using this option, a new working window can be created with a copy of the same active document - in other words, a new document with the same design, without the need to close any existing open designs.

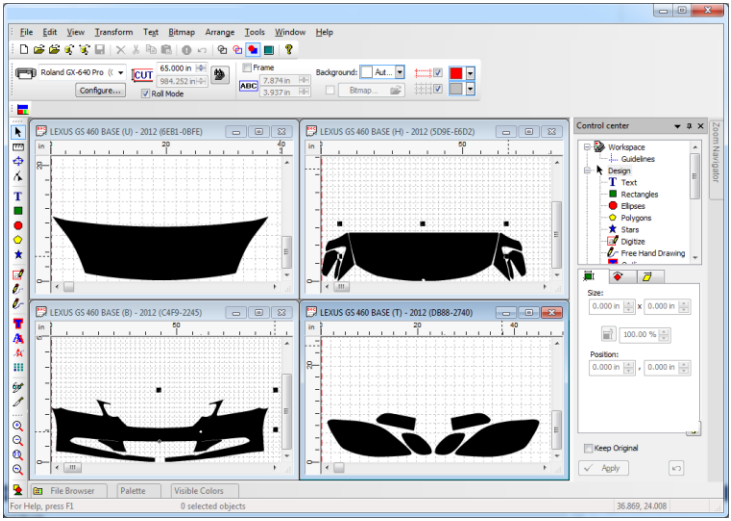
If you wish to create a new blank document, you must choose the menu File->New. Since the program works in a multi-document interface (MDI), it is possible to work with several different designs at the same time, without having to close the others, and with the possibility of copying and pasting objects between these documents. You can also work on the same design in two different windows. For example, one in line editing mode, and one in preview mode. In this way we can be editing nodes, for example, and observing the result in the other window.

Cascade

Arranging in cascade places the different open design windows in such a way that they remain at the same size and one above the other, but offset slightly so that the maximum number of windows can be seen.

Tile

Organizing in tiles places the windows of open documents side by side in the case of tile horizontally, or one on top of the other in the case of tile vertically, sharing the usable space in equal parts amongst all the windows. In the case of having a lot of windows open, both horizontal and vertical tiling act in the same way. In this case, they allot the available space for windows to display as many open windows as possible.



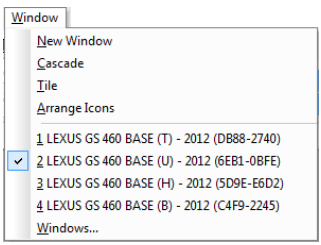
In this case, the program attempts to reserve the maximum possible space for the active window, placing it in the top right-hand corner of the area for windows.

Arrange Icons

If any, or all, of the windows are minimized, this option situates the icon of each window below and to the left, side by side in an organized manner.

Active Window

The second part of the window menu displays a list of all open windows with the corresponding document name.



One of these windows is checked, and corresponds to the active window. You can make any of the others active by clicking the one desired, or by clicking the surface of the window you want.

The Tool Bars

Standard Bar

 New Design button

This corresponds to the File->New menu, and is used to begin a new design, discarding the one which was on the screen.

 Open File button

This corresponds to the File->Open menu, and is used to recover a previously saved design in order to continue working on it or tracing.

 Open Import button

This corresponds to the File->Import menu, and is used to import a saved design in order to continue work on it for tracing.

 Open pattern from a database button and  Import pattern from a database button

This corresponds to the File->Open Database menu, and is used to open a pattern from the program database in order to cut or modify it.

 Save button

This corresponds to the File->Save menu and is used to save the active file on the screen. To be safe, we recommend that you use it regularly.

 Delete button

This erases the objects selected at the time. If you choose this option by mistake, remember that you can undo the action and restore the deleted.

 Cut button,  Copy button,  Past button

These are used to transfer objects by means of the clipboard. By clicking Cut, the selected object will be copied onto the clipboard and the design will be deleted. If Copy is clicked, the selected object is copied onto the clipboard without the design disappearing. By clicking Paste, the objects compatible with the program which are in the clipboard will be added to the design.

 Undo button

It is used to go back after carrying out a transformation.

Line button

With this mode we see the designs in the working area represented by the lines of their outlines (which is what will actually be cut), along with all the lines of the same color.

Color Line button

With this mode the lines of the outlines can be seen, but each line has the color of the object it represents, so that all the colors of the design can be distinguished.

Solids button

In this mode the objects are displayed filled in with color, showing how the finished job will look.

Full Screen Mode button

Allows you to view the design window as big as possible, hiding the caption bar and menu bar.

Print button

This is used to print the design

About button

This shows the program information, the serial number and the setup data.

Tools Bar

Selection Button

This is used to choose the elements of the design that you wish to work with in some way. Please, remember that if an element has not been selected, it is not possible to make any changes to it.

Measure Button

This tool is used to take the measurements of any area of the design.

Resize Button

This tool creates a Blue Box around the shape to be resized and inside this Blue Box is a dashed Cross Hair. The Cross Hair can be adjusted up or down, left or right, and the pattern can be resized from those points to add or take away for the length or width without changing the shape of the other areas of the pattern.

 Node edit Button

This is used to correct the shapes or outlines of the design.

 Resize Button

This tool creates a Blue Box around the shape to be resized and inside this Blue Box is a dashed Cross Hair. The Cross Hair can be adjusted up or down, left or right, and the pattern can be resized from those points to add or take away for the length or width without changing the shape of the other areas of the pattern.

 Text Button

To access the text editor, click the button shaped as a T in the tool bar. The text options will appear in the Control Center, and the mouse cursor will change into a cross with an A.

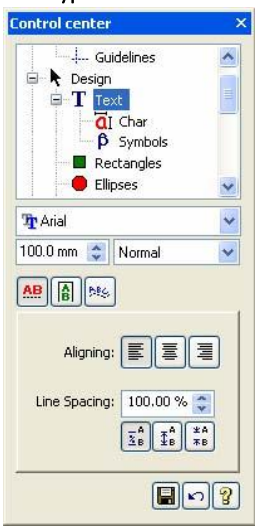
Working with Text

To introduce a new text, double-click the spot in the working area where you wish to place it. The cursor will appear in this position as a thick vertical line with the same height as the chosen letter size. Type the text in the normal way with the keyboard. If you wish to add new lines, press the Enter key. You can also delete characters and move throughout the whole text with the keyboard's cursor keys. You can also place the text cursor anywhere you wish by clicking the mouse cursor on the desired area.

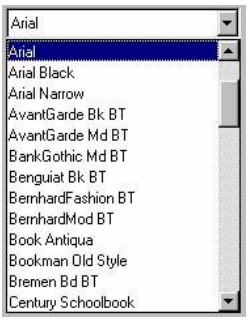
Selecting the Attributes of the Text

The attributes of the text to be entered, or text already entered, can be found in the Control Center.

Font type

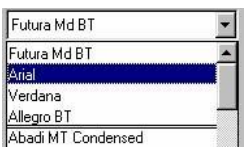


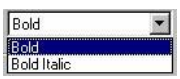
the design.



In this section, you can choose the type of font to be used. Click the arrow situated at the right to display the list. All the fonts installed in the system at that time will appear within the list.

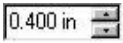
A scroll bar appears on the right. This allows you to scroll through the list to find the desired type. Once you have found it, click it once. At the top of this list, separated by a double line, you will find the fonts previously used in the design. This is a shortcut for choosing fonts already used in





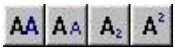
You can also choose the body or angle of this font, as long as it is available in the font file itself. Choose these attributes from the list immediately below. According to the font type, you can find Boldface, Italics, etc…

Font size



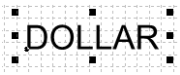
Here, you can specify the size of text to be introduced or text already selected. You can also specify whether you want this text to be in Versalite, Subscript or Superscript type.

Enter the required size in the corresponding section. The size entered is calculated according to the height of the upper case characters of the font type. For example, if we enter the text "Hello", the height of the "H" will be that of the size entered.



You can alter the size of the text being entered at any time in order to obtain texts of different sizes; for example, in different lines. The Uppercase converter, Versalite, Subscript and Superscript attributes alter the size and position of the characters entered.

In the case of Versalite, the characters in lower case will be substituted by Upper case, but with lower case size. So, if we enter the text "Dollar" normally, it will appear in this way:



Subscript reduces the size of the character and situates it below the base line of the text. So, if we enter CO2 by selecting the subscript button after entering the C, the text will appear as follows:

Superscript reduces the size of the character and situates it above the lower case characters. So, if we enter 2562 by selecting the superscript button after the third character, the text will appear as follows:

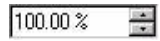
Alignment and Line Spacing

In these sections, we can control the way in which several lines of text will appear; for example, whether or not they will appear centered, and the spacing between them. The alignment section has three buttons which allow the entered text to be aligned to the left, right or in the center.

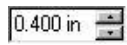
You can choose the type of alignment either before entering new text or once it has been entered. If you select it before, the position where you have clicked will be the reference for entering the new text. So, if you choose centered alignment, the point of insertion will be the center of the text to be entered.

The spacing section allows you to establish the spacing between various lines of text. There are two ways of setting the spacing: graphically or using values. Values to specify the spacing can be entered in three different ways:

Percentage of spacing with regard to the height of the text. The normal spacing is 100%. So, putting in 200% represents doubling the spacing between lines.



Distance of spacing between base lines. In this case, the distance is taken between the bases of each line of text. The base is the horizontal position where all the characters are placed, both upper and lower case. Take into account that a character may descend below from the base line.



Distance of spacing between upper case letters. In this case, the distance is the real spacing between the base of the upper line and the top of the characters in upper case. It is in fact the visible spacing between lines.

To graphically adjust the spacing, click this button and click the line of text that you wish to alter. This line of text will appear surrounded by a blue rectangle. Place the cursor on the border of the frame on the upper or lower side, and the cursor will change into a double arrow. Click and drag up or down to move the line of text. This movement cannot be made in the first line of text.

At the same time, press the Control key to separate the lines. Otherwise, you will be stretching the text.

Distorting Letters

If we extend the Text branch in the Control Center, the option to distort the letters appears. Using this option, we can widen or narrow the size of the characters, and we can skew them towards the two sides.

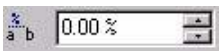
To alter the width of the characters, enter the variation percentage into this box, and press Enter. The normal width is 100%. Enlarging to 200% doubles the width of the characters.

To alter the angle of the characters, enter the skew value in degrees into this box, and press Enter.

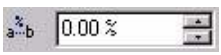
If you want to apply a standard skew, that is to say, the normal angle fonts have when they are skewed (italics) - which is normally 15º, click the skew button directly.

Spacing Between Letters and Words

In the same section as letter distortion, you will find the options for altering the spacing between characters and words. Altering the space between letters means increasing or reducing that space.



The normal default value is 0%. If you want to separate the characters more, increase this value.



Altering the space between words means separating or joining more closely each word in the text to be entered.

The normal default value is 0%. So, if you want to double the distance between words, enter the value 200%.

Graphical Adjustment

It is possible to graphically adjust the text size, the spacing between characters and words and the distance of spacing between text lines.

Click the line of text that you wish to alter. This line of text will appear surrounded by six small triangles. We will call them 'handlers'.

The up / down handlers at the middle of the text will allow us

- to stretch the text vertically;
- To change the space between lines of text. This movement cannot be made in the first line of text.

The up – right and left handlers will allow us to alter proportionally the size of the selected text.

The handlers below right and left are used as follows:

- To stretch the text horizontally.
- Depressing Control key: to change the distance between characters in the selected text line.
- Depressing Shift key: to change the distance between words in the selected text line. This can also be done with the control tabs which appear vertically over the text.

Saving the Text Set-Up

As in other branches of the Control Center, a button appears with a disc that allows you to save by default all the set-ups that are selected at the time. We can, for example, ensure that every time we access the text options, the centered text and the line spacing in inches are selected.

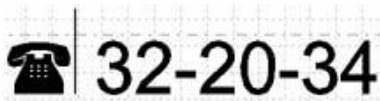
Entering Symbols

The text editor has a special function for entering symbols or special characters quickly. The editor only shows the fonts for symbols, such as "Wingdings" for example.

In order to introduce a symbol, select the text tool, then click the working area twice, or select a text and the text tool. The text section and the Symbols branch will appear in the Control Center. Select this branch, and all the installed fonts for symbols will appear.

Pick the desired font and all the available symbols for this font will appear in the Control Center window.

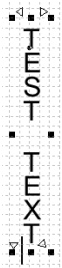
To introduce the desired symbol, simply click it twice, and it will be entered at the cursor position of the text.



Vertical Text

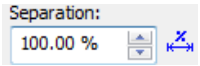
With the program you can automatically create a vertical text without having to place the characters manually.

1. Write the text normally (see Text Entry section) or select one you have entered before.
2. Click the vertical text button: 



The text characters will be placed one above the other. They will be centered in relation to their width.

If you wish, you can also enter the text in vertical directly. In this case, before starting to enter the text, click the vertical text button. If you need to do more than one column of text, the cursor will move to the next column when you press the Enter key.



In this case, you can specify the space between columns in percentages. The normal distance is 100%. A greater value will increase the distance.

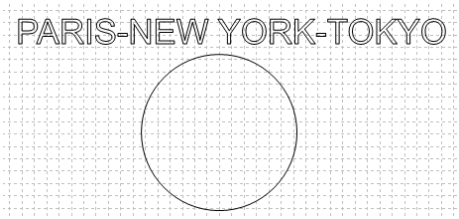
You can also control the alignment among the characters. They will be centered by default, but they can all be aligned to the left or right, by clicking the following buttons:

Adapting Text to Curve

The program allows you to adapt a text to any curve. Introduce the text normally. It will be selected.

From the Text menu, choose the Adapt to curve option or click the adapt to curve button

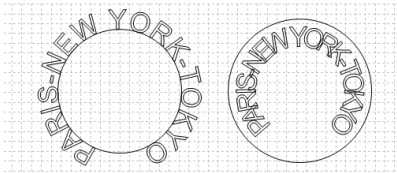
The cursor will change shape. Click the curve where the text will be adapted.



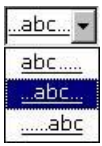
Position with Regard to the Curve

This allows us to specify whether the text will be positioned above the curve, in the middle of the curve or below it.

In these two examples we can see a text above the curve, and one below it.



Alignment

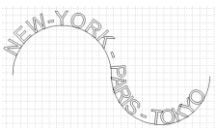


This allows us to determine the position where the text will be with respect to the trajectory, whether to the left, in the center or to the right.

Direction of the Characters

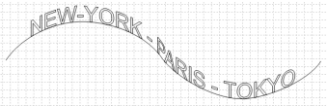
This option allows us to determine how the characters will be altered with respect to the curve.

- Rotate the character according to the angle of the curve at the point where each character is located.

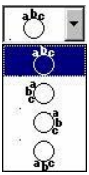


- Keep the characters straight, moving only the position of the base of each character.

- Rotate and skew the characters according to the trajectory's curvature, thus creating a three-dimensional effect.



Orientation



If the text is to be adapted to a closed object, you can specify on which side of the object it will be placed. The available options are: above, to the left, to the right and below.

Reversing the Direction

The option “Put to the other side” lets you reverse the direction in which the characters are written. Thus, for example, it might be interesting to have a text which is located in the lower part of a circle readable from left to right. In this case, if we did not choose this option, the text would remain clockwise and the lower part would read from right to left.

Working with Shapes

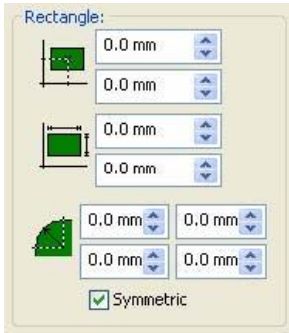
Rectangles Button

To create a square or rectangle, proceed as follows:

- Select the icon showing a rectangle; the cursor changes it into a cross and a small rectangle.
- Click the drawing area at a point where you wish the square or rectangle to appear.
- Without releasing the mouse button, drag the cursor towards the opposite side of the square or rectangle, and you will see how the desired figure takes shape.
- If the shape and size are correct, release the mouse button and the new object is created.

If you press and hold down the Control key while moving the mouse pointer, you will be creating a square. Otherwise, you will create a rectangle.

By pressing and Holding down the Shift key, and at the same time clicking the initial point of the square / rectangle in the working area, the program will take the marked point as the central point of the figure.



It is possible to create rounded corners automatically. There are four sections to control the ratio of each corner independently or at the same time selecting the option Symmetric.

Enter the radius of the curvature of the corner, or put 0 if you want the straight. You can also control the radius of the corners graphically. If you create a

rectangle with rounded corners, a black dot appears in each corner. Place the cursor on this black dot, click and drag it, and the corner's radius will change.

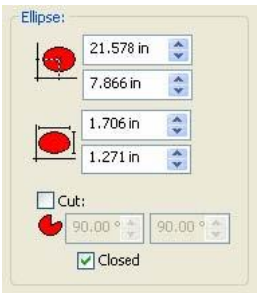
If the cursor is within the rectangle, the corner will be made outwards. If the cursor is moved outside the rectangle, the corner created will be inwards. If we press the Control key an outwards corner will be created. Otherwise, the corner will be created inwards.

Ellipses Button

The circle or oval will be created within a rectangle described by two marked points which correspond to the edges of this circle or oval.

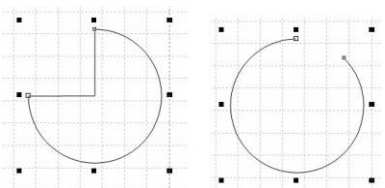
In this case, on pressing the Control key, perfect circles are created. Otherwise, are created.

As with the previous case, you can also adjust the parameters in the Control Center.



The Cut option is used to create portions of circles. By activating this option the initial and final angle that will that will be cut the circle can be specified. The option Closed indicates that the curve will be completely closed by two straight lines towards the center. If this option is not activated there will be only one circle arch. However, take into account that this arch cannot be cut if it is not closed.

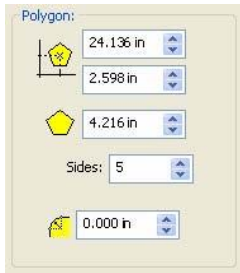
The following examples show the results.



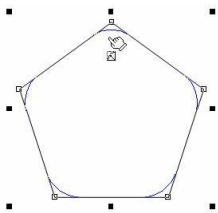
Circle cut between 180° and 90° closed. Circle cut between 45° and 90° not closed.

Polygons Button

This is used to create polygon-shaped objects. The button for accessing this function is found in the tool bar and shows a five-sided polygon. This tool works in the same way as the star creation tool, except that you cannot set the interior diameter of the points, since it only has exterior points. So, while the polygon is being created, the Shift key does not carry out any action.



In the Control center it is also possible to numerically determine the parameters of the polygon, like the position, external size, number of sides and ratio of the corners. The ratio of the corners can also be graphically established if we click on one of the points of the corners and if we drag it inwards or outwards.



Stars Button

This is used to create star-shaped objects. The button to access this function is found in the tool bar and has a star on it. To create a star in the design, first click this button. Click the working area in the position where you wish to place its center, and without releasing the mouse button, drag the cursor towards any side. As the cursor is moved, the star will be drawn on the screen.

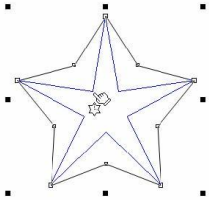
If you press the Shift key while moving the cursor, you can alter the diameter formed by the interior points. If you move the cursor's position away from the diameter of the exterior points, these will become interior ones. If you press the Control key while creating the star, this can be rotated in any direction by simply

moving the cursor to the desired position. Once you have created the star, all its parameters can be altered provided the tool is not changed. These parameters are: position, diameters, number of points, thickness of the outline (optional) and the rotation angle. All of these values appear in the Control Center.

To modify any parameter, enter the desired value and click on the “Apply” button, the changes will be made automatically. The values shown belong to the following in ascending order: Horizontal position, vertical position, external diameter of the ends, interior diameter and number of ends.

You can also set by default the parameters with which the new stars will be created. In this case, the number of points, the thickness of the outline and the rotation of the star can all be set. Alter the values according to your needs, and click the Apply button or press the Enter key.

It is also possible to graphically modify the size of the ends, clicking on the points that appear on the corners of each internal or external end and dragging these points outwards or inwards, as it is shown in the following figure:



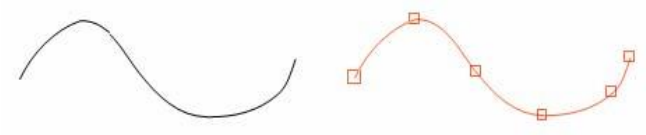
Digitize / Bitmap Tracing Button

Point Digitization Button

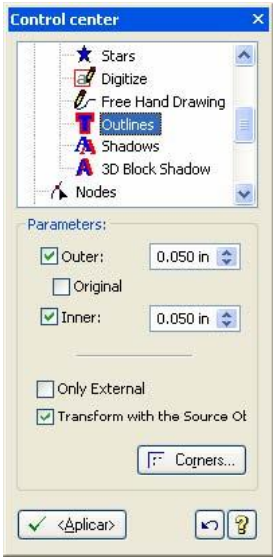
Free Hand Drawing Button

This is used to create figures of any shape. The button for accessing this function is found in the tool bar, and shows a pencil with a continuous line. To create a figure, click the working area, and without releasing the mouse button, move the cursor, following the outline you want to create. On releasing the mouse button, the trace created will change into a succession of curves and lines, thus forming the new figure.

If you make the final point coincide with the initial point of creation, this figure will be closed. Remember that once the figure is created, you can alter its trajectories by editing the nodes.

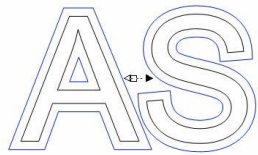


Outlines Button

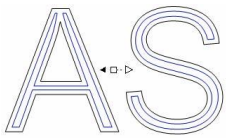


This function allows you to give your designs profiles. To create profiles, choose the objects to be profiled, and select the Transform-Profiles menu. A dialog box will appear with the following options.

The program permits to create external and internal profiles for the selected object. Outer Profile will be created outwards with respect to the selected figure.



"Inner Profile" will be created inwards with respect to the figure. Please note that depending on the type of the design and the thickness of the internal profile, in some parts it may be impossible to create the profile and it will disappear.



The option "Original" generates a copy of the selected object when it creates the new profile. It duplicates the original object. With option "Only External", if we create an external profile and the original object has some holes (internal forms) no profiles will be generated on these forms.

This image shows an external profile, the second one with the option "Only External".

The option "Transform with the source object" relates the generated profile to the original object so that if the original object is modified, the profile will be modified according to the parameters used to create it. For example, if we create a profile for a text and then we modify. This text, the profile will be recalculated and it will not be necessary to create a new profile.

The "Corners" button permits to control the forming of angled corners. This refers to the minimum angle when you create outlines. Sometimes, for very

closed angles for example, the outline's extension may create an unexpected effect. If you are not sure of how the minimum angle works, we recommend not changing the default options.

- No-Cutting - This will create the outlines without taking into account the angle.
- Straight - will create the outlines, cutting with a straight line the line's outlines whose angle is less than the specified angle in "Limit Angle".

The distance of both the internal and external profiles can also be graphically established clicking and dragging the controllers in the center of the object.

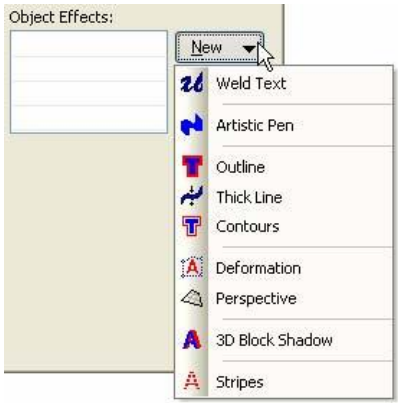
A blue rectangle will appear showing the limits where the new profile will be generated

Click on the "Apply" button to generate the profile.

Distortions

This utility allows you to carry out an unlimited number of distortions in a completely graphic manner, as well as save these distortions and apply the ones saved previously. To access this function, click the distortions/perspectives button.

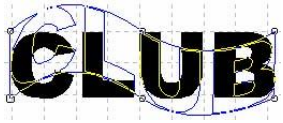
Select Effects in the Control Center, click on the New button and select Deformation.



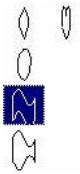
The selected object appears surrounded by a blue rectangle with four points at its extremes. These four points will be the principal controllers. Apart from these, you can add as many points as you like, and in the position that you want, by simply double-clicking on the desired area of the rectangle.

The segments joining the points can be converted into curve if required. To do this, click the segment with the right-hand button of the mouse and select to curve. Two control points which control the Bezier curve points will then appear.

Every point of the rectangle and every control point can be moved freely, giving shape to the distortion as needed. When you make any change, a schematic representation of the selected object appears showing the effect of the distortion. Depending on the complexity of the object to be distorted, previewing the distortion may take a considerable amount of time. If you would rather disable the preview, deselect this option from the Control Center.



Once the desired distortion has been carried out, you can save the effect created, by clicking the button to save distortions. A preview appears in the Control Center viewfinder.



To apply a previously created distortion, click this distortion twice, and it will be applied automatically to the selected object.

If you are creating a distortion and you would like to start again, press the reset button. The object will then convert to its original shape, and the rectangle of distortions will go back to having only the four extreme control points.

In the Control Center preview, where all the distortions created appear, a contextual menu is also available which allows the following actions:

- Delete a saved distortion.
- See the distortions preview in three different sizes.
- See the preview in linear mode or with fill-ins.

Perspectives

Perspectives are a variation of distortions. To carry them out, activate the option in Effects in the Control Center. The program lets you create both horizontal and vertical perspectives, individually or at the same time.

To make the perspective, move the control points to the desired position. You will immediately see a preview of the perspective which will be generated.