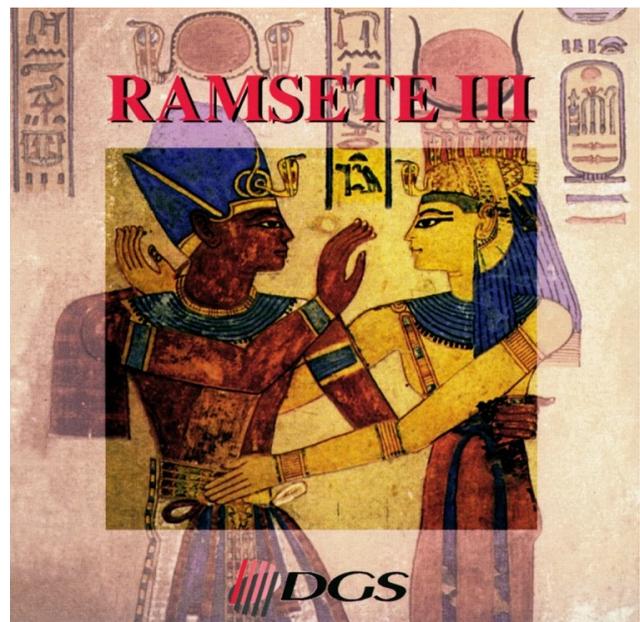




Software solutions for textile printing

User Reference Manual



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Introduction

Ramsete III has been thought up and realized as integrated solution for the computerized development of the designs for the fabrics printing.

It is composed of various programs, some dedicated to the management of the peripheral unities (scanner, printing, spectrophotometers etc.) others to the treatment of the image according to the demands of the various cycles of the production what: creation, correction, films separation, colorway. Thanks to the full exploitation of the hardware characteristics and of the more evolved operating systems (IRIX, Linux, MacOSX and Windows) the software is able to perform more operations contemporarily reducing accordingly the times of elaboration of the design. The application provides besides the support of cross-platform sharing for the scanners and printers. An effective memory management and the technique of compression of the image complete the system allowing easily to elaborate designs of great dimensions.

User licence and limitation of responsibility

The D.G.S. S.r.l. reserve itself the right to modify the specifications of this program without obligation of communication with the purpose to make it more efficient. The software described in this manual is supplied under the conditions of "user licence" and it cannot be copied or reproduced in some way without the specific authorization written of the D.G.S. S.r.l. Also the present manual cannot be integrally or partially reproduced without specific authorization of the D.G.S. S.r.l.

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Notations used in this manual

The writings that appear in cursive indicate some messages visualized by the program.

The names contained among single apexes indicate the keys on the keyboard, of the mouse or of the tablet. For example the writing SHIFT+BACKSPACE indicate that it is necessary to press the BACKSPACE key holding pressed the SHIFT key.

The followings voices have a particular meaning:

- SELECT: the tip of the pen of the tablet or the left key of the mouse
- CANCEL: the key on the side of the pen (bottom) or the right key of the mouse
- MIDDLE: the key on the side of the pen (top) or the central key of the mouse
- SPACE: the space bar on the keyboard.
- CLICK: the pressure of 'Select'
- DOUBLECLICK: it indicates the double pressure of the key 'Select'

In some tablets is available only one key on the side on the pen; in this case the Space key has the same function of the key MIDDLE.

To indicate the selection of a voice of a menu is used the symbol "-> "; therefore the wording "*File->Load*" means that it is necessary to select the *Load* voice inside the menu *File*.

The images present in this manual have been taken both from Linux systems that from Windows systems. In the other versions the program proposes the same identical user interface using the graphic theme implemented by the operating system.

Execution of the application

In the Linux and SGI systems is present a component that allows to perform the other applications of Ramsete simply selecting the icon related to the module that have to be used. In the Linux versions is present also an icon for the turning off of the system. Pressing the right key of the mouse on one of the icons a popup menu appears to close the applications eventually blocked.



Pressing on the icon "Old" a popup menu is shown with the list of the installed versions.

In Windows environment the applications are present in the menu "Start->Program Files->DGS Software."

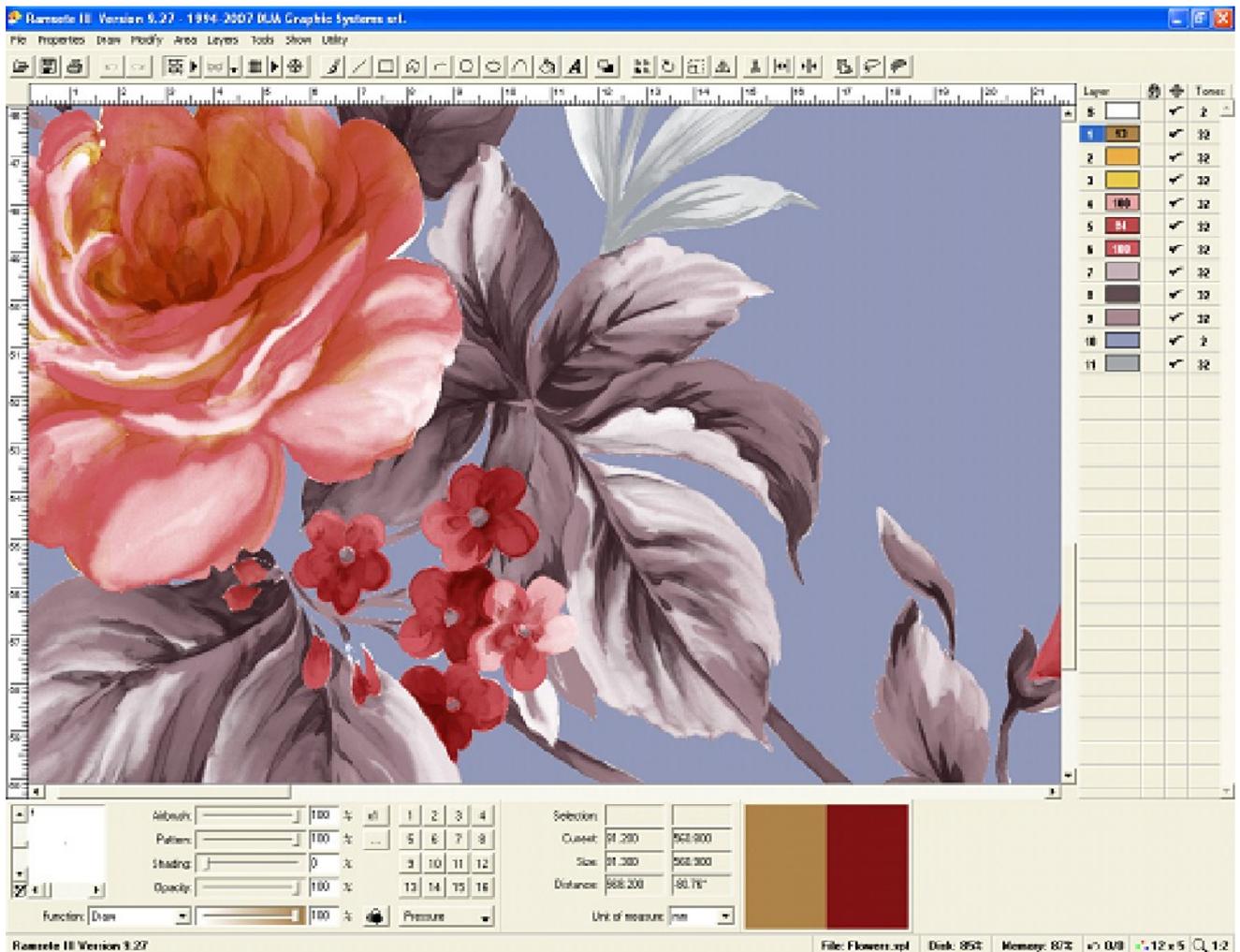
On the Mac systems the software is installed in the folder "Applications->Ramsete"

1 Interface structure

The user interface of Ramsete is composed of a Menubar, a Toolbar, an area of visualization of the design (that can optionally contain also the scroll bars and the rulers), a Statusbar with some information related to the images and a group of panels (Palette) that are necessary to set the various operational phases or to provide tools of help to elaborate the image. Both the Menubar that the Toolbar modify their content according to the selected tools or to the type of image loaded.

In the version for Mac the menu bar is in the tall part of the display as all the Mac applications.

The toolbar is not personalizable.



In the bottom part, the Statusbar indicate the active function and its parameters (or the version of the program if any function has not been selected), the name of the loaded file, the free space on the disk, the free system memory, the number of applications in queue in the film generation, in number of removable and restorable operations, the number of colors or layer that the image contains with the indication of the number of colorways, if present, and the level of actual zoom.

During the operations that require a long time of elaboration instead of the Statusbar is shown a bar that indicate the progression of the operation and a symbol of stop that allows to interrupt the operation.

Not all the functions are interruptable and therefore the symbol "Stop" appears only when it is possible.

1.1 Main menu and toolbar

In this section are listed the various commands contained in the menu bar or in the toolbar present in the principal window. This last modifies its aspect according to the active function.



In the normal configuration the toolbar shows the icons of the preceding figure that allow:

- Load an image
- Save an image
- Call the printing panel
- To cancel last operation
- To repeat the cancelled operations
- To activate the visualization of the repeat (and to modify its parameters with the button beside)
- To activate the masks (and to select the mode with the button beside)
- To activate the grid (and to modify its parameters with the button beside)
- To set the pivot of the image
- To select the tool of free-hand drawing
- To select the tool of lines drawing
- To select the tool of rectangles drawing
- To select the tool of polygons drawing
- To select the tool of arches drawing
- To select the tool of ellipsis drawing
- To select the tool of curve and spline drawing
- To select the tool of image fill
- To select the text tool
- To activate or to deactivate the filling of the drawn objects
- To repeat the image
- To rotate the image
- To scale the image
- To mirror the image
- To cut a part of the image
- To insert some lines or some columns
- To remove some lines or some columns
- To import another image in the design
- To copy a part of the image
- To cut a part of the image

A lot of functions have a series of parameters modifiable through a menu that appears selecting again the active function. For instance selecting again the function "cut area" will appear a menu that allows to define if the cut has to have regular or irregular form.

In the following pages are shortly described the commands of the main menu; the most greater part of these commands execute simple operations, but if it is necessary to go into the particular functionalities the reference of the chapter containing the additional information is indicate.

1.1.1 The menu "File"

Load

It allows to load in memory a design in one of the formats supported by Ramsete. A window is proposed that shows the designs and the directories present in the system besides the informations and a preview of the selected image. In the versions for SGI, Linux and Mac while digitate the name the system seeks the first name that starts with the characters that you have type till now. Pressing the 'Esc' key the system will automatically complete the name.

Browse

It allows to call the simplified "File Manager" that allows to effect some operations on the files as copy, move, rename and delete. From this window it is also possible to load the image. The interface allows to have a fast vision of the whole tree of the directories present on the disk. The "File manager" is described in the chapter 13.

Load with

It allows to load an image automatically reducing the colors to 2 million, 65 thousand, 4 thousand or 256.

Save

It saves on disk the image currently in memory. The saving operation also allows to export the image in other file formats. Only with the saving in the owner format XPF allows to group in a single file all the information of production and of the colorways.

New

It allows to create a new empty image on which to be able to import other images or to draw using the proper tools.

Stack films

It allows to overlap a series of images (usually in grey) to get an image in layers. The operation is described in the chapter 2.

Make films

It allows to generate the separate files for the traditional production. The operation is described in the chapter 3.

Print

It allows to print the design actually loaded. See chapter 11.

Scan

It calls the panel of the scanners management described in the chapter 12

Info

It shows the image informations described in the paragraph 1.3.1

Settings

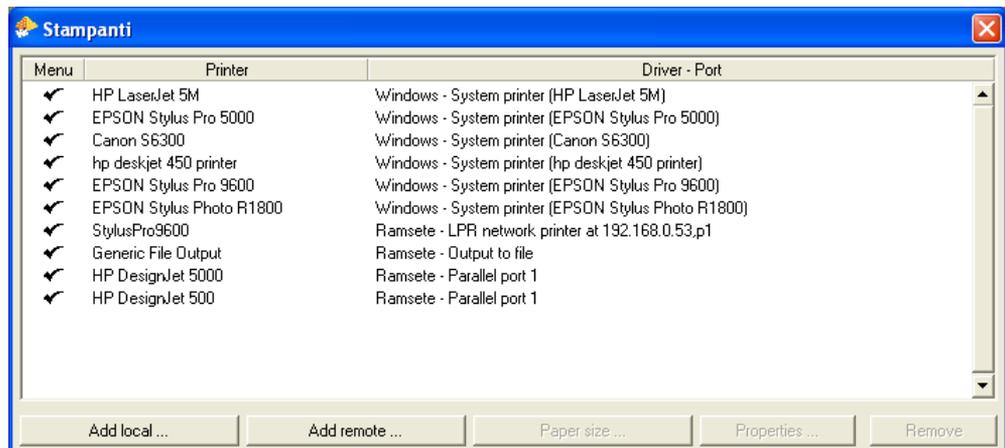
It calls the window of the program preferences.

Note: in the Mac version this voice is in the application menu.

In this window it is possible to define:

- The metric system (Metric or English)
- The default unit of measure when the windows of the program are open (points or millimeters/inches)
- The minutes that have to pass among the automatic saving requests of the image
- The activation of the function "Annul" also for operations that modify the entirety of the image.
- The options of the drawing cursor
- The options of the rubber band lines during the poligon drawing
- The configuration of the installed spectrophotometer
- The selection of the monitor profile for the Lab colors reproduction
- The separation curve of the black during the conversion in CMYK
- The definition of the fields inside the technical chart

It is possible besides to configure the printers usable from the program.



In the Configured printers window, that appears on the screen, you can see the list of the devices already configured: here you could setup a new device connected directly to your computer (*Add local*), or a new devices connected to a computer visible on the network (*Add remote*), delete (*Remove*) the selected device, define the paper size (*Paper size*) and set the printing resolution (*Properties*).

If you select *Add local* it appears a window that let you setup the printer model, the paper size, the device resolution, the correct driver and the port where the printer is connected.

If you select *Add remote* it appears a window divided in two parts: the higher field let you setup the name of the remote computer where the printer is connected; on the bottom field you can see the devices list configured on the remote machine. To setup a remote printer, you have only to select the printer name in the list of the bottom field and confirm it with the *Confirm* button.

Exit It allows to quit the application.

Note: in the Mac version this voice is in the application menu.

1.1.2 The menu “Properties”

Pivot

This function allows to assign a point of reference to the image. This point is used then as center of the rotations, point of origin for the movements of the areas and as point of alignment during the films stack. After having selected the function a cursor is shown for selecting the coordinates of the desired point.

Resolution

It allows to change the resolution of the image scaling it if required. Selecting the option "Keep dimensions" the image will be scaled accordingly.

New origin

It recreates the image so that to have the point selected as new origin of the design. It also works with images with repeat with or without step.

Grid

It allows to set one "grid" of points to help to line up the objects during the drawing. It is possible also to indicate the origin and the dimension of the grid through the selection of a point or a rectangle on the image.

Repeat

It serves to set the parameters of virtual size and step of the repeat. The repeat can be activated, but not displayed; in this case all the functions behave as if the image were with repeat (therefore every operation that goes out of a side of the design is also brought inside on the corresponding side).

Masks

It allows to activate or to disactivate the masks as well as to reverse, to eliminate or to reset the masks themselves. The operation of resetting eliminates the mask replacing with the selected color all the pixels previously occupied by the mask. It is possible besides to modify the color with which the masks are shown during the use or the creation. To create a mask is necessary to select the function "Masks" inside the panel "Design parameters" as described in the chapter 5.

Image type->Bilevel

It converts in black and white an image. In the toolbar is introduced a slider that allows to select the value of threshold to use to convert the image. During the movement a preview of the result is displayed.

Image type ->Grays

It converts the image in tones of grey.

Image type ->Colors

It converts the image in a list of color indexes (normally defined "Palette"). This is the most comfortable mode to elaborate images with few colors or flat separations.

Image type ->Fullcolor

It converts in an image TrueColor RGB.

Image type ->CMYK

It converts in an image in four-color process.

Image type ->Layers

It converts the image in separate layers. The layer separation is described in the chapter 4.

1.1.3 The menu “Draw”

Pen

Tool for free-hand drawing.

Line

...

Curve

<i>Fill</i>	It allows the filling of adjoining zones of the same color present in the image.
<i>Text</i>	It draws some texts on a defined line.
<i>Create lines</i>	It creates a new image containing some lines of variable thickness inclined as it is desired.
<i>Caleidoscope</i>	it creates some new images applying an effect kaleidoscope.

The functions of the menu "Draw" are described in the chapter 5.

1.1.4 The menu "Modify"

<i>Repeat</i>	It allows to repeat the image repeating its basic motif more times.
<i>Rotation</i>	It allows to rotate the entire image.
<i>Scale</i>	It effects a scaling of the image.
<i>Mirror</i>	It allows to mirror.
<i>Circular distortion</i>	It distorts circularly the image and the repeat. It is particularly suitable for the realization of designs for the tablecloths or for the umbrellas.
<i>Cut</i>	It cuts out with various modes a part of the image.
<i>Insert</i>	It inserts some lines or some columns in the image.
<i>Remove</i>	It removes some lines or some columns from the image.
<i>Overlap</i>	It builds the overlaps of the contours of the various layers.
<i>Skelethon</i>	It erodes a color up to make it of a single pixel. Useful to reconstruct outlines that have irregularly been scanned.
<i>Matte</i>	It produces some new colors in zones that don't have to be reserved.
<i>Make repeat</i>	It allows to make repeat the design.

The functions of the menu "Modify" are described in the chapter 6.

1.1.5 The menu "Area"

<i>Save</i>	It allows to save an area previously selected.
<i>Load</i>	It loads a design from disk to use it like an area.
<i>Copy</i>	It copies a part of the design that can subsequently be moved.
<i>Cut</i>	It cuts a part of the design that can subsequently be moved.
<i>Duplicate</i>	It duplicates the active area.
<i>Remove</i>	It removes the active area.
<i>Iconify</i>	It minimizes the active area freeing the video for other operations.
<i>Transparence and substitutions</i>	It calls the table to set the transparent colors and the substitutions.
<i>Move over pivot</i>	It moves the active area making to coincide the pivot of the image with the one of the area.
<i>Place</i>	It fixes the content of the area on the design.
<i>Circular repetition</i>	It repeats the area on a circle rotating it.

The functions of the menu "Area" are described in the chapter 7.

1.1.6 The menu "Grays"

<i>Percentage of coverage</i>	It calculates the percentage of coverage of the image.
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1.1.7 The menu "Colors"

<i>Colorways</i>	It calls the management of the colorways described in the chapter 9.
<i>Filters</i>	It allows to apply some color filters to the image.
<i>Import color table</i>	It imports the list of the colors from another image.
<i>Substitute</i>	It replaces one or more colors.
<i>Invert</i>	It exchange among them two colors.
<i>Reorder</i>	It rearranges the colors in the table.
<i>Reduction</i>	It reduces, using various modes, the number of colors.
<i>percentage of coverage</i>	It shows a table containing the percentages of coverage of the single colors. It also allows to reduce the number of colors.
<i>Regenerate</i>	It regenerates the image removing from the colors table the indexes not present and grouping together the indexes with the same color.
<i>Insert layer</i>	It adds a layer to an image "FullColor" automatically turning it into layers. For the description of the parameters you see the function " Add layer".

The functions of the menu "Colors", excluded the colorways, are described in the chapter 8.

1.1.8 The menu "Layers"

<i>Colorways</i>	It calls the management of the colorways described in the chapter 9.
<i>Import color table</i>	It imports the list of the colors from another image.
<i>Add</i>	It adds an empty layer to the image.
<i>Remove</i>	It removes the layer from the table and all of its content from the image.
<i>Delete->Layer</i>	It removes completely a layer.
<i>Delete->Overlapping</i>	It removes a part of the layer overlapped to others.
<i>Merge->Manual</i>	It allows to unite more layers in one.
<i>Merge->Automatic</i>	It unites the layers that have the same color.
<i>Reorder</i>	It allows to reorder the layers in the table.
<i>Percentage of color</i>	It shows a table containing the percentages of coverage of the single colors.
<i>Regenerate</i>	It regenerates the image removing from the table the indexes not present.
<i>Properties</i>	It allows to change the characteristics of the single layers.

The functions of the menu "Layers", excluded the calorways, are described in the chapter 8.

1.1.9 The menu "Strumenti"

This menu allows to display or to hide the tools panels described in the paragraph 1.3.

1.1.10 The menu “Show”

<i>Show bound</i>	It shows with a red line the border between a repeat and the other.
<i>Pivot</i>	It shows on the design the setted pivot.
<i>Rulers</i>	It shows the rulers on the edge of the image.
<i>ScrollBars</i>	It activates the scrollbars for the moving of the image.
<i>Full screen editing</i>	It shows the window of the program using the whole screen.
<i>Reference image</i>	It divides the screen in two to show another image loaded from disk. Pressing the CANCEL key around second image a contextual menu appears to allows to close the image and to activate the mode of moving and zoom synchronized with the principal image.
<i>Display density</i>	It changes the density of the normally invisible colors with the alternative modes of display activable with the ESC key. When this value is put to 100 the shaded layers are visualized in black and white to allow to highlight also the lowest shades present in the image.
<i>Technical chart</i>	It shows and allows to insert the values inside the technical chart of the design.

1.1.11 The menu “Utility”

<i>File manager</i>	It calls the file management described in the chapter 13.
<i>Printer manager</i>	It calls the program of printing described in the paragraph 11.3.
<i>License manager</i>	It shows the window of the licenses manager.
<i>Calibrazione monitor</i>	It calls the procedure of monitor calibration. Is necessary a spectrophotometer able to read the colors from the monitor.
<i>File recovery</i>	It allows to load an image from disk and to verify its data integrity. It allows to reconstruct (according to the entity of the damage) a corrupt file.
<i>Language selection</i>	It allows to change the language of the program. It is necessary to restart the application to apply the changes. In the version for Mac this selection is automatic and depends on the language selected in the panel "International" of the "System preferences".

1.2 Functions of general use

In this paragraph are described the functions that are not referable to a particular context, since they can be used in every moment during the elaboration of a design.

1.2.1 Zoom, panning and display in sectors

The keys subsequently described are used to modify the portion of image displayed on the monitor.

'F8': it shows the whole image and show a window that indicates the dimension displayable in scale 1:1. Therefore is enlarged the zone indicated by the window. It is possible to change the dimension of the window (and accordingly the scale) pressing the keys 'F8', 'F9' and 'F10'. If the image is already completely displayed is proposed only the window of enlargement.

'F9' and 'F10': it decreases or increases the scale factor.

'+' it puts to the center of the screen the point of the image indicated by the cursor.

CTRL+HOME brings the visualization of the design in the origin and memorizes the level of enlargement to use during the display of the single sectors.

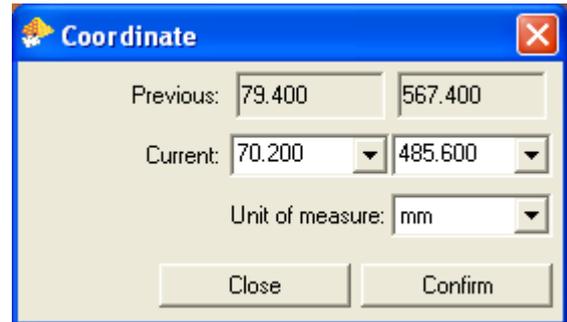
HOME and END: bring the visualization to the first or to the last sector.

PGUP and PGDN: display the preceding or following sector. If have been effected enlargements, reductions or pannings of the visualized area, it brings the visualization to the last examined sector. The first time that these keys are pressed the effect that is gotten it is equivalent to CTRL+HOME.

The cursor keys are used to move the screen in the direction indicated by the arrow. The moving is normally of 7/8 of the displayed page, but it can be reduced to 1/8 if it SCROLL LOCK is active.

1.2.2 Selection of vertexes with coordinates

In all the draw functions (except free-hand) and in all the situations where the selection of a point is possible, pressing the ENTER key, type the absolute values of the coordinates. If the inserted value is preceded from + or from -, the last coordinate is increased or decreased of the typed value. Besides selecting the relative ComboBox is possible to define as input value the coordinate of pivot, center, end of the file.



1.2.3 Protection and "unprotection " of the keyboard colors

The key '-' it allows to protect or "unprotect" the color that is currently under the cursor. This is a fast and alternative method to the selection of the protections described subsequently.

1.2.4 Display repeat contour

The 'Print screen' key (F13 on Mac) allows to display the contour of every basic repeat (in the case the repeat display is activated).

1.2.5 Selection of the current color from keyboard

The key '*' allows to select the current color directly from the image; such color is defined by the pixel that it is found under the cursor. In the case of images in layers will be selected only the layers that compose the selected color. To select all the layers (also those with density 0) press the key '/'.

1.2.6 Errors deleting

The BACKSPACE key allows the annulment of the last effected operation.

Pressing the SHIFT+BACKSPACE keys is possible to restore the situation preceding the typing of BACKSPACE.

1.2.7 Change of the display mode of the image

Pressing the 'Esc' key is possible to modify the display mode of the image; in particular it is possible to pass from the color visualization to the visualization in gray tones of the current color. During other phases of elaboration the same key allows to modify the display of the image in the way described in the paragraph related to the function that is in use.

1.2.8 Set of the pen dimension

In all the draw functions is possible to modify the dimension of the pen simply using the numerical keyboard. The key '0' it enlarge the pen while the key '.' reduces it. Typing in fast sequence any number from 1 to 999 is setted in pixel the dimension of the pen.

1.3 Control panels

In this paragraph are described the commands and the functions activable also by keyboard. Besides are described some functional aspects common to the whole program.

Keep in mind that the function keys that call some control panels are on/off type, that is a pressure display and a following pressure hides the panel.

Some of these panels can be hidden pressing the space bar on the keyboard; the panels so hidden automatically reappear some second after the cursor has abandoned the area of screen previously occupied by the panel.

In some panels it is possible to call a contextual menu (with the right key of the mouse) that also allows to dock the panel on the edge of the main window.

1.3.1 Image informations 'F1'

It allows to show all the information related to the design currently loaded and particularly: the name of the file, the number of the colors, the dimensions with possible repeat, pivot, number of calorways and image occupation. This last value indicates the quantity of memory required by the image when it is loaded in the program and it doesn't correspond to the greatness of the saved file.

1.3.2 Cursor coordinates 'F2'

It displays a panel containing some information related to the position of the cursor in the design.

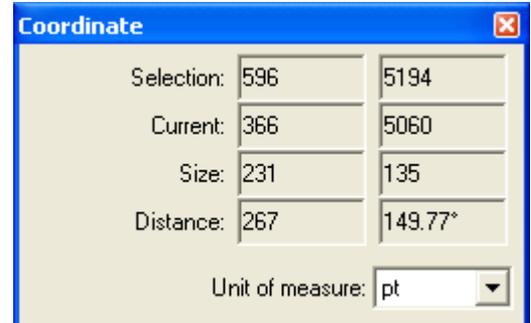
The various lines show in the order:

Selection: coordinates of the last point selected on the design.

Current: current coordinate of the cursor.

Dimensions: distance between Selection and Current in component X and Y.

Distance: measure of the real distance and relative angle.

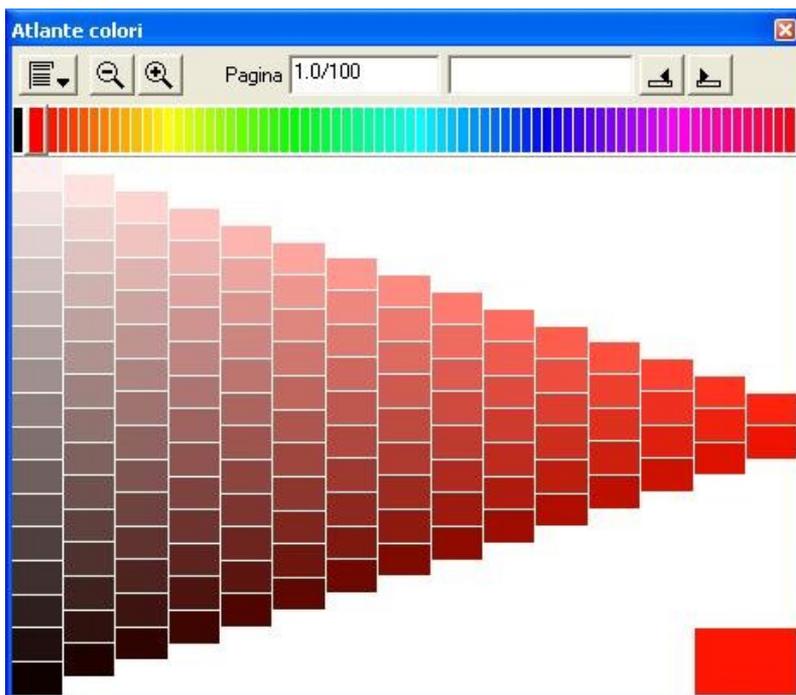


1.3.3 Atlante colori 'F3'

In the toolbar there are some button that allow:

- To open a menu that allow:
 - to select the atlas type among HLS, LCh e RGB
 - to choose the possible code to show for each color chip among Ramsete, Ramsete page, HTML and RGB
 - to print the atlas pages
- To effect a zoom of the display of the color atlas (clicking in the window and dragging the mouse the user can move the displayed area)
- To select the page and, only per the atlas HLS, the current gamma
- To search a color inside the loaded altas
- To move on the preceding color or on the following one that satisfy the value inserted in the search field

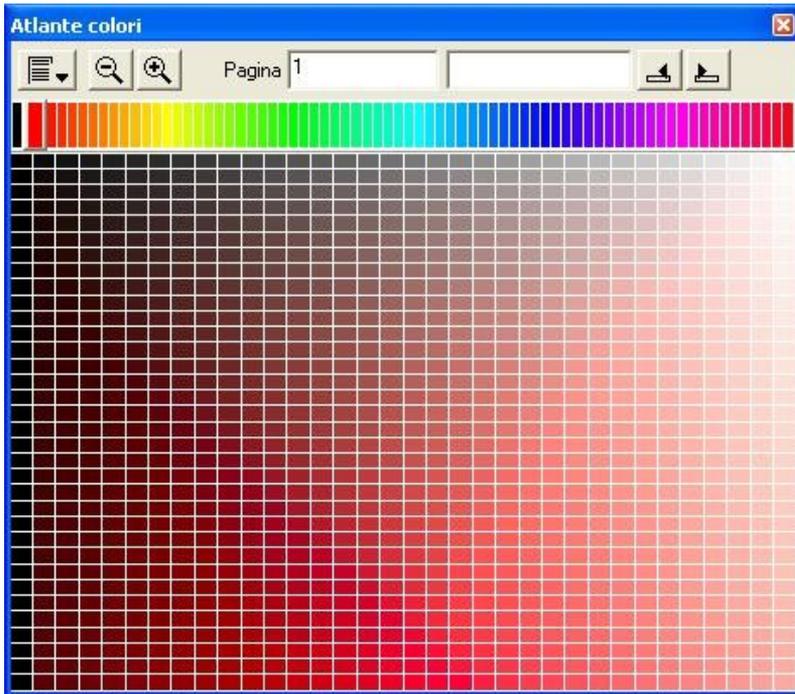
Under the toolbar there is a scrollbar that allows to quickly move among the pages.



The *atlas HLS* is composed of 73 base pages; the page 0 contain 256 levels of grey while the remainders 72 are composed of 135 chips of color each.

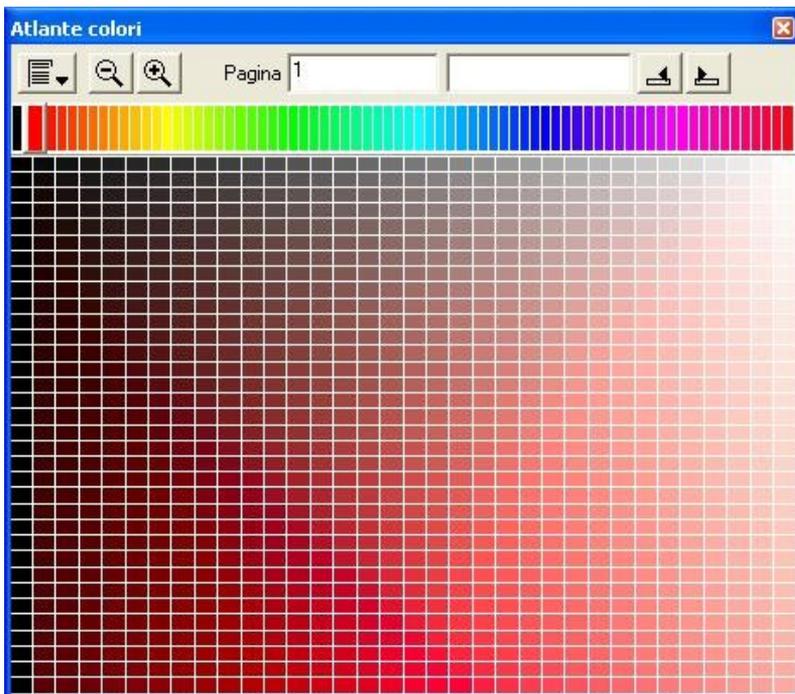
For each page of the atlas, (excluded the page 0), it is possible to produce an additional page holding pressed the CTRL key and selecting one of the color chips; the program generate a new page with the select chip as basic color.

The pages are indicated with the following syntax: page.subpage/gamma. It is possible to modify these parameters directly in the field of change.



The *atlas LCh* is composed of 73 base pages; the page 0 contain 256 levels of grey while the remainders 72 are composed of 1089 chips of color each.

The colors code for this type of atlas is always formed by '*' followed by the integer value of L, C, and h.



The *atlas RGB* is composed of 73 base pages; the page 0 contain 256 levels of grey while the remainders 72 are composed of 220 chips of color each.

With the PgUp and PgDn keys is possible to display respectively the preceding or following atlas page.
 In the printed pages the code of the color for every chip.
 Selecting a color this last will be used as current color for the draw operations

1.3.4 Color chart 'F4'

It shows the palette of the additional colors. Selecting a color chip, it will be used as new current color (if the layers are not defined). It is possible to use the scrollbars or the keys 'PgUp' and 'PgDn' to change the page of the current color chart.

In the toolbar there are some button that allow:

- To open a menu that allow:
 - to generate a new chart
 - to load a chart previously saved or the standard one
 - to save the chart
 - to join a chart to the currently loaded chart
 - to create a chart from a text file
 - to print the chart pages
 - to modify the layout and the options of visualization of the chart
 - to define the colors of the chart also with a spectrophotometer
- To effect a zoom of the display of the color chart (clicking in the window and dragging the mouse the user can move the displayed area)
- To search a color inside the loaded chart
- To move on the preceding color or on the following one that satisfy the value inserted in the search field



During the reading/definition of the colors the toolbar shows a different series of controls with which it is possible:

- To save the chart
- To modify the layout and the options of visualization of the chart
- To annull a preceding operation effected for error
- To insert a page
- To delete the page currently visualized
- To add a space before the selected color
- To remove the selected color
- To delete the data and the color present in the selected position
- To modify the name of the selected color
- To modify the code and the type of code of the selected color to be displayed
- To search a color inside the color charts available

During the definition/reading of the colors is also possible to insert a color using a spectrophotometer. To move a color in another position is enough to select it and to move it in the new position. Inserting a code in the toolbar the selected color will be modified accordingly. The field "Code" accept the same data of the color search described in the chapter 9. If in the field "Color atlas" is selected a profile of a calibrated printer, inserting a color code this last will be converted in a Lab value as if it had been read by a spectrophotometer. To modify the visualized color is enough to select it a second time to open the window of color selection.

1.3.5 Current color 'F5'

Is displayed the active color and the color of the image or of the chart where the cursor is positioned. According to the type of image and the to active function the panel presents different information for example the RGB or Lab values for the colors during the colorways, the value of density for images in gray tones.

1.3.6 Orient 'F6'

It allows to display the complete image and the zone where we are working. It is possible to move the panel related to the zone currently visualized to change it. In this way it is possible to move inside the image without having to call the complete vision with the F8 key.

1.3.7 Screen parameter 'F7'

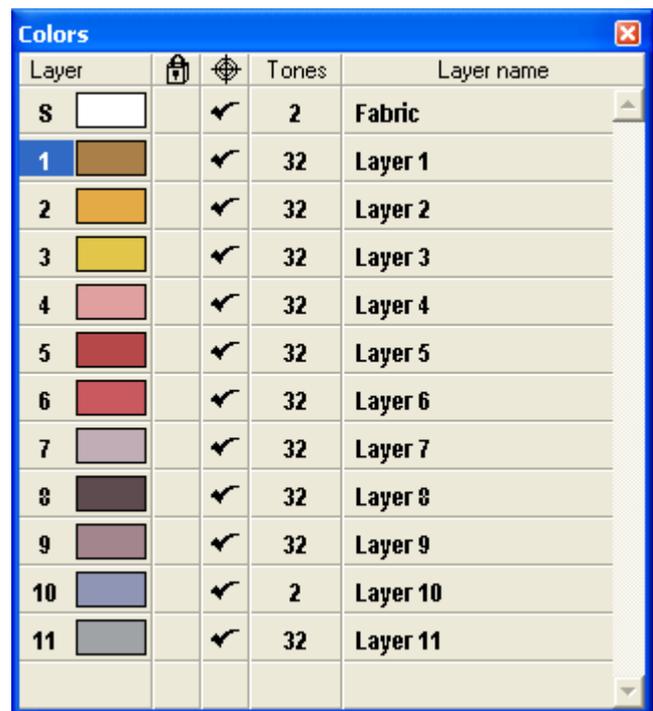
This panel allows the selection of the parameters for the screening. The complete function is described in the chapter 10.

1.3.8 Table of color selection, layers, protections and guide layers 'F11'

This panel is used for selecting the current color or the active layers to use for the various operations of retouch. The panel is composed of various columns which has a different function indicated by the heading line.

The first column contains the number of the color and the chip of the color; if the color appears with an oblique lining it means that the parameter of opacity of the layer has been modified. To select a color is enough to click above. Doing a double-click on the color it is possible to call the interface of color change. This operation is not possible if the design contains some colorways. In this case to change the color it is necessary to enter the function "Colorways". In the case the image is in layers, pressing on the heading, will appear a menu that allows to activate all the layers or to reverse the selection.

The second column allows to select the colors or the protected layers. In case of images in layers it is possible to select some partial protections with a double-click. In the case is activated some partial protections will appear the symbol of one empty 'X'. Pressing on the heading is displayed a menu that allows to eliminate all the protected colors or to reverse the selection. A pixel of an image in layers is not modifiable if it contains at least one of the protected layers.



Layer			Tones	Layer name
8		<input checked="" type="checkbox"/>	2	Fabric
1		<input checked="" type="checkbox"/>	32	Layer 1
2		<input checked="" type="checkbox"/>	32	Layer 2
3		<input checked="" type="checkbox"/>	32	Layer 3
4		<input checked="" type="checkbox"/>	32	Layer 4
5		<input checked="" type="checkbox"/>	32	Layer 5
6		<input checked="" type="checkbox"/>	32	Layer 6
7		<input checked="" type="checkbox"/>	32	Layer 7
8		<input checked="" type="checkbox"/>	32	Layer 8
9		<input checked="" type="checkbox"/>	32	Layer 9
10		<input checked="" type="checkbox"/>	2	Layer 10
11		<input checked="" type="checkbox"/>	32	Layer 11

The third column (active only with images in layers) indicate on what layers it is possible to write or to delete. Using this option with the protections is possible to define some complex mask zones without the obligation to use the function of masks draw. Pressing on the heading is displayed a menu that allows to eliminate all the guide layers or to reverse the selection.

The fourth column indicate the number of levels that compose the layer. Pressing on this value appears the window of the properties of the layer. It is possible to change various parameters among which the number of tones used for that layer.

The last column allows to set different parameters; pressing on the heading is possible to change the shown parameter among "Layer name", "Screen" or "Curve".

The parameter "Layer name" is a purely descriptive field that allows to assign a name to every layers.

When the parameter is active "Screen" it is possible to set a screen for every layer. This allows to have a preview of as the screen will make similar some tones of the layer giving a precise idea of which parts of the design will lose contrast during the process of screening.

With the parameter "Curve" it is possible to apply a curve that compensates the difference of density among the layers digitally generated and the real result of the printing both traditional and digital. The usable curves are the same created with the function of linearization of the screens explained in the chapter 10.

1.3.9 Draw mode 'F12'

This panel allows to set the parameters and the modes for all the draw functions. The complete description is in the chapter 5 "Draw and retouch".

The option "Noise" allows to apply a noise to the image to simulate the imperfections of the traditional printing.

With the column "Tones-screen" is possible to indicate the number of tones with which the single film or a screen previously saved has to be loaded to allows to simulate the screening effect present in traditional printing.

The second-last column allows to stack a film in reserve so that to cover completely the previous films.

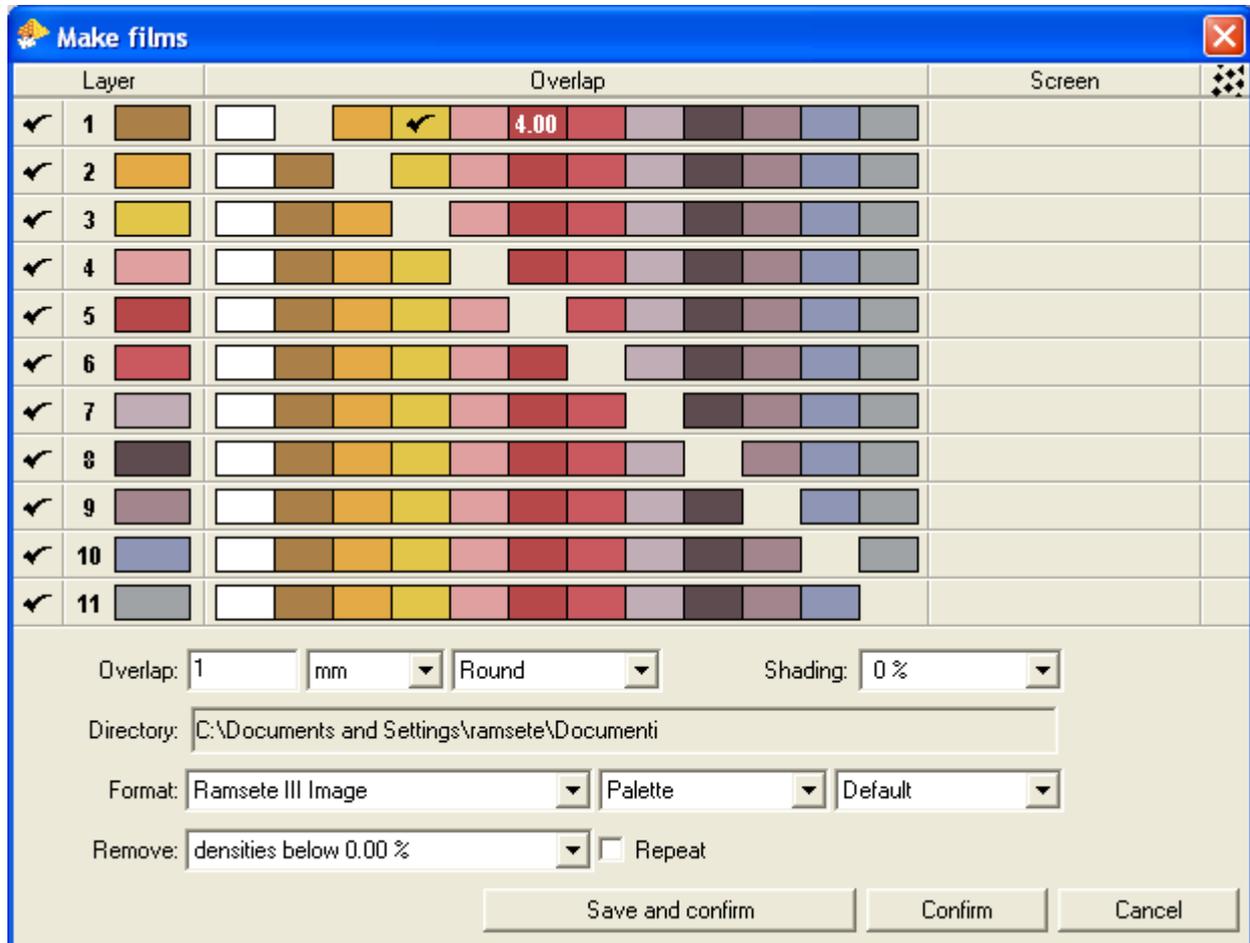
The last option activates the automatic alignment of the "pivot" (points of reference) of the single films. This option is important if the single films don't have the same dimension and it is necessary to indicate a particular point to align them.

The option "Scale" allows to adapt the single films bringing them to the most greater resolution among all the selected files.

The option "High quality" produces a "dither" to eliminate the bands effect during the import of layers with a low number of tones.

3 Make films

This function allows to separate the image in films. According to the type of image it shows two different user interface: one for the images in layers and the other for all the other types of image. In the case of images in layers the following user interface is displayed.



In the first column it is possible to indicate which films are to produce.

In the panel "Overlap" is possible to set the possible overlaps to effect on the various layers also in selective way that is to say indicating what dimension of overlap must be uses every time that the layers that is producing touches another layer. If in the box related to the overlap is present a symbol it means that the picture will be enlarged of a number of pixel (or millimeters) indicated in the input field named "Overlap", in case is present a number the picture will be enlarged of a dimension indicated by the number. To activate or not the overlap is enough to click on the relative panel. To modify the single dimension is necessary to do a double-click on the panel and type the in required value.

The column "Screen" allows to select a screen of production with which to generate the film. The last column activates the option of screening. If a screen is selected, but the screening is not activated the film will be produced using the possible curve of correction contained in the screen.

With the parameter "Overlap" is possible to define the dimension of the enlargement of the layers (in points or millimeters) and its form (round or square); besides it is possible to indicate if the overlap has to shade on the edges.

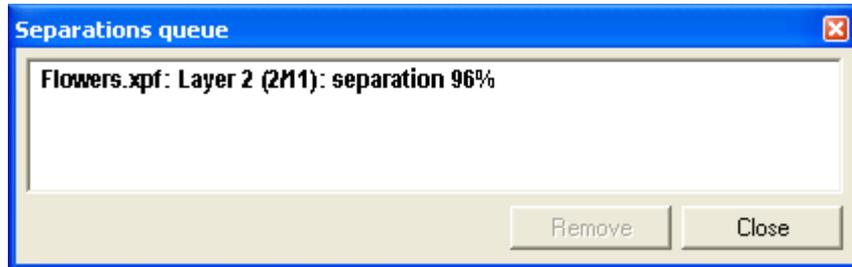
The field "Directory" allows to select the directory of destination of the produced films while the field "Format" indicate the type of file to produce.

The option "Remove" allows of "to cut" all the densities inferior to a certain value during the film generation.

Activating the option "Repeat" (enabled only if the design contains the repeat parameters) is possible to produce the films with the real dimension of the whole replied repeat.

The button "Save and confirm" allows to save the image with all the setted parameters and to start the process of films separation. The button "Confirm" starts the process of films separation without saving the image and therefore the setted parameters will be "forgotten" when the image will be reloaded in the future.

The state of the process of separation can be checked calling the following window clicking on the icon that appears in the statusbar.



From this window it is also possible to select and to remove one of the jobs in queue.

Instead in the case of images not in layers the function proposes an interface of colors selection that allows to group the colors to define a single film that can be saved both in gray tones and in black and white applying a screen if necessary. All the operations are developed through the use of the buttons present in the toolbar that is as in the following figure.



The first button selects all the colors present in the image.
The button with the 'X' deselect everything.

To select a part of the colors present is enough to click on the image.

The third button of the toolbar calls the graph that allows to modify the level of grey of the single colors selected.

The fourth active icon the screening using the parameters currently loaded in the "Screens panel" (F7).
The fifth button applies the relative curve of linearization of the screen (if it present in the selected screen).

The button "Save" allows to save the film so obtained in the necessary file format.

4 Layer separation

To be able to convert an image in layers is necessary to perform a series of operations that allow "to separate" the image in the single films that compose it. This operation is particularly complex and needs a certain knowledge of the job typical of the engravers. The software offers a complete series of tools to complete this job.

In the case in which the loaded image has less than 48 colors, once selected this option the software proposes a window in which is required if convert automatically the image in layers (every color becomes a layer in 2 tones) or if select manually the layers. In the case in which the image has more than 48 colors the software directly enters the phase of layers separation. The toolbar of the layers separation appears as in the following figure:



The first two icons add and remove a layer.

Every time that a layer is added it appears in the window shown on the left side. This window is separated in three columns: the first one allows to select what layer is active (what layer is defining), the second contains the color of the layer and the third contains the number of levels of the layer. All the parameters are modifiable by this table.

The added layer is a copy of the current layer that is to say it maintains the same parameters and therefore the same selection; in this way it is possible to use a selection more times to get some separations in scale (for instance light, medium, dark).

The icon with the lens inside the active toolbar actives or disactives the mode "Preview" that shows in real time the final result of the separation.

The icon beside instead allows to divide in two the screen to visualize the original image on the left side and the separated one on the right side.

The icon with the symbol 'X' deselects all the colors of a separation.

The four following icons select the tool used to make the separation; the modes of using of the various tools are described subsequently.

The last two icons allow to open respectively the graph for the correction of the gray levels of the single selected colors and a correction curve applicable on the densities of the colors selected to balance the separation.

Pressing the key ESC is possible to change the mode of visualization to individualize better the colors to separate. The alternative visualization is also influenced by the parameter planned in " Display density".

The first tool allows to select a group of colors defining free-hand a polygon. The gray level of the selected colors is calculated converting the RGB values. It is the simplest tool, but it is enough limited above all for the separation of shaded designs.

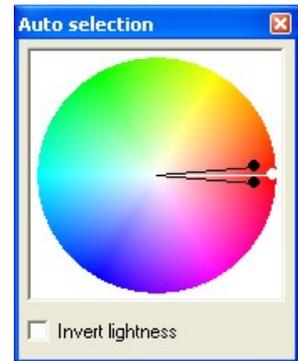
Every time that a polygon is drawn the colors are added to the selection. To remove some colors from the selection you have to draw the polygon holding pressed the CTRL key.

Pressing the icon with her 'X' the selection is reseted.

The second tool selects the colors inside an interval of tone. The interface allows to define the central tone with the white ray and the dimension of the interval with the two black rays.

The gray level depends both from the image and from the distance of the colors from the central tone.

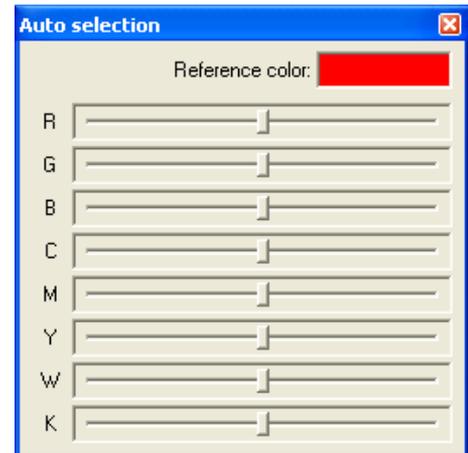
The option "Invert lightness" reverses the gray levels without modifying the group of colors selected.



The third tool allows to perform some separations using a color of reference selectable from the menu.

It is possible then to apply to this color some changes adding or removing the various base colors indicated by the sliders of the interface.

The sliders allow to act on the values of red, green, blue, cyan, magenta, yellow, white and black.

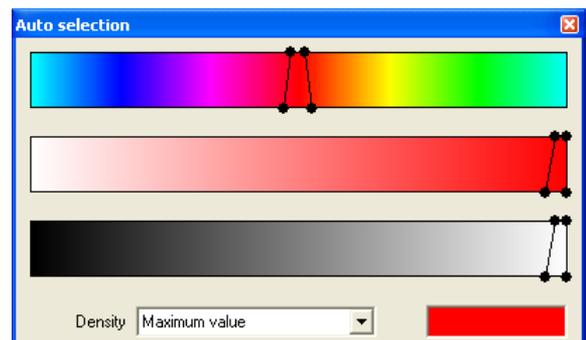


The fourth selection tool offers the possibility to check separately the values of tone, glut and lightness of the colors to select.

Every parameter is managed with four checkpoints.

The two points that are found in the superior part of the bars define the point of beginning and the point of end of the selection.

The two lower points, that can define only a greater interval, allow to add same colors to the selection shading the resultant gray tone.

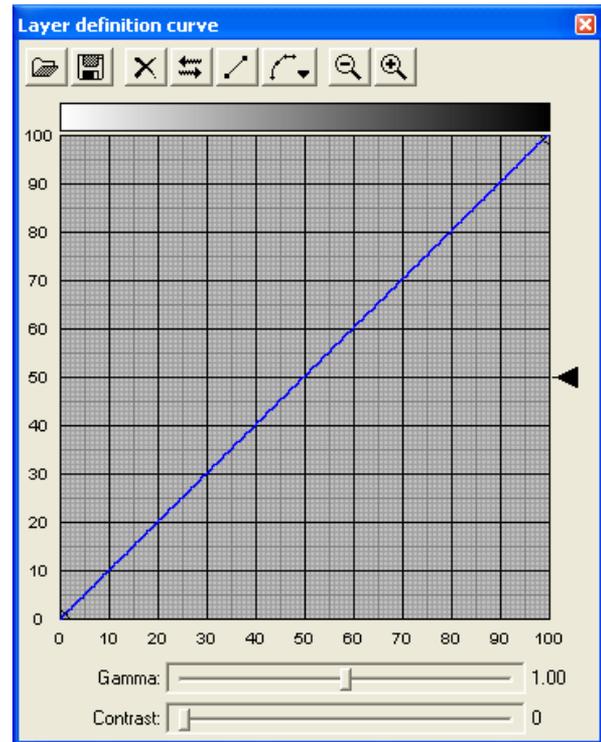
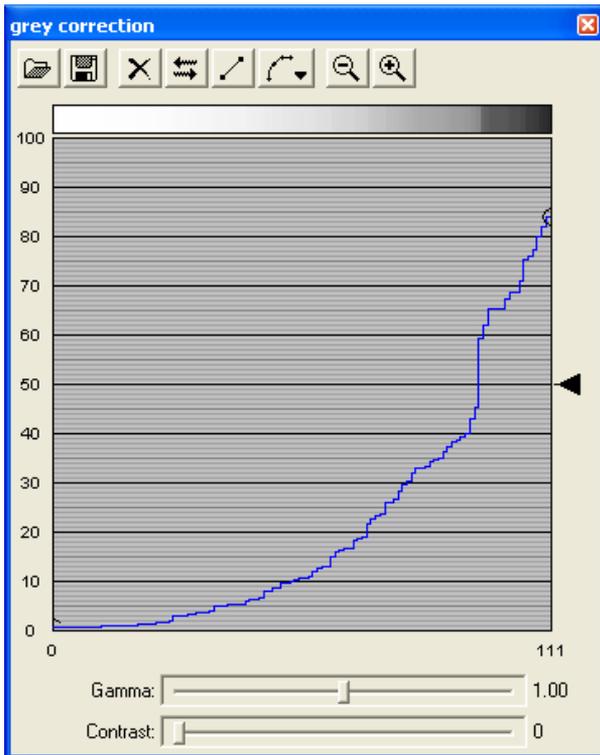


The three bars check only the number of colors that are collected from the image; their gray value depends on the set up of the density parameter that has the followings meanings:

- Maximum value: the maximum density (black, 255) is applied to every selected pixel. The possible shade is given only by the position of the lower points of the sliders. It is the simplest method to select the image and it allows to have an immediate crosscheck on what is separating. It is useful to start with this mode also because it is possible to change the method in every moment without losing the defined selection.
- Absolute lightness: to the selected pixels is assigned the value of gray defined by the absolute value of lightness of the single color.
- Relative lightness: the value of lightness is used but a search is made inside the pixels selected for finding the minimum and maximum point of lightness. The dynamic gamma is expanded for getting a separation that starts from the pure white and reaches the pure black.
- Chromatic distance: it defines the shade of gray according to the distance from the color of reference. This color can simply be select clicking on any pixel of the image.
- Absolute glut: it is the same thing of the absolute lightness but is taken in consideration the value of glut.
- Relative glut: it is the same thing of the relative lightness but is taken in consideration the value of glut.

It is possible to scroll the first bar of the colors clicking inside so that to change the central color without modifying the four points. In practice it is as to move contemporarily the four points.

The gray values obtained can be modified using two correction tools enough similar among them, but with substantially different results.



The first one allows to modify the density acting on the single selected pixels independently of the value of gray that has been assigned by the software during the selection.

The graph show the number of the selected colors (on the X axis) with the relative level. Selecting few colors is possible to see a serrated line; with many colors this line appears almost continuous.

For convenience of use the system rearranges the indexes selected according to their value and therefore the curve that appears is always increasing.

The icons present in the graph allow to load or to save a curve, to reset the performed corrections, to reverse the curve on the X axis, to expand the curve interpolating the values from 0 to 100, to modify the method of interpolation, to enlarge and to reduce the window.

The arrow on the right allows to move the whole curve on the Y axis.

The two sliders in the lower part apply a correction of "Gamma" or "Contrast."

This tool is very useful during the separation with few colors to have a precise control on the single points selected; with many selected colors it allows to apply the expansion of the dynamic interval (the fifth icon) to get the maximum information possible from the performed selection.

The second tool allows to apply a real curve of correction acting only on the density calculated by the software. The two tools work contemporarily even if only at a time is displayed; in practice it is possible to modify some single levels with the first tool and subsequently to apply the correction with the second tool keeping in mind of the effected changes.

5 Draw and retouch

To all these tools the present parameters are applied in the panel "Draw settings" (F12).

In all the draw functions it is possible to simply modify the dimension of the pen using the numerical keyboard. The key '0' it enlarge the pen while the key '.' reduces it. Typing in fast sequence any number from 1 to 999 the dimension in pixel of the pen is setted. This option doesn't work in the case in which some full figures is selected because the dimension of the pen is irrilevant for the tracing of the figure itself. The option is also disabled when is active the management of the cursor dimension through the pressure pen.

All the draw functions have some modes of use that can directly be selected by the menu to them associate, from the present icon in the toolbar or pressing the TAB key that allows to pass to the following option.

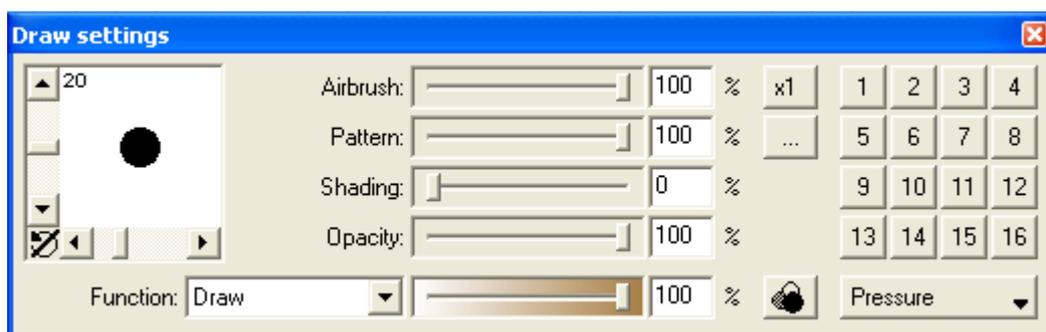
During the drawing of polygons it is possible to exchange among "full" and "empty" pressing the CTRL key. Always the CTRL key allows to activate or to disactivate the mode "progressive" of the function "Pen."

In all the geometric functions that require an indefinite series of points it is necessary to press MIDDLE or the Space key to mark the last selected point.

Holding pressed the SHIFT key the traced lines will be lined up every 15 degrees.

5.1 Draw settings 'F12'

This panel allows to set up the parameters and the mode for all the draw functions. Some options are active or present only with determined types of images.



On the left of the panel it is present a box that displays the form of the current pen; the two "scrollbar" presents allow to modify the dimension of the pen. It is possible to apply a rotation to the pen simply selecting the box holding pressed the ALT key.

On the right are present 4 sliders that allow to modify:

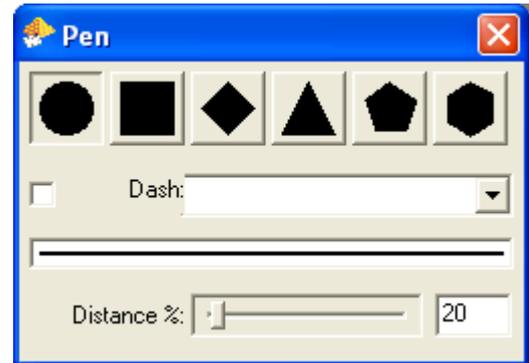
- the spray density (the button on the right allows to change the dimension of the single pixels from 1 to 4)
- the density of the pattern
- the shade on the edge of the pen
- the opacity and therefore the transparency of the applied color

Even more to the right we find a group of buttons that allow to save the most common pen set up, that can be recalled simply pressing the button. To save the pen set up is enough to press on the desired button holding pressed the CTRL key.

The lower part of the panel contains the menu for the selection of the active function and the set up of the pressure pen. According to the selected function different options are displayed. They are following described.

- **Draw:** this is the principal draw function. In the images in shade of gray or in layers it is possible to set up the density of writing. The button on the right (that appears only with images in layers) allows to select the overlap mode or reserve.
- **Pantograph:** this function is usable only with the tool pen and allows to copy from a source region (the part of the design that I want to copy) toward the destination (the zone where I want the copy is performed). To select the origin of the copy is necessary to press 'Space' key in the point in which the origin is desired; the ENTER key allows to bring back the cursor in the last selected origin.
- **Transform:** this function allows to apply a correction curve to a part of the image. The procedure is similar to that used during the layers separation. During the definition of the curve the result of this transformation is shown in real time on the current layer. After having defined the correction curve it is therefore possible to alter the selected zones of the current layer (with the pen or with polygons). The button "Apply" that is displayed allows to apply the transformation defined to the whole image; it is possible to apply the transformation in fast way or in "High quality" that analyzes the whole image and applies the transformation also introducing a noise that improves the final quality of the operation. With the function "Pen" activated it is possible to recall the window of transformation set up simply pressing Space.
- **Move:** it allows to move from the source layer to the destination layer, on condition that the destination layer presents a smaller density than the source layer. In every case, all that is found on the source layer will be deleted by the same function. The displayed buttons allow to set up the source layer and the destination one.
- **Copy:** it allows to copy from the source layer to the destination layer, on condition that the destination layer presents a smaller density than the source layer. The source layer remains unchanged. The displayed buttons allow to set up the source layer and destination one.
- **Reserve:** it allows to write with the current color erasing from the other layer a percentage of color so that to assure that in a particular zone of the design there is always a determined minimum percentage of coverage.
- **Finger:** it allows of "to drag" the colors of the design with an shade effect similar to that obtained with the use of a wet finger.
- **Texture:** it applies some effects or some screens on the design to simulate the fabric effect. The voice "Positive/Negative" allows to reverse the levels of the effect to apply.
- **Operations:** with this function it is possible to execute some simple mathematical operations on the values of two layers and to save the result in a third picture by choice.
- **Shading:** this function works only on solid geometric entity and allows to define shaded regions by a special interface. In the case in which is defined gray tones or layers the passages between a shade and the other one are defined by the number of tones. In the case of flat design the shade is obtained simulating the tones with a spray function variable with continuity. The parameters of the function are described in the chapter 5.3.
- **Clean:** it allows the cleaning of flat or shaded images with pen or polygons, according to the Matrix parameter that defines the area of the image used for the calculation. This function presents besides the advantage to automatically regularize the contours of the design, both it flat or shaded. This function presents the disadvantage, as Smooth, to round off the tips. The second parameter allows to regulate the intensity of the cleaning.
- **Noise:** it exchanges the pixels inside the pen or a polygon, with respect to the parameter Matrix. More this parameter results anymore elevated, so much more the effect of noise will be evident. It is possible also to select different types of noise.
- **Smooth:** it applies a filter of fuzziness on the image: in practice it allows to get effects of shade on the border. It is necessary to pay attention because this function extends to round off the "tips". It can be seen how the inverse function of Contrast.
- **Contrast:** it allows to contrast zones of the image. The value of contrast is definable through the parameter "Matrix". It can be seen how the inverse function of Smooth. It is advisable the use of this function with polygons because of the fact that, using the pen, the number of operations of contrast is so elevated to cause undesired effects.
- **Edge:** it allows to extract the contours of an image bringing it to two colors.
- **Emboss:** it applies a filter to the image simulating an emboss effect in grey tones.
- **Mask:** it allows to draw a mask on the image so that this last rests partially protected; besides with this function it is possible to draw the joinings for the layer or the cylinder. The mask can be drawn, deleted or inverted.

- Clicking inside the panel that visualizes the current pen appears a window that allows to change the form of the pen, the distance among the points during the drawing and the definition of the options of hatching during the tracing of the polygons; the field of text present in the window allows to create whatever type of hatching simply typing the sequence of pixel full/empty that is wanted to trace. Then writing the values "20,20" we will get an hatching with 20 full pixels and 20 empty, with "20,20,1,20" we will get an effect "line, point, line, etc". To correctly set the parameters it is good to keep in mind what dimension of pen we will go to use.



5.2 Drawing tools

In all the drawing tools it is possible to change the dimension of the pen between a vertex and the other to get some handwriting lines.

In the drawing of the polygons it is possible to press the CTRL key to change between empty and full. Every tool has some options that modify its performance. They are following listed.

5.2.1 Pen

- *Connected*: it is the standard setting where the points of sampling of the tablet are connected between them using some segments.
- *Interpolated*: the points of sampling of the tablet are connected using some curves of interpolation. The result is a softer line but the last point is not immediately drawn and therefore a light delay is noticed during the drawing.
- *Single*: it allows to draw a single point to every pressure.

In this function it is possible to activate the setting "progressive" pressing the CTRL key that allows to have a filling effect greater of the normal pen.

5.2.2 Line

- *Single*: it allows to trace a straight line defining the point of beginning and end.
- *Continuous*: it allows to use the end point of the first straight line as initial point of the second and so on.
- *Fixed point*: after having traced the first straight line, the initial point remains point of anchorage common to all the following straight lines.
- *Manual*: it allows to trace lines, of a pixel, perfectly horizontal, vertical and/or of 45° using the numerical keyboard. When the cursor is positioned on the starting point of the straight line, press the key related to the desired orientation. For instance pressing 6 is traced a straight line that, starting from the select point, it continues to the right till to meet a different color from the background on which it is operating. Pressing 9 is traced a straight line slanted of 45° that, from the selected point, goes up to the top-right side. Whatever is the selected direction, the straight line is traced till the intersection with a different color from the one of the starting point.
- *Manual double*: this function operates with the same criterions of the Manual one but it starts from the center of the straight line up to the intersection of another color, therefore the key 6 is identical to the key 4 and so on.

5.2.3 Rectangle

- *Single*: it allows to trace a single rectangle.
- *Cicle of points*: it allows to trace rectangles in which the end point of the first rectangle becomes initial point of the second and so on.
- *Fixed point*: it allows to trace rectangles in which the initial angle remains as point of anchorage common to everyone. After having selected the staring point, it is enough to position the cursor on the final point of the rectangles and confirm it.

5.2.4 Poligon

- *Regular*: it allows to perform regular polygons from 3 to 12 sides. Pressing MIDDLE or SPACE is increased the number of sides.

- *Irregular*: it allows to draw closed polygons.
- *Parallelogram*: it draws some parallelograms.
- *Stars*: it allows to draw some stars with the number of points selectable as for the regular polygon.

5.2.5. Arc

- *Ray*: it allows to draw a defined arc the ray.
- *Three points*: it allows to draw an arc defined the three points.
- *Three points continuous*: it allows to draw an arc defined the three points, the difference consists in the fact that the end point of the curve is anchored like the initial point of the following curve and so on to allow the drawing of a series of arcs connected between them.

5.2.6 Circle

- *Ray*: some circles are defined starting from the ray.
- *Diameter*: the operational method is identical to that precedent; difference consists in the fact that the first one and the second point define the extreme of the diameter of the circumference.
- *Three points*: as the precedents, but the three points are defined on the circumference.
- *Concentric*: it allows to draw circles as described in the option ray, allowing however to use the center of the first circle as center of all the others so that to get a series of circles concentric.

5.2.7 Ellipse

- *Angles*: it allows to draw some ellipses starting from the angles.
- *Center*: it allows to draw some ellipses starting from the center and dragging toward the outside.

5.2.8 Curve

- *Catmull*: it draws a curve with different methods of rounding of the lines.
- *B-Spline*:
- *C-Spline*:
- *Three points*: it allows to draw a curve that moves solidly with the cursor. The end point of the first curve becomes the initial point of the second and so on.

5.2.9 Fill

- *Color*: it allows to fill with a color some zones circumscribed by another color.
- *Fill contour*: it allows to define the colors protected as colors of contour for the filling.

5.3 Tracing of shaded geometric figures

Activating the function "Shade" in the panel "Draw settings" (F12), every time that a geometric figure is confirmed, the toolbar introduces a series of controls where possible to set the type of shade required.



The first parameter selects the structure of the shade; the possible options are:

- Linear: with this mode it is possible to position two or more points on a straight line to produce a shade perpendicular to the straight line defined with different densities among the various points.
- Circular: the shade is circularly generated using the first point as center and the second for the contour.
- Points: it is possible to select two or more points with which the shade is created keeping in mind of the distance among the various points.
- Curve: it produces a shade following one or more curves.
- Contour: is used the contour of the polygon drawn to generate the shade.

The succeeding parameter, that appears only in presence of images in grey or in layers, change the method of application of the shade using some different algorithms to mix the values of density produced by the shade with the content of the image.

The parameter "Noise" introduces a noise whose intensity is proportional to the select numerical value (extremely helpful to eliminate the bands effect).

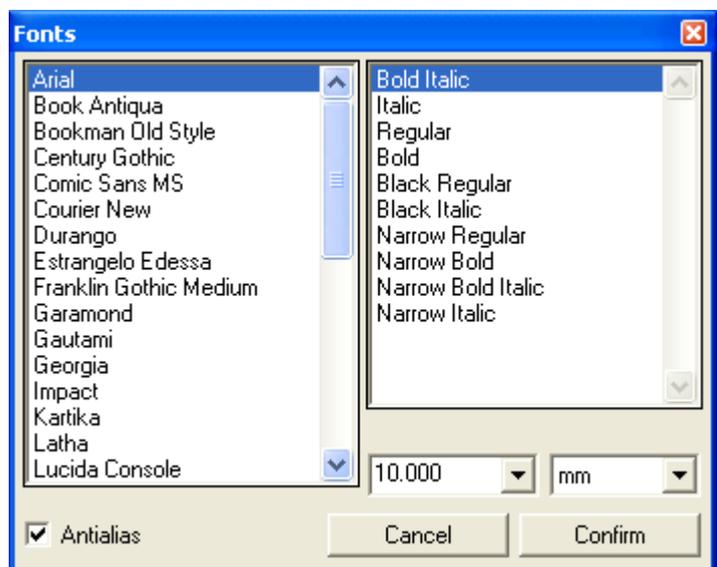
The bar of the "Density" allows to assign or to modify the point value currently selected. To select a point is enough to click on the ellipse that contains the value.

The parameter "Inclination" change the ramp of ascent/descent of the shade.

"Preview" allows to activate or to disactivate the preview of the obtained shade.

5.4 Text

With this function it is possible to draw some writings along a straight line defined by two points on the design. Once selected the second point it appears the interface of the side figure that allows to select the type of font using the right column and the style using the left column. Always with this panel it is possible to set the dimension of the writing and to activate the function of "Antialias" that allows to have the softest contours of the characters; this option is active only with shaded images. After having inserted the text it is possible however to move the position of the vertexes of the straight line on which the text is drawn.



5.5 Lines creation

With this function it is possible to create a new image with lines of dimensions, inclination and colors selectable from the consumer. The created image has the necessary least dimensions to get an image that perfectly pastes himself in repeat.



The toolbar presents the setting of the resolution and the inclination to use for drawing the lines. The present icons allow in order to insert a line, to eliminate a line or to delete completely the list of the lines present in the table.

The chart that appears on video allows to select the line and to modify its value.

It is possible besides to change the color or to copy the color from another line holding pressed the CTRL key while is selecting the desired color.

During the insertion of the values it is possible also to indicate a letter (example 10a) that identifies the color so that to be able to indicate it again subsequently. In this way is possible to create some sequences of lines that, once regenerated the image, they will use the same layer for the select color.

5.6. Kaleidoscope

With the function "Kaleidoscope" it is possible to generate and to save some motives obtained applying some mirror effects to a part of the image currently in memory.

Selecting any point of the image some motives are created starting from that image portion.

The portion of image can be changed using the icon with the grid present in the toolbar of the window.

The other icon allows to save the motive obtained.



6 Image modify

The menu modify allows to perform operations of transformation like rotations, scaling, etc. on the image or on the area. The term "area" intends a portion of image that can be cut out by the image. The areas don't belong really to the image currently in memory until they aren't "placed" and therefore they can be moved and modified before being definitely inserted.

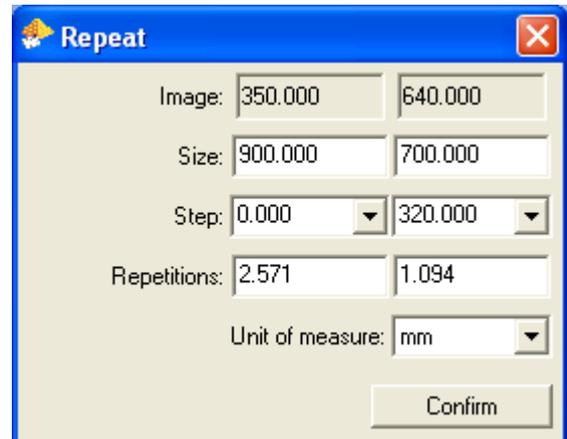
6.1 Repeat

It allows to reply the image or the area keeping in mind of a possible step.

The window quotes the dimensions of the image loaded in memory or of the selected area.

The user has the possibility to type the final dimension of the repeat or the number of repeats and the possible step in X or Y axis.

If an image contains a mask it is also displayed the option "Shaped". It permits to reply the image allowing for the mask to indicate the joining of the repeat. In practice the image is replied in a direction of an integer number of times: the first one repeat contains the mask without changes; in the following repeats, except the last one, the mask is eliminated while in the last one the mask is reversed. In this way using the function "Resets mask" it will be possible to get the image replied with an irregular mask of cut so that to avoid problems of joining on the layers.

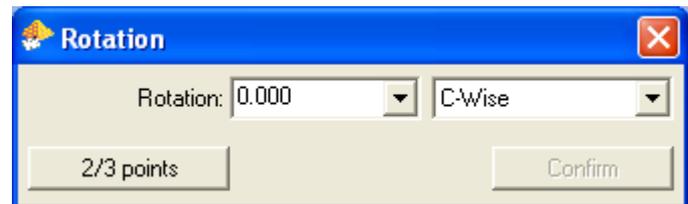


6.2 Rotation

It allows to perform a rotation of the image or of the area. Type the angle of rotation desired therefore choose if the rotation has to be clockwise or anticlockwise.

Clicking on the numerical field of the degrees appears a menu that contains the possibility to rotate the image of 15/30/45/90/180/270 degrees.

The button "2/3 points" allows to select two points on the image to calculate the angle to apply for bringing the segment horizontal or vertical; instead selecting three points the system will calculate the angle subtended by the defined triangle.

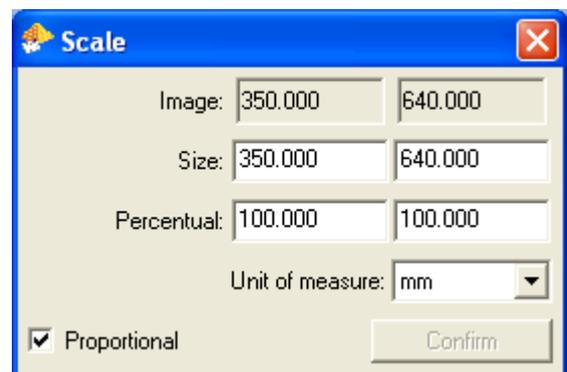


6.3 Scaling

With this function it is possible to change the actual dimensions of the image or of the area both in enlargement and in reduction.

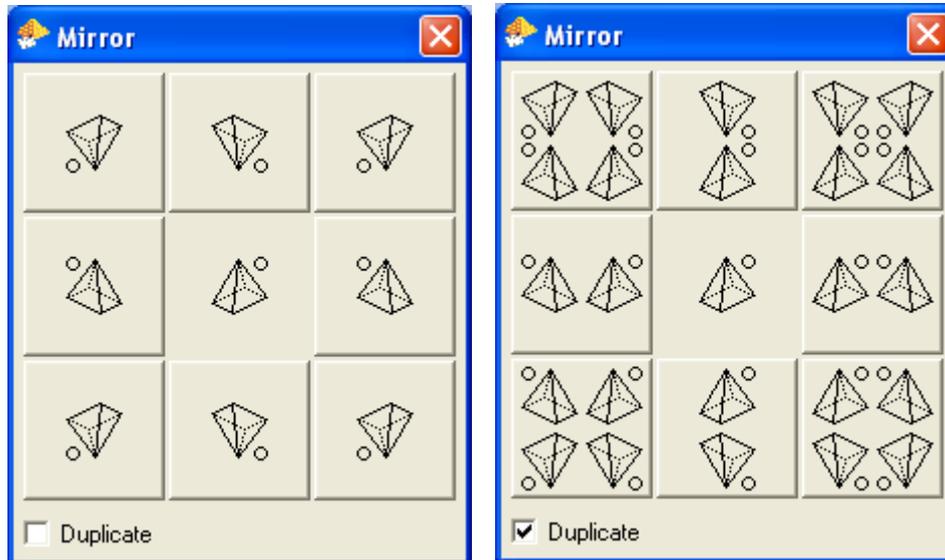
The window quotes the dimensions of the image currently in memory or of the selected area. To scale the image type the new dimensions or the value of scaling in percentage.

The option "Proportional" allows to maintain the proportion among the two axis.



6.4 Mirror

It allows to reflect and to duplicate the image. Select in the window the desired setting and the option "Duplicate" if the user intends to duplicate the image. The figure shows the images of the window both in normal mode and in "Duplicate" mode.



6.5 Circular distortion

It allows to distort the image in memory in a section of circle for the possible circular placement (very suitable for the tablecloths).

The user interface shows the dimensions of the image, the ray of curvature of our section of circle, the number of objects to be inserted inside of the section (Repetitions) and the measure in degrees of the section (Angle). The image obtained is always positioned on the external edge of the circle; it means that, pointing out a ray of greater curvature greater than the dimension of the image, the central part will become a transparent circle.

6.6 Cut

This function allows to cut out a part of the image with different settings:

Regular: it performs a regular cut (a rectangle) of the image.

Irregular: it allows to cut the image using an irregular polygon; the cut out image is always rectangular, but the part not selected is masked.

Trim: with this option is required only a point and then is displayed an interface that allows to eliminate the top part, bottom, to the right or left, top and right, bottom and left.

Mask: the function seeks the present mask and cuts out the least portion of the image to eliminate the most greater part of mask; it is useful to reduce the occupation in memory of the image after having been rotated.

6.7 Insert

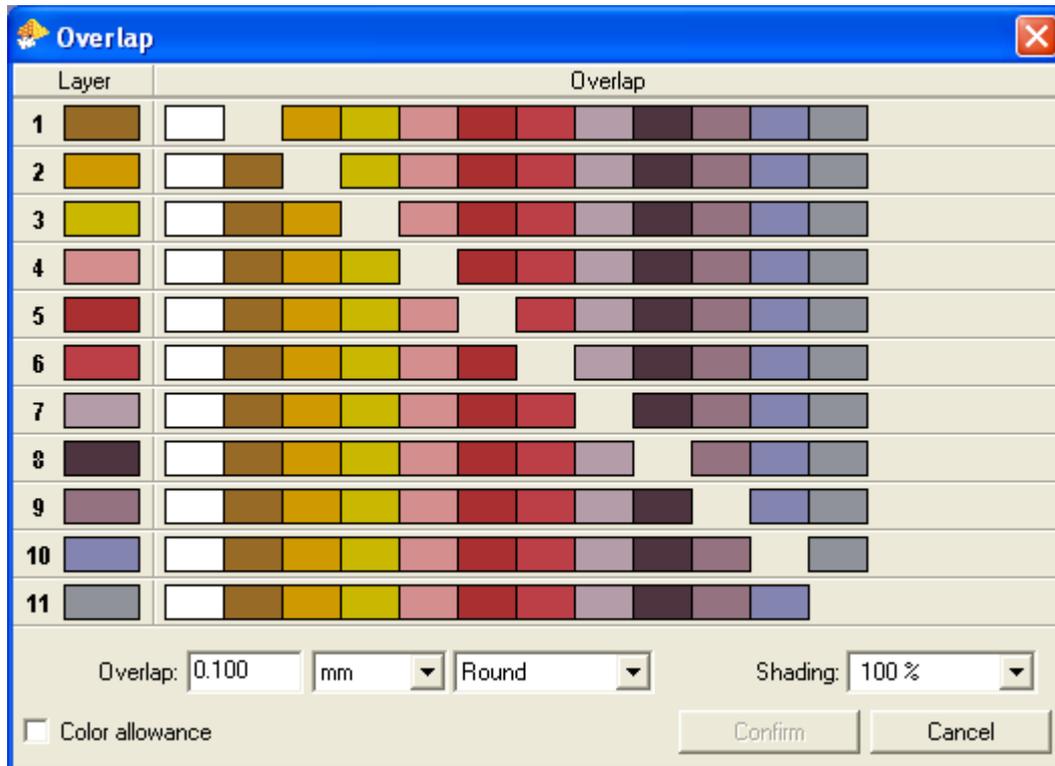
It allows to add in any point of the design *lines*, *columns* or *irregular columns* with the background color of the design. It is possible to decide the number of lines/columns interactively or typing this value in the window that appears pressing the key ENTER.

6.8 Remove

It allows to remove in any point of the design *lines*, *columns* or *irregular columns*. The options are identical to the ones of the preceding function.

6.9 Overlap

It allows to define the overlap of the colors for the following phase of plotting or engraving.



In the first column it is possible to indicate what colors or layers have to be interested from the function.

Proceeding toward right we find the selection of the overlap between layer and layer.

In the case is not defined any layer it is possible to decide the resultant color selecting the chip of overlap holding pressed the CTRL key; this operation shows a menu where possible to choose the resultant color from the list of the colors already defined or to add a new one.

With a DOUBLECLICK on the chip of the overlap it is possible to define the specific dimension of overlap for that color.

In the lower part we find the field "*Overlap*" that defines the number of pixel or mm of overlap, the possibility to select a round or square point and, in the case of shaded overlaps, the possibility to define how it will be the shading.

The option "*Color allowance*" allows to simulate the printing in corrosion producing a white overlap.

6.10 Skeleton

This function allows to reduce the dimension of the color of the film (normally the outline).

With the term *Color to erode* is possible to select the color to reduce. In the case the design contains many colors it is possible to select the color to erode in the panel F11.

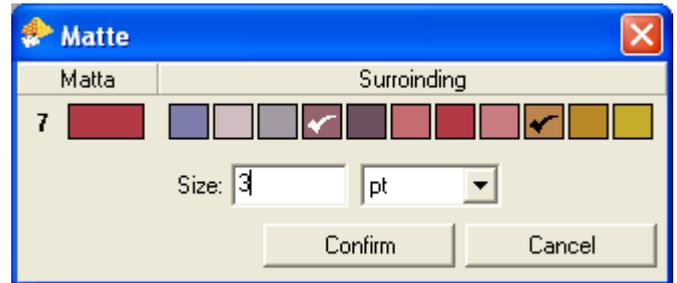
With *Number of steps* it is possible to establish the passages of erosion, in the case the option "Auto" is activated the function continuous until the whole film has been brought to the dimension of a pixel.



6.11 Matte

It serves for defining of the "matte", that is the regions of image that result surrounded by a determined color. The purpose is to recognize such regions and to assign to them a new color.

In the panel the first part allows to select the color to "matte" in contact with another, with dimension it is possible to establish the dimension of the least outline that must be converted in matte.



6.12 Make repeat

It allows to define in interactive way a repeat.

In the regular setting it is necessary to define a rectangle, while in the option "Irregular" it is necessary to indicate three points that will be used by the system to calculate a parallelogram from which obtain the least repeat.

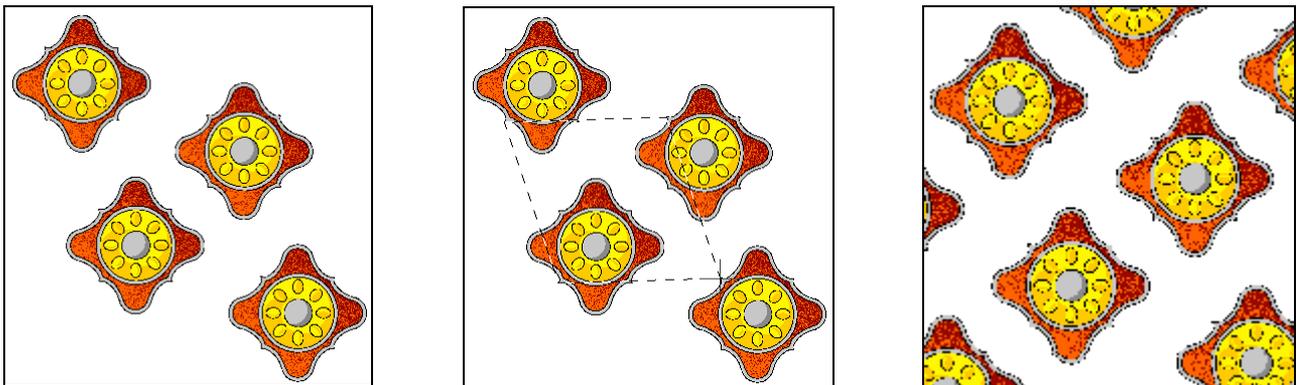
Selecting "regulare" the program shows the image repeated on the whole screen and a panel of selection great as the image.

In the toolbar are shown the values of the dimensions of the panel and the step to apply during the reply.

It is possible to modify the panel interactively, moving the panel on the image or modifying the dimensions in the toolbar.

The layer of service is considered transparent.

The option "Irregular" allows to get a regular repeat from images similar to that following visualized.



In this series of images is visualized the sequence of the operations and the final result:

the first image contains our original repeat created manually, the second one shows the selection to be effected while the third one shows a part of the final result.

Notice that the final repeat produced is a rectangle that can be treat and replied as if it were a normal repeat regular maintaining in any case the effect of an irregular repeat.

7 Areas management

With the “area” term we intend a portion of the image that you can cut from the loaded design or from another design file. The “areas” really do not belong to the image until you do not position it (as we describe afterwards) and therefore it is possible to move and modify an area before to paste it permanently in the image. The system can operate with more areas at the same time, but you can move or modify just the selected area. Click on an area to select it.

The selected area is highlighted by a white and black border different from the unselected areas. As previously described, it is possible to apply the transformation functions only on the active area, if there are no areas defined, the selected area corresponds to the loaded image. Instead, if there are some defined areas, you can modify the image selecting a transformation function (i.e. a geometry function), in this case all the areas will be minimized in a window where you can select them again whenever you need.

When you define a new area the system enter in the “area management section” and the toolbar contains a different group of commands.



The first three groups of icons have the same meaning as in the standard toolbar.

The fourth group of icons also has the same meaning as in the standard toolbar but the target is the selected area instead the loaded image.

The next icon allows to duplicate the active area; then there are icons to import or to take an area from a file. The next icon allows to open the table of “Transparencies and replacements”, the listbox to select the positioning mode, the icon to minimize the active area and the icon to delete the active area.

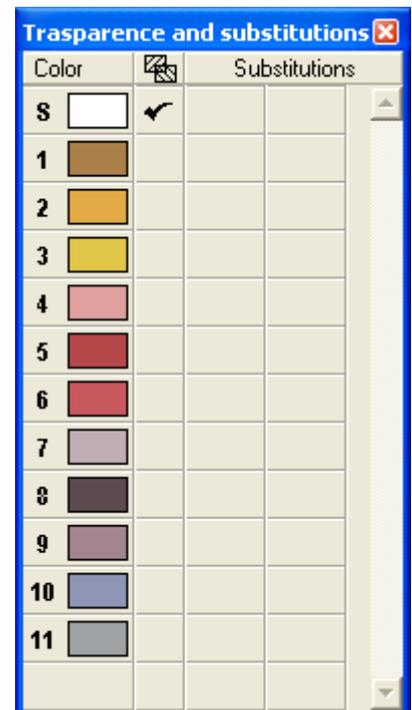
Clicking with the right button of the mouse on an area appears a contextual menu where you can find the rotation, scaling, repeating and distortion.

7.1 Setting of the “Transparencies and replacements”

It is possible to set one or more transparent colors (or layers) for the loaded areas. To define a color as transparent you can press the ‘-’ (minus) key while the cursor is over the color you want select otherwise you can select the color to set as transparent from the second column of the sideways table.

The same table allows to replace the colors. You have to select one or more boxes in the “Replacements” comuns to activate a replacement. This function has enable only with colors mode images.

Clicking on these boxes it will appear the following window:



The procedure is as follow: select the pattern color, select the background color, select the desired color as result; repeat the operations for the desired replacements.

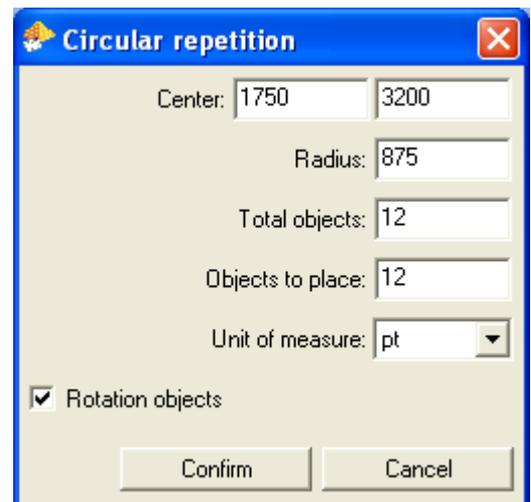
Entering an "*" symbol in the second row the it is possible to replace a color in the area.
Entering an "*" symbol in the third row the software automatically computes the colors needed to simulate the overlay of the area.
Selecting "Delete" it is possible to remove the color replacement.

7.2 Placement

With this operation is possible to paste the area inside the design.
It is possible to paste only the active area or all the selected areas. With the option "Active area on background" the area will be replicated (with the correct step) on the entire design and placed. This is quite important for the ties.

7.3 Circular replication

This function is special kind of placement that repeat the area on a user defined circumference eventually rotating also the area.



8 Colors and layers management – Color reduction

These two menus appear alternatively according to the type of image in memory; the menu "Colors" besides is different in the case in which the loaded image is in "FullColor".

For every described function is indicated for what type of images is available.

In some functions the color selection is shown in the toolbar.

To remove a wrong choice of color, is enough to press the CANCEL or BACKSPACE key.

Some functions accept selections composed from more groups of color; to separate the groups of color press the SPACE key.

The preexisting colors can indifferently be selected by the video image or from the color table (F11). If the interested color is not present in the design and even in the color palette, it can be taken in the color chart (F4).

In the "Colors" images the to make definitive the effected changes is necessary to call the function "Regenerate". If are performed some changes with the masks activated, the system will create a new index containing the destination color.

8.1 Filters (Colors, FullColor)

This function allows to apply some color filters to the whole image.

In the toolbar are present some sliders that allow to modify the gamma, the brightness and the contrast; besides is present a control that indicate which value must have influenced from the graph of the curve of correction.

The available modes for the curve of correction are:

- Hue: hue angle of colors
- Sat: saturazione
- Val: brightness
- Red: red curve
- Green: green curve
- Blue: blue curve
- Cyan: cyan curve
- Magenta: magenta curve
- Yellow: yellow curve
- Black: black curve

8.2 Substitution (Colors)

It allows to replace one or more colors in the image.

With the "Single" mode is necessary to select the color to replace followed by the new color.

In the "Multiple" mode is necessary to select the group of colors to replace, to press the Space key and subsequently to select the new color. It is possible also to use a polygon to select the colors.

The selected colors appear in the toolbar.

8.3 Reorder (Colors, Layers)

It allows to change the order of the colors or of the layers in the palette F11.

To perform the operation is enough to select the colors in the desired order and to confirm.

The colors not selected are positioned following to the selected colors maintaining the preceding order.

8.4 Reduction (Colors, Fullcolor)

In automatic, every time that an image is loaded, the program counts the number of different colors present; with this function it is possible to reduce this value.

To perform the reduction exist different modes:

- *Manual*: it allows to reduce the colors of the image to the desired number choosing from the design the reference colors with which reduce the whole image. This option is present only with "Colors" images.
- *Automatic*: in the toolbar is shown a slider that allows to select the number of colors to reduce the image. The least number is 32 even if, usually, inferior values to 40 offer poor results.
- *By chromatic distance*: it allows to select a color and to group all the colors similar to it selecting the value of tolerance. This option is present only with "Colors" images.
- *Manual with deletion*: it allows to select the colors that are wanted to maintain in the image therefore to indicate, after having pressed SPACE, the color that must be used to replace all the colors not selected. This option is present only with "Colors" images.
- *65000 Colors*: it allows to reduce in automatic the colors under the 65000 so that to allow the transformation of the image in "Colors". This option is present only with images "FullColor".

8.5 Percentage of color (Colors, Layers)

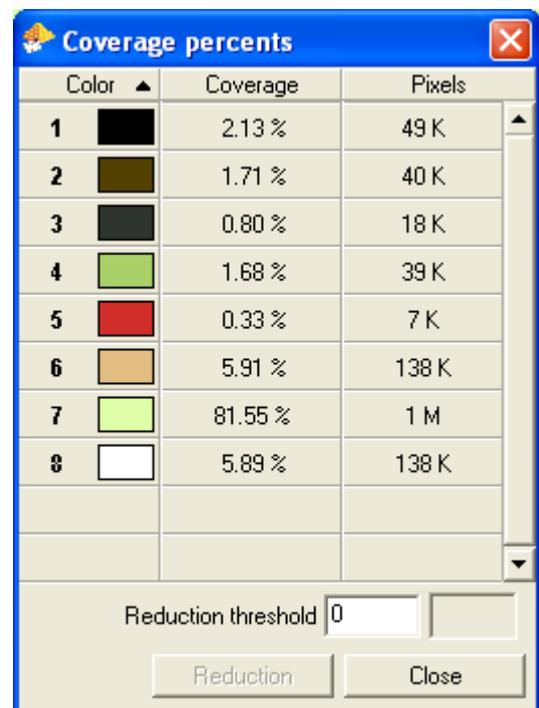
Calling this function is displayed a window containing three columns that indicate the color index and the color, the percentage of coverage and the number of points inside the image (in the images in layers this value is indicated in percentage).

It is possible to change the display order pressing on the heading of the various columns.

With the parameter "Reduction threshold " (available only with "Colors" images) it is possible to eliminate the colors present in the image below a specified quantity of points. The eliminated colors are chromatically replaced by the ones more close.

It is possible to specify the threshold both in percentage (inserting the symbol '%' in the field), and in number of pixel (adding the symbols 'K' or 'M' to multiply the value for thousand or for a million). Preceding the value by the sign '-' is possible to eliminate the first N indexes of the image.

To effect the operation, after having typed the number of points of threshold, is necessary to confirm selecting "Reduction".



Color	Coverage	Pixels
1	2.13 %	49 K
2	1.71 %	40 K
3	0.80 %	18 K
4	1.68 %	39 K
5	0.33 %	7 K
6	5.91 %	138 K
7	81.55 %	1 M
8	5.89 %	138 K

Reduction threshold

Reduction Close

8.6 Regenerate (Colors, Quadri)

Selecting this function the number of the colors of the image is reduced to those really existing.

For the images in layers this operation doesn't have options; for the "Colors" images is possible to choose the following modes:

- *Total*: are eliminated in the table F11 all the colors not present in the image; the same colors are unified.
- *Partial*: only the colors not present are eliminated ; the same colors are maintained separate with different indexes.

8.7 Add (Layers)

It allows to add one or more layers to the image.

The window that opens is identical to that described in the paragraph 8.10 "Properties (Layers)"

Only difference is that instead of the buttons "Confirm" and "Cancel" are displayed "Add" and "Close"

To every pressure of the key "Add" an empty Layer is added in the table with the parameters setted and the field "Color" is updated to be able to add other layers.

8.8 Delete (Layers)

This function, unlike "Remove", doesn't remove the layer from the table, but it deletes the content inside the image.

The function can clean the whole layer or selecting "Overlap" allows to delete the layer only where this overlaps to others.

In this second case the following interface is shown:

In the first column is possible to select which layer must be deleted and in the second it is possible to select which overlapped layers must be use to delete the selected layer.

During the selection is shown the preview of the image.



8.9 Merge (Layers)

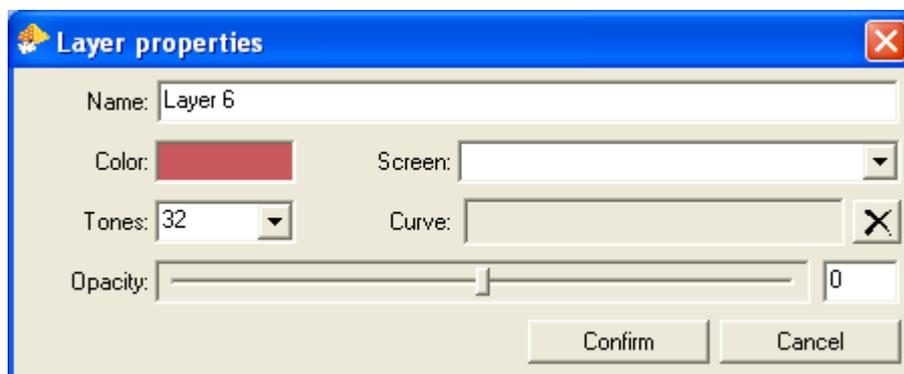
This function allows to group together one or more layers.

The function require the selection of one or more groups of layers separated by the SPACE key.

Every group is merged using the maximum density of the various selected layers maintaining the first color of the group.

8.10 Properties (Layers)

This menu calls the interface of properties setup of the layers.



With this window it is possible to modify the name, the color, the screen used for the production, the number of tones, the curve of correction and the opacity of the layer. The icon with 'X' allows to remove the selected curve of correction.

9 Colorways

This function allows to get for the same image different "colorways" of color.

Is possible to make colorways of Fullcolor images. Selecting the function "Colorways" is proposed an interface similar to the one for the layers separation. The function is similar to the separation, with the difference that any gray tones are assigned to the selections, but are only defined some "groups of colors". Once confirmed the selection is possible colorways the design with the traditional method following described.

The interface for the colorways is composed by a window that contains the list of the colorways and a toolbar that allows to execute some operations.



The first icon of the toolbar allows to call a menu with the possibility to save the image or a miniature of the existing colorwayst in a file format file suitable to be sended by email. This last function is described in the paragraph 9.1.

The second icon calls the print panel.

The third icon allows to produce colorways report in PDF format. This function is described in the paragraph 9.2.

The following icons serve to import the colorways from another image, to add or to remove a colorway, to delete all the colorways and close the function of colorways.

The icon with the grid allows to contemporarily display up to 30 colorways.

Activating one of the icons with the arrows the program will automatically pass to the following color after having modified a color advancing to the right or low in the table (and therefore changing the active color or the active colorway).

Selecting the following icon is possible to set the color of the layer on which is positioned choosing among different formats (RGB, HSV, CMY, HLS, Lab or LCh).

The following option allows to activate the search of a color produced inside the color chart currently in memory. This allows to perform some colorways very creative using in any case colors of the color chart and therefore of which the printing recipe is known.

The window of the colorways allows to select which colorways show when the split scen is active, to display and to modify the name of the colorway and to select the active color.

Varianti												
Name	S	1	2	3	4	5	6	7	8	9	10	11
#1	*	[Brown]	[Yellow]	[Light Green]	[Pink]	[Red]	[Dark Red]	[Purple]	[Dark Purple]	[Dark Blue]	[Light Blue]	[Grey]
#2	[White]	[Light Grey]	[Light Blue]	[Dark Blue]	[Dark Purple]	[Light Green]	[Yellow]	[Brown]	[Dark Brown]	[Light Green]	[Pink]	[Grey]
#3	[White]	[Light Grey]	[Pink]	[Dark Purple]	[Dark Brown]	[Light Green]	[Brown]	[Dark Blue]	[Dark Purple]	[Light Blue]	[Pink]	[Light Blue]
#4	[White]	[Light Green]	[Yellow]	[Orange]	[Light Green]	[Light Blue]	[Dark Blue]	[Dark Purple]	[Dark Purple]	[Light Green]	[Orange]	[Dark Blue]
#5	[White]	[Light Green]	[Yellow]	[Orange]	[Dark Brown]	[Light Green]	[Light Blue]	[Dark Blue]	[Dark Purple]	[Light Blue]	[Yellow]	[Dark Blue]

The active color is indicated by the simbol '*'.

Selecting again the active color is shown the window of colors creation.

To change a color is enough to select the new color from "Color atlas" (F3), from the "Color chart" (F4) or from the window of color selection.

Holding pressed the CTRL key is possible to copy a color whereas with the ALT key is possible to reverse the color selected with the active one.

If a spectrophotometer is connected it is enough to press the reading button of the tool to insert the color read instead of the active color.

Pressing the ENTER key appears the window of colors search that also allows the insert of a atlas code.



In the field "Color atlas code" is possible to insert:

- a code of the atlas in the 5 characters code or in the pages format
- a RGB color inserting three integers separated by space with values among 0 and 255
- a Lab color inserting three decimal numbers separated by space
- a LCh color inserting an asterisk followed by three decimal numbers separated by space

Inserting a code in the field "Name" the program will search inside all the color charts all the codes that start with the string indicated.

If exist only a color that satisfies the terms of the search the color will be automatically inserted in the design otherwise will be visualized the first color found with the name of the color chart that belongs; pressing the PGUP and PGDN keys is possible to browse the list of the found colors and to confirm the color desired with the ENTER key or to cancel the search pressing ESC.

Among the various options of colorways exists also the possibility to import some colors from an already existing colorway. Every time that this function is called a new panel is displayed with the colors and the colorways of the selected image.

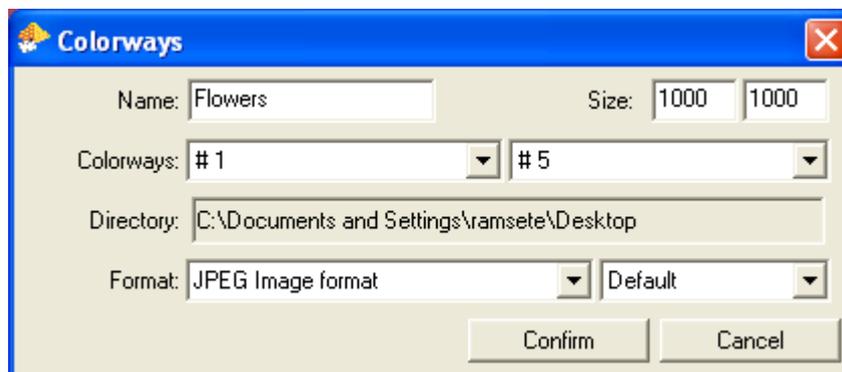
It is possible to use the colors inside these panels in the following ways:

- Pressing on the number/name of the colorway the whole colorway is added.
- Pressing on the number/name of the colorway holding pressed the CTRL key the active colorway is replaced.
- Pressing the CTRL key on a color all the colors in the active colorway beginning from the selected color are replaced.

9.1 Colorways export

With this function is possible to export a miniature of all the colorways in a file format as you like to allow the sending by email.

In the window that appears is possible to select the base name of the files to create, the maximum dimension of the scaled image, the destination directory, the file type and the compression to use.



9.2 Colorways report saving

With this function is possible to produce a file in PDF format that contains the list of the colorways with the relative color codes.

Left title	Central title											Right title	
Text 1	Text 2		Text 3			Text 4		Text 5		Text 6			
	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	Layer 7	Layer 8	Layer 9	Layer 10	Layer 11		
# 1	3056	3016	3002	3290	3297	3293	3530	3537	3534	3615	3659		
# 2	3645	3625	3633	3626	3020	3049	3114	3087	3027	3448	3659		
# 3	3645	3445	3523	3491	3027	3134	3657	3126	3625	3460	3634		
# 4	3035	3004	3033	3162	3007	3630	3657	3126	3007	3169	3633		
# 5	3005	3033	3141	3191	3007	3630	3657	3126	3625	3019	3628		
		Comment 1											

The fields "Title", "Text" and "Comment" personalizable from the user. Once modified the system remembers the inserted parameters.

In these fields it is possible to use some macros to obtain some information from the image.

The available macros are: \$n=Image name, \$c=Number of color, \$s=Dimensions (mm), \$S=Dimensions (cm), \$r=Resolution, \$e=Area virtual size, \$t=Time, \$d=Day, \$m=Month, \$y=Year.

The names of the layers are obtained by the color table (F11) whereas the name of the colorways are obtained by the colorways table, but both can also be modified in this window before saving the file.

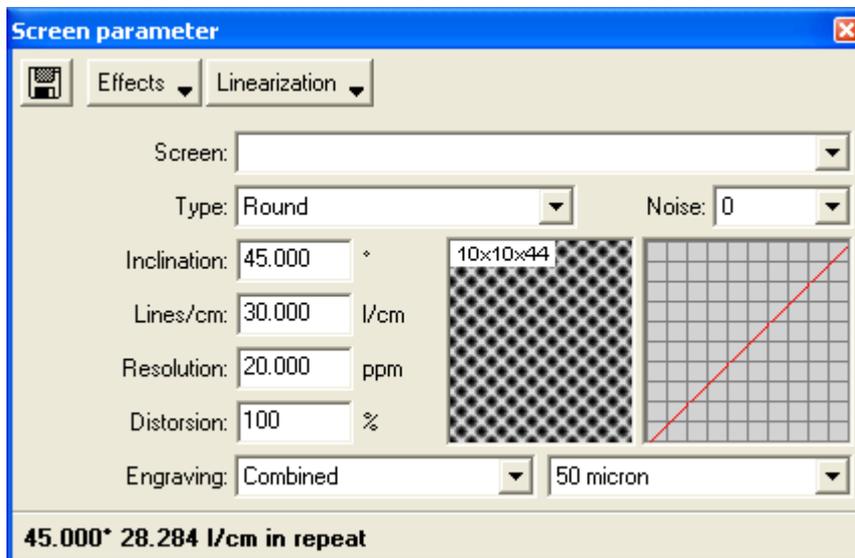
The names of the color codes cannot be modified.

10 Screens and linearization management

Through the screens panel is possible to set the parameters of the current screen and to save these parameters on disk to be able to be used then during the phases of layers selection or definition.

The available parameters for the screens creation are:

- **Type:** defines the screen shape; are available the options "Random", "Random (HQ)", "Round", "Round (HQ)", "Square", "Square (HQ)", "Galvano", "Exagonal", "Exagonal (HQ)", "Typographic", "Lines".
- **Noise:** allows to add a level of "noise" to make the screen less regular.
- **Inclination:** defines the rotation angle of the screens cell. According to the screen type and to the required angle the screen would not be able to attach to the repeat.
- **Lines:** defines the number of cells for linear centimeter, along the direction defined by the parameter "Inclination".
- **Resolution:** defines the resolution that the output device (plotter, engraver, etc.) will have to use. This parameter defines an implicit scaling of the file; in fact, if for instance the file to screen has a resolution equal to 8 points/mm and is required an exit to 20 points/mm, the file will be scaled by a factor equal to $20:8 = 2.5$ times.
- **Distorsion:** defines the ratio between the dimensions X and Y of the screen.
- **Engraving:** these parameters define the engraving mode and the advancement in micron of the laser. They are used only during the generation of fileMST compatible with the equipments Stork 2000.



The setted parameters are used as reference values to create the various screens. Not all the possible combinations of the parameters are acceptable according to the used screen type. The values really used for the creation of the screen are indicated in the status line with the signalling of the repeat joining of the screen. In the panel that visualizes the screen is indicated the dimension of the basic cell of the screen and the number of reproducible levels.

In the toolbar of this panel there are some options that allow:

- To save a file containing the parameters of the created screen. The screens are saved in a subdirectory called "(Ramsete)/Rasters" that is in the directory home of your user (in the directory "Documents" for the Windows systems).
- To convert an image in screen or a screen in image.
- To generate, to read and to import the curves of linearization of the screen.

The option of "Linearization" of the screens is of primary importance. Because of a series of limitations proper of the technique of traditional printing on fabric, the density digitally obtained with a screen doesn't correspond to the density that is really obtained in printing. To compensate these differences is necessary to effect the procedure of linearization. This procedure consists of applying a curve of correction to the screen to get a linear result on the fabric.

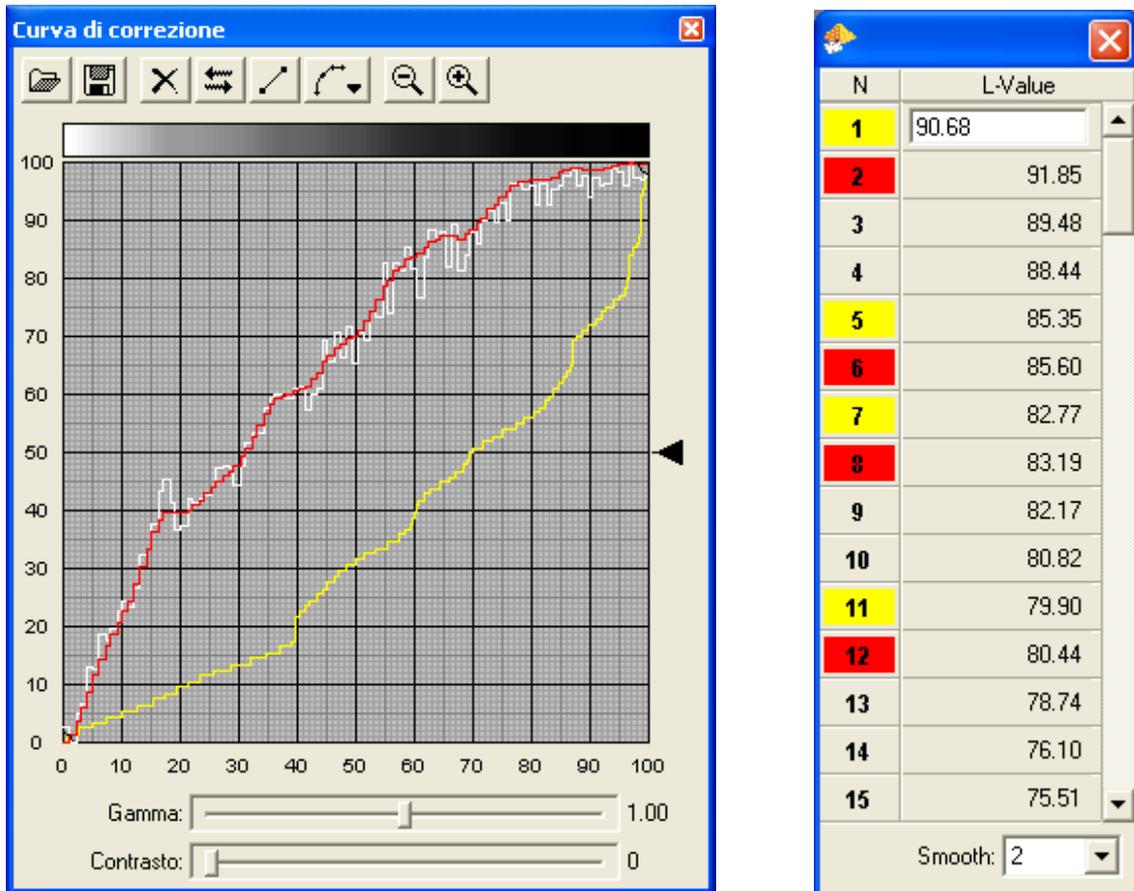
Pressing the mouse on the graph present to the right of the panel is possible to manually define a curve of correction for the screen; using however the options present in the menu of linearization is possible (with the aid of a spectrophotometer) to obtain a curve of correction very precise.

The voice "Create test image" allows to create an image with 100 or 256 levels of grey that has to be screened and printed traditionally using the usual method of job.

Obtained the printing (fixed, washed and ironed) is possible to perform the reading of the obtained result selecting the voice of menu "Read test image". This operation requires for the use of a spectrophotometer.

Selected the reading option the program displays two windows: one contains the curve that is reading and the other the values of brightness read by the spectrophotometer that compose the curve. Initially the two windows don't contain values.

It is necessary to read the calibration page starting from the lighter color chip. During the reading it will be possible to see the values inside the table and the curve produced in the graph.



Inside the graph we find a white curve composed by the values indeed read by the spectrophotometer, a red curve composed by the values that the program elaborates for avoiding discontinuity in the linearization (and to make up for the inevitable reading errors) and a yellow curve that shows the correction to apply for the traditional printing. The yellow curve appears only after having completed the last reading.

The smooth level automatically applied by the program can be modified using the parameter "Smooth" present inside the window of the read values.

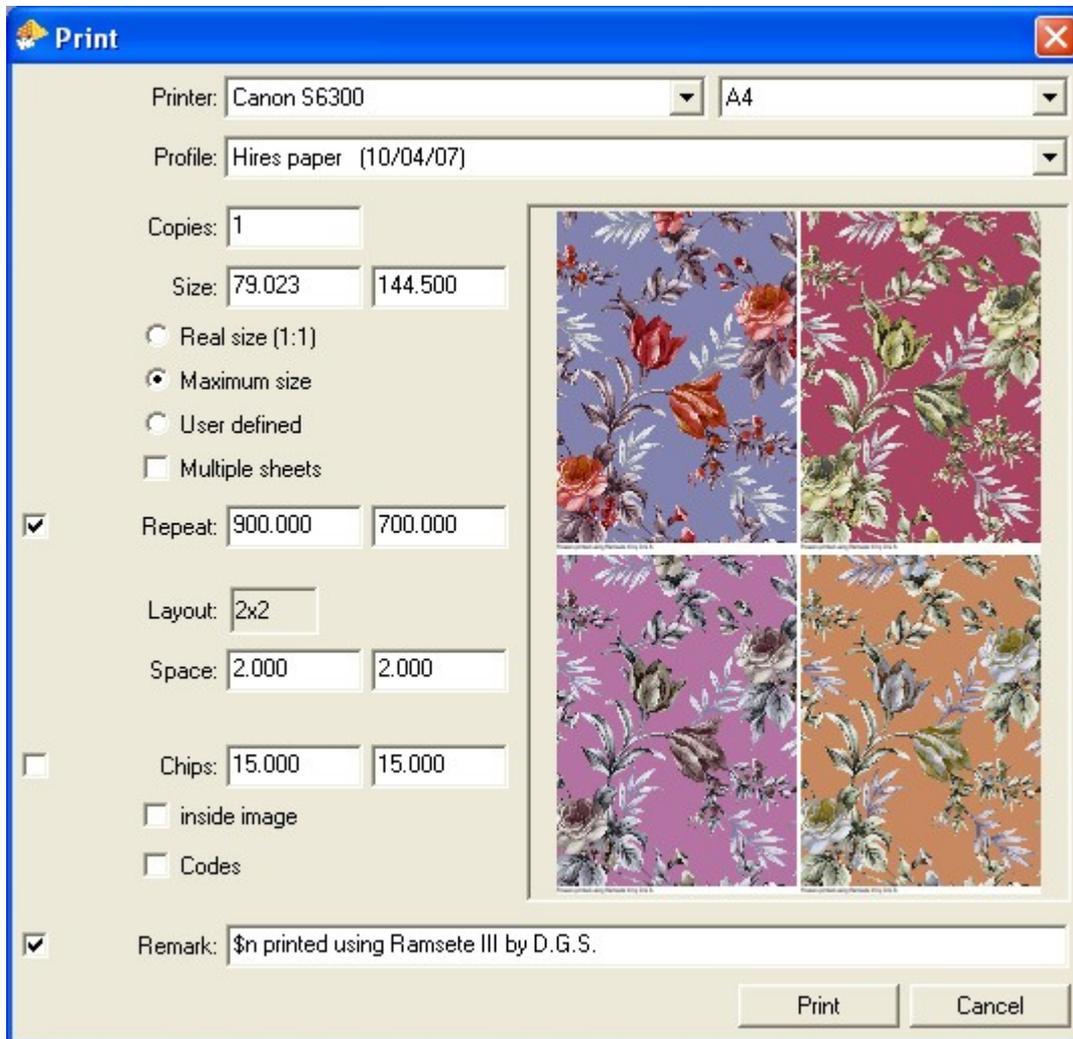
Inside the table instead is possible to observe some values highlighted in red or in yellow: in red are indicated the readings "out of sequence" (the values of brightness should be always decreasing) whereas in yellow are indicated the readings that have been "reset" from the out sequence readings..

At the end of the reading of the page is possible to directly save the curve from the window of the graph. For the expert users is also possible to make some manual changes before the saving. The obtained curve defines the ratio among entry values of the screen and the exit result of the printing. This curve can also be used for simulating the result of the traditional printing with a plotter for the digital printing.

To apply the obtained curve of linearization is enough to select the voice "Import correction curve" and to save the obtained screen.

11 Print

It is possible to print directly from the principal module or selecting *Printer manager* from the menu *Utility*. In this window you could set all the settings for the images printing and manage the printing profiles. It's possible to print your images and delete the ones in execution. The printing queue is shown clicking on the printer simbol shown in the Statusbar when there are printing in progress.



It is possible to print up to 100 colorways for sheet (10 x 10) and it is possible to print an image or a repeat greater than the sheet using more pages. Every page has an overlap of 3 millimeters to allow to line up better the images.

On the right of the selection menu of the selected printer, you can see the paper size menu.

With the menu "Settings" you can setup the correct configuration of the printer settings. The program works with the "profile" concept in the way to avoid the setup of the printer settings for every printing.

It's possible to define several profiles for any kind of printing: you have to select from the menu "Change printing settings". How to setup, create and modify the profile is explained in the paragraph 11.1.

Under the field Profile, there are some other settings that you can modify: "Copies" (the number of the printings of the same image) "Size" (the size of the printing image), "Scale" (how it'll be print the image, real size, user defined, paper maximum size), "Repeat", "Layout" (the number of the repetitions on the same paper), "Space" (the space between the repetitions), the printing chips with or without codes, the printing remarks (for every repetition).

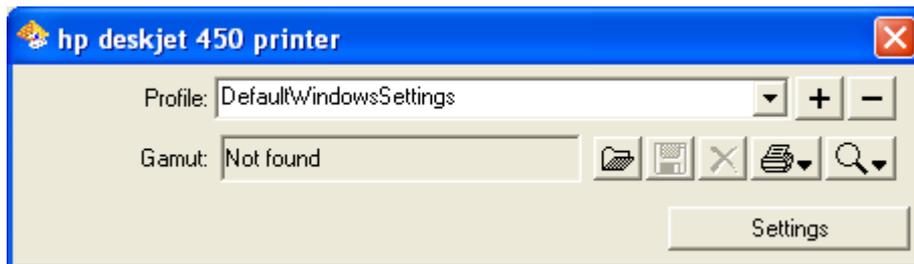
You could setup the “Remark” with free text and use some useful “macros” that, in the printing phase, they’ll be replaced with images data. The macros available are: \$n=Filename, \$s=Size, \$r=Resolution, \$c=Number of colors, \$v=Colorway name, \$t=Hour, \$d= Day, \$m=Month, \$y=Year, \$e=Virtual size.

For example; if you print the image **pippo.xpf** with **10** colors using the remare **“Image \$n with \$c colors”** the printing result will be with this text line: **“Image pippo.xpf with 10 colors”**

11.1 Create and modify the printing Profile

The “Profile” let you setup all the printer settings in order to avoid to setup them before every prints and to avoid setup mistakes.

For every profile you could combine the colors calibration file (GAMUT).



To change the existent profile you have to select it in the field “Profile”, selecting “Edit profile”.

If you press the button “Settings” you can recall the printer panel settings; this panel is different for any printers and depends by the printer driver installed; so to change the settings you have to refer to the specific device user manual.

The icon ‘+’ let you add a new profile; the icon ‘-’ delete the selected profile.

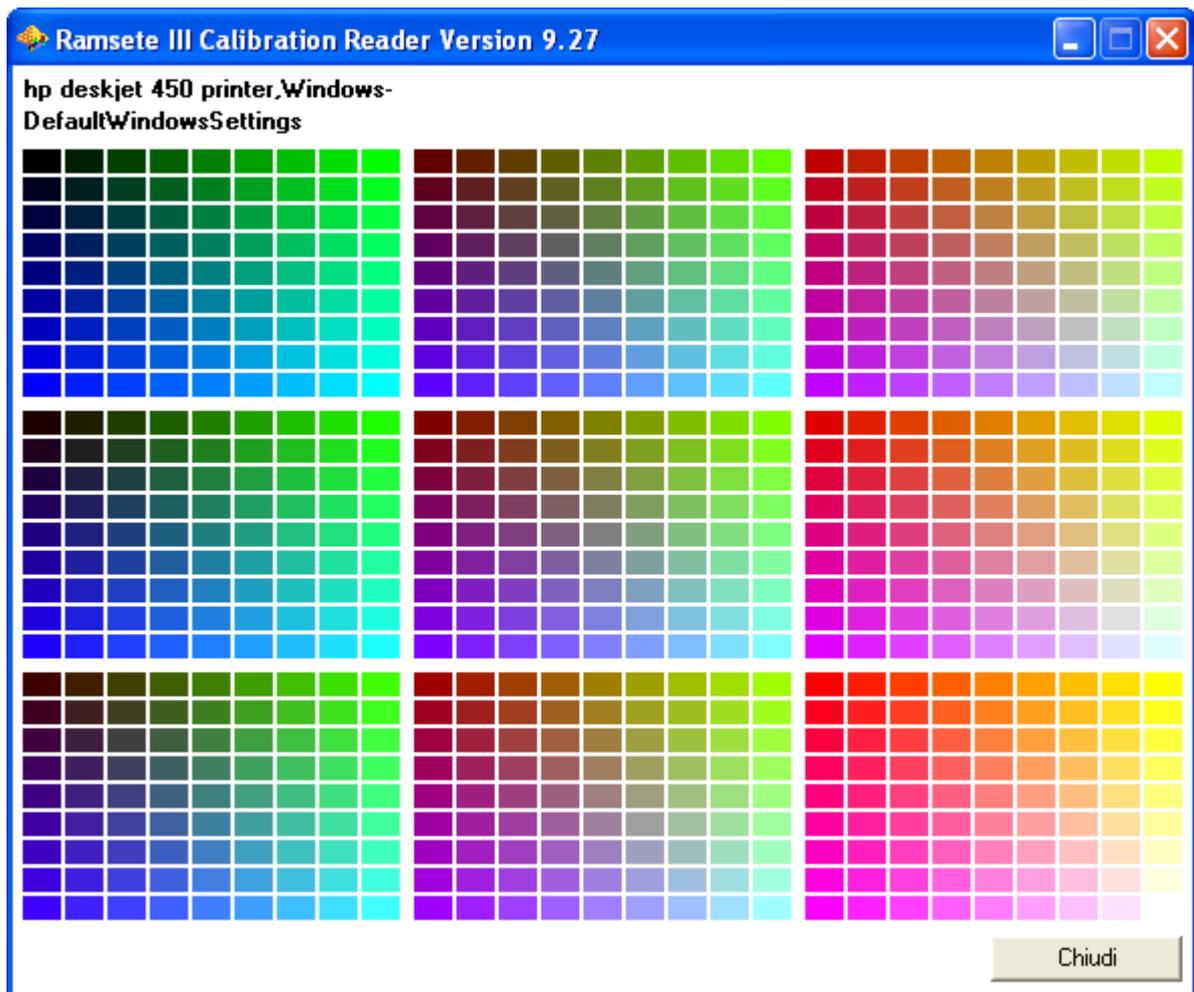
The field “Gamut” contains the date of the last calibrations executed.

The other icons on the right of the field gamut let you load a file gamut, save the current gamut, delete the current gamut, print the printer calibration page and read the calibration page (these last two operations are needed to make the printer calibration, that is the gamut file).

11.2 Printer calibration

You can make this operation in manual or automatic mode. To make the manual reading you need about one hour; during the reading of the colors, the computer is free and you can do any other jobs.

When you select this operation, the program show the calibration page (the same that you have printed) with a blink cursor on the first upper left color chip.



To make the reading, you have to put the spectrophotometer on the same color chip of the calibration page printed and press the measurement button of the spectrophotometer; then the cursor move to next color chip showing you the next one that you have to read.

If you thing to made a mistake, you could move from one color chip to another, using the arrows keys.

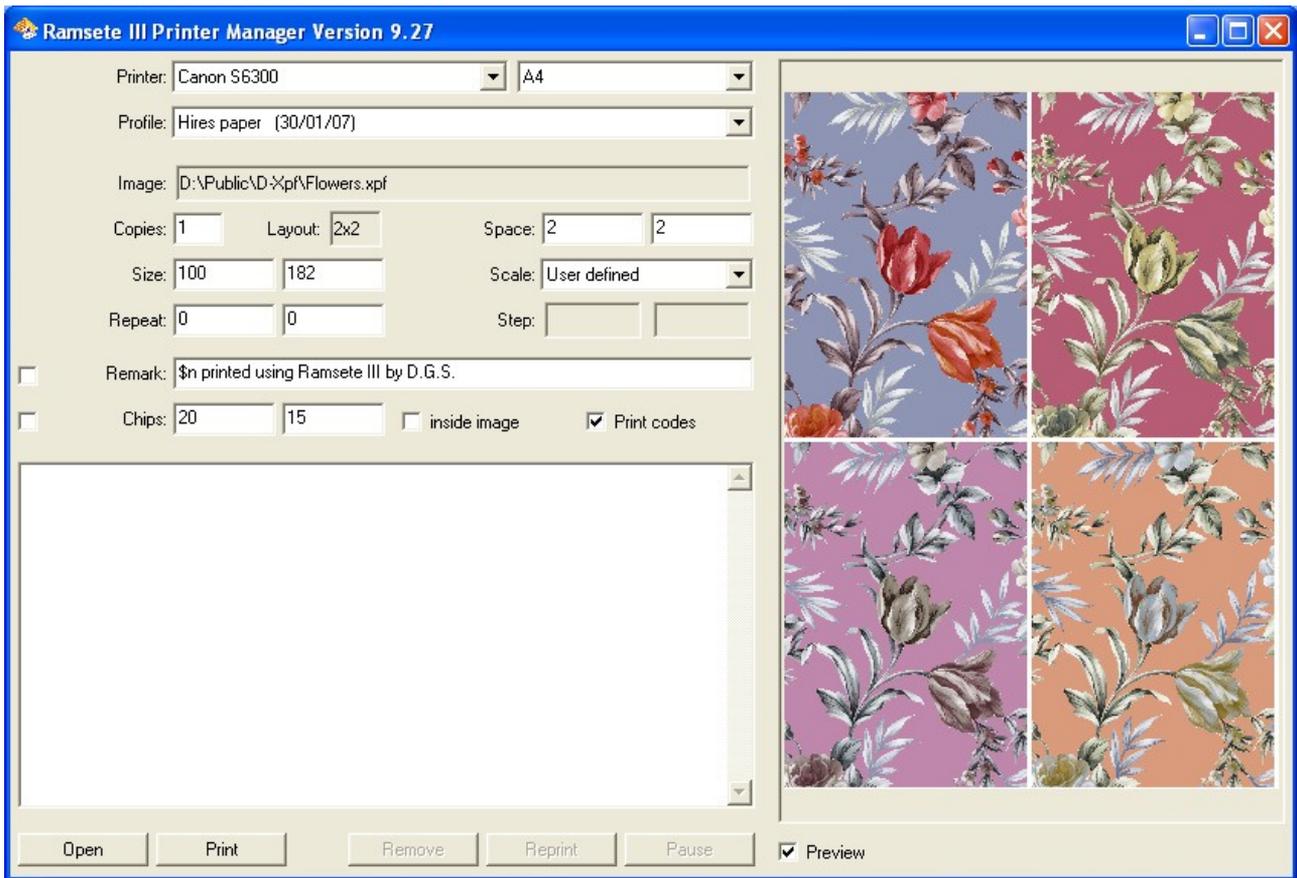
The automatic reading is possible only using the SpectroScan device; the system make the positioning and the measurement of the color chips without the user participation.

For both the reading modes, when the reading is finished, the system will use the datas read to produce the best calibration of the printer colors.

WARNING: before to start the reading procedure, the program ask to calibrate the spectrophotometer. This operation depends by the instrument, but usually you have to put the device over the calibration base supplied with the instrument and . press the button "*Confirm*" in the window "*Spectrophotometer calibration*".

11.3 Printing from main menu

With this function the images can be printed setting the same parameters indicated in the description of the *Printer Manager* but is not possible to manage the printing queue.



On the right of the Printer Interface, you can see a square that show the paper printing (the paper size and the position of the printing). If you press on this image, you could select any colorways. The button “Preview” let you see the preview of image printing with the real image colors.

If you press CANCEL inside the square that contains the printing queue, it’s possible to enable or disable some queue printing options.

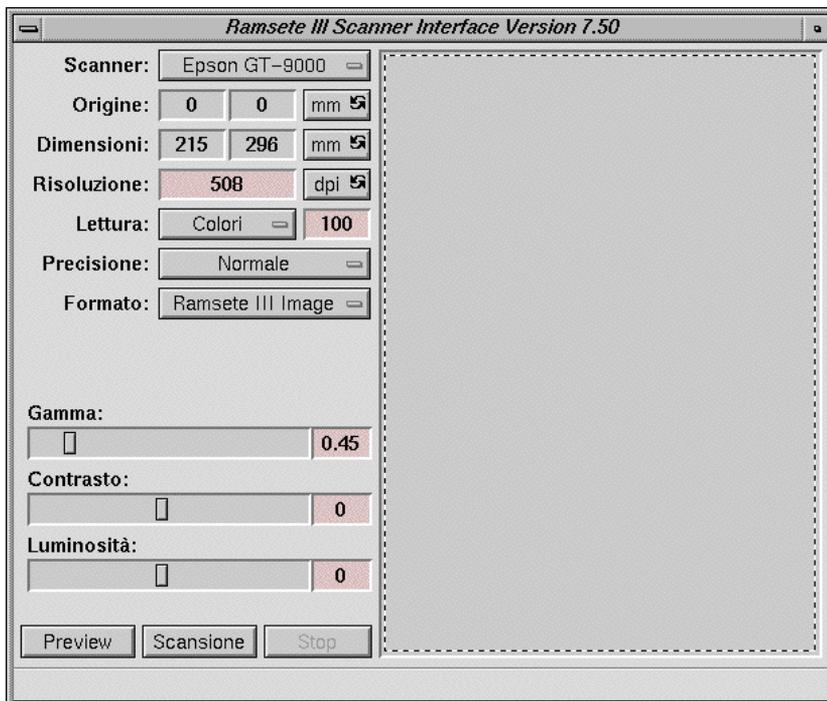
On the bottom of the Printer Interface there are the button “Open” that let you choose the image to print, “Print” to add a printing to the printing queue, “Remove” to delete a print in the queue, “reprint” to activate another time a printing in pause-state and “pause” to suspend the printing queue.

12 Scan

This application let you acquire images from scanner and also (depending on the read mode) to make the colors reduction during the scan-image operation.

The first time you run the program, you have to setup the device; press on the field named "Scanner" and select "Scanner configuration" (you have to do the same operation everytime you need to setup a new scanner).

In the window, that appears on the screen, you can see the list of the devices already configured: here you could setup a new device connected directly to your computer (*Add local*), or a new devices connected to a computer visible on the network (*Add remote*) or delete (*Remove*) the selected device.



If you select *Add local* it appears a window that let you setup the scanner model, the size, the maximum device resolution, the correct driver and the port where the scanner is connected.

If you select *Add remote* it appears a window divided in two parts: the higher field let you setup the name of the remote computer where the scanner is connected; on the bottom field you can see the devices list configured on the remote machine. To setup a remote scanner, you have only to select the scanner name in the list of the bottom field and confirm it with the *Confirm* button.

The field *Scanner* show the device selected or let you choose one of the devices configured.

If you press the button *Preview* you can run a quickly scan of all the scanner area, that it'll be shown on the right part of the Scanner Interface window. Change the dashed square inside the preview image to select the real area that you want to read.

The field *Resolution* contains the resolution to use to read an image.

With the field *Read Mode* you can manage the type of scan: you could read an image in *Grays scale* (until 256 gray levels), *Colors* (until 32000 colors), in *Truecolor* (16 millions of colors) or with a *Palette* (using a colors palette imported by another existing image).

The field *Format* let you setup the file format that you want to use to save the scan-image..

Sharpness let you choose the details of the scan.

The others settings *Gamma*, *Contrast*, *Lightness* let you modify the chromatic return of scan.

After you have setup all the above settings, to really make the scan, you have to press the button *Scan*: it appears a window where you can choose the filename and the path where it'll be saved the scan-image. It's also possible to stop the scan pressing the button *Stop*.

13 Files manager

With this utility, you can copy, move, rename and delete the images on your computer, moreover make a backup/copy on CD-ROM, DVD, DAT (only on Silicon Graphics) or in other removable units.

The program interface is very simple. You can do every operation on single or multiple files selected. If it's present and configured a cdwriter, it's possible to save files on CD-R o CD-RW simply chosen the files and opening the function form the menu CDR->masterizza; it'll be created a CD-ROM ISO9660 multisession compatible with all the devices and the Operating Systems on the market.

The Files Manager utility is NOT present on Ramsete III version for MAC and for Windows, but you can use other functions from the "File browser" integrated in the main application.

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