User manual

nèoStampa 7.1

| Color print unit: | RIP |
|-------------------|-----|
|-------------------|-----|

Separation print unit: RAPPORT

Separation creation: FILM

Inèdit Software, S.L.

Updated March 2013

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1. Introduction

Copyright

The manufacturer reserves the right to modify the contents of this document without prior warning.

The software described herein is property of the manufacturer, for the exclusive use of the registered users. The total or partial reproduction of the program is prohibited -as well as its manuals- by electronic, mechanical, photographic or any other means, without the express written authorization of the manufacturer.

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What is this software?

This program is an image processor program for large format color printing (RIP) and/or for continuous Rapport printing and/or for the creation of separations in film printing. This program can be obtained with three levels of features:



RIP & FILM EDITION: For color and film printing.



RAPPORT : For continous printing.

FILM EDITION: For film printing exclusively.

With the program we can import any design in PostScript format or any other image taken from your scanner or other programs, and scale these designs to the chosen or necessary measurements.

The program achieves the enlargement of images with maximum quality and, owing to its color correction algorithms and the different shades available, it will present perfect results, ready to send to printers and/or cutting machines in large format. It also allows the possibility of using ICC printer characterization profiles.

About this User Manual

This manual covers the three modes of nèoStampa's program: RIP, RAPPORT and FILM, as they have many functions in common. All in all, there are three well differenciated sections corresponding to each printing mode. For example, if you have a FILM version, the whole manual will be useful to you except sections 6 to 9 -corresponding to RIP- and section 10 -corresponding to Rapport-.

2. Installation of the program

Configuration and System Requirements

An IBM PC or compatible computer is required, with a Pentium or superior type of processor, with an environment Microsoft Windows® XP, Vista or superior versions installed. It is advisable that the computer has at least 2GB or more of RAM memory.

Installation

Introduce the USB drive in an available unit in your computer and click on the program's icon. Follow the instructions to install the program. The very last step of the installation is introducing a license number (.lic) which you will also find in the USB provided by inèdit.

Program protection

The program comes with a USB protection key which limits the use of the PC to which it is connected.



Place the USB protection in a USB port.

Selection of the printer

First of all, you will have to select the printers you wish to use with the program, the connection types and other advanced parameters.

On the main window, click the **Printer Configuration** button to access the printer configuration window. You can also access the window by clicking on the icon



| st of installed printers | | | | Close | | |
|----------------------------|---------------------------|------------|---------|-------|--|--|
| Name | Connection | St | | | | |
| Epson STYLUS PRO 4800 | TCP/IP: (192.168 | Pr | | | | |
| Epson STYLUS PRO 7800 | TCP/IP: (192.168 | | | | | |
| Mimaki JV5-160S 8C | USB: | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | Add |)[| Remove | | | |
| | | | | | | |
| Device configuration: | | | | | | |
| | | | | | | |
| Connection: TCPIP: (TCP/IP | Network) | - | Test | | | |
| 192, 168, 8, 10; | 9100 | | otions | | | |
| | | | Juonann | | | |
| | | | | | | |
| | s button to setup several | options t | or this | | | |

The **Add** and **Remove** buttons allow you to introduce the printers you require in the list of installed printers.

You can configure the type of connection used for each printer. To do this, select the required printer from the list and then select the required type of connection in the **Connection** section:

| Device configuration | on: | |
|----------------------|---|---------------|
| Connection: | TCPIP: (TCP/IP Network) | Test |
| | LPT1: (Parallel Port) LPT2: (Parallel Port) | Options |
| | TCPIP: (TCP/IP Network) | ions for this |
| | SPOOLER: (Windows Printer Driver) FILE: (File) | |

Refer to the connections section to find out more about the various possibilities the program gives you.

If you have various printers in the program, one of them will be the default printer. This is the one that will always be used when the program is started and when a new document is opened. To set the default printer, place the mouse on the required printer, click the right-hand button of the mouse and select the option from the menu that appears.

| Name | Connection | St | Close |
|--|-----------------|-----|-------|
| Epson STYLUS PRO 4800 Epson STYLUS PRO 7800 Mimaki JV5-160S 8C | Change to this | | |
| | Establish as de | | |
| | Add | ove | |

A non default printer can also be selected for a specific document. To select a printer from the list, double-click on the printer and a sign will appear on the left to indicate that this printer will be selected for the current document.

Profiles and printing schemas for the RIP option

Once the printer or printers required for the program have been selected, you must add the outgoing color parameters (of the materials) that you intend to use with each printer.

The program allows two types of profile files:

1) Standard ICC Color Profiles: This is the ICC file that contains each material's color information. Normally these are standard files available from the manufacturer, or else special programs can be created.

2) Color Schemas (cps): This is the ICC color profile including all the printing parameters and linearization configuration, i.e. the color schema includes the configuration of all the print file options.

Although installing the schemes can be done at any time, even as new materials are beign used, we recommend installing the most basic ones at the moment of installing the program.

| You | can | use | the | Browse | button | to | search | for | the | sche | mas | in | your | compute | r: |
|-----|-----|-----|-----|--------|--------|----|--------|-----|-----|------|-----|----|------|---------|----|
|-----|-----|-----|-----|--------|--------|----|--------|-----|-----|------|-----|----|------|---------|----|

| Printer schema manager | |
|---------------------------------------|---------------------------------------|
| silk_acid_HQ_720 x 720_210213_CMKcmk | • • |
| Browse | Add Save as Remove |
| · · · · · · · · · · · · · · · · · · · | |
| | |
| | ✓ 4 Buscar 720 x 720_130220 |
| Organizar 👻 Incluir en biblioteca 💌 | » 📰 🔻 🔟 🔞 |
| a 🌗 neoStampa 7 🛛 🔺 | Nombre |
| a 퉲 Color | 720 x 720_130220.cps |
| Chry Epson STYLUS PR | 720 x 720_130220.cps |
| 720 x 720_13021 | l l l l l l l l l l l l l l l l l l l |
| 🐌 720 x 720_13021 | |
| 0 x 720_13022 | |
| A such a liese sta | |

Whenever you have a printing scheme and a color profile, we recommend installing them because they contain the color profile, density curves, resolution parameters and the adequate ink limit.

• Installing ICC Profiles:

To install color ICC profiles select the button , **Printer schema manager - Color** to select profiles and upload them.

To install the profiles you must click the **Add** button, and a window showing the directory where the profiles are will come up.

Click the **Add** button and a new window will appear with the list of all the profiles compatible with the type of process already selected.

Select the ones you require and click the **Ok** button. Bear in mind that the program will only show the parameters which are compatible depending on the type of process selected (CMYK, CMYKOrGr, etc.)

| Printer schema manager |
|--|
| silk_acid_HQ_720 x 720_210213_CMKcmk |
| Browse Save as Remove |
| 🎵 Print mode 🚻 Ink 🎾 Color 🖪 Advanced 🛚 PDF/PostScript |
| Color Management: |
| Output ICC Profile: |
| ▶ LeonF_720 x 720_130220 |
| Add Remove Edit |
| Direct Color Table: |
| None 👻 |
| Add Remove Edit |
| |

When selecting the parameters for printing, it is important that the printing resolution matches as much as it can be the resolution used to create the ICC parameters, which is normally specified in the color parameter description.

• Installing printing schemes:

To install printing schemes in the program (files with cps extension), select the **Printer** schema manager and click the Add button. You will see that upon selecting a print scheme all the options from the Printers dialog are configured, along with the corresponding ICC color profile and the linearization file (lut).

3. General functions

Main Window

When the program is started, the main program window appears.



This is a standard Windows screen with the standard menu bar and buttons to access the main functions. It also has the action buttons bar and the zoom bar shown on the upper part of the window.

At the center of the window you can see the working area, where all the designs will be placed. Just to the right of it you will see the Control Center, from where the majority of transformations and configurations will be carried out. If you don't see it, click on the View button and select it.

The **RIP** button is for sending the design to the printer. The information bar, situated in the lowest part of the window, will systematically show you the messages related to the work you are carrying out or which is currently selected.

• Zoom options

In the main window, you can see the zoom buttons bar, used to increase or reduce the size of the objects on the screen.



The buttons, in this order, perform the following actions:

The **Zoom in** tool: This is used to enlarge any area of the design.

The **Zoom out** tool: This is used to reduce any area of the design.

The **Previous Zoom** tool: This is used to return to the previous view after having enlarged or reduced.

The **Zoom all** tool: Using this you can see all the objects of the design fit into the screen.

The **Zoom selected** objects tool: it is the same as the previous one but showing only the selected items.

The **Zoom roll width** tool: This is used to view the whole working area on the screen.

The **Zoom printer width** tool: This is used to view on the screen the whole width of the printer.

• Page Orientation

If you are using a bobbin format for printing, on the left-hand side of the screen appears the begining of the bobbin, the width of the bobbin is the vertical part of the screen, and the length of the bobbin is shown towards the left-hand side of the screen.



In the above image we can see a design placed lengthwise on the bobbin and at the beginning of it. So, when we print this design, it will start printing at the beginning of the bobbin, and the whole length of the image will be printed over the length of the bobbin.

SYNC

This is used if you have a nèoColorations program -also from inèdit Software, S.L.- with you. It exports the calibrations done with nèoStampa when special colors are used, so that colorways can be done with such colors.

Control Center

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

The operation tree appears at the top of the Control Center. These functions appear and disappear, depending on the objects selected and the possible actions that might be undertaken at each moment.

There are functions that appear within a main section and are shown as branches of the main section. Thus, for example, the branches for Input ICC Profiles, Cropping, etc. appear in the Selection section.

When a main section has branches which are not shown, a + sign appears in front of it. To display all the branches, use the mouse to click the + sign, which will then convert to a - sign. To hide the branches click the -.



Folded Branch



Unfolded Branch

In the boxes where you can add numeric values you must click on the *Enter* button in your keyboard in order to validate them.

In some of the options of the Control Center branches, the saving button is available so that the parameters introduced are dept for the same configuration. Logically, it is always possible to change the values manually for each specific case.



In many cases, after making changes, these will come into effect by clicking this

Guidelines

The guidelines are lines that can be placed in any position in the design, and there may be as many as required.

To create guidelines, either horizontal or vertical, click the design rulers and drag the cursor to the desired position.





Click the lateral design rule

Drag to the desired position

To delete a guide, select it and drag it out of the working screen.

When an object comes close to a guide line, and if the Adjust to guide lines option is activated, this object will attach itself to the guide line closest to it.



The guidelines are especially useful to align various designs on the same horizontal or vertical line.

Contextual menu in the ruler bar

You access this menu by clicking the right hand button of the mouse over the ruler bar.



This menu allows you to activate the guidelines' magnetism.

• Dialog for controlling guide lines

The option **Adjust** opens a new window that will allow you to adjust the guides numerically.

| Guideline setup | | ? <mark>- x)</mark> |
|----------------------|-------------|----------------------|
| Current guidelir | 2 | |
| Position 1.681 in | Type Ver | Ok |
| 3.280 in | Ver | Apply |
| 17.264 in | Но | Cancel |
| | <u> 8</u> | Make default |
| Snap to guid | | , Incl |

From this window you can adjust the guides to a specific numerical position or add and remove guides. To modify the position of a guideline, click over the value of the position and introduce the new value.

| 35.541 in | Horitzontal |
|------------------------|-------------|
| 11.534 in T | Vertical |
| 6.202 in ¹¹ | Horitzontal |

To add horizontal or vertical guide lines, click the button for adding guidelines and introduce the position directly in the list of guide lines.

Click the button



and introduce the value: 0.0 mm

To eliminate any guide line from the list, select it and press the *Del* button on the keyboard.

The **Snap to guidelines** option activates or de-activates their magnetism.

Measurement units

The program can be configured to show the objects' measurement values in different measurement units (in milimeters by default) through the related menu that appears clicking the mouse's right-hand button on the rulers,



or clicking on the contextual bar, also with the right button of your mouse.



Workspaces

On the upper bar in the main window you can see the **View** option. Clicking on it you will be able to select the Workspace options. If you select them you will make visible the options chosen while you work. If not, they will be hidden.



Languages

From the Tools options on the top bar, you can access the Language option for your program. If you want to change a language, you will have to shut down the program and restart it.



4. Design Edition

Loading designs

The program allows you to load various designs in the same working area.

If no design is open in the program, use the program's **Open** command or click the open design button \mathbf{E}

If you wish to add a new design in the working area, use the **Insert** command or click the Insert button:



If you wish to make a copy of a design in the working area, select the option from the **Edit** menu. You can also do this by moving the design with the "Ctrl." key pressed down.

If you wish to eliminate a design, first select it and then press the "Del" key on the keyboard or select the option from the **Edit** menu.

• Loading designs in RIP, SEPARATION or FILM mode

When you open a design, a window with the options to configure the parameters will automatically appear. This choice is made with the option "Open as" which appears on the upper part of the window.

| Open As: | |
|----------|---|
| Printer: | Color Printing Rapport Printing Separation Printing |
| Schema: | Separation Printing |
| | Open All Files into the Same Document |

Measurements and position

When you click on a design, it will appear surrounded by 8 marks that we will call *Handles*. In this case we can say that the design is selected and we can act upon it. If we wish to select various designs at the same time, click on them, one after the other, maintaining the "ctrl." key pressed down, or else creating an area by dragging the cursor so that all the items inside it will be selected.



Multiple selection done with the cursor.

Using the handles you can re-size the designs graphically.



By clicking on and dragging the handles from the ends, you modify proportionally the measurements of the design, that is to say, maintaining its height/width proportions. By clicking on the central handles from any side, the original proportion will be lost.



Moving the object is achieved by clicking and dragging within the design.



All these actions can also be carried out numerically through the controls located just on top of the window.



You can introduce the sizes wanted for the design or the scale factor by using the top controls. To maintain the proportions, the proportional button must be clicked:



The proportions are maintained (horizontal – vertical).

The proportions are not maintained (it will be distorted).



This button will send the chosen design to coordinates 0,0 (source) of the working area automatically, making it unnecessary to establish the x,y position manually.

You can also rotate the design clicking the rotation buttons.



The **Mirror** option will make a vertical symmetrical copy of the design. That is to say, as if seen reflected in a mirror placed at one of its sides.



You can also set the design position introducing the measures in the corresponding section. Remember that the design position refers to the design's lower left-hand corner.

While designs are being moved within the working area, the program takes into account all the other designs. If the function **Avoid object overlap** from the preferences is activated, the designs will not overlap.

| Software's preferences | | — |
|-----------------------------------|---------------------------------|--|
| Edit | Edit | |
| ···· Color management ···· RIP | Parameters for editing | |
| Logging PDF / PostScript | Displacement with the keyboard: | Adjust movement to Guidelines |
| | Accurate: 0.039 in (+Shift) | Distance: 9 xls |
| | Normal: 0.197 in | V Avoid object overlap |
| | Large: 0.394 in 🔺 (+Ctrl) | Object distance: 0.000 in |
| | Undo levels | Show grid: |
| | | Distance: 3.937 in |
| | 100 🔔 levels | Optimize media when opening or importing images |
| | | Ok Cancel |

Link between separations of a design

All the created separations which belong to the same design are linked with one another, so that any change we make in any of these will automatically be applied to the rest of the separations of the same design.

In this way, for example, when re-sizing one of the separations, the others will automatically be resized in the same proportion.



Resizing a separation



All the separations have been resized

Duplicate graphically

Any selected design can be duplicated simply by moving it with the "Control" key pressed down. On releasing the mouse button, a copy of the selected design will appear.



Cropping

This program function allows you to select a specific area of a design and trim it. This is especially useful to carry out printing tests of the most representative areas of a design, without having to print the whole design. To do this, select the branch Cropping from the Control Center.

| Control center 🗾 👻 🖡 🗙 |
|--|
| Selection ICC Input ICC Profiles Special Colors Cropping Cropping Crop and Reg Marks Contour Cutting Mosaic Media Size Advanced |
| Civate cropping |
| From top: 0.000 in |
| From left: From right: 0.000 in From bottom: |
| 0.000 in |

The co-ordinates for the cut out rectangle can be selected directly in the design or they can be introduced numerically. To cut out on the screen, click on one of the corners of the area you wish to cut out and drag to the opposite corner. The cut out rectangle will be formed. On releasing the button, only the selected area will be visible, while the remaining area will be gridded.



This operation can be done as many times as it is required. The area can also be modified by moving the corners of the rectangle.



If you have to view again the whole image, click the **Reset** button. The design cut out function can also be de-activated by de-selecting the **Activate cropping** option.

The cut out will be effective when you leave the cut out function. Bear in mind that such an area can be modified whenever it is required.

Automatic distribution

The program has a powerful design distribution tool -called nesting- to place the designs on the page, wasting the minimum material possible and, consequently, printing them in the least possible time.

This option can be accessed by clicking the auto-distribution button



The **Minimal separation** between objects after their distribution is the distance left between designs to avoid overlapping. To carry out auto-distribution, click the **Ok** button.

In the following images, you can see the designs without distribution, and after they have been distributed:





Without distribution

Distributed

• Distribution in page mode

When the material to be printed on consists of loose sheets, the program will distribute the documents on each page without splitting the designs, except in the case of those that are larger than the size of the page.



Without distribution



Distributed on sheets

• Distribution in the film mode

The automatic distribution in FILM mode does not permit to rotate the designs to save the material, since all the color separations belonging to a design have to be printed in the same orientation. Ohterwise if wouldn't be able to register the colors.

Tiling

The program contains a tool for dividing a design into various panels for printing separately. This option is very useful when the designs are large and must be printed in sections, either for manual displays or to ease their placement.

To use it click the tiling button : a new window will appear showing all the available panel features.

It is possible to define the lines that delimit the separation of the panels, both horizontally and vertically.

In the Rows and Columns sections you can introduce the number of horizontal and vertical design divisions. The program will distribute the number of divisions equally between each row and column.

In order to create a new line, place the cursor on one of the angles, superior or lateral, pressing and dragging until the line is in the required position.



We can place as many dividing lines -horizontal or vertical- as we wish. It is possible to move graphically their position by pressing the cursor on them or establishing the exact position on the lists of rows and columns that are shown to the right of this window.

The option overlap allows the generation of an overprint between the panels in order to facilitate their ensambling.



In the following illustrations both the original design and the panelled result can be observed:



Mosaics

With this option we have the possibility of making multiple copies of a same design with absolute ease. Access the function from the Control Center:



Introduce directly the number of pieces desired vertically and horizontally:

| ✓ Tiling | | | |
|--|--------|--------|-----|
| Pieces (vertical): Pieces (horizontal): | 3 4 | × × | |
| Total pieces: | 12 | × | - 1 |
| | \sim | | - 1 |
| | | | _ |
| Distanco | | | |

To modify these values the total of pieces to be printed will be shown, and in the preliminary presentation window we will be able to see the final result of the composition.



The total number of pieces can be modified in order to make the necessary quantity and save ink on the printing of unnecessary copies. Enter the exact amount in **Total pieces** and press the button next to it.



The program will distribute all the asked copies by making the best use of the width of the paper.



Distance between pieces: In this section a distance between the copies can be introduced. We can set both the vertical and horizontal measures independently.

Once the required parameters have been introduced, click "Enter" to validate the data and make the copies.

• Set the copies graphically:

The number of copies can also be set graphically. Click on the side handles, as if stretching the design. As you move along, new copies will be generated on the working space.

The new copies will be generated at releasing the mouse.

NOTE: With regard to the manipulation of the design, all the repetition copies will be regarded as if they were a single design.

• Labels and self-numeration

The **Edit** button opens the window that configures the parameters and allows all the copies printed to have a different text or value. The following window will be shown:

First, click on the design to indicate where you want to introduce the text or value.

In **Alignment** the collocation of the new text can be determined with respect to the point chosen in the design.

In **Typeface** offers various typical selections for the characters, and precise measures as for their size.

The **Format** is the kind of numeration that will be used, that is, whether consecutive numbers, the alphabet or roman numerals.

The result could be as follows:



Mosaic in FILM mode

The main difference is that all the separations belonging to the same design are related and that is why the montage we make to one of the separations will automatically be applied to the rest of the separations of the same design.



Separations of a design



Montage of a separation



Separations with the montage executed on all the channels

Crop and Registration Marks

This section allows you to activate the printing of register marks and cutting marks.

| Crop and Reg Marks Contour Cutting Mosaic Media Size |
|---|
| ✓ Print registration marks Style: ⊕ ● |
| Print crop marks |
| Inner Full frame |
| Horizontal bleed: Line width: 0.000 in v 0.000 in v |
| Vertical bleed: Length: 0.000 in v 0.315 in v |
| Print Document name Position: Distance: 0.079 in Font size: 0.098 in |

The register marks are normally used to match different colors and the crop marks are used as reference to indicate where the design has to be cut.

There are various styles to edit Registration marks:

| Print registration marks | | rks Calibration and |
|--------------------------|-----------------------------|------------------------|
| Style: | | Density bars |
| | ⁺ ⊕ ⁺ | Marks colour |
| V Print | ∳ _∳ ^ | |
| Inne 🔄 | ** * | Full frame |
| Horizon 0.00 c | R . | Line width: 0.00 cm |

An example of Inside Bleeding can be observed in the following design:



The crop mark bleed is in case you wish the cut to be done within the design to be printed or outside it and not just at the edge. A positive margin value displaces the crop lines towards the inside of the design and would indicate that cropping should be done on a printed zone.

We can also control the thickness of the marks which are printed in case we want them to be more easily seen.

This same window contains the **Print document name** option next to the design. The name position and the extension of the printed file can be chosen.

There are special register marks designed to be recognized by certain cutting plotters so they can adjust what will be printed to what needs to be cut (known as OPOS). If your plotter supports it, consult in the instructions the kind of marks you need to use.

Media Size

Pagination is the splitting up of the design so that it can be printed in sections when it is larger than the page measurements.

The below window is for defining the USEFUL measurements of the page that is in the printer. If the designs exceed the width or length of the page, the program will print them in as many parts as necessary.

| Control center | → ‡ × |
|--|--------------|
| Selection ICC Input ICC Profiles Special Colors Cropping Crop and Reg Mai Contour Cutting Mosaic Media Size | |
| Pre-defined sizes: | |
| DIN A3 (297.0 mm x 420.0 mm | ı) 🔻 |
| New Re Media size: | emove Edit |
| Media Width: | 297.0 mm |
| 📝 Media Length: | 420.0 mm 🚔 |
| Printable sizes | # |
| | |

The option **Printable sizes** allows entering the values for useful material measures for printing, which are usually those provided by the printer itself, or page measures that have to be drawn from the margins of the printer itself.



Image paginated widthwise on the bobbin.

If you work with a bobbin, you can either set the length of the page or deactivate it, since the printer's limit is very high and it is unlikely to surpass it in one single printing operation. If we deactivate **Media Length**, this will indicate that we are working with reel and the remaining length is not important.

You can modify graphically the position where pagination will take place, if you decide to do it in a different part of the design, for example in a design where texts and faces appear. In this way, they will not be affected by the cut.

Click on the pagination line in order to move it downwards to the required position.



In the section **Margins**, the physical margins of the printer will be shown, but it is possible to modify them in case we are interested in displacing the design with respect to the loaded paper.

| Margins: 0.118 in 0.118 in 0.118 in 0.118 in | ● ● ● ● | |
|--|------------------|-------------|
| V Apply IN | I | RI <u>P</u> |

• Page selection

If several pages are going to be used, for example, when the design exceeds the measurements of the width of the bobbin, or if various designs have to be printed in page format, we can decide which pages we want to print.

By activating the printing/RIP option, the program shows a window with three tabs, one corresponding to **Pages and Copies**. There you can specify what pages you want to print, if not all.

| RIP Options | |
|---|---|
| Printer: Epson STYLUS PRO 4800 Configure Conection: TCP/IP: (192.168.8.10:9100) |] |
| General Pages and Copies Print and Cut Page Selection: Use this option to specify the job pages you want to process: Process all the job pages Process only the selected pages: Pages: | |
| Specify here the number of copies you want for this job: Number of copies: 1 Pause between copies: 0 s. | |
| Print selected objects only, separately |] |

Each page is given a letter and a number showing its position. The bottom left-hand page is A1, the one to its right would be B1 and the one above it A2.

Media Size- Advanced

When the design to be printed out sizes the width of the material, an automatic pagination is carried out, that is, the design is divided into two or more parts so as to be printed separately.

• Pagination Overlapping

The overlapping option causes that in each part there is a zone where the printing coincides with the other one so that when all parts are assembled they will overlap making the process easier.

The width of the zone in which the pages overlap can be controlled with this option.

| Width: | þ.010 in |
|---------|----------|
| Length: | 0.030 in |

•Control Bar Printing

In some printing systems, especially those with inks that tend to dry up if not used, it is a good idea to print a side bar using all the colors. In this way, even if a color is not used in an area of the design, we kind of force its use in each pass of the printhead.

| Control Bar Printing | | | | | |
|----------------------|------------|---------------------|------------|--|--|
| 🔽 Left side | | V Right side | | | |
| Width: | 0.394 in 🚔 | Width: | 0.394 in 🚔 | | |
| Sep: | 0.167 in 🛓 | Sep: | 1.121 in 🚔 | | |
| Split mode | | From origin | | | |
| | | | | | |

This safety band looks like a small rainbow, and we can control its total thickness.

• Print statistics and comments

| Print Statistics and Comments |
|-------------------------------|
| At the beginning of the image |
| At the end of the image |
| Configure |
| |

This option allows the printing of a series of information along with the printed design.

Press the **Configure** button to access the editing window:

| Printout Information | | | | | | |
|---|---|------------------|------------------|--|--|--|
| Text formatting: Font: The Arial | | • | Size: (). 171 in | | | |
| Selectable Data: | | User Text: | | | | |
| Document's Name Page Number Print Mode Print Mode (Extended) Color Adjustements | • | Blue Mango, S.L. | * | | | |
| Advanced color settings | Ŧ | • | P | | | |
| Preview: Title: Koala300.iog Print Mode: 720 x 720 Blue Mango, S.L. | | | | | | |
| | | | OK Cancel | | | |

The first section of this window serves to select font and font size for the information. We recommend types such as Arial or Verdana because they are easily readable even in smaller sizes.

In the section **Selectable Data** we can select which information will be shown in the printed result, activate or deactivate it according to which of the available information you need.

In the section **User Text** you will be able to write freely all the text you wish. The editor allows to introduce multi-line texts. To introduce several lines press the keys ctrl.+Enter

In the **Preview** window there is a representation of how the information will look like when printed.
OPTIONS ONLY AVAILABLE

FOR COLOR PRINT

Sections 5, 6 and 7

5. Color Control

Introduction

This is perhaps the most important section for color printing. Many different parameters can be set in it so that we produce the best possible result.

This manual does not intend to be a course in color theory. However, some basic points are covered to enable the correct configuration of the program, and therefore obtain optimum printed works.

Input ICC profiles

These are the ICC profiles that the program uses to interpret the documents to be processed. You can select them from the Control Center.

| Control c | enter | | • 4 | × |
|------------|---|---|------------|---|
| | Selection CC Input ICC Profiles Special Colors Cropping Crop and Reg Marks Contour Cutting Mosaic Media Size Advanced | | | |
| - Input IC | CC profiles: | | | ١ |
| RGB: | Adobe RGB (1998) | • | | |
| CMYK: | Euroscale Coated v2 | - | | |
| GRAY: | Black Ink - ISO Coated | × | | |

The input profile of the selected document must match the profile that has been used in the designing program as output profile. If these two profiles differ, there can be differences in the interpretation of colors and therefore in the printed result.

Each design program (CorelDraw, Illustrator, PhotoShop, etc) allow to specify the color profile with which the created design will be saved or exported. This is the profile that also needs to be selected in Input profiles. They can be added to the program clicking on the square button on the right.

In case a design comes from an unknown source and the profile with which it has been generated is not specified, the most usual work profiles are:

RGB: Generic RGB.

CMYK: Generic CMYK

Take int account, though, that by selecting those profiles the result is not guaranteed.

NOTE: When a TIFF, JPG or EPS image is loaded in the program, and one of the profile lists indicates "Embedded...", it means that the ICC profile that comes embedded in file will be used. They are usually images coming from Adobe® Photoshop® 5.0.2 or superior. In these cases it is not necessary to select the input profile since the program recognizes them directly.

Proofing

Proofing consists of obtaining from our printer the result which would be obtained using another printing system.

Supposing we want to see how a design from a particular offset printing system, would come out in our ink-jet printer. The program will use the offset printing features we select, together with our own printer's features, to send a corrected design to the printer for its simulation.

| = | Proofing: | | |
|--|---|----------------------------------|--|
| | Use this option if you wish to print out the simulation of another printing engine. | | |
| | Profile: Adobe RGB (1998) 👻 🛄 | | |
| | Render: | Absolute colorimetric (Color p 🖵 | |
| Perce | Perceptual (Photo) | | |
| Satur | Saturation (Graphics) | | |
| Relative colorimetric (Color appearance) | | | |
| Abso | Absolute colorimetric (Color precision) | | |

Logically, the precision of the result will depend on the exactness of the color profiles we use.

Using Multichannel DCS files

This program allows the use of EPS multi-channel designs (DCS 2.0) for printing. These files contain information which has been previously separated into several color channels, corresponding to the different inks which are to be used for printing.

| TIFF File | File Name: | | | × |
|--|------------------------------|----------------|------------|------|
| Sheeman +++++ Image: state | DTP32_dcs8.ps Print Size: | d 11.205 in | x 8.285 in | × |
| | Nombre | | Opacidad | - |
| | Black | | 0.0% | |
| | Magenta | | 0.0% | + |
| | | | Ok Car | ncel |

When opening a DCS file, the program will show information about the channels that are in the file and the color corresponding to each channel.

| Control center 🛛 👻 🛱 🗙 |
|---|
| Selection ICC Input ICC Profiles Special Colors Multi-Channel Cropping Crop and Reg Marks Contour Cutting Mosaic Advanced |

Once the file has been opened the program can manage the DCSs in **Mixed** or **Split Modes**.

• Mixed Print Mode

Mixed mode means all colors will be mixed with the opacity percentage of each channel to form a single image composed of all colors.

You may modify opacity levels for each channel by introducing the appropriate value in the opacity column.

The combination of all the colors of each channel with the established opacity level will be the result which will be printed

| | Channel | color | Opacity |
|---|---------|----------|---------|
| - | Black | 0c 0m 0y | 0.0% |
| | Cyan | 100c 29 | 0.0% |
| | Magenta | 0c 88m 0 | 0.0% |
| - | Yellow | Oc Om 10 | 0.0% |
| | 05 | 0c 0m 0y | 0.0% |

• Split Print Mode

Separate mode means that every DCS channel will be sent to only one ink cartridge in the printer.

| Mixed mode Split mode | |
|-----------------------|---------|
| Channel | color |
| Black | Black |
| Cyan | Cyan |
| Magenta | Magenta |
| Yellow | Yellow |
| 05 | |
| | |

If the "multichannel" color mode is used, the printer's available channels will show in the color column. If the CMYK+xxx color modes are used, the available CMYKxxx channels will appear.

In order to modify DCS channel assignment to printer cartridges, click on the **Color** column and select the desired cartridge.

| Channel | color |
|---------|---------|
| Black | Black |
| Cyan | |
| Magenta | Black |
| Yellow | Cyan |
| 05 | Magenta |
| | Yellow |

Using multi-channel color mode allows for the independent correction of ink density and limits for each of the printer's colors.

Special colors

The program has a powerful tool to modify the printing of specific colors. The tool is available

from the Control Center or from the icon, and

, and it will allow you to:

- Modify the printing of any color of the design without modifying the whole print. For instance, in order to modify a corporative color of a design, which is being printed together with an image, we can give precision to the color of the logotype without modifying the global color of the image.
- 2) Assign a determinate color to an ink cartridge or a combination of them. This is particularly useful for printers with more than 4 ink cartridges where it is possible to use the rest of the cartridges for special colors, such as reds, greens, whites, fluorescents, etc. This will allow a part of the design to be printed with a fluorescent color, for example, without modifying the rest of it.
- 3) Modify the printing of any color of the design, reading the real color of a sample printed in color with an espectrophotometer. Although this is a variation of section 1, the color entry precision is very useful.

Clicking on the Special Colors icon, a small dropper will appear in the design.



Select the desired color and a window allowing the modification of the special color will appear.

| Special color configuration | — | |
|---|--------------------------|--|
| Replaced color: CMYK: 2 99 94 | | |
| ISO Coated v2 | (ECI) | |
| Input color | Components CMYK (0~100): | |
| CIELab | C: 1.961 | |
| C RGB | M: 99.216 | |
| © CMYK | Y: 93.725 | |
| Device color | К: 25.882 🚔 | |
| © RGB | | |
| C KCMY | | |
| Minimize dE | Jerry Measure | |
| Automatic light inks ✓ Perform density and ink usage adjustement ✓ Perform ink limit control Add this configuration into direct color file: OK Cancel | | |

In the upper part of the window the selected color will be shown, as well as their original components (CMYK, RGB or CIELab).

• Input and Device color

The Replacement mode allows us to determine the way in which the values of the color we want to obtain will be specified. We have the following options:

- 1) CIELab, which stands for the spatial coordinates of the color and expresses their values (a,b) and luminosity (L). Although it is a value which is difficult to imagine, there are many colors which are usually expressed this way, since it is a representation of color which doesn't depend on any device (printer, screen, scanner, etc).
- RGB (Entry), possibility of entering the color and its values Red, Green, Blue. If, for instance, we see a red dominant in the already printed color, we can correct only value R, by lowering it.
- 3) CMYK (Entry), possibility of entering the values Cyan, Magenta, Yellow and Black. As in the previous case, it is possible to correct the color dominants.

The options given with the Device color are to:

4) Possibility of entering a CMYK or RGB values without their being modified by the profile of the exit color, i.e., we will enter a real value which will be sent to the printer. For instance, if we want to obtain a "pure red", we can specify the values: Magenta (M)=100, Yellow (Y)=100. **Minimize dE:** With this function the program looks for the color with the less difference (dE) to the original. For that, it makes an exhaustive search within the printer's profiles.

Automatic light inks: In case our printer has light inks such as light magenta, grey, etc, we can specify a multichannel replacement color. By default we must enter the values of all the colors, but keeping the Automatic Light Inks option activated it will be the program the one to calculate automatically the ink percentages.

The option **Perform density and ink usage adjusted** linearizes the special colors whenever we have a linearization curve for the special colors. The option **Perform ink limit control** ensures that the printing of the color palettes never exceeds the established limit value of the ink.

In the **Components** section we will introduce the values for the desired color following the substitution mode selected.

• Obtaining the color by reading it from a device

It is possible to enter a color value by reading it directly from a color reading device or spectrophometer, which will add precision since the exact color of a real color sample is being read.



Press the **Measure** button once the spectrophotometer is correctly placed (consult the list of devices supported by neoStampa to your usual provider). The following window will be shown:

| Spot color measurement | | |
|------------------------|---------------|---|
| Device: | x-Rite i1-Pro | - |
| Connection: | COM1 v | |
| Read ! | | |

Select the correct device, which is usually automatically assigned, and the communication port where such device is connected. Then set the parameters of the port with the configuration button:



Press **Read** to make the reading once the spectrophotometer's pointer is on the color sample to be measured.



This value will be entered in the color components' section.

• Procedure to use special colors

To use this option printers must have more than 4 colors, such as the Roland PRO-II series (6 colors), Epson 7600/9600 (7 colors), etc.

First, from the **Printer Schema manager** we will select **Print Mode** and then **Mode**; and we will choose more than 4 colors, for example CMYK+cm:

| Rinter schema manager | — |
|---------------------------------------|--------------------|
| silk_acid_HQ_720 x 720_210213_CMKcmk | • |
| Browse | Add Save as Remove |
| 🎵 Print mode 🚻 Ink 🍃 Color 🗏 Advanced | a PDF/PostScript |
| Mode: CMYK+cmk | - |

We will then press on the color, selecting **Special colors** configuration window to appear.



in order for the Special color

| Special color configuration | |
|---|--|
| Replaced color: RGB: 95 143 16 Adobe RGB (199 | 3 |
| Input color | Components KCMYcmk (0~100): |
| CIELab | K: 36.077 📥 k: 0.000 💌 |
| © RGB | C: 41.729 |
| 🔘 СМҮК | M: 12.245 |
| Device color © RGB (a) KCMYcmk Minimize dE | Y: 0.000 ♠ c: 0.000 ♠ m: 0.000 ♠ |
| Automatic light inks Perform density and ink u Perform ink limit control Add this configuration into | |
| | ▼ OK Cancel |

In this case we will place in the printer in the space of the cartridges for Light Cyan and Light Magenta the cartridges for special colors (red, fluorescent, etc).

If we want to print the color we have selected with just one of the special colors, we will enter value 100 for one of the components (c,m), depending on where they are in the printer. For instance, with the red cartridge in the Light Cyan channel (c) the values will be selected as follows:

| Special color configuration | | |
|--|-----------------------------|--|
| Replaced color: RGB: 95 143 16 Adobe RGB (19 | 3 | |
| Input color | Components KCMYcmk (0~100): | |
| 🔘 CIELab | K: 36.077 🚔 k: 0.000 🚔 | |
| © RGB | C: 41.729 | |
| СМҮК | M: 12.245 | |
| Device color | Y: 0.000 | |
| © RGB | c: 100,000 | |
| Minimize dE | Measure | |
| Automatic light inks Perform density and ink usage adjustement Perform ink limit control Add this configuration into direct color file: | | |
| | ▼ OK Cancel | |

Combinations of cartridges can of course be made. If, for example, we have fluorescent yellow in the Light magenta channel of the printer and we want to print a fluorescent green, composed of 50% fluorescent yellow and 50% normal cyan, it should be configured in this way:

| Special color configuration | |
|--|-----------------------------|
| Replaced color: RGB: 95 143 16 Adobe RGB (199 | |
| Input color | Components KCMYcmk (0~100): |
| CIELab | K: 0.000 💌 k: 0.000% |
| © RGB | C: 50.000 🚔 |
| 🔘 СМҮК | M: 0.000 |
| Device color | Y: 0.000 |
| RGB | c: 100.000∮ m: 50.000 ↓ |
| KCMYcmk Minimize dE | Ameasure |
| Automatic light inks Perform density and ink us Perform ink limit control Add this configuration inte | |

This operation can be repeated for as many colors of the design we wish.

Once accepted the color, it will show in the list for special colors, with the values for original color as well as the modified color.



Generation of color palettes

The program is equipped with an assistant for the generation of color palettes, that is to say, color patches of very little color variations, which are defined by the user .

The user will also be able to determine the number of squares to appear and the rank of colors between which the color palette will range.

| Pressing the l | | es , the following screen will appear: |
|----------------|---|--|
| | Color chart | |
| | Variation of one 4 corner CSV | |
| | EyeOne | |
| | KCMYcmk: 0 100 100 0 0 0 0 | |
| | Deviation 65,00 % | |
| | Max steps 40 | |
| | Color mode | Patch size and separation |
| | Input RGB | 0.787 in 🚔 🙌 0.079 in 🚔 |
| | Input CMYK | |
| | Use device colors (CMYK+cmk) Automatic light inks Perform density and ink usage adjuste | 1 0.394 in 👻 🝸 0.079 in 💌 |
| | Perform ink limit control | Export Ok Cancel |

There are three ways to generate the patches:

1) Variation of one: starting from a determined color (CMYK), it will carry out variations between patches of a certain percentage of color.

- 2) 4 corner: determining the four extreme colors of the angles of a rectangle, it will generate the patches through the variation of the color progressively from one angle to the other.
- 3) CSV: importing a CSV file with the list of colors to print.

Color Mode

Input CMYK and **RGB**: the introduced color will be modified afterwards by all the RIP color management -applying the selected profiles and all other specifications, so the same color transformations that would be applied to any design charged in the program will also be applicable.

Device colors: the introduced color will be the direct output color which won't be modified by the color profiles. This mode permits to make color tables for special colors (plain colors or fluorescent) in configured systems with special inks or multichannel.

The option **Perform density and ink usage adjustement** permits linearize the special colors whenever there is a linearization curve for the special colors. The option to **Perform ink limit control** assures that the printing of the color palettes never exceeds the established limit value of the ink.

1) Configuration of the parameters with variation of one:

Deviation: it is the maximum percentage of variation of the generated colors with respect to the selected color. This variation will be carried out by modifying the four components of the color (CMYK).

Max steps: total number of patches to be generated.

| Color chart | ••• |
|--|---|
| Variation of one 4 corner CSV | |
| -5 - | |
| | |
| | |
| Color mode | Patch size and separation |
| Input RGB Input CMYK Use device colors (CMYK+cm) | 0.787 in ➡ [++] 0.079 in ➡ 0.394 in ➡ 至 0.079 in ➡ |
| Automatic light inks Perform density and ink usage adjuste Perform ink limit control | Export Ok Cancel |

2) 4 corners Configuration parameters:

For this option, introduce the patches of each of the corners. To introduce each color, press on the rectangle of the corresponding color.



A color edition window will be shown:

| lor picker | | | — × |
|------------|--------------|----|--|
| CMYK (Euro | scale Coated | 2) | |
| | | | |
| | | | |
| | | | |
| Values: | | | |
| C | Valor | | the second s |
| с | 6.7 | | |
| м | 2.0 | | |
| Y | 94.5 | | |
| к | 2.0 | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | Ok Cancel |
| | | | |

Select the color by either introducing directly the value CMYK or pressing on the color selection box.

Press the \mathbf{Ok} button and the color will be selected. Repeat the operation for each of the four angles.

Next to the upper left patch, there are two selectors where you can introduce the number of vertical and horizontal patches.

| | | _ 20 | - | |
|----|---|------|---|--|
| 20 | * | | | |

3) CVS files

You can import colors or libraries that you already have or know, using the following browse button:

| Color chart | | |
|----------------------|-----------|--|
| Variation of one 4 c | orner CSV | |
| Start color: | 0 | |
| Rows: | 40 | |
| Columns: | 20 | |
| | | |

Patch size and separation between patches can be customized, from the buttons on the right down part of the window.

| | 0.787 in | × | ļ ⇔ ļ | 0.079 in | × |
|-------------|----------|--------|---------------------|----------|---|
| I (| 0.394 in | * * | ŧ | 0.079 in | × |

6. Configuring the Printer

Printer Schema Manager

| Printer schema n | nanager 20 x 720_210213_CMKcmk | | × |
|---|-----------------------------------|--|----------|
| Browse | | Add Save as | Remove |
| 🎵 Print mode | 🚻 Ink 🎾 Color 🖪 A | dvanced a PDF/PostScript | |
| Mode: Quality: | CMYK+cmk 720 x 720 | | • |
| Resolution Bits per p Dot type Thickness Platen Ga V Bi-direct V Cut She | pixel s ap tional Print | 720.0 x 720.0 dpi 2 bpp Variable 2 0.2 Default | |
| Dithering: Type: | Smooth Stochastic | | • |
| Wizard | | Save | Cancel |

• Printing schema

The printing schema contains all the printing parameters, including the color profile and the adjusting of densities.

Once configured all the parameters it is possible to save this configuration in a schema. Having the program already configured for different kinds of jobs and materials is easy and prevents mistakes.

As well as the profiles, the schemas can also be installed:

| Printer schema manager | |
|-------------------------------------|--------------------|
| Agraba_licra_stork_720 x 720_110204 | |
| Browse | Add Save as Remove |

Remember that only by selecting a scheme you will have configured all the printing options.

The browse button on the left will direct you to all your saved schemas in an easy way. The buttons on the right are used to add or eliminate schemas, or rename them.

Print Mode

The print mode refers to the actual way in which the machine prints. Some printers allow you to print in various resolutions or modes, varying the final quality of the printing.

| Printer schema manager | |
|--|---|
| Silk_acid_HQ_720 x 720_210213_CMKcmk | • |
| Browse Remov | e |
| T Print mode 413 Ink S Color Advanced A PDF/PostScript | |
| Mode: CMYK+cmk 🗸 | |
| Quality: 720 x 720 | |

• Mode

With this option you will be able to select the number of inks for every job. If your printer allows it, you will be able to place up to 16 inks. With ceramics works, for example, the profiles can be created from 3 inks only.

| CMYK+cmk | • | P |
|-----------------|--|--------------------------------------|
| K K+k | | • |
| CMYK CMYK+cm | | |
| GPHINTCHN | | - |
| | K K+k K+k+g CMYK CMYK+cm CMYK+cmk | K K+k K+k+g CMYK CMYK+cm |

The mode "K" will only print in black, that is to say, in grey scales.

Multichannel modes -like CMYK+cmk- allow, for printers of more than 4 cartridges, to work as if each color were totally independent, paying no attention as to what ink is charged where. For example, in printers having CMYKcmk, it is possible to place special colors in the free cartridges, and the program will use such inks depending on the information given on the color profile.

This type of configurations are usually used for textile printing, because the use of special colors is required to gain color gamut.

Custom inks setup

It is possible to determine the position of each ink and even put two equal colors in different positions at the same time.

| r |
|---|
|---|

Clicking on the ink location button the following window will appear:

| Custom i | nks setup | | × |
|----------|----------------|-----------------|------------|
| Color | Ink name | | Ok |
| | Black | | S Cancel |
| | Cyan | | Drint |
| | Magenta | | Print |
| | Yellow | | |
| | Light Cyan | | |
| | Light Magenta | | |
| | Gray | | Double ink |
| | | | Mask |
| huema | n Multicolor © | | |
| Engin | e: | Version 2 | |
| Inkse | t: | СМҮК | |
| Shad | owOptimizer®: | 50.00 % | |
| | | For all intents | |
| | | | r |

Clicking on any of the colors the selection of available colors unfolds:



With this selection it can be determined what color will be mounted in the selected printer channel.

It is also possible to repeat a color in two different ink channels. The RIP engine will send the same color information to both cartridges so that the amount of ink will be doubled. This option is used for such special cases where it is necessary to apply an extra layer of ink.

The **Print** button will print a test with the order of colors we have predetermined in the printer in order know their position.

The **Double Ink** button allows to control individually the behaviour of two identical inks for the same print: the Start, the behaviour curve and the end.



The option **MASK** offers quite complex options for special inks such as penetration liquids, dilution inks, masks or white ink. You can establish the parameters for each on the following window:

| Mask channel settings | EX |
|---|------------------------|
| Mode Get from alpha channel Full mask Shadow mask Fill ink Put ink in white pixels | ÷ |
| Intensity: Minimum value: | 100.00 % × 0.00 % × |
| | OK Cancel |

Get from alpha channel: as you can tell from the name, the image to print requires an Alpha channel which will be added to the image, and that must have been created manually from Photoshop. The ink uses the information of the channel to print the content. Depending on the printer, the ink will be printed separately or simultaneously with the other inks.

Full Mask: nèoStampa will create a spot color under the image whenever a pixel comes up (always with Photoshop; with Illustrator/CorelDraw, any time an object has color information such as white). Notice that the Full Mask will only be generated when an image is in Greyscale, RGB, MYK or Lab, but not with multi-channel files. So, when you print the linearization targets, Full mask will not be printed.

Shadow Mask: nèoStampa will create an intelligent grayscale mask under the image's information, according to the intensity and darkness of the color. Usually this mode is used when printing with white ink, as for example working with T-shirts. Notice that the Shadow Mask is only generated if the image is in Greyscale, RGB, MYK or Lab, but not with multichannel files. This is why it will not be seen when printing linealization targets of Shadow mask, but it will be generated when you print the ICC target.

Fill ink: This method is usually used with penetration or saturation liquids such as diluent inks. Various ink suppliers offer them in order to help the inks with low percentages to penetrate the textile media. This method requires that Intensity and Minimum value percentages are specified, as it will be explain further on.

Put ink in white pixels: usually the white pixels don't require penetration or diluent inks because, as the area won't be printed, inks will be saved. This button helps you create a blocking area around the colored image using a diluent ink, which will prevent the colors to migrate to areas without printing. Notice that the White pixels refer to an image information in which the object has no color (always with Photoshop; with Illustrator/CorelDraw, when it comes across a white object).

Intensity: With the Fill ink method, diluent ink will be used when the specified value doesn't exceed the absolute quantity of other charged inks. For example, if printing settings are 10% Cyan, 25% Magenta and 30% Gray, the total quantity is 65%. In this particular case, nèoStampa will automatically add a 35% of diluent ink for a better penetration. The recommended value can be 100% -for most cases- or the channel ink cutting value given on

the linearization process (eg. when Cyan, Magenta, Yellow, etc. are cut at 80%, this value can be applied too for Intensity).

Minimum value: Specifying a minimum value for the Fill ink method adds certain quantity to the absolute ink value in any case. Supposing you fix the Intensity at 100% and the Minimum value at 10%, and that the absolute inks value is stated at 135%, then nèoStampa will add a 10% more. The effect is that the ink penetrates more, but it can also cause certain migration if over-used. This value must be handled with a lot of care.

• Hueman Multicolor © Motor

| hueman Multicolor © | | |
|---------------------|--------------------------------------|--|
| Engine: | Version 2 🔹 | |
| Inkset: | Do not use Version 1 Version 2 | |
| ShadowOptimizer®: | 50.00 % | |
| | For all intents | |

With the above unfolded list the color Engine Hueman is established. The Version 2 should ALWAYS be used because it provides the best and smoother results for all printers' printheads.

Clicking on the selection button, we access the **hueman Multicolor** © **Ink Selector**:

| Hueman V2 | | | × |
|---------------|--|------------|----------------|
| Separation | odule | | Profiling mode |
| Revision: | 2.1 | • | RGB (Default) |
| Custom: | CMYK_v2.1.hml | + - | СМҮК |
| | 3 | | |
| -Black genera | | | |
| Method: | Default (Black only) | • | |
| Rich black: | | | |
| Balance: | C M Y 1.00 × 1.00 × 1.00 × | K B | |
| Curves contr | l | | |
| Black start: | 0 | | |
| Body (light) | 0 | | |
| Body (dark) | 0 | | |
| Ink limit me | hod: Smooth | • | |
| BlackOptimiz | er® 🗸 | | |
| Shadow do | gain 0% Early black | | |
| | | | OK Cancel |

This text window shows if the present combination of inks is acceptable and if it has been detected by the engine's innert mechanism. In a normal printing environment, a minimum of four inks must always be established: Black, Cyan, Magenta and Yellow. Inèdit is now working on a solution for clay that will allow the present combination without Black, that is, only three inks.

If your Selection of inks is not valid, first click on "Ok" to exit this window. Go back in and check if your selection of inks has been activated and it is valid. If, after accessing the window a second time you still don't see a valid selection, then you will have to review if the inks have been placed correctly or if you are missing any of the four compulsory inks.

• Quality

The print quality is the physical printing mode of the machine. There are printers that allow printing at various resolutions or at various modes, varying the final quality of the printing.

| Quality: | 720 x 720 |
|-----------|----------------------------|
| | 360 x 360 360 x 720 |
| Dot type | /20 X 360 |
| Media Typ | 720 x 720 1440 x 720 |
| | 1440 x 1440 |
| | 2880 x 1440 2880 x 2880 |
| Di dianat | 2000 X 2000 |

• Bi-directional Print

This function will send a command to the printer telling the printhead to move in one or both directions. If you activate this function the printing will speed up, but you could eventually loose some quality instead.

• Cut sheet at end

In printers that support cutting the paper once the printing process is over, here is the option has been printed it is possible to control that the cut is carried out not activating this option

Advanced Options

To access specific configurations of the selected printer's driver click the **Advanced** at the bottom of this page:

| | Advanced | |
|------------|-------------------|----------|
| Dithering: | | |
| Type: | Smooth Stochastic | - |

The new window is exclusive for each type of printer. Here, you can configure specific parameters which can normally be configured from the printer's own panel. This window will therefore change depending on the controller you have chosen.

| Epson STYLUS PRO 4800 | | | EX | |
|-------------------------|--|-----------------------------|-----------|--|
| Improved printouts | Media control: | | | |
| Dot type: Variable 2 | Thickness: | 0.2 | | |
| ☑ MicroWeave | Platen Gap: Feed Adjust: Vacuum: | Default 0.000 50.00 % | | |
| Paper cutter Cut paper | | | × | |

Dither methods

The last configuration parameters of the Print Mode tap is **Dithering.**

| Dithering: | | ŀ |
|------------|-----------------------|---|
| Type: | Smooth Stochastic 🚽 🛄 | l |
| | | 1 |

This option allows the choice of dither type to be generated for the print. The most frequent ones, which are the ones that deliver better results are the ones we indicate hereunder:

1. Smooth Stochastic (by default):

This raster is a matrix-based method, which places the dot matrix in the most homogenous way and is recommended for all types of inkjet printers. It is however also a complicated method since, especially with n-level printheads (e.g. 2bit, 3 levels, "grayscale" printheads), the nozzle can suffer from stress. Example: With 3 levels of dropsizes, above 33% of effective dot usage, the nozzle has to fire dots all the time. Between 33-66% it will be either drop 1 or drop 2. Between 66-100% it will be either drop 2 or drop 3. So above 33% the nozzle is always firing either drop 1, 2 or 3.

2. Diffusion v2 (for variable dot printheads only):

This raster is based on a Smooth Stochastic matrix but adds some error diffusion to the final raster. Effectively talking, this method puts wholes into the regular matrix in order to give time for relaxation to the nozzle to prevent bending occurring from the previously mentioned stress factor. The raster method is homogenous as well, but since certain dots are removed it might be that the dot placement does not look as "perfect" as with Smooth Stochastic. You can set the Diffusion v2 amount of error in the three dots placed next to the drop down list (explained later in this tutorial). available color modes depend on the printer specifications.

By choosing the Ordered Halftoning type we can configure all its parameters. To do this, click the **Configure** button. The following screen will appear:



Each channel or color can be configured separately, although it is usual for the Frequency and Shape of the point to be the same for all the channels.

Select the point **Shape** from the list of supported shapes. For ink injection printers we recommend the *Round* shape, although the *Euclidean* also gives good results.

The **Frequency** of the dither can be introduced in lines per inch or per centimeter. Depending on the printer's resolution, the program calculates the frequency and angle which is nearest to the ones we have introduced. By activating the **Precise** option, the program will use the adapted frequencies. These can be seen by clicking:

```
(Black) Angle:98.53° - L.p.i.:35.60 l.p.i.
(Cyan) Angle:23.96° - L.p.i.:36.55 l.p.i.
(Magenta) Angle:81.47° - L.p.i.:35.60 l.p.i.
(Yellow) Angle:53.13° - L.p.i.:36.00 l.p.i.
(Light Cyan) Angle:53.13° - L.p.i.:36.00 l.p.i.
(Light Magenta) Angle:53.13° - L.p.i.:36.00 l.p.i.
(Gray) Angle:53.13° - L.p.i.:36.00 l.p.i.
```

Fast-Dry Mode

The other types of dithering methods use variable dot sizes: large and small. Some printers with variable dot size technology, this printing parameters have been set, which include the two smallest dot sizes that the printhead can support. When the large dot are disabled the media dries faster. However, take into account that activating this option can result in general paler colors that should be compensated increasing the use of ink.

| Error Diffusion Dithering | | | | | | |
|-----------------------------|-------------|--|--|--|--|--|
| Variable dot settings | | | | | | |
| Disable large dot (Fast-dry | mode) | | | | | |
| Disable small dot | | | | | | |
| In black ink only | | | | | | |
| Maximize small dot usage | | | | | | |
| Smoothness | 10.00 | | | | | |
| Dot Multiplier; | 1 | | | | | |
| Dot gain compensation: | 0.00 % | | | | | |
| | Reduce Max. | | | | | |
| Ok | Cancel | | | | | |

Ink control - Linearization

With this option -second tab of the Printer Schema Manager window- we can make very precise adjustments on the behavior of the printer.

| Printer schema manager | ••• | | | | |
|--|--------------------|--|--|--|--|
| silk_acid_HQ_720 x 720_210213_CMKcmk | • | | | | |
| Browse | Add Save as Remove | | | | |
| 🎵 Print mode 🗰 Ink 🍃 Color 🖪 Advanced 🛚 PDF/PostScript | | | | | |
| Linearisation file: | | | | | |
| silk_acid_HQ_720 x 720_210213_CMKcmk.lu | t 👻 | | | | |
| | Add Remove Edit | | | | |

• Linearization

Clicking the Edit button, a window will pop up where we can edit the response curves that will always be applied after carrying out the whole color separation process. In this way, if certain tones do not appear printed as expected, we can make some adjustments to the response curves of the inks so as to improve the result.



The window that doesn't show any color processes yet is the following one:i

| and the second s |
|--|
| |
| s. Marked and a second |
| s. Marked and a second |
| s. Marked and a second |
| and the second |
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| y |
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| |
| y |
| y l |
| |
| |
| 0 25 50 75 |
| |

In **Ink Level** the information embedded in the printing schema is shown, and it is related to the ink quantity percentage used for each color with respect to 100%. By modifying this value the whole of the printing darkens or lightens globally.

Ink limit shows the value for the maximum quantity of ink that the support to print admits, i.e. the total of all the inks in a determined dot may not exceed the quantity here specified. Excessively high values could leave an ink excess and not dry properly or cause the ink to become blurry. Low values could cause that vivid color composed of 2 or more colors, such as red (yellow + magenta) will show pale (pink or orange).

The **Ink cut** is the individual ink limit for each color channel. It may be inferior to 100% for some color channels depending on the kind of calibration carried out.

It is possible to modify graphically any of the color channels, adding new points by pressing on the line in a zone where there is no point to be modified or modify the position of a point by pressing on it and displacing it onto a new position.

The values of the dots of each bend can also be modified numerically by pressing on the chart that contains the **Input** and **Output** values and in the inferior controls by raising or lowering the selected value.

Press the button



l to validate the entry.

In the case that few points enter the option **Smooth Curves** can be selected so as to the resulting bend follows a smooth bend and will not contain rough changes in tonality adjust.

The options **Reset Ink** and **Reset All** erase the all the entered points of the selected bend or of all bends and change the bends into straight lines which implies that no linearization will be made.

By pressing **OK** the changes will be saved in the linearization file selected.

Color balance

It allows correcting small global color deviations in any of the basic printing channels.

Thus, for example, if a printing has a magenta dominant, the easiest way to correct it is using this option and in this case reducing only the magenta channel to a determined value depending on the dominating quantity.

| Color balance: | | | | | |
|----------------|-------|-----|-----|---|-----|
| 🔲 Link char | nnels | | | | - 1 |
| | | * | * | | - 1 |
| | | | | | - 1 |
| | | | | | - 1 |
| | * | * | | - | - 1 |
| | 0 🚔 | 0 🚔 | 0 🚔 | 0 | - 1 |
| | | | | | _ |

This modification can be carried out by displacing the controllers manually or by entering the value on the inferior box and pressing enter.

The Link channels option applies the same modification to all the channels.

Color

• Output ICC profile

This is the way we tell the program how the device which we are going to use to do the printing behaves. An output profile contains the information of the printer's usable color space, and of the behavior of its inks.

A wrong output profile will probably give unexpected results in the printed color, so it is very important to select the color profile (or printing outline) to the combination of material, ink and resolution to be used. A color profile for a printing mode of 720 may not work with a 360 resolution, that is to say, a profile for vinyl may not work for paper, etc.

We can choose one of the profiles to do the printing, although it is possible to add more by using the **Add** button.

• Rendering Intents

As explained in the **"Digital color systems and the program"** supplement, the printers' color spaces are always more limited than, for example, the RGB space. So, when a color that cannot be represented in the printer has to be printed, some technique hast to be employed to simulate it.

As with other systems, the program offers various interpretation methods: *Perceptual, Saturation, Relative colorimetric, Absolute colorimetric, Clear Ink, Color Matching, Don't use ICC*.

- **Perceptual**: The input range is adapted proportionally to that of the output device. This is the most commonly used method for printing photographs, something that does not require great accuracy in color but does require a good appearance.
- **Relative colorimetric**: With this method, if a certain color (CIE L*a*b* value) enters into the range of the device, it is faithfully represented, but with the image still maintaining a good overall appearance. To achieve this, a lineal relationship is established between the black and white of each of the devices (brightness adaptation). So, for example, the white of a monitor directly corresponds to the white of the paper, although they are different CIE L*a*b values. The colors that remain outside the range of the output device adapt to the nearest ones. This can be used for vector and photographic designs, so that the final result "turns out well".
- **Absolute colorimetric**: This method works in a similar way to the relative one, but the brightness is not adapted. In this way, we achieve the most exact reproduction of the input colors. The colors that remain outside the range of the output device adapt to the nearest ones. This is the method to use in corporate logos with few colors, where the best possible color accuracy is essential.
- **Saturation**: This system aims at obtaining results with more vivid colors, whilst trying not to lose color quality. It works well in vectorial designs that need a certain amount of

vividness, or in photographs that are not very saturated, in order to improve their printed appearance.

- **Clean ink**: In case the design contains pure colors, as for instance 100% cyan, this will only be printed with cyan ink so the color profile will not "soil" the original cyan color.
- **Color Matching**: Each color of the design is transformed when we apply the color profile according to the indications of the profile. In this way the color deviation which will be obtained, according to the color profile can be calculated, and a search for the color which best matches the real color we want to obtain is carried out. Be aware that the exact colors' search is very slow and the time for processing designs can be considerably extended.
- **Don't use ICC**: no modification is carried out on the entry save for the application of the LUT charts of ink balance that may be already selected.

Advanced Options

• Dimensional Correction

This option allows to correct differences in measurements that may occur during vaporation, cleaning or drying processe.

| Printer schema manager | EX |
|-------------------------------------|---------------------------|
| silk_acid_HQ_720 x 720_210213_CMKcm | k 👻 |
| Browse | Add Save as Remove |
| 🎵 Print mode 🚸 Ink 🍃 Color | Advanced a PDF/PostScript |
| Dimensional Correction: | |
| Width: | 4.000 % |
| Length: | 1.000 % 🚔 |
| | |

If, for example, a printed media that we know must exactly have a 1 metre length, and the resulting print measures 0,996 (4 milimetres less), we can make a correction in the following way, clicking on the button beside:

| Compensation calculator | — | | | | |
|---|-------------|--|--|--|--|
| Enter the data needed to compute the required compensation value | | | | | |
| Expected size: | 40 in | | | | |
| Real size: | 39.020 in 🚔 | | | | |
| Value: | +2.450 % | | | | |
| Ok Cancel | | | | | |

The option **Full page mirroring** places out print in mirror mode. It is useful when we transfer an image from a sublimation paper to any fabric with the help of an iron plate or similars.

The option Full width ripping is used in the following cases:

- a) On one hand, if we have prints of different widths, the printheads will go over all the width of the media, in such a way that the drying time will be the same for all inks.
- b) The other application is used for printers with drivers that generate .TIFF files. Activating this option the dimensions of the files generated will correspon to the media measure and not to that of the design.

Information

On this page you can also edit, if you wish, information about the media or the inks associated to the schema. Clicking on Input Defaults you will access a new window:

| Input configuration |
|---|
| ☑ Input ICC profiles: |
| RGB: |
| Adobe RGB (1998) 👻 |
| CMYK: |
| Euroscale Coated v2 🗸 |
| GRAY: |
| Black Ink - ISO Coated 🗸 🗸 |
| ☑ Use embeded ICC profile in the document |
| Design orientation and mirroring |
| |
| Ok Cancel |

In it, you will be able to pre-determine some parametres, whose values will be applied to the new documents associated to the schema you are working with.

PDF/PostScript

This option is exclusive for documents generated in PDF or else created with the Photoshop program. Description of this tap is described in section 16 of Preferences.

7. RIP Options

General Options

On selecting the **RIP** button from the program you access the configuration window for the printing options.

| RIP Options |
|--|
| Printer: Epson STYLUS PRO 4800 Configure Conection: TCP/IP: (192.168.8.10:9100) |
| General Pages and Copies Print and Cut Job processing method: |
| Process and Send simultaneously Process, and then send Process only |
| Keep the job after processed |
| Send to an output file File: C:\Users\admin\Desktop\Lolly_colors.prn Start jobs queue if it's stopped |
| Check printer status |
| Print selected objects only, separately |

There are three processing types:

1. Process and Send simultaneously

This means that at the same time that the file is being processed, the information that has already been processed is being sent to the printer. This method is the one which makes the printing start faster, because the moment some data has been processed, this is already sent. The proble with this system is that, if the computer is not fast enough or the file to be processed is excessively complex, what can happen is that the printer stops while waiting for new information and, depending on the materials, small bands can appear in the print as a consequence of the ink drying.

2. Process, and then send

This means that the program will process the whole file, and when it finishes it will send all the information to the printer. This method ensures that all the subsequent information arrives at the printer without interruptions, since it is not necessary to make any calculation at the moment of printing. The disadvantage of this method is that you will have to wait both for the processing and printing times, and might seems too long. Also, working in this way can generate printing files that are too big, and therefore we recommend checking the free space on the disk.

3. Process only

In this case, the program will only process the file generating print directories to be sent later to the device.

In the first two options we can generate a printing file at the same time as the job is being processed. This is achieved by selecting the **Keep output file** option.

The advantage of generating a printing file is that several copies of the same job can be made without the need for additional processing.

In the case of the print occupying more than one page, a printing file is generated for each one of them, adding a number to the original name.

Normally, the printer files usually have the extension .pro or .plt. Thus, for example, from a file named *mar.tif*, a printing file *mar.prn* can de generated, or in the case of occupying more than one page, we would produce files like *mar_1.prn*, *mar_2.prn*, ...

Notice that a printing file may need a lot of space in the hard disk, and therefore we will have to check the available space in the unit. As a reference, printing an image of DIN AO size in a printer of 360 dpi generates a printing file of some 90 Mb.

Later, you can send this file directly to the device with hardly any use of the computer's spare memory. For that, use the program's Job queue.

The **Start job queue if it's stopped** option makes the job queue start up and immediately begin processing or sending jobs.

The option **Keep the job after processed** temporarily saves the processed work, in case you have to re-send the same work again for other copies. Once the job has been erased or the job queue finishes, the work already processed will disappear.

For printers which supply status information, the **Check printer status before sending** option, allows the program to wait for the printer to be ready to receive information, and the program notifies if there is any problem with the printer. Only some specific connection types and printers supply the printer status information, and this is generally the case with printers connected through network wiring (TCP/IP).

The **Print selected objects only, separately** option, will only print the selected designs at that specific moment, ignoring those which are not.

Pages and Copies options

Pages and Copies is the second tab of the RIP options window, offering the following options:

| RIP Options | |
|-------------|---|
| | |
| Printer: | Epson STYLUS PRO 4800 Configure |
| Conection: | TCP/IP: (192.168.8.10:9100) |
| Page Selec | Pages and Copies Print and Cut |
| Use this o | ption to specify the job pages you want to process: |
| Proce | ess all the job pages |
| Proce | ess only the selected pages: |
| Pag | jes: |
| Specify he | ere the number of copies you want for this job: |
| | Number of copies: 1 |
| Pa | ause between copies: 0 s. |
| | |
| Print selec | cted objects only, separately |
| | |

When a design is bigger in size to the defined page, the program generates the pagination automatically, that is to say, it divides the design as in many pages as it needs to print it.

In Page Selection, you can set if you want all the pages printed at once or just select a few. Notice that letters A, B, C .. correspond to the columns and 1, 2, 3 .. to the lines. So, the page A1 would correspond to the bottom left page.

In the box **Number of copies** one can specify the number of times that the same work will be automatically repeated, without having to establish the copies manually.

The option **Pause between copies** generates a pause of a few seconds before sending the following copies. With certain printers, if when sending several copies the printer loses data or a transmission error appears, this can be avoided by establishing this value in a few seconds (for instance 5 or 10).

Print and Cut

The third tab of the printing options window corresponds to the printing options for those printers that allow simultaneous printing and cutting.

| RIP Options | | X |
|---------------------------|--------------------------------|---|
| | | |
| Printer: | Roland VersaCamm SP-300 | Configure |
| Conection: | LPT1: | |
| 🖨 General | 📲 Pages Copies 📑 Print and Cut | |
| When using or only one | | ere if you want to execute both processes |
| Print | registration marks paths | Export paths |
| -Ci | ut adjustments: | |
| | Speed: (x cm/s) | Curve resolution: |
| | | High |
| | Pressure: (x cm/s) | Print Cut size adjust: |
| | Acceleration: (x cm/s) | Length: 0.00 % 🛟 🖓 |
| | Ū | Width: 0.00 % 🛟 ? |
| | · · · · · · · · · · · · | |
| Print select | ed object only | Cancel I RIP! |

Although it is more common to do the printing and the cutting straight after, we may also be interested in carrying this out in two separate stages. Thus, for example, if we have to laminate a design first, it will do the printing and then, once laminated, we will reintroduce the laminated print into the plotter in order to cut out the outline.

The options for activating or deactivating printing and cutting are found in this window. If the cutting option is activated we can adjust the settings of the plotter in cutting mode such as speed, cutting quality, pressure and acceleration (these last two if the plotter allows it).

The two options at **Printing and cut size adjust,** allow to correcting litlle deviations between what is printed and what is cropped, generally caused by the printer. Here it is possible to make such correction adjustments.

• Export paths

All the cropping paths created can be exported to be crop with the CiberCut software, special for the vinyl cutting.

Clicking on the button **Export paths**, the file selection window will be shown and it will allow you to enter a file noun and select where to save it.

The generated file has the extension "ct5" and it is only valid to be loaded in the program CiberCut. It contains the cropping path of the design and the exact position so that when cropping it will match the printed image if register marks are used (OPOS).

8. Job Queue

The window showing the Job Queue -which appears at the bottom of the working area- is as follows:

| ob Queue | | | | | ▼ ą × |
|------------------------------|------------------------|---|-----------------|--------|-------|
| Epson STYLUS PRO 4800 | (TCP/IP: (192. 🗸 🚺 🚺 🚺 |) <u>0</u> ° 0 ° 0 ° 3 | ▲ ▼ 포 🕅 ไช้ ไช้ | to 🦉 💣 | |
| D Job | State | Progress | Rest | Copies | * |
| Lolly_colors.jp: - Page A1 | • Processed | | | 0/1 | Ξ |
| Lolly_colors.jpg - Page B1 | Processed | | | 0/1 | |
| 💾 Lolly_colors.jpg - Page A2 | Processed | | | 0/1 | - |

• Job Queu buttons Bar



From left to right, the buttons perform the following functions:

- 1) Button to Activate the Job Queue.
- 2) Button to Stop the Job Queue
- 3) Button to obtain information from a selected job.
- 4) Button to Add a processed file (prn, plt) to the Job Queue.
- 5) Button to process or send the selected job.
- 6) Button to momentarily stop the selected job.
- 7) Button to stop printing any more copies than the one being printed.
- 8) Button to Cancel a job.
- 9) Button to take a job at the head of the queue.
- 10)Button to take a job upper on the list of the queue.
- 11)Button to take a job down on the list of the queue.
- 12)Button to take a job at the bottom of the queue.
- 13)Button to eliminate from the queu the jobs selected.
- 14)Button to eliminate all jobs finished.
- 15)Button to eliminate all jobs, whatever their estate.
16)Button to access the Cost of printing utility.

17)Button to access the configuration of the Job queues.

A contextual menu, which pops up clicking with the right button of the mouse on any particular job, shows almost the same buttons as above in a different distribution:



• Process / Send

When you select Process or Send option, the following window appears:

| Process / Send Job: | |
|--|---|
| Action: | |
| Process Only This option will process the job internally, | allowing you to send it later. |
| Process and Send This option will process and print the job a able to resend it later. | at the same time. Once finished, you will be |
| Send | |
| This option allows you to send one or more have been previously processed). | e copies of the job to the printer. (The job must |
| Send to an output file | |
| File: C:\Users\admin\Desktop\I | imatges\Testing.prn |
| Copy mode: | Length mode: |
| Sent Copies: 0/1 | Sent Length: |
| Copies to Send: 1 | Length to Send: 0.000 in |
| silk_acid_HQ_720 x 720_210213_CMKcmk | Origin setup: |
| ☑ Bi-directional Print | Pre-feed: 0.000 in |
| ✓ Cut Sheet at End | Displacement: 0.000 in |
| Advanced | |
| | Ok Cancel |

In it, three possible options appear: Process Only, Process and Send and Send. When you Send a job you will be able to set the number of identical copies desired.

You also have the possibility to send a processed job to a file, selecting the location for it within the computer.

| | ws you to send one or more copies of the job to the printer. (The job must viously processed). |
|------------|--|
| Send to an | output file |
| File: | C:\Users\admin\Desktop\Imatges\Testing.prn |
| | |
| | |

In **Copy mode** the number of copies desired can be introduced.

The **Length mode** will only be activated for Rapport prints (unlimited copies), when the option is activated in the RIP, and if a Rapport document has been generated. Here you can set up the desired length of the printout.

The options of establishing **Bi-directional Print** and **Cut Sheet at End** can be selected on this window too.

Finally, the option **Origin Setup** can be established here, leaving some unprinted media space both lengthwise (Pre-feed) and/or widthwise (Displacement).

9. Rapport Mode

Continuous rapport mode printing

This option is only available in programs which are enabled for textile printing. The Rapport printing mode allows for combining and joining repetitions of a single design in such a way as to produce a continuous design of unlimited dimensions showing no splices between the designs.

This feature is used for example for continuous textile printing such as is the case of fabric reels used for the confection of bed-sheets, curtains, etc.

Opening a document for Rapport

When opening a document, the option **Open as** has to be selected. From the three options,

Rapport has to be selected, having the icon

| Format: | Photoshop PSD | |
|------------|-----------------------|---------|
| File Size: | 17,6 Mb | |
| Size: | 2349 x 3378 pxl | |
| DPI: | 300.0 x 300.0 dpi | |
| • | • III | |
| Open As: | Rapport Printing 👻 | |
| | Epson STYLUS PRO 4800 | |
| Printer: | · | |
| Printer: | Epson STYLUS PRO 4800 | ▼ • |

In the case of Rapport type documents, the design will appear repeated in such a way as to cover the whole of the surface that is to be printed.

If, instead of opening a document ,you choose to opent a new document, the window that will appear is the following:

| New Document | |
|----------------|---|
| Document Type: | |
| ! | |
| Color Printing | Rapport Printing Separation Printing |
| For Printer: | Epson STYLUS PRO 4800 🗸 |
| Schema: | • |
| | Ok Cancel |
| | |

Composition Options

When loading a design in Rapport mode we may establish the following executing options for the Rapport, by selecting them in the following window:

| Control center 🛛 👻 🖡 🗙 |
|---|
| Rapport ICC Input ICC Profiles Special Colors Media Size Advanced |
| Rapport: |
| Rapport Sch <u>e</u> me: |
| · · · · · · |
| <u>D</u> elete <u>S</u> ave |
| Offset:: None |
| Value: 0.00 % 🔄 😪 |
| Horizontally |
| Overtically |
| Length: Infinite - |
| Width: Infinite |
| Start: 0.000 in 🔺 x 0.000 in 🔺 |

Rapport Scheme: This is a list of settings that the user may save in order to make it easier to repeat Rapport settings for similar designs. The Save and Delete functions allow organizing such items.

Offset: with this option it is possible to control the displacement between the copies either horizontally or vertically. The default displacement values are 1/2 and 1/3, and are equivalent to shifting the copy by half or by one third of its size.

On the following image a design and a non-displaced copy of it may be observed. The design has been designed in such a way as to make it necessary to displace the motifs in order to make them coincide:



In the following image the copy has been 1/2 half displaced horizontally making the motifs fit and when the copies are made the resulting design will be continuous.



Length: is the quantity in length of the loaded design which we wish to print.

The **Infinite** value shows that there's no length limit and printing will continue uninterrupted until the user decides to stop it. The customised value allows us to determine the number of meters which we wish to print.

The **Minimum** value is the minimum motif that must be printed for all the design information to be contained, and to ensure that when making copies the Rapport will be correct. This option is only valid for certain printers with special repetition functions, which are sufficiently precise to carry out continuous Rapport.

The following image shows the minimum design quantity for (minimum Rapport) for the next repetition to fit perfectly and to generate continuous rapport:



Width: It refers to the amount of the material that we wish to print in width.

With **Start**, the point where the design will start its print on the media can be set, both at its vertical and horizontal positions. For instance, if we need to leave a margin of 0,3mm to start the printout, this is the place to set it.

OPTIONS ONLY AVAILABLE

FOR FILM

Sections 10 and 11

10. FILM - Separations Creation

First considerations

The program is especially developed for the generation of films with ink injection printers. The resolution of these printers is very high, and capable of completing the majority of jobs with processes that require screen printing.

When producing very fine dithers, the printer can generate "moirés" and small oscillations, mostly produced by the physical resolution of the printer when printing the dither. With the studied correction algorithms, the program can minimize these imperfections by adapting angles and the frequency of the dither.

Preparing the design for printing

There are 3 possible systems for creating a print:

- Creating a 4 color: The design will be separated in 4 colors (CMYK) or 6 colors (CMYKOG). In order to print them, it will reproduce the original colors, usually with a dither of dot shapes that create the typical "rosette". This system is generally used to reproduce photographs or designs with many colors.
- With spot colors: The design is prepared with a mass of definite colors, even though it is possible to recreate tones of the same color using dithers. Normally, this is used to reproduce designs with only a few colors and to reproduce corporative colors (p.ej. Pantone®)
- Combination of the two systems: The design is a combination of the four colors and the spot colors.

The program enables the creation of films with the three systems, but the design has to come prepared to us as we need them. Generally, vector design software are used to create originals, like orelDraw[®], Adobe Illustrator[®] or Macromedia Freehand[®].

How does the program recognize what is 4-Color and which are spot colors?

A photographic image will only be reproduced with 4-Color, except if it has been generated with a layer of color and it's been saved as a DCS file.

A vectorial design will be reproduced in 4-Color, except those objects whose color is assigned to a color from a "fixed color palette" (Pantone®, Trumatch®, etc.). So, when we create a design, we should assign the objects color to colors with a fixed color palette that has a proper name. In the next example, we can see a design composed by 4-Color and two spot colors.



In the cases in which we have a design prepared with colors differentiated for 4-Color and spot colors, we should export the design to a PostScript® format.

The overprints

An overprint occurs when two adjacent colors overlap, and the color on top takes some space from the color below. This ensures that no white bands between the two colors appear when they are printed.

The designer must take this characteristic into consideration, and create a design in which the colors are mounted properly. In the following example we can see a yellow circle encircled by a black border. To create this design correctly, we use the overprint of black on top of the yellow.



As you can see in the figure on the right, the external and internal lines belong to the black color, while the central line belong to the yellow. In the printing process, the yellow will be printed first and then the black, covering a small part of the yellow area.

Whatever the design program used, it needs to indicate, for each object, to preserve the overprint. This will ensure that, when the design is exported in EPS, the required information for each object is included.

Multi-channel images

The multi-channel images are composed by the normal channels (CMYK) and other additional channels that are normally used for specific colors (as for example plain colors or Pantone colors).

The program can also interpret these channels, whenever the document is being saved in PostScript DCS. The most modern versions of program for graphic design and design are compatible with this option (eg. Adobe PhotoShop® 6.0).

Each image channel has to be specified with a color and a name for each color so that it can be saved with its name in the document.

To open the document DCS in the program, in the window of separations, you will be able to see the channels CMYK more than the special channels that contain the image. In order to select the colors that you can print, you can remove the CMYK if you only wish to print the colors of the other channels.

Separation options dialog

To access the preferences window for the generation of separations, open the job as Separation Printing. The job will only be opened if we have a bitmap or a vectorial design.

The next window will appear:

| Color separation Color separation Conversion Mode: CMYK Convert spot colors to Negative | tion marks Destin | Options | eate empty p | - |)Y 100K - |
|---|---|---|---|--|---|
| ✓ Linearize black ink Apply ICC profile | Agfa : S Halftoning method | wop Standard Ordered Halfto | ning | • | Edit Add Settings |
| | Color Cyan Magenta Yellow Black | Overprint By default By default By default By default | Angle 82.50° 73.50° 99.50° 82.50° | L.p.i. 36.00 36.00 36.00 36.00 | Shape Round Euclidean Round Round |
| ustom settings list | | • |)× | Ok | Cancel |

Color separation

The **Hexacrome Mode** option allows us to create hexacrome separations, which are CMYK + orange and green. To create the hexacrome separation, you will need to specify in the program

what hexacrome color profile should be used, as it will require such a profile to create the six channels.

The option to **convert spot colors to process colors** indicates that the program should convert all plain inks (Pantone®) to their corresponding CMYK components, which are generated through only 4 channels.

The option **Negative** allows to make a print in negative, that is, what is transparent turns black and what is black turns transparent.

To **Apply ICC profile** allows for the specification of color profiles for the generation of the CMYK channels. If we have a color profile that is similar or exactly like the one used by the printing system for film mode, then it will be possible to select and generate the CMYK channels with the maximum guarantee of results.

Bear in mind that if we are separating color from an RGB image, only the CMY channels will be produced. If, on the contrary, a section of color is selected, it is certain that the 4 channels CMYK can be obtained.

The **Linearize black ink** compensates for the different types of dot that the film/ink may have, and ensures that each tone is reproduced correctly.

This test can facilitate the printing of gradations of black from 0 to 100. The resulting print is completely uniform with changes in tone from 0-5% to 95-100%.

Clicking on the **Edit** button it will open the lineralization window.



Linearization of the black ink

In this window it is possible to adjust the obtained print in order to achieve black tones that correspond with the tones of the print.

The best way to achieve this is to adjust the printer gradations of black and white and calibrate them in percentages.



Visually, the change in tones must be gradual, in both the lighter and darker areas. If it is observed, for example, that from the 80% on only black can be seen, then the linearisation curve should be corrected approximately at that point.



Once a curve is created, a modification name can be assigned to it in the Profile, and Save it.

It is advisable to print again the same gradient and compare the results to see if there has been an improvement. Remember that if you use a different film, you will probably have to use a different linearization curve.

• Halftoning Method

Ordered Halftoning Method

A displayed dialogue opens and allows us to select a dithering method for the separation.

| Halftoning method | Stochastic | - |
|-------------------|----------------------------------|---|
| Color | Stochastic Ordered Halftoning | |
| Cupp | None | |

We should select the desired type and establish the desired characteristics with the $\ensuremath{\textbf{Setting}}$ button:

Angled screen

It is possible to establish -for each color- the angle of the screen the frequency (l/in., l/cm.) and the dot shape, althought the most common procedure is to use the same one for all the channels.

| Angled screens settings | | — |
|---|--|---|
| Channel Cyan Magenta Yellow Black | Shape Round All the same Angle: 82.50 ° | Frequency 36.00 I/in 14.17 I/cm SuperCell 3x3 I/I All the same All the same Pad-Printing Ok Cancel |

To select the dot shape, select the list of supporting shapes for ink jet printers. We recommend using the round one, even though you can also get good results with the Euclidean.

The frequency of the dither can be introduced in lines per inch or centimeter. Based on the resolution of the printer, the program calculates the frequency and angles that best approximates what has been introduced. This can be seen by pushing:

| SuperCell 3x3 All the same | (Cyan) Angle:82.28° - L.p.i.:36.28 l.p.i. (Magenta) Angle:73.66° - L.p.i.:35.74 l.p.i. |
|------------------------------|---|
| | (Yellow) Angle:99.62° - L.p.i.:36.10 l.p.i. (Black) Angle:82.28° - L.p.i.:36.28 l.p.i. |

Depending on the value of the selected "Super Cell", the adaptations of angles and frequencies will differ.

The value 1x1 is that which will best define the shape of the dot, calculating the angles and frequency that coincide exactly with the resolution of the printer, though on the other hand, it can sometimes lose gradations of grey tones.

The value 4x4 will not define with such to shape of the dot with such exacting precision but it does generate more gradations of grey tones.

To avoid "losing dots" when reproducing the lightest and darkest tones, the program has a controller which eliminates the smallest dots of both extremes in the dither.



Moreover, and There is also a technique independently deletes lightest and darkest dots in order to ensure that printing will be effectively facilitated at the end of the design.



The **Pad-printing** option ensures that the darkest areas always retain their dots, so that they don't simply appear as a black mass. This is necessary when using films in this printing system.

The configurations that we have created ensure that we are able to re-load similar works that will quickly become configured on the screen.

• Stochastic dither

The stochastic dither arranges the dots dispersely, grouping them more if the tone is dark, or separating them more if the tone is light. The size of all of the dots is the same. This type of dither has the advantage of avoiding the Moiré effect between the different colors.

| Error Diffusion Dithering | EX |
|---|-----------|
| Variable dot settings | |
| Disable large dot (Fast-dry n Disable small dot In black ink only | mode) |
| Maximize small dot usage | |
| Smoothness | 10.00 |
| Dot Multiplier: | 2 |
| Dot gain compensation: | 2.00 % |
| Ok | Cancel |

As in the majority of cases it is not possible to reproduce the size of a dot from a printer, a larger dot needs to be created. For this, the program allows the enlargement of the printer's dot to a value in which a larger dot impression can be obtained.

Using the **Dot multiplier**, it is possible to increase the value in microns (127 microns = .127 millimetres).

Other options

The Option **Maintain document overprints** is used to preserve the overprint (solid fill). Clicking on it, you save the areas of the filling that have remained under the other colors, in such a way that the colors that overlap have a margin to allow they're printed.

To preserve the overprint (solid rules) Save the areas of the outline that are underneath other colors.

The option **Do not create emptly plates** indicates the program that if there is any completely empty channel to discard it. In this way unnecessary media is saved.

In the **Custom settings list**, one is permitted to save the configuration of the entire separation window from the previous operation. In this way it is possible to save varied configurations according to the type of separation required.

| Custom settings list | |
|----------------------|-------|
| | - 🗐 🗙 |
| | |

Attached to this list there will be a key to save the configuration and a button to delete the configuration from the list.

Press the OK key from this window to proceed creating the separations.

When ready to print the separations, pay close attention to the quality of the print that is configured in the program (print resolution) and the bi-directional modes. Normally the best results are achieved by selecting the highest resolution and a uni-directional mode.

Bear also in mind that if you want to use the auto distribution function of the program, you must first de-activate the design rotation function, so that the program will not rotate only some channels and not others. For the best jobs results, it is recommended that all channels print in the same manner.

Register and Crop marks

On this tap options about registration and crop marks can be selected:

| or separation Registration marks De | stination |
|-------------------------------------|----------------------------|
| Print registration marks | Print crop marks |
| Style: 🙀 🕈 🗸 | Horizontal bleed: 0.000 in |
| ter | Vertical bleed: 0.000 in |
| Print density and calibration bars | |
| Print document information | Line width: 0.000 in |

Registration marks: they are signs that are printed in the center of the four sides of the design, and they are used to allow the program to register the different colors at the moment they are being printed.

Crop marks: they are two marks that are situated in the four furthest corners of the design, and serve as a reference for the final cut of the design when its already printed.

Density and calibration bars generate the printing of signs for each of the colors of the separations.

Calibration Bar: generates the printing of the colors and color combinations samples.

Document Information: Includes information about file name, type of dither and printing channel.

Channel Selection

In the separation window, it will appear a list of all the channels that can be separated.

| Color | Overprint | Angle | L.p.i. | Shape |
|---------|------------|--------|--------|-----------|
| 🗸 Cyan | By default | 82.50° | 36.00 | Round |
| Magenta | By default | 73.50° | 36.00 | Euclidean |
| Yellow | By default | 99.50° | 36.00 | Round |
| Black | By default | 82.50° | 36.00 | Round |
| | | | | |
| | | | | |
| | | | | |

On the left of each color there is a square that can be marked (\mathbf{M}), indicating the channels that we want to separate.On the right of each color we are shown information about the dithers that are used for the separations.

Edition of a prepared separation

Once the separations are done, it is possible to modify several of the design's characteristics relating to size, orientation, and crop marks from the Control Center dialogue:



Moreover, it is also possible to modify the characteristics relating to the dither one the separations are ready. To do that we should double click on one of the separations, and a window with the dither configuration will appear. Notice that some other options are disabled at this stage.

11. Film printing Setup

Print mode

The printing in the FILM mode differs from the printing in the RIP mode because many functions are hidden or inactive. They have been deactivated to facilitate its use.

Printer schema manager



The printing schema manager contains all the printing parameters.

| Printer schema manager | ••• |
|---------------------------------------|--------------------|
| glossy paper_720 x 720_130320 | - |
| Browse | Add Save as Remove |
| 🎵 Print mode 🗰 Ink 🍃 Color 🖪 Advanced | a PDF/PostScript |
| | |

Once configured all the parameters, it is possible to save this configuration in a schema. Thus, having the program already configured for the different kinds of materials is easy, and prevents mistakes.

Remember that only by selecting a schema you will have configured all the printing options.

• Printing quality

The printing quality refers to the actual way in which the machine prints. Some printers allow you to print in various resolutions or modes, varying the final quality of the printing.

| Quality: | 720 x 720 | ~ |
|-------------------------|-------------------------------------|----------|
| Resolutio Bits per p | 360 x 360 360 x 720 720 x 360 | |
| Thickness Platen Ga | 1440 x 720 | |

• Bi-directional Print

This function will send a command to the printer indicating the printhead to move in one or both directions. Activating the bi-dectional Print, the job will be done faster, but it can lose some printing quality.

Cut Sheet at End

Activates or de-activates this option in printers that allow cutting the media after printing.

• Dithering

| Error Diffusion Dithering | — | | |
|-------------------------------------|-------------|--|--|
| Variable dot settings | | | |
| ☑ Disable large dot (Fast-dry mode) | | | |
| Disable small dot | | | |
| In black ink only | | | |
| Maximize small dot usage | | | |
| Smoothness | 10.00 | | |
| Dot Multiplier: | 1 | | |
| Dot gain compensation: | 0.00 % | | |
| | Reduce Max. | | |
| Ok | Cancel | | |

This printing mode has been implemented for printers with variable dot printing technology. The fact of beign able to Disable the Large dot makes the print dry sooner; this is what we call the Fast dry mode.

However, bear in mind that by activating this option the resulting color could be paler and, to compensate this shortage, the Ink Usage may have to be increased.

Ink Control

| Printer schema manager | | | | |
|---|--|--|--|--|
| glossy paper_720 x 720_130320 - | | | | |
| Browse Add Save as Remove | | | | |
| T Print mode 41 Ink 😏 Color 🗄 Advanced a PDF/PostScript | | | | |
| Linearisation file: | | | | |
| Add Remove Edit | | | | |

When printing fotolites it is very important to control the use of ink in order to achieve maximum opacity that ink and polyester film can absorb.

The use of ink should be at its top value, making sure that the ink dries well and doesn't spill.

We must also make sure that small details such as dots or fine lines are reproduced. If such details are lost means that there is an ink excess and it should be lowered.

Once reached the correct amount of ink, we should save that scheme so that we don't have to enter the values manually every time. But take into account that, according to the resolution of each print, the value for ink can vary

Advanced options

| 🎵 Print mode 🗰 Ink 🍃 Color 🖻 | Advanced a PDF/PostScript | | | |
|---|----------------------------------|--|--|--|
| Dimensional Correction: | | | | |
| Width: | 0.000 % 🚔 | | | |
| Length: | 0.000 % 🚔 📖 | | | |
| Full page mirroring Full width ripping | | | | |

Dimensional Correction

This option allows to correct measure differences, which are usually caused by the printer mechanic imperfections or to faulty adjustments.

If, for example, a printed job that we need it has to measure exactly a 40 inches long, and the final job is 39.020, then we can make a correction -both for length and width-, clicking on the icon ..., and the following window will pop-up.

| Compensation calculato | r | | X |
|---|-------|------------|----------|
| Enter the data needed to compute the required compensation value | | | |
| Expected size: | | 39.330 in | |
| Real size: | | 392.126 in | |
| V | alue: | -897.013 % | - |
| Ok Cancel | | | |

Pressing the Ok button, the corresponding correction will take place.

12. Cutting

Introduction

This program function allows us to create a cutting path for those printers that support contours cut (Print & Cut).) or for plotters with cutting system. We access this option from the Control Centre:

| Control center 🔹 🕈 🗙 |
|--|
| Selection ICC Input ICC Profiles Special Colors Cropping Crop and Reg Marks Contour Cutting Mosaic Advanced |

The options for the creation of the contour are:

| Contour selection: | | |
|--|--|--|
| None By stroke color PostScript dip paths Automatic outline | | |
| Cut bounding rectangle | | |
| Distance: 0.000 in | | |
| Options: | | |
| | | |
| Distance: 0.197 in | | |
| Background color: | | |
| Tolerance: 20.00 % | | |
| G Cut | | |
| Apply N E RIP | | |

None: the function to create contours is not activated and, therefore, nothing will be cut.

Cut bounding rectangle: this creates a rectangle outside the limits of design both for images and vectorial designs. In this case, we can introduce the distance between the contour that will be created, and the rectangle marking the limits of the design.

By stroke color: This option only applies to vectorial designs, since a fillet color will be assigned as cutting path.

The program interprets the design and locates all the fillet colors, adding them to the list of fillets.

When choosing a color from the list, you can see on the screen that the fillets with that particular color are seen as a broken line. This shows that it is a cutting line.



In this image you can see an outside cutting outline

The **PostScript clip paths** option allows the cutting of areas of image trimming generated directly in Photoshop®. Consult the Adobe Photoshop® manual to know about how to generate layouts in a document and include them in a *Photoshop EPS* together with the image.

• Authomatic outline: Allows the generation of an irregular contour following areas of similar color.

The Authomatic contour options are:

Distance: distance between the line that marks the zone with similar color and the pathway which will be created.

Background color: color selected as a reference in order to select the color area which will be used to create the cropping pathway. From the selected point the program will search the whole area of the image with a color similar to the one selected, and will create a cropping contour in the limits of the area.

Tolerance: similarity value of the accepted colors by the area selection. If the value is low and the area that is to be selected contains colors with similar tones, the area may be not selected correctly. If a high tolerance value is entered, the selection can be extended to color zones which are similar, although not exactly the same as the chosen one, and thus the result will not be satisfactory.

To select the reference color, press the color selection button | and press directly on the image in a zone with the background color to be selected.



The program will search all the area of the image with a color similar to that selected and will calculate a cut pathway with the established distance from the frames that frame the similar color area selected.



• Send directly to cutting plotter

Once generated the cropping path, it is possible to send it to a cutting plotter. By clicking on the Cut button you will access to the configuration window for the Contour cutting:



| lotter: Roland VersaCamm SP-540 (| Cut) Configure |
|---|---------------------------|
| Options Cut adjustments: Speed: 30 cm/s Pressure: 74 g/cm2 | Curve resolution: High |
| Acceleration: (× cm/s) | Plotter options |
| ☑ Read registration marks | Cut! Cancel |

In **Plotter**, you will be able to select the model of plotter you will use. To add plotters to the list or configurate your connexions, press **Configure**.

| Contour cu | tting | — |
|------------|-------------------------|-----------|
| Plotter: | Graphtec CE5000/60 HPGL | Configure |

Depending on the model of plotter selected, it will be possible to control directly the cutting speed as well as its pressure and acceleration. It is also possible to select the cutting quality when bends are being cut in the section **Curve resolution**.

The option **Read registration marks** will only be active in the plotters in which the reading of these marks is activated through software, that is, the program has to indicate the plotter to search for the register marks in order to positionate itself correctly in the origin of the printing.

The **Plotter options** button opens the next window:

| Advanced options: | — |
|---|----------|
| Axes Plotter Control Enhancements Resolution | Close |
| HPGL Axes Disposition: | |
| Expand X-axis (Rotate-90) | |
| | |
| Change this parameter if screen X-axis does not match plotter roll advancing direction. | |
| Save as Default | |

• Axes

In all plotters that allow configuration, you should select the option of rotating 90° the axes, since in order to adjust the printing and cut, the origin of coordinates is to be found to the right of the plotter .

For plotters which do not have the function of reading register marks (OPOS), we recommend using the register marks -from the previous branch of the Control Center- which only prints angles:



And place the cut origin on the right mark once the material has been loaded in the cutting plotter .

• Exporting paths

All the cutting plots that we may create can be exported to be cut with the CiberCut software, special for the vinyl cutting.

Pressing the button **Export paths**, the file selection window will pop up, and it will allow you to enter a file name and select where to save it.

The generated file has the extension "ct5" and it is only valid to be loaded in the program CiberCut. This contains the cutting pathway of the design and the exact position so that when cut, it will match the printed image if register marks are used (OPOS).

13. Consumption calculation: nèoControl

The cost calculation of printing jobs is an unresolved matter for the majority of digital printing software, since it is very difficult to calculate the exact quantity of ink that will be used in each job.

With neoControl's function, you will be able to calculate the cost of any job even before sending it to the print.

The option *nèoControl Server*, which must be acquired with a separate license, allows to control all the printers connected to nèoStampa 7.1. This utility allows to organize Job Queues, send new jobs, erase them or control the costs before printing, and all this from an authorized computer with an internet conection.

Generally speaking, nèoControl has been created so that you can access to all the information of your printers in an easy and friendly way. For this reason all the icons that appear on the several screens, as well as the texts in **bold**, will automatically take you to all the information stored in relation to them.

General Aspect

From nèoStampa you can access nèoControl by clicking on the icon

from the Jobs Cue:



Within this application, there is and Index with the following options: Printers, Job Queues, Jobs History and, in the Settings section, Media, Inks, Shemas, Workstations and Settings:



Cost Control

On the **Settings** section, in Medias and Inks, you will be able to set the cost of such products. Any time you have a new media or type of ink, you will be able to set their price by clicking on the new option, and also entering name, reference, supplier, etc.

Material

| Back Home | Material |
|---------------------|----------|
| Material silk | |
| Reference | |
| Name | silk |
| Width m | 1.00 |
| Length m | 1.00 |
| Cost | 108.00 |
| Cost/m | 108.00 |
| Cost/m ² | 108.00 |
| Shrink % | |
| - | |
| Save | Delete |

Inks

| Back Home | Inks |
|--|-----------------------|
| Inks LightCyan Epson STYLUS PRO 4800 | |
| Reference | |
| Ink | c |
| Printer | Epson STYLUS PRO 4800 |
| Capacity ml | 1000.00 |
| Cost | 32.80 Apply To All |
| Cost By Liter | 32.80 |
| Save | Delete |

Schemas

On the function Schemas, you will be able to control the parameters of each schema with its associated information and characteristics.

| Back Home Schemas | |
|--|--------|
| Epson STYLUS PRO 4800@WIN7-PC | |
| Eq_Lin2_720 x 720_110511 | > |
| Eq_Lin1_720 x 720_110511 | > |
| Geronimo1_720 x 720_110512 | > |
| Geronimo2_720 x 720_110512 | > _ |
| Geronimo3_720 x 720_110512 | > |
| E4800_Stork_360x720_CMYKOB_v211_101006 | > |
| EcoDisplay210_CMYK_Subli_360 x 720_100930 | > |
| EcoDisplay210_CMYKOBcm_Subli_360 x 720_100 | 0930 > |

Clicking on any schema you will access a window with all the data related to it. When the prices of the media and inks has been correctly introduced, in this window you will be able to get quite an acurate cost of the print by square metre.

| Back Home | Printer Schema | | ŕ |
|---|--------------------------------------|---|---|
| Printer Schema | | | |
| silk_acid_HQ_720 x Epson STYLUS PRO 4800 | 720_210213_CMKcmk | | |
| Printer Schema | silk_acid_HQ_720 x 720_210213_CMKcmk | | |
| Creation Date | 13 03 2013 16:25 | | |
| Printer | Epson STYLUS PRO 4800 | > | |
| Ink Type | acid | | |
| Ink Setup | K,C,M,Y,c,m,k | > | |
| Res. H | 720.00 dpi | | |
| Res. V | 720.00 dpi | | |
| Media Type | silk | | |
| inkLevels | 3 | | |
| Droplet Large | 20.80 | | |
| Droplet Medium | 12.50 | | |

Jobs

When you click on a Job you access to its information:

| Back | Home | Job | | |
|-----------|--|--------------------------------------|--------|---|
| Job | | | | |
| | Tulips.jpg silk_acid_HQ_720 x 720_210213_CMKc | mk | | |
| | File Name | Tulips.jpg | | |
| | Size | 171.20mm x 228.26mm | | |
| | Printer | Epson STYLUS PRO 4800 | | > |
| | Printer Schema | silk_acid_HQ_720 x 720_210213_CMKcmk | | > |
| | Inks | K,C,M,Y,c,m,B,O | | > |
| | Material | silk | | > |
| Copies | 5 | | | |
| 07 06 201 | 3 10:26 (5s) | | | > |
| | Save | | Delete | |

Clicking on **Copies**, a window with the Costs of that job will pop up:

| Copies | |
|--------------------------|-------------------------------|
| 07 06 2013 10:26 (5s) | |
| Cost | |
| Total Ink Cost | 0.022 |
| Material cost | 0.192 |
| Total cost | 0.213 |
| Cost m ² | 0.746 |
| m²/Hour | 0.000 |
| kDots | 40179.0 - 16056.0 - 23419.0 / |
| Total consumption of ink | 0.92 ml |

Export your information to an excel file (xls)

Selecting the **Jobs History** you will view all the jobs that have been completed with nèoStampa, grouped in three different timings (Today, Yesterday and Calendar).

| Back | Jobs History |
|--------------|---|
| Today | |
|) | Froggy.jpg 100.0% Epson STYLUS PRO 4800@WIN7-PC 351.96mm x 786.63mm Eq_Lin2_720 x 720_110511 11 19 2012 15:15 |
| Export an ex | cel XLS file |
| Yesterday | |
| Nothing | |
| Calendar | |
| This Week | |
| Last Week | |
| This Month | |
| Last Month | |
| | neoControl ©2009-2012 Inèdit Software S.L. |

Under each job or group of jobs you have the option to Export the data generated from those jobs to an **Excel file**:

| | A | В | C | D | E | F | G | Н | 1 | J | K | L | |
|---|-----------------------------------|----------------|----------|---------|--------|--------|-----------------|------------|----------|------------|----------|------------|-----|
| 1 | neoControl - Inèdit Software S.L. | /10/11 1:13 PM | | | | | | | | | | | |
| 2 | Archivo | Ancho m | Alto | rapport | Res. H | Res. V | Material | Creación | hour | endDate | hour | abortDate | hou |
| 3 | Chrysanthemum.jpg | 476.13mm | 954.27mm | Ninguno | 720 | 360 | aperInèditBo 65 | 10 10 2011 | 13:12:35 | | | | |
| 4 | Tulips.jpg | 386.18mm | 868.91mm | Ninguno | 720 | 360 | aperInèditBo 65 | 10 10 2011 | 10:26:53 | 10 10 2011 | 11:47:26 | 10 10 2011 | |
| 5 | Tulips.jpg | 386.18mm | 289.64mm | Ninguno | 720 | 720 | Bandera | 10 10 2011 | 10:20:24 | 10 10 2011 | 10:20:38 | | |
| 6 | Koala300.jpg | 495.81mm | 371.39mm | Ninguno | 720 | 360 | aperInèditBo_65 | 10 10 2011 | 10:19:30 | 10 10 2011 | 10:19:52 | | |
| 7 | ale29.jpg | 420.03mm | 895.03mm | Ninguno | 720 | 360 | aperInèditBo_65 | 10 10 2011 | 10:18:28 | 10 10 2011 | 10:19:04 | | |
| 8 | MART20.jpg | 297.01mm | 420.03mm | Ninguno | 720 | 360 | aperInèditBo 65 | 10 10 2011 | 10:17:16 | 10 10 2011 | 10:18:03 | | |
| 9 | | | | | | | | 6 Trabajos | | | | 1 Trabajos | |

14. File Browser

This program has a very practical utility to access to all the printable designs we have, without having to browse through all the files in our disk, which might be sometimes quite confusing.

This File Browser, which is located on a small tab at the bottom of the working area, will take you a **Favourites** section, where all the folders and files you need can be located:



To **add** a folder in the Favorite section, we will browse the folders of our computer starting from the section "Desktop" and opening the folders we wish.

Once the wanted folder is found, we will click on the **Add to Favorite** button and enter the name we wish to appear.

| New Link | EX |
|--------------------------------|--------------------|
| Please, type in the name for t | his Favorite link: |
| | |
| Blue Mango | |
| | |
| | OK Cancel |
| | |

In the preview area of the designs we will be able to see a small image of each design.



The size of the preview image is adjustable. Click on the right button on this area to select a desired size.

15. Interface Customization

Option Selector Dialog

To access this window, click on **View, Workspace** and then **Customize**, from the top menu.



The following window will pop up, with several taps, each with a particular function:

| Customize | | | | | | - × |
|---|----------|-------|----------|--|---------|------------|
| Commands | Toolbars | Tools | Keyboard | Menu | Options | |
| Categories: File Edit View Tools Window Help New Menu All Comma | J | | | New Open Insert Close Save | | |
| Description | : | | | Save As. | | |
| ٢ | | | | | | Close |

Select commands

In **Categories**, as seen on the above image, appears a list of all the possible commands grouped, just as they appear on the menus.

To insert a new command on a bar, simply select it and drag it to the desired bar. If there is an icon associated to that command, it will be placed on the bar too. If there isn't any, the text will be placed instead.

• Configuration of toolbars

Here you can activate or de-activate any of the Toolbars.

The program can also show the explanation text to help learn the buttons more easily, and to recognize them. The only inconvenience with this option is that it occupies more space.

The button bar, as installed by the program, only shows the image which reminds you of the function being carried out.

Select **Show text labels** by selecting the desired button bar, and the buttons will appear with the text reminding you of their function.

| Customize | |
|--------------------------------------|------------------|
| Commands Toolbars Tools Keyboard Men | u Options |
| Toolbars: | |
| ☑ Dynamic Editing ☑ Menu Bar | Reset |
| ✓ Standard ✓ Tools | Reset All |
| 10013 | New |
| | Rename |
| | Delete |
| | Show text labels |
| | |
| | Close |

Shortcut keys

We can configure at will all the program's fast access keys, eliminating, changing or adding the combination of keys we want.



All the commands appear in the Key tab, sorted by categories, just as they appear in the menus.

When selecting one of the commands, the current key combination to access that command will appear in Current assignment, if that combination has been defined. To remove that combination, select it and click the remove button.

If no combination has been defined, we can add one by depressing the key combination we want to assign in the **Press new shortcut key** box. If therefore, for example, we want to assign the combination Ctrl + P, we must maintain the control key depressed and, at the same time, depress the P key.

| Ctrl+P |
|--------|
|--------|

Once the desired combination has been entered, press the **Assign** button

If you wish, you can go back to the initial state of all the keys by pressing **Reset all.**

• Configuration of the menus

To access these functions, select the **Menu** tab.

In **Menu animations** you can choose from four different modes of displaying the menus: Normal, small to large, unfold, and gradual.

Another interesting effect, which also makes the program's interface more pleasant, is the possibility of adding shadow to the menus when they unfold.

Activate the **Menu Shadows** option and the menus will appear with shadow in this way:

• Options

In the options tab we can set the following:

Show Screen Tips on toolbars: To activate or de-activate the help which appears when the mouse pointer is placed over a button.

Show Shortcut keys in ScreenTips: To show or not to show with the help the combination of fast access keys if available.

Large icons: To change the size of the button bar icons. This is especially useful for screen configurations with very high resolutions .

Program accessing

This function allows adding a direct access of a program to the **Tools** menu. This is useful for the most commonly used programs.

| Customize | |
|--------------------|---|
| Commands Toolb | ars Tools Keyboard Menu Options |
| Menu contents: | |
| Photoshop | |
| | |
| | |
| Command: | C:\Program Files\Adobe\Adobe Photoshop CS5 (64 Bit) |
| Arguments: | |
| Initial directory: | |
| | |
| | |
| | |
| | Close |

To add programs press the first key shown on the additional Tools bar and enter the name of the program you wish to appear in the menu.

In **Command**, enter the complete route of the program's location, or press the right side button to search for it in the computer. If the program requires any parameter in order to initialise it, it will have to be entered in **Arguments**.

It is possible to add as many programs as it is desired or needed.

• Automatic positioning of floating windows

When a floating window moves through the working window, certain marks will appear, enabling the automatic positioning of the floating window.

In the middle of the screen appears the positioning marks:



By positioning the cursor of the mouse -while pressed-, on any of the four keys, the area represented will be highlighted and the floating window will be positioned there.

Windows that hide automatically

Floating windows can be configured as to automatically hide when not used, in order to save working space.

The icon appearing on the window bar representing a tack, shows whether the window can be hidden or it is fixed. The following example indicates that the window is a fixed one:



If pressed, the tack mark will assume a horizontal position, meaning that the window can be hidden:



In the case, for example, of the Job Queue window, when it is hidden a tab appears in the inferior part of the working area:

| Real image | 🔽 🎵 Simulate printed colors | ~ |
|------------|-----------------------------|---|
| Job Queue | | |

To make it visible, simply place the cursor on the tab: the window will automatically be displayed, enabling us to work with it.

16. Preferences

To access the Preferences window, display the options from the Edit menu, on the top bar of the program.

| <u>E</u> dit | <u>V</u> iew <u>T</u> ools <u>W</u> ir | ndow <u>H</u> elp |
|--------------|--|-------------------|
| | Undo Scale design | Alt+Retroceso |
| ж | <u>C</u> ut | Mayusculas+Supr |
| ₿ ₽ | Со <u>р</u> у | Ctrl+C |
| B | Pa <u>s</u> te | Ctrl+V |
| × | <u>D</u> elete | Supr |
| | D <u>u</u> plicate | Ctrl+D |
| | Ca <u>n</u> cel | |
| | Select all | |
| | Clea <u>r</u> Selection | |
| | Invert Selection | |
| | <u>P</u> references | |

Edition

| Software's preferences | | × | |
|--|---------------------------------|--|--|
| Edit Color management RIP Logging | Edit Parameters for editing | | |
| PDF / PostScript | Displacement with the keyboard: | Adjust movement to Guidelines | |
| | Accurate: 0.039 in 🔺 (+Shift) | Distance: 9 🚔 pxls | |
| | Normal: 0.197 in | V Avoid object overlap | |
| | Large: 0.394 in (+Ctrl) | Object distance: 0.000 in | |
| | Undo levels | Show grid: | |
| | | Distance: 3.937 in 🚔 | |
| | 100 levels | Optimize media when opening or importing images | |
| Ok Cancel | | | |

In this window we can set the following values which the program will use by default.

Displacement with the keyboard: the selected objects can be moved using the keyboard's cursor keys. Depressing the cursor and *Shift* and *Control* keys at the same time can cause the distance moved to be different than if not depressed.

In this section, you can configure the distance the design will move with these keys.

Adjust movement to Guidelines: Here we can determine whether we wish the objects to be snapped by the guide lines and the distance in pixels on screen from which the guide lines will snap the objects.

Avoid object overlap: Activating this option the program avoids that two designs may overlap on one another and in Minimal separation we can determine the minimum separation allowed between them. If we want to fit a design inside the other we will have to deactivate this option.

Undo levels: Here we configure the number of operations the program will retain in its memory in case we wish to undo any of the actions carried out. Each time a transformation is done on any object it is memorized so that we can use the undo command to return to the previous position.

NOTE: The undo levels use part of your PC system's memory. So, if your PC has only just enough memory it would be advisable to reduce its value.

Color management

In this window you can configure the color model which will be used by default by the monitor, the scanner you will use, and the printer for color proofs.

| Software's preferences | |
|--------------------------------------|---|
| Edit | Color management |
| <mark>Color management</mark> RIP | Parameters for color emulation |
| | Global ICC Profiles settings: |
| | Monitor profile: |
| | Adobe RGB (1998) |
| | Force Absolute Colormetric for LAB Do not print LAB 100/0/0 Skip automatic spot color detection |
| | Color Engine: |
| | Adobe CMM |
| | Ok Cancel |

If you have a specific Monitor profile for your equipment, you can add it to the system with the **Install** button.

The Monitor's Profile is very important in order to achieve that colors are as close as possible to the real colors of the design.

The closer the Monitor's Profile is, the better simulations you will obtain, and therefore what appears on the screen is will be the same as what is printed. There are systems for generating monitor models which calibrate monitors and allow you to view colors very realistically. Bear in mind that in order to keep a monitor perfectly calibrated, first of all you need to use a high quality monitor, control the environmental light and, of course, all the monitor's controls.

The **Force Absolute Colometric for LAB** option can be selected if we want to print a document with Lab parameteres. In such cases the Rendering Intent will go to Absolute Colometric, no matter what parameters we have introduced in the schema.

The **Do not print LAB 100/0/0** option is used when we don't want a simulation to be printed, as it might colour all the image background.

Skip automatic spot color detection must only be activated, if desired, for vectorial images.

Color Engine: The program has several functions that manage color transformations based on the parameters of ink limit, linearization and the profiles. These functions are in the so called Color Engine. We recommend to select "Adobe CMM", although the older "Little CMS" is also a good choice, as it is compatible with previous neoStampa versions.

RIP

Memory usage: Even though the program configures automatically this value, in systems with limited memory it may be interesting to assign little memory to the program so we can continue working with other programs. Bear in mind, though, that the application will work slowly.

In any case,

and particularly for configurations with high levels of installed RAM memory (such as 2GB), we recommend never going over the 256MB of memory that will be used by this program.

Multi-Thread RIP: for computers with various processing cores, we can assign to assig the same job to two of them.

16-Bit Color Processing: It implies better color quality.

LOGGING

| Software's preferences | | |
|-----------------------------------|---|-----------|
| Edit | Logging | |
| ···· Color management ···· RIP | Logging options | |
| Logging PDF / PostScript | Log File | |
| | ☑ Generate a Log File for each RIP job | |
| | Path: C:\Users\Public\Documents\neoStampa 7\Log | |
| | Compute cost | |
| | Connection with Production Manager | |
| | Server: www.neotextil.com | |
| | Port: 80 Test co | onnection |
| | Path: /cgi-bin/WebObjects/neoControl.woa | |
| | Notify URL: | |
| | | |
| | Ok | Cancel |
| | | |

To **Generate a Log File for each RIP job** is a utility of the program, which generates a "log" with all the information about the printed job.

Such file has information of the quantity of ink dots that have been used for the printing, the measure of the media used and the printing modes used for the job. All this information will be conveniently used so that the program will be able to produce quite a precise costs report.

Connection with Production Manager: the program offers an extended version of the nèoControl, called Server Option, which is acquired separately and serves to centralize the reception of data from several computers and also manages the cost control of various stations.

We will write here the server's name and the path to get to that "manager" server.

PDF / PostScript documents preferences

| Software's preferences | | — |
|--|---|-----------------|
| Edit Color management RIP Logging PDF / PostScript | PDF / PostScript Rendering options Rendering engine Default engine: Version 7 (recomment | ded) 🔻 |
| | Rendering resolution Divisor 2 • of Higher • print Max: 360.00 • dpi Min: 72.00 • dpi | Options res. |
| | Rendering colorspace Render to: Output printer profile (RGB/CMYK) | |

Render engine:

The version neòStampa 7 incorporated a new rendering engine for PDF documents. The engine that was used in older versions can also be used.

Rendering Resolution:

The parametres from this function indicate the resolution at which the PDF documents will be rendered. As a general rule, the divisor 2 will be used, with a minimum dpi of 72 and a maximum of 360. To achieve more precise results, the divisor can be set to 1, but this option may slow considerable the printing processing.

Rendering Colorspace:

It indicates the color space where the PDF doc will be renderized before turning it into something printeable. Both RGB or CMYK spaces can be selected as to configure the output or input parameters, but you can also select "multi-channel output". This last option will make color conversions directly to the printer, allowing color substitution rules to take place.

17. Connectivity

Instructions

Connecting a computer to a printer may seem a very simple thing to do, but in fact there are many things to take into consideration, some of which are anything less than obvious. Anyway, there are always alternative connecting methods that can be done if regular procedures fail.

The most common problems in badly implemented connections are the following:

(a) The slowness in sending data makes the printer "wait" while data is being sent, and so it stops.

(b) Data interruption problems cause the printer to stop printing, or it makes it behave oddly.

Connection Types

Parallel Connector

Also known as the printer port (LPTX). This type of system only needs a parallel cable, although it is simple to use, it can be slow.

Many modern circuit-boards support high-speed parallel ports that comply with the IEEE1284 standard. However, to be able to use these ports any system has two requirements. The port must be ECP configured and use a 32bit operating system (WNT, 2000, XP). The parallel cable must also comply to this standard.

If the system complies with these requirements, then you should enable this characteristic by configuring the parallel port in the following programme: **Configure printer, Lpt1. Options button** and **Use extended ECP mode.**

USB Connection

Several Parallel to USB converters exist but in this case are installed in the generic printer system, using the drivers of the converter. Configure the program connection as SPOOLER and select the printer driver that has been configured for using the converter.

Network Connection

This is the fastest and most secure connection for the transmission of data. Some printers already support direct network connection. Also available in the market are Parallel Network converters , which perform well. An important consideration is that such a converter is of good quality and conforms to the IEE1284 parallel standards. If it does not, communication with the printer will be slow.

In the latter cases you will need to configure the program connection as TCP/IP, and configure the IP addresses correctly.

• Other Connections

Since the program is able to use the drivers of printers installed on Windows (SPOOLER), it is possible to connect them to any printer, with any kind of connection supported by Windows, as for example FireWire.