User's Manual

Kothari **Print-Pro**TM

Special Edition for T-Shirt

This software is based on the custom edition of Kothari Print Pro™.

Kothari Info-Tech (P) Ltd.

This edition of software is based on the custom edition of Kothari Print Pro^{TM} . All the references in this manual to Print Pro are also applicable to the software.

Some of the features (like Ink Cost Related Information, Platen Organizer, Page Layout etc.) referred in this manual are Optional features. They may or may not be present in your software depending upon the version. Please ask your vendor / distributor for more details.

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Getting Started

Thank you, for choosing Kothari Print Pro for your digital printing needs. This section will help you in installing the software on your computer machine and help you getting it running right away.

Installation

Enter the accompanying CD disk in the CD-ROM drive of your computer and the installation program should start running automatically. If it does not, run \Print Pro\Setup.exe yourself from the CD.

Step 1: Follow the instructions given by the installation program to get the program installed on your hard disk.

Step 2: Go to the root directory of the CD in the Windows explorer. Run the file InstallHasp.exe. This file is the installation program for installing the **drivers for the accompanied lock on your PC's hard disk. Follow the** instructions given by the installation program.

Step 3: Connect the lock to the parallel/USB port of your PC depending upon the type of lock. If the lock is attached to the parallel port, you may attach printer cable to the other end of the lock.

Step 4: Reboot your PC.

Launching the Software

You can run Print Pro either by *double clicking* its icon on the desktop or by selecting *Start > Programs > Print Pro T-Shirt > Print Pro*.

System Recommendations

- **Processor:** Requires a PC based on Intel i5 or i7 quad core (3.3 GHz) or higher processor.
- Operating System: Microsoft® Windows® 7 64-bit or later.
- **RAM:** 6GB DDR3 or more.
- **Hard Disk:** Hard Drive with SATA interface and 1 TB free disk space. Solid state drives are recommended for better performance.
- **Monitor:** SVGA or better with resolution of 1280 x 1024 or better. 32 bits or more color support recommended.
- **Printer:** Subjected to software specification.

Limitations

There is practically no limitation on output size when using Print Pro's custom printer driver.

Rest of the portion of the manual will help you in getting familiar with the software and putting it to use.

This manual assumes that you are familiar with Microsoft® Windows® Operating system and know the terminology and general Windows UI well.

Most of the examples drawn here in this manual are from Textile printing, but are equally applicable to other forms of printing.

Organization of the Manual

Next topic 'About Print Pro' offers an insight into what this software can do for you.

Rest of the manual is organized into three sections.

Section I **'On The Fast Track'** describes how to get quick production from the machine, the pre-**press and the color management topics and Print Pro's** support for it. These topics are as follows.

1. Preparing Images for printing - Underbase Creation.

2. Color management.

Section II deals with the **interface** part of the software. It includes the following topics.

1. Printing.

- a. Queue Manager
- b. Port Manager
- c. Printer drivers
- d. Print options
- 2. **Page Layout** (Optional feature in the basic version of the software).
- 3. Filters.
- 4. The Application Interface.
- 5. **Productivity features.**
- 6. Common Error messages and Warnings.

Section III deals with the 'Platen Organizer' application (*Optional feature in the basic version of the software*), which is used to create and modify the layout templates.

About KITL

KITL is a young and ambitious company with current focus on tools and technologies for color reproduction.

Currently we at KITL have five major lines of products targeted for graphic arts and textiles.

1. **RIPS** (*Raster Image Processing software*) and **color management** software for:

- a. Screen making.
- b. Large/ Wide format digital printing.
- c. Digital Textile Printing.
- d. Digital photo Mini Labs.
- e. Proofing solutions for graphic arts.
- 2. Color formulation and QC software for textiles.
- 3. **Inks** and **chemistry solutions** for digital textile printing.
- 4. **Label printing** and **RIP** and **Server solutions** for automated operation in volume printing environment.
- 5. Print tracking, billing and supplies management software.

To know more about our products and us please logon to our website <u>www.kothariinfotech.com</u>.

About Print Pro

This version of Print Pro has been designed for direct inkjet printing on various substrates. With the printing techniques used in direct substrate printing getting increasingly sophisticated, the software catering to these techniques needs to keep in pace with them as well. Print Pro does that and takes it to the next level.

With this special edition of Print Pro, you have,

- 1. ICC based color workflow.
- 2. Reads and uses embedded profiles if any, inside the image file. It also has Assign Profile feature for assigning different ICC profile to the image besides the one already embedded in the image file.
- 3. Interpolation support for high quality output.
- 4. Custom printer driver for various Printer models (these drivers may vary based on the version of this software).
- 5. Simultaneous RIP and Print.
- 6. Rip once output many (ROOM).
- 7. Save Ripped and printed jobs for future use.
- 8. Print selected layers from a ripped data, e.g., White underbase layer or color layer. Simultaneous printing of multiple layers.
- 9. Port manager to manage ports.
- 10. Queue manager to manage jobs.
- 11. Lots of other features to boost your productivity.
- 12. Ability to connect to any windows compatible printer.
- 13. Powerful page layout feature (Optional feature in the basic version of the software) to print job(s) on a single page with transparency support using predefined designs.
- 14. Platen Organizer to create and modify template layouts of desired sizes.

Rest of the topics will explain you in detail the various options that are offered by Print Pro.

Section 1

ON THE FAST TRACK

Getting Productive

This is a quick reference guide that will walk you through some of the most basic features of Print Pro, which will help you start printing images on your machine right away using Print Pro.

Before we begin, it's important for you to know that this edition of Print Pro has been designed to work the best with Adobe Photoshop. Later topics in this chapter will explain this in detail.

Before you start, install the Windows USB port driver for printer as you will be utilizing this USB port for printing from Print Pro.

Configuring Print Pro

Please follow the below mentioned steps carefully.

- 1. Launch Print Pro either using the desktop shortcut or from *Start* > *Programs* > *Print Pro T-Shirt* > *Print Pro*.
- 2. **Invoke** the menu command *Options* > *General Preferences...*.The various options available in the dialog are explained below.
 - a. Physical RAM usage: Physical RAM usage box provides the detail information about available system RAM, RAM used by the Print Pro and instructed RAM amount for use by Print Pro. The value to be entered here depends upon how you are going to use your system. This value may range from 70% to 30%. For example if you are going to run Adobe Photoshop along with Print Pro at the same time then you may have to share the primary RAM between the 2 applications. Choose 30% for Print Pro and similar amount for Photoshop in the Photoshop. However if you are going to run Print Pro exclusively on the machine then you may choose to give Print Pro 60% or 70% of RAM.
 - b. **Primary disk used:** Select a Primary Scratch Space from the list of available spaces. Print Pro uses hard drives to handle the images and uses RAM as cache.
 - c. **Remove:** Click this button to **remove secondary disks** from the 'Used' column.

- d. Add: Click this button to add available secondary disks to the 'Used' column.
- e. **Cache Settings:** Cache levels and flag to indicate whether to use the cache levels when computing the histogram for the images.
- f. Tile Size: Specifies the amount of size software processes at once. Choose from large to small size depending on whether working on few big size images or many small size images. Choosing large tile size is recommended.

Physical RAM usage			
System Available RAM :	32	241 MB	
Available RAM For App.:	20	147 MB	
Current S/W RAM Usage	e: 60	IO MB	
Usable RAM (256 - 1228	3): 6	00	MB(48.8%)
Scratch disk			
Primary disk used	Secondary	disks	
Startup	Available	U	ed
Windows	EA		
E:A	F:\		
G:\	10. Y		
and a	H:V		
H:\	Q:V		
H:\ Q:\	H:\ Q:\ <u>A</u> dc	E	<u>R</u> emove
H:\ Q:\ Cache Settings		l	<u>R</u> emove
H:\ Q:\ Cache Settings Use Cache for <u>H</u> istog	H:\ Q:\ Adc L Jram T	l ile Setting -	<u>H</u> emove
H:\ Q:\ Cache Settings Use Cache for <u>H</u> istog Cache <u>L</u> evels 4	R:\ Q:\ ram T	ile Setting- ile size : _arge	<u>H</u> emove
H:\ Q:\ Cache Settings Use Cache for <u>Histoc</u> Cache Levels 4 Note:	II:N Q:N jram	ile Setting ile size : _arge	<u>H</u> emove
H:\ Q:\ Dache Settings Use Cache for <u>H</u> istog Cache <u>L</u> evels 4 Note: These changes will take except the addition of se	Add Add ram	ile Setting ile size : _arge time softwai atch disks.	<u>H</u> emove

Fig 1. General Preferences

 Invoke the menu command Queue Manager > Port Manager. Add the appropriate port on which you want to do the printing. After adding the port, press the 'Finish' button. For more details on how to configure ports using the port manager, please refer 'Port Manager' on page no. 57.

E Port			
- File			
- Windo	ws Print Queu	e	
- Mimaki	Port		
- Other F	orts		
E Paralle			
In LP	T1 (Parallel)		
TCP/IF	1		
⊕ USB	81.00		
⊕ Generi	cPrintManage	rPort.	

Fig 2. Port Manager

4. Invoke the menu command Color > Color Management... or use the keyboard shortcut <Ctrl> + <Shift> + <K> to get the color management dialog. Choose the appropriate color spaces. Say if you are using Adobe Photoshop then you may want to keep the default color spaces same as in Photoshop.

For more details on how to use the different options available in the dialog, please refer 'Color Management Dialog' on page no <u>21</u>.

Monitor - 1. DELL E2211H			
Current profile: sRGB IEC61966-2.1			
sRGB IEC61966-2.1			
Reset Hardware Gamma table, if not for	ound in ICC pr	ofile.	
Default RGB Current profile: sRGB IEC61966-2.1	Ignore ember	dded RGB profile in do	ocument
sRGB IEC61966-2.1		Perceptual	
Default CMYK Current profile: U.S. Web Coated (SWDF	Ignore ember 9) v2	dded CMYK profile in o	document
U.S. Web Coated (SWOP) v2	₹	Perceptual	
Default Gray Current profile: Default Custom	Ignore ember	Relative Colorimetric Saturation Absolute Colorimetric Perceptual	, ,
Spammer Current profile:			
Consider readings from spectrophotometer Consider readings from spectrophotom	r in absolute c ieter in absolu	olorimetry te colorimetry	
Tune input for brighter output. Note : These settings will take place next	time the applic	cation is launched	

Fig 3. Color Management Options

- Default RGB : Select sRGB IEC61966-2.1
- Default CMYK : Select U.S. Web Coated (SWOP) v2
- 5. Close Print Pro and then **re-launch Print Pro** now for allowing the changes to have an effect.

Printing Images

Printing images in general is a 4 step process.

- Open the image you want to print. Print Pro supports variety of raster file formats. However, working with Photoshop's PSD file format is highly recommended as among other things you can have transparency information embedded in it. Also refer 'Preparing Images for Printing' on page <u>17</u>.
- Tune the size and placement related information, if required. You can do that using the QRip. Access QRip by View > Show QRip command. See 'Q Rip' for more details on page <u>229</u>.

Q Rip (Print Options)	▼ _ ×
/🚺 Q Rip	(Print Options)	\
Size (in	inch)	
I C 🍱 -	Size	Scale Factor
	91.66668	100.00002 🕂 %
ਿਦ	10.83334	÷ 100.00002 ÷ %
• 🛄	☑ 👸	
Resamp	ling Bicubic	•
- Position	(in inch) —	
		X: 0.000
	Top Left Corner	Y: 0.000
Mirror /	Invert Image –	e Invertimage
KITL		55

Fig 4. Quick Rip Options

Challe (%)	- Underhause [%]	LG-bG-bH%)
-Unoke[/s]	Underbase(%)	- <u>Hignlign((</u> %)-
100.00	100.00	100.00
Highlight <u>G</u> ener	ator	
On the fly		s 0 🔹
Color Strength	Color	Booster
100.00 📫 (i	n%) 0.00	$= \{m \in \}$
Position (in incl	i)	
Position (in incł ⊻ 0.000 ÷⊻	n) 0.000 ÷	
Position (in incł ⊻ 0.000 🚔⊻ Pallet Size	n) 0.000 <u>*</u>	
Position (in inch ⊻ 0.000 ÷ ⊻ Pallet Size Full Size (12.7)	2 x 20.47 inch)	•
Position (in incł ⊻ 0.000 ‡ ⊻ Pallet Size Full Size (12.7 Environment	1) 0.000 +	•

Fig 5. Printer Settings Tool Bar with Environment Selection

- 3. Select the appropriate print environment from the printer settings tool bar. For more details refer 'Printer Settings Toolbar' on page no. <u>195</u>.
- After defining the appropriate settings, give the print command (<Ctrl> + <P>).

rinter Name:	
-What do you want to print	
Only the selected portion	• The <u>w</u> hole image
- To Print	
Total pages: 1	M All pages
Pages: [1:1 (Print all pages]	(eg. 1, 2, 6-10
Copies: 1	
Selected port:	
- 169.254.106.001 , 9100 (TCP/IP , F	RAW)
	-

Fig 6. Print Dialog

- a. **Printer Name:** This field specifies the name of the printer that you select to print the page.
- b. What do you want to print: Select any one option to print either the whole page or selected portion.
- c. **To Print:** Enter the number of pages you want to print and the total number of copies that you want.
- d. **Selected port:** Shows the currently selected port. One can also change the selected port from the available ports list in the combo list.

If you are printing for the first time using the printer settings to the printer, and there is no port associated with it then you may be asked to associate a port with the current printer setting that identifies the printer you would like to print on.

€ 1 2 6 8 8 8 8 8 8	ð 🖬 🖻 :	Show job thumbnail in tool tip			
SNo. Job Info	Status	Approx. Print Run Time	Copies	Port	Save Location
	motant <u>g</u>	Rip Print Save Delete Printer Settings Print Options			Li sondi ordina en ordina en ordina en la sondi kon

Fig 7. Queue Manager when no Port is selected

As you can see in $\underline{Fig 7}$, there is no port currently selected for printing. So it says **No port is selected**.

The dialog given in $\underline{Fig 8}$ shows the list of the available ports from which you can select one for your printing needs.

Queue Manager					
	🎒 🔝 🔽 Show	y job thumbnail in tool tip			
SNo. Job Info	Status	Approx. Print Run Time	Copies	Port	Save Location
1 🕀 🕀 highlight white test pad	Holding			F:\Working Print Pro\00 💌	F\highlight white test_psd±
				F1Working Print ProX00 pm; LPT1 (Parallel) Logolet_Port	pm (file)

Fig 8. Queue Manager with the Port Selection List

Also refer to 'Preparing White Underbase' on page 18.

Preparing Images for Printing

If you are using Adobe Photoshop then it is recommended that you work with PSD file format. In that case preparing the image for printing on various color background becomes very simple. All you need to do is to knock the background off and make the area transparent. You can thus have a single target for all color backgrounds.

Another advantage of working with this format is that you can have soft edges on the image boundaries that will allow smooth merging of the image with the background.

In case of other file formats then you may have to generate image having the background color same as that of your printing substrate. For example to print on White substrate the background of the image should be white. Similarly to print on black substrate the background of the image should be black and so on.



Some sample images with background knocked off are shown below.

Fig 9. Background Knock Off Sample

The background has been knocked off to make it transparent making the image usable with printing base of any color. The grid in the right hand portion of the images represents transparency.

Preparing White Underbase

You don't really have to do anything to create the white underbase, as the software automatically generates this for you. All you need to do is to choose the right printer setting.

However you may feel some time the need for having White highlights. A white highlight is generally the area in the image which is either white or is close to white. Again this can be generated in the Adobe Photoshop and saved with the image as a Spot / Alpha channel. When the image is imported into Print Pro, the highlight channel is also read in. All you need to do before printing the image is to tell the software which channel contains the highlight information. To know more about how to do this, see Channel Palette on page **198**.

Highlight white is printed along with the color pass.

Please note by default the highlight white is not printed along with the color data when printing on the white substrate, however you can turn on the printing of highlight white if you desire so.

Color Management

So far throughout the manual, we taught you how to get productive with the software right away. In the remaining part of the manual we now explain the powerful control that Print Pro offers over the various variables involved in textile printing.

Printing is all about producing color on the desired substrate. The details of the color are derived from the image data. This image data reflects the imagination of its creator. Under most circumstances we would like to have a conforming print to the image data or in other words WYSIWYG.

Print Pro offers considerable support to this in the form of color management. The heart of the Print Pro's color support is its color management module.

Print Pro's Color Management Module (CMM) is based on ICC (International Color Consortium) model.



Where Device 1 can be a RGB monitor and Device 2 can be a CMYK printer, and so on. Images rendered on Device 1 are rendered on Device 2 via PCS. This transformation helps in maintaining the same color appearance of the image on two devices. This is step towards WYSIWYG (What you see is what you get)*.

* Color management's effectiveness is greatly influenced by the proper characterization of the rendering devices and the differences in their color gamuts.

What is Color Management?

Color management allows you to create designs or images on one device and renders the same on other device having different colorimetry/ technology while maintaining the same color appearance. E.g., Color management will allow image viewed on the RGB monitor to appear same when printed on the CMYK printer.

Print Pro Offers

Print Pro offers color-managed workflow. This essentially means that Print Pro will use the device profiles to manage the color appearance across different color input/ output devices.

Print Pro reads and uses any embedded ICC color profile present in the input image file.

In absence of any embedded profile Print Pro uses one of the appropriate default ICC profiles as specified by the user. Use the Color management Dialog to specify the default color settings.



Fig 11. Color Management Dialog

- a. **Monitor Profile:** Select a profile from the drop down list or, or choose the custom option from the list to define a custom monitor. You can also choose the load option to load a specific ICC monitor profile.
- b. **Reset Hardware Gamma table, if not found in ICC profile:** If hardware gamma table not exist in selected ICC profile then print pro automatically reset the gamma table.
- c. **Default RGB:** Select a profile from the drop down list, or choose the custom option from the list to define a RGB Setup. See also: Specifying

RGB setup to page no. <u>26</u>. You can also choose the load option to load a specific ICC RGB color profile.

- d. **Ignore embedded RGB profile in document:** Ignore the embedded ICC RGB color profile in the document and render the contents according to the currently chosen Default RGB profile.
- e. **Default CMYK**: Select a profile from the drop down list, or choose the load option to load a specific ICC CMYK color profile.
- f. **Ignore embedded CMYK profile in document**: Ignore the embedded ICC CMYK color profile in the document and render the contents according to the currently chosen Default CMYK profile.
- g. **Rendering Intent**: It specifies the rendering intent to be used with the profile. The available rendering intents are as follows.
 - Perceptual
 - Relative Colorimetric
 - Saturation
 - Absolute Colorimetric
- h. **Default Gray:** Select a gray profile from the drop down list. You can also choose the load option to load a specific profile. You can choose the "Custom..." option for custom gray setup.

Gray setup Type Custom G	amma	Gamma 2.20	÷
an		эк	Cance

Fig 12. Custom gray Setup

- a. Gamma: 'Value box' for gamma gray level. Valid range is between (0.75 - 3.00). Available only with "Custom Gamma" type.
- b. **Gray setup type**: The available gray setup types are as follows.

- Predefine type: The available predefine types are "Gamma 2.2", "Gamma 1.8", "Dot Gain 10%", "Dot Gain 15%", "Dot Gain 20%", "Dot Gain 25%", and "Dot Gain 30%".
- Custom Gamma: If custom gamma type is selected, then use the Value box labelled (b) to enter the gamma value.
- **Curved based gain:** When "Curve based gain..." option is selected following dialog will appear.



Handle

Fig 13. Custom Dot Gain

- a. Transfer curve editing area.
- b. Gray Ramp indicating ink levels from 0% to 100%.
- c. Click here to change values of different input percentages.
- **d.** Load Button. Press this button for loading a previously saved TRC from the disk.

e. Save Button. Press this button to save the current TRC on the disk.

Refer For knowing how to specify the curve, see 'Transfer Curve Editing' on page <u>27</u>.

- i. Consider readings from spectrophotometer in absolute colorimetry: By default, readings taken by the spectrophotometer is assumed relative to the media and hence in relative colorimetry. If producing the exact color is your target then 'Check' this box to consider the readings in absolute colorimetry.
- j. **Tune input for brighter output:** This will produce brighter output. This setting will take place next time the application is launched.

Specifying Spot Color Gain

For spot channels/screens you can specify the spot gain by using the 'Gain Setup' dialog.





- a. Gain type selection: If standard gain type option is selected, then use the Value box labelled (b) to enter the gain value at 50% gray level. If the option selected is curve based then use the 'Gain Curve' dialog as shown on page 23 to specify the desired gain curve.
- b. **Amount: 'Value Box' for gain at 50% gray level. Valid gain range is** between (-10% to 50%).
Print Pro uses *CIE LAB as PCS* (Profile Connection Space) and uses *Relative Colorimetry*.

See Fig 15 to know how Print Pro color manages the images.

RGB Image / Indexed Images
RGB Space \longrightarrow PCS \longrightarrow Monitor / Printer Space (for printing) If no RGB profile is present then default RGB profile is assumed.
Grayscale Images
Gray Space \longrightarrow PCS \longrightarrow Monitor / Printer Space (for printing) If no embedded Gray profile is present then default RGB profile is assumed.
CMYK Images
CMYK Space CMYK Space CMYK profile is present then default CMYK profile is assumed.
Spot-Channel Gain Model
Used for modeling the gain profile of the spot channels during channel composition. CMYK channels are not subjected to spot gain.
Note: All output before transferring to printer is converted to SRGB as almost all windows compatible printer driver assumes the printers to be RGB printers.
Print Pro doesn't use Windows ICM in its processing pipeline.

Fig 15. Print Pro Color Workflow

Refer	In case the printer is Windows printer or output is directed to a Print to File printer driver. Printer Space is taken as SRGB. For
	more on SRGB visit <u>http://www.w3.org/Graphics/Color/sRGB.</u>

User de	fined			•	CustomSettings
Primari	es				White point
-Custom	primaries			•	Custom illuminant
-Chron Red Green	x 0.6400 0.3000		у 0.3300 0.6000	11 I I I I I I I I I I I I I I I I I I	Iemperature 4000 Chromaticity y × y 0.3126 0.3290
Blue	0.1500	-	0.0600	*	Gamma 2.20

Specifying RGB Setup

Fig 16. RGB Setup Dialog

- a. Predefined RGB type.
- b. Custom RGB setup name.
- c. **Predefined** RGB phosphor.
- d. **Custom** RGB phosphor.
- e. White point.
- f. Custom D illuminant temperature.
- g. Custom white point.
- h. Gamma for RGB.
- i. Load RGB ICC profile.
- j. Save current RGB setup as ICC profile.

Transfer Curve Editing



Fig 17. Transfer Curve Adjustment Dialog

- a. Transfer curve editing area.
- b. **Gray Ramp** indicating ink levels from 0% to 100%.
- c. Box listing all the **channels/screens** in the design showing the channel/screen for which settings currently are being established.
- d. **Load Button.** Press this button for loading a previously saved TRC from the disk.
- e. Save Button. Press this button to *save the current TRC on the disk.*
- f. Save all channels Button. Press this button to save the TRC of all channels together in the same file on the disk.
- g. Edit here to change values at different input percentages.
- h. Checking this option results in Print Pro using **the same TRC for all the channels.**

Editing the transfer curve

Editing the Transfer Curve is a relatively easy task.

Initially there is a handle corresponding to every level whose value is specified in the list. However as you move the mouse and click the left button, depending upon the mouse position, one of these handles gets visible (depending which is the nearest) and gets close to the clicked point. You can then drag the point to give the curve the shape you desire. You can delete / hide a handle by dragging it outside the grid area, except the first and the last handle. Key values are updated automatically in the respective position in the list as the curve is being edited.

You can also provide specific output % at various input % by double clicking on the corresponding entry in the list. Any values entered through the list are also reflected on the drawn curve automatically.

Pressing 'Save...' button, you can save Transfer Pressing 'Save all channels...' button, you can save Transfer Curves for all the channels in a single file as **Print Pro's** *TRC format* file on the disk for later recall.

'Transfer Curve Adjustment' dialog is used in 'Print Setup' dialog.

Color Management Options

The menu shows the features offered by Print Pro for the color management tasks.

Color	
Color Management	Ctrl+Shift+K
Spot color gain	Ctrl+G

Fig 18. Color Menu

- a. Color Management: For more details see 'Color Management Dialog' on page <u>21</u>.
- b. Spot color gain: For more details see 'Specifying Spot Color Gain' on page <u>24</u>.

Color Measuring Devices

First step involved in any device calibration is to read the colors produced by it using various combinations of colorants. For reading these colors you need a color measurement device, which can be either a colorimeter or a spectrophotometer.

Print Pro exposes these devices through a uniform interface to the user and these devices are supported on plug-in basis. Print Pro at present supports the following measuring devices.

1. Gretag Macbeth's Eye-One Pro.

2. Color Picker - Virtual color specify.

You can use these devices to calibrate both your printer and monitor devices **except Gretag Macbeth's SpectroScan, which ca**n only be used for printer calibration.

Both Gretag Macbeth's SpectroScan and Gretag Macbeth's Eye-One Pro devices can be used for automatic or semi-automatic mode of reading the patches under the application control. In Print Pro it is known as "Sheet measurement" mode and is exposed through a common interface for both the devices.

In future new measuring devices will be added to the list. These new devices can be used with Print Pro by simply downloading the new drivers from KITL's Website and installing them.

<u>D</u> evice name:	Eye One Pro	۲
<u>P</u> ort :	USB	۲
<u>T</u> imeout :	2 📫 seci	onds

Fig 19. Measuring Device Selection Dialog

You can use the dialog shown in Fig 19 to choose one of the color-measuring devices from the list of supported measuring devices by Print Pro. Next step is to establish the settings of color-measuring device for measurement. This can be done by accessing the settings dialog by using *Color > Colorimeter > Settings...* menu. See Fig 20 to specify settings for Eye One Pro spectrophotometer. Other devices will have relevant settings dialog as shown in later.

Illuminant	D50	2
<u>O</u> bserver angle	2 Degree	•
Density standard	ANSI T	*
<u>W</u> hite base	Absolute	Ŧ
Measurement mode	Reflective	Ŧ

Fig 20. Eye One Pro Settings Dialog

Device Calibration

Calibration essentially means measuring the characteristics of a device and getting it into a known state. In a color managed workflow it becomes absolutely essential to calibrate your input and output devices.

This edition of Print Pro offers support for calibrating the following devices:

1. Monitor Calibration.

Monitor Calibration

In order to view colors on the monitor correctly, the monitor must be calibrated and its color profile must be created for use by the application.

The process of bringing the monitor to a known state is called Monitor Calibration and measuring its capabilities is called profiling. It is important to calibrate the monitor before calibrating any media or scanner because; you will be comparing hardcopy with image displayed on the monitor. Hence it is imperative that your monitor is calibrated to the desired illuminant for achieving the best results with Print Pro. Generally this illuminant is the one under which hardcopy images are viewed.

Choose the appropriate color measuring device and key in the proper settings for the device. For more details regarding how to do this refer to page $\underline{30}$.

Invoke the color management dialog $\langle ctrl \rangle + \langle shift \rangle + \langle k \rangle$ and pull down the option list for monitor calibration and select the option 'Custom....' For details about color management dialog refer to page **21**.

On selecting the option 'Custom....' the following dialog box will appear on the screen.

Before you begin:

- 1. Make sure that the surface of the CRT/LCD screen is cleaned with a soft piece of cloth before calibration and that the screen is free of dust and stains.
- 2. Keep the ambient light to the minimum (ideally completely dark).

Both dust and ambient light have potential to adversely affect the results of monitor calibration.

- 3. Clean the suction cup with a soft cloth.
- 4. Do not use suction cup on LCD screen surface as it may damage the screen. Instead use the attachment supplied with the measuring instrument for taking readings on the LCD screen.



Fig 21. Monitor Calibration Dialog

- a. **Profiling Speed:** Select the quality of monitor profile required.
- b. **Monitor Type:** Specify whether you want to create profile for CRT/LCD monitor.
- c. **Target White Point:** Specify target white point you want to achieve. User can either select predefined white point or measure white point using selected spectro.



Fig 22. White Point Measurement Dialog

After measuring click on 'Ok' button to use measured white point value as Target White Point.

d. **Target Luminance:** Specify target luminance you want to achieve. User can either select predefined luminance or measure luminance using selected spectro.



Fig 23. Luminance Measurement Dialog

After measuring click on 'Ok' button to use measured luminance value as Target luminance.

- e. Desired Gamma: Specify desired gamma value you want to achieve.
- f. **Import Settings From Profile:** Press this button to load calibration settings from previously created monitor profile.

- g. **Neutralize Black:** Check this box to neutralize shades of black while creating monitor profile.
- h. **Perform display hardware setup:** Check this box to allow changes in monitor hardware settings while creating monitor profile.
- i. **Manual adjustment by visualization:** Select this option if you want to adjust monitor hardware values manually by visual procedure.

In this procedure you will visually determine the proper brightness and contrast settings of your monitor. The following two diagrams show the contrast and the brightness setting pages that you will encounter (in that order).





Adjust the contrast of the monitor such that the innermost light rectangle is just distinguishable from the **outermost white rectangle and press 'Next'** button.



Fig 25. Visual Brightness Adjustment Dialog

Adjust the brightness of the monitor such that the innermost dark rectangle is just distinguishable from the outermost black rectangle and press 'Next' button.

j. **Manual adjustment by measurement:** Select this option if you want to adjust monitor hardware values manually by measurement.

In this procedure you will determine the proper contrast, RGB controls and luminance settings of your monitor by measurement. The following three diagrams show the pages that you will encounter (in that order).



Fig 26. Manual Contrast Adjustment Dialog



Fig 27. Manual RGB Adjustment Dialog



Fig 28. Manual Luminance Adjustment Dialog

- k. **Automatic adjustment:** Select this option if you want software to adjust monitor hardware values automatically.
- I. **Adjustment Contrast automatically:** Check this option if you want software to adjust contrast values automatically.
- m. Adjustment RGB Controls automatically: Check this option if you want software to adjust RGB Control values automatically.
- n. **Adjustment Brightness automatically:** Check this option if you want software to adjust brightness values automatically.
- o. **Back:** Click this button to jump to previous page.
- p. Next: Click this button to jump to next page.

q. Cancel: Click this button to cancel monitor profiling process.

White Point Calibration and Profiling

In this procedure software will measure sample colors.



Fig 29. White Point Calibration and Profiling Dialog

Monitor Profiling Done

This page will display achieved White Point and Luminance values.



Fig 30. Monitor Profiling Result Dialog

a. **Profile Options:** Select which type of profile you want to create. User can either create matrix based / LUT based profile.

Matrix based	OK
LUT based	Cancel

Fig 31. Monitor Profile Options Dialog

- b. **Create and save profile:** Click this button to save created monitor profile.
- c. **Finish:** Click this button to end monitor profiling process. This will set software monitor profile to just created monitor profile.

Section 2

THE APPLICATION FEATURES

Printing

Tools for Managing Printing Workflow

Print Pro offer tools to manage your printing workflow as well as it offers comprehensive control over print settings of individual jobs. These are as follows.

Tools for managing printing workflow -

- 1. Print queue manager.
- 2. Port manager.
- 3. Printer driver.

Let's understand these features one by one.

Print Queue Manager

Print Pro offers you to print multiple jobs to multiple printers simultaneously. The Print Queue Manager manages it. It manages a queue of jobs and jobs get *serviced* in order they come. Using this Queue Manager you can drive unlimited printers from the single application.

However, it is generally required to constrain this number to a value, which will enable you to get reasonable throughput of the computer system and full speed of the printer(s) connected.

The queue manager is responsible for simultaneous RIP and Print, RIP once Print many, Job order changing, deleting, holding as per the priority. Let us discuss the Print Queue Manager features in detail.

How to Use?

You can access Print Queue Manager from Application Window by selecting the *QueueManager > Show Queue Manager*.

The Queue Manager interface will appear as shown below. In order to hide Queue Manager Interface you can either select **Queue Manager > Hide Queue Manager** or click the close button on the top-right corner of the interface.

	建 🔒 🎒 🔚 🔽 Show	i job thumbna	iil in tool tip		
Job Info	Status	C	Port	Save Location	Driver Used
🔳 🔚 105.jpg	Holding			.105_jpg	Print Pro

Fig 32. Print Queue Manager Interface

- Toolbar
- Job queue

Tool Bar

Let's see the Toolbar option of Print Queue Manager.



- a. To load a Job in the queue. You can also do this by QueueManager > Load Job menu too.
- b. To **add** the active document i.e. currently working document. You can also do this by *QueueManager > Add The Active Document* menu too.
- c. To **remove** the selected job from the queue.
- d. To **pause** the selected job in the queue.
- e. To **resume** the selected job in the queue.

- f. To **cancel** the processing of the selected jobs in the queue.
- g. To **print** the selected jobs in the queue.
- h. To **rip** the selected jobs in the queue.
- i. To save the selected job in 'kprn' file format.
- j. To get the **printer setting** dialog.
- k. To get the **print options** dialog.
- I. Show Job Thumbnail in tool tip: Check this option to show the thumbnail of the ripped job. When you move the mouse on the 'Job Info' field of ripped job at that time thumbnail of job will be visible. If you do not want to display the thumbnail then uncheck this option. This option is helpful when you load the saved job (KPRN file) from disk and you want to know the content of that saved job.

Queue Manager			-		
≥ 1. 1. 15. 18 1. 6	🕅 🖶 🎒 💽 🔽 Show	job thumbna	il in tool tip	King and the second	
S Job Info	Status	C	Port	Save Location	Driver Used
1 🕀 🖻	RipDone				Print Pro

Fig 34.Job Thumbnail in Tool Tip

Note	KPRN files are Kothari printer files used to save the printer data where as PRN files are printer files written in the internal format needed by the printer. Printing a 'kprn' file is very fast.
T :	You can also left click and drag to the printer queue, the
пр	document that you want to add to the printer queue.

Job queue

As shown in Fig 32, Job Queue contains seven fields for each job. These fields are explained below, in the same order as they appear in the figure from left to right.

1) S No.

This field specifies the position of a job in the queue.

2) Job Info

This field contains job information in tree form as shown below. To expand the tree, click on the plus sign. To collapse this information, click on the minus sign.

S No.	Job Info	Status	Approx. Print Run Time	Copies	Port	Save Location
1	E S dd61.jpg	RipDone	00:00:16	1	HP LaserJet P1005 (USB002)	C:\Users\Alpesh1\Pictures\dd61_jpg1.kprn
	- Job Dimension : W = 8.00 , H = 8.00 Incres					
	Output Color Made : CMYK_W					
	- Printer :					
	Media Type : New Cotton 1440x720					
	- Ink Coverage : C = 0.000 mi, H = 0.000 mi,					
	Additional Cost : Pre Treatement = \$ 5.00					
	- Total Cost : \$ 5.80					
	Ripping Start Time : 17:00:43 Ripping End Time : 17:00:59					
	Ripping Duration : 00:00:16					
	\backslash					
[
<u> </u>	b Info	\rightarrow				
	🔤 dd61.jpg	3	4			
	- Job Dimension : $W = 8.0$	0,H=	= 6.00 Inches			
	- Input Color Mode : RGB					
	- Output Color Mode : CM	YK_W				
	- Printer :		-			
	- Media Type : New Cotto	n 1440	x720			
	- Ink Coverage : $C = 0.33$	3 ml, N	1 = 0.095 ml, ۱	/ = 0.	050 ml, K = 0.00	pl, W = 7.57 ml
	- Ink Cost : \$ 0.80					
	- Additional Cost : Pre Tre	atemer	nt = \$ 5.00			
	- Total Cost : \$ 5.80					
	- Ripping Start Time : 17:0	0:43				
	- Ripping End Time : 17:00):59				
	^L - Ripping Duration : 00:00	:16				

Fig 35. Job Info Tree

The job info tree contains the following information for the job.

- a. **Name of Job:** Root node of the Job Info tree specifies the name of the job.
- b. Job Dimension: Specify the width and height of the job in Inches.
- c. **Number of Pages:** This is the total number of pages in the job, irrespective of how many are requested to be printed.

- d. **Pages to Print:** Specify the page numbers of the pages to be printed. Initially it shows the string 1-n (where n is the value of the Number of Pages field), which implies that all the pages will be printed. It is an editable field. You can edit this field if the status of the job is in either one of the Holding, Cancel or Error state. If you need to edit this field then enter the page numbers and/or page ranges separated by commas. For example if a job contains total number of 12 pages and you enter the string 1,3,8-12, then following pages will be printed 1,3,8,9,10,11,12.
- e. Input Color Mode: Specify the input color mode of the job.
- f. **Output Color Mode:** Specify the output color mode of the job.
- g. Printer: Specifies name of printer to which the print is targeted.
- h. Media Type: Specify the media type on which job was printed.
- i. **Ink coverage:** Total ink used to print the current job. Ink usage unit is shows as per the amount of ink used. It shows the ink amount used for all inks individually *(Optional feature)*.
- j. Ink cost: Cost of the ink used. You can change the ink cost by using the Option > Ink cost... menu command. Refer page <u>236</u>. (Optional feature).
- k. Additional cost: User defined additional cost. For example here we consider pre-treatment as additional cost. You can define additional cost by using the Option > Ink cost... menu command. Refer page 236 (Optional feature).

3) Status Field

This field specifies the current status of the job, e.g., Holding, Ripping, Printing, Saving, Pause, Resume or Error (if some error occurs during the processing).

Other states are transient states and their Interpretation is as follows:

- a. Printing Composite / Screen I (Page x of n (y %)): This message implies that your job contains total number of n pages and page number x is currently being printed and y percent of it is done. Composite implies that current printing page contains the composite color image.
- b. **Waiting to print:** This implies that job is waiting for its turn to print as Queue Manager is already servicing the maximum jobs possible.
- c. **Waiting to rip:** This implies that job is waiting for ripping because Queue Manager already servicing to the maximum jobs possible.
- d. **Waiting to save:** This implies that job is waiting for saving because Queue Manager already servicing to the maximum jobs possible.

e. Printing (Color layer 1 of Page 1 (600.00 KB/650.00 KB)), Spooling Composite (Color layer 1 of Page 1 of 2 (11%)): "Color layer 1 of Page 1 a (KB/MB) / b (KB/MB)" means 'a' KB or MB of data is printed from total of 'b' KB or MB of data of color layer 1 of page 1. Spooling Composite (Color layer 1 of Page x of n (y%)) means color layer 1 of page number 'x' of the total pages 'n' is spooled to 'y' percent.

4) Approximate Print Run Time

This field shows the approximate print run time of the job.

5) Copies Field

This field specifies the number of copies of the job to be printed. You can edit this field when the job is in one of the following state - Holding, Cancel or Error.

6) Port Field

This field specifies the port on which data will be sent. Left clicking on this field a drop down list of ports appears from where you can select any one of the port listed for printing.

Refer Port Manager for more details on page 57.

7) Save Location

This field specifies the path of the file where the printer data can be saved. Initially this field displays the default save location. You can change this default save location by clicking on save location field. You can now either enter the path of the saving location directly in the edit box or you can browse for the path by clicking on Save As button as shown in Fig 36.



Fig 36. Save Location

On clicking the *Save As* button a common *Save As* dialog appears. There you can give the path for storing the file.

Тір	Right clicking on the job in the job queue will give you access to options relevant to the current state of the job.
Note	Some of the options referred in this page (e.g. Ripping option, Ink Coverage, Save To File etc) are "Optional features"; so they may or may not be present in the software depending
Note	Information available under several fields of the Queue

Selective Printing

Selective printing allows you to print only the selected layers from the print job. To use this feature it is necessary to use custom driver for the printer and then rip the print job. After ripping the job successfully you can go on to print selected layers.

Jueue Manager					
		how job thumbnail in tool tip			
S No. Job Info	Status	Approx. Print Run Time	Copies	Port	Save Location
1 🔜 🗄 🔄 highlight white test.psd	RipDone	00;00:06	P	rint	F&highlight white test_psd±
			S	ave	
			D	elete	
			P	rinter Settings	
			P	rint Options	
			P	rint Selection	

Fig 37. Selective Printing

After the job has been ripped, right click on the job and from the menu that **is displayed select 'Print Selection...'** item. This dialog allows you to select the desired layers.



Fig 38. Print Selection

In the above dialog you can select the layers and pages to print by checking the corresponding box.

Print Queue Manager Preferences

There are more options Print Queue Manager offers as preferences to make printing more yielding. These are available as Print Queue Manager's Preferences. You can access 'Print Queue Manager Preferences' by selecting the menu command *Options > Queue Manager Preferences.*

a second seconds			_
After Print : Hold	Job		1
✓ Enable Sim	ultaneous Rip A	nd Print	_
Minimum data t data transfer to	o store before s printer (in MB)	tarting	
- Show only or	nline/connected	ports in the list	
Temporary File	Path:		
C:\temp			
Use Windo	ows Temporary F	File Path E	towse
	1.0		
-Printing Thread	Count :		
Printing Thread Ripping thread	count:	*	
Printing Thread Ripping thread Printing thread	count 1 count 1 count 1	1	

Fig 39. Print Queue Manager Preferences

a. **After Print:** There are two options either holds the job or remove the job from the queue after a job is printed. This field allows you to select one of the options either Hold Job or Remove Job. By default Print Queue Manager hold the job after print.

- b. **Enable Simultaneous Rip and Print:** There are two ways to print a job either simultaneous rip and print or print the job after ripping the whole job. This check box allows you to enable the simultaneous rip and print option. By default Print Queue Manager provides simultaneous rip and print.
- c. Show only online/connected ports in the list: When this option is checked, 'Port Manager' shows USB port only on which currently printer is connected. If this option is unchecked then 'Port Manager' shows all the available USB printer port into the system.
- d. Use Windows Temporary File Path: Print Queue Manager creates a temporary file for its own use when a job is added in the queue. When you remove the job from the queue QueueManager removes this temporary file. By default Queue Manager chooses the Windows temporary file path for these files but you can change this file path also by using the browse button. Select this check box if you want Windows temporary file path for the creation of these temporary files.
- *e.* **Printing thread count:** There are two edit boxes provided in these sections which are.
 - Printing thread count: This edit box is used to specify the drive number of printers that can be addressed simultaneously. Maximum it can be 10.
 - *Ripping thread count:* This edit box is used to specify the number of jobs that can be ripped simultaneously. Maximum it can be 10.

	Printing and ripping thread count are "Optional features", so
Note	they may or may not be present in the software depending upon
	the version you use.

Note The changed made to this dialog takes affect next time software is launched.

Port Manager

This tool provides the Print Queue Manager with the support of talking to the printing devices. As we have seen in the previous topic **in 'Print Queue Manager' the six**th field is for port and the Port manager manages it.

- File	Diag		
Mimak	ws Print Queue		
E Racalle	∽orts] T1 (Parallel) ⊃		
⊕ USB ⊕ Generi	cPrintManagerPo	ort.	
1.00			

You can access the Port Manager form *QueueManager > Port Manager*.

Fig 40. Port Manager

- a. Add: To add the new port.
- b. **Remove:** To remove the existing selected port.
- c. **Configure:** To configure the selected port.
- d. Refresh: To refresh the port tree.
- e. Finish: To close the Port Manager dialog.

Port Manager is responsible to manage the following types of ports.

File Port

To add a file port in the list of available ports execute the following steps-

- i. Select the *File child node* of the port manager tree.
- ii. Click on 'Add' button. This will open 'Add Port' dialog as shown in Fig 41.
- iii. Enter the folder path in which you want to generate output file.
- iv. Enter the default file extension of output file.
- v. "Generate filename by user intervention" is checked then software will prompt the user to provide file name. If unchecked then software automatically generate file name.

Eolder Path :		
F:\00 HelpRelated		-
Default Extension :		
pm		
Generate filenar	ne by user inter	vention

Fig 41. Add File Port

TCP/IP Port

To add a TCP/IP port in the list of available ports execute the following steps-

- i. Select the TCP/IP child node of the port manager tree.
- ii. Click on 'Add' button. This will open 'Add Port' dialog as shown in Fig 42.
- iii. Select protocol to communicate with your printer. There are three different protocols available for the TCP/IP port. Select a protocol that is supported by your printer or print server.
- iv. Enter the host name or IP address of the printer / server providing LPD of TCP/IP port. The IP address is build by 4 blocks of numbers, which are separated by dots.
- v. *Enter the port number* on which your device listens for communication / enter the name of print queue on that server for LPR protocol.

dd TCP/IP port			
Protocol			
BAW / HP Directjet	Ĺ	PR (<u>M</u> SPort
Name or address of printer			
169.254.106.201			
Port			
9100			
-	DK.	1	Cancel
	UK		Cancer

Fig 42. Add TCP/IP Port

	Please consult the manual of your printer or print server for the
Nata	specifications which you have to enter in Port (for RAW / HP
Note	DirectJet or MSPort), or Name of printer or print queue on that
	server (for LPR).

Configuring TCP/IP Port

You can configure the selected TCP/IP port by using the 'Configure' button available in the Port Manager dialog shown in <u>Fig 40</u>. Configuring of a sample TCP/IP port is shown and explained below.

Transmission retry	3600	÷.	second
Timeout	201		second

Fig 43. Configuring TCP/IP Port

- a. **Transmission Retry:** This parameter lets the software know for how long it should carry out the time outs.
- b. **Timeout:** This parameter lets the software know the time interval between two consecutive attempts to connect to the printer.

Note Transmission retry time is always greater than Timeout time.
Configuring USB Port

You can configure the ports as per your requirement by pressing the configure button (labelled 'c' in Fig 40) for all those ports for which this button is enabled.

Timeout Setting	3600.00	-	seconds
-----------------	---------	---	---------

Fig 44. Port Configuration

Timeout Setting: This parameter lets the software know the time interval between two consecutive attempts to connect to the printer.

Map Port Name

This tool provides user friendly name to printer device physical port name. This is helpful to easily identify the printer port. User has a flexibility to specify a user defined name to an existing printer physical port. This user defined port name will be shown in addition to the existing ports in all the dialogs where printer port is required. The main advantage of this is that a user can give a port name which he/she can recognize easily for a given printer. This option is mainly useful in cases where user can get different port names when the device is connected to different ports (specially in case of USB devices.). In such cases if the user has selected the user defined port name for the printing port in his/her environments and after connecting the printer the USB port changes then if he just changes the Port mapping for the user defined port name to this new port then in all the jobs the new port will be used.



You can access the Map Port Name form *QueueManager > Map Port Name*.

Fig 45. Map Port Name

a. **Mapped Name:** This denotes the name associated with the physical port of printer in the second column. It can be edited by first selecting the desired name and then clicking on the selected name.

- b. **Physical Port:** This is the physical port of the printer. You can change the physical port by click on the physical port. It shows the all the available physical port in the drop-down list.
- c. **Load port name mapping file:** Press this button to load previously save port name mapping file (**.kpm**).
- d. Save port name mapping file: Press this button to save port name mapping file (.kpm).
- e. Add: Allows you to add a new mapping name with physical port.
- f. **Delete:** Allows you to delete selected mapping name from the list.

Printer Driver

This edition of Print Pro offers customized printer drivers for your printing needs. Now onwards we will use the term **Custom Driver** in place of Print Pro Driver.

Now, we will look into the details.

What is Custom Printer?

Custom printer is a collection of printer drivers for which Print Pro does not depend on the printer manufacturer driver but has its own driver, which drives the printer. Custom printer drivers have been specifically designed for the application specific requirements.

Printer setup option for custom driver:

You can access the 'Custom Print' dialog by *File > Print Setup* or <*Ctrl>+*<*Shift>+*<*P>.*

The dialog is shown in Fig 46 on the following page:

This dialog has two pages accessible through the tabs named 'Print Environment' and 'Summary'.

Before we move further, a word on a concept called **print environment.** Print environment are the files that saves the snapshots of the settings on a Print setup dialog. **They can be saved on the disk as `.Env' files.**

Print environment contains all the information that is needed to print with a certain media. It contains among other the printer driver used, Media properties, selected port, position from where to print etc. All data are selected automatically when you select the appropriate print environment.

Print Environment Page

rint environmen	t Summary		
Environmen	ıt —		
- Custom		<u> </u>	
— Printer : Media :	L	• B	operties,
Size :	Full Size (12.72 x 20.47 inc	h]	
Source :	Sheet		•
- Port S <u>e</u> lected (port : 169.254.106.207 , 910	00(TCP/IP,RAW)	
Ink transfo	er layer order order: First white then color		Ť
Platen pla	cement on printing <u>b</u> ed	▲ Left: 0.0 ▼ Iop: 0.0	
Size chan — <u>H</u> oriz : 11	ige caused by addition process 00.000 📺 ஜ ⊻ert : 100	sing .000 ÷ % Inch	
Feed adju Feed adju:	ust between passes(in mm) st : 0.000		
		Set as d	efault printer —



a. Environment name: It shows the currently loaded environment settings. As described earlier you can save the snap shot of a print setup as print environment file. Default settings of a printer are always loaded as "Custom". You can select the environment from the drop-down list, which shows the environment entries in the tree with group name.



Fig 47. Environment file list in Drop-Down list

- b. Manage env: This button enables a user to load to associate a generic name with an environment file. The user can then select the name associated from the name list to load the environment settings saved in the environment file associated with the selected name. Pressing the button displays "Manage Environment" dialog. For details see "Manage Environment" on page <u>69</u>.
- c. Manage env Group: On clicking this button enables a user to manage the environment file into group. Pressing the button displays the "Manage Environment Group" dialog. Refer page <u>71</u>.
- d. **Load env:** This button enables a user to load to a previously saved environment file. A print environment can only be loaded if the printer specified in the environment is currently present in the printer list.
- e. **Save env:** 'Save env' button enables a user to save all the printing settings into a file so that he can use this file to print another image with same settings in future.
- f. **Printer name:** It shows the currently selected driver. User can select another driver from the dropdown list.
- g. **Properties**: On clicking this button lets you to set up the properties for printing accessible through 4 different options as follows-
 - 1. Media.

- 2. **Printing Ink Assignment.**
- 3. Color Correction.

4. Device Options.

- h. Media size: This field shows the list of media (paper) supported by the printer. Here we can specify the page size we want to use. If the printer supports custom paper sizes then select one of the "User defined" paper sizes from the list whose size can be defined by the user by clicking the 'User size' button.
- i. **Source:** This part basically determines from where the media is inserted for printing.
- j. **Selected port:** It contains information about the port to which your printer is connected.
- k. **Ink layer order:** This field specifies the ink layer transfer order, means whether you want to print first white layer and then color layer or color layer and then white layer.
- I. **Platen placement on printing bed:** Specify how you want to place your platen on the printing bed. You can also specify the 'Left' and 'Top' position of the platen by selecting the "Custom" option from the dropdown list.
- m. 'Left' and 'Top' position specification of platen when 'Custom' option is selected.
- n. Size change caused by addition processing.
- o. Unit: This button allows the user to change the measurement unit of various options (like Page size, Margin, Offset...). User can also change the unit by clicking the right mouse button on this page and selecting the desired unit from the menu. The currently supported units are *Inch*, *Centimeter*, *Millimeter* and *Points*.
- p. Feed adjust between passes: It's the offset to be kept between the first pass and the subsequent passes. If the subsequent passes are having higher offset than the feed adjust will be +ve and if lower offset than the feed adjust will be -ve. Availability of this option will depend upon the selected printer.
- q. Set as default printer: Click this button to set the current printer setting as the 'default' setting.

Note You can change the unit of measurement simply by right clicking within the Print Environment Page.

Manage Environment

What is an Environment?

Print Pro offers you the feature of saving the printer related settings in a file called an environment file. Print environment contains all the information that is needed to print with a certain media. It contains among others the printer settings used, printer profile and TRC curves used, information about the ink slot order and the inkset used, margins, etc. All data are selected automatically when you select the appropriate print environment.

You can save environment files of different configurations and load them whenever you need them. You can save environment names for env files which makes selecting a set of printing settings just a matter of selecting the environment name. This saves a lot of time spent in selecting the different options as per requirement every time the media or some other parameter is changed.

The dialog shown below allows you to associate generic environment name with an environment file. To load the environment you need to select the environment name from the list.



Fig 48. Manage Environment Dialog

- a. **Environment Name:** This denotes the name associated with the environment file in the second column. It can be edited by first selecting the desired name and then clicking on the selected name.
- b. **Environment File Path:** This is the path of the environment file with which you wish to associate the environment name. This field can be modified in the same way as the environment name can be.
- c. Environment Group: This is the name of the group to which particular environment belongs. You can change the environment group by click on the group name. It shows the all the available group in the drop-down list as shown in Fig 49 given below.

Settings 1 D:\00 Help Related\Print Pro T-Shir Group 1 Settings 2 D:\00 Help Related\Print Pro T-Shir Group 1 Settings 1 D:\00 Help Related\Print Pro T-Shir Group 1 Settings 2 D:\00 Help Related\Print Pro T-Shir Group 1 Settings 2 D:\00 Help Related\Print Pro T-Shir Group 1 Group 2 D:\00 Help Related\Print Pro T-Shir Group 1 Group 3 Group 3
Settings 2 D:\00 Help Related\Print Pro T-Shir Group 1 Settings 1 D:\00 Help Related\Print Pro T-Shir Shore Settings 2 D:\00 Help Related\Print Pro T-Shir Group 2 Group 2 Group 3
Settings 1 D:\00 Help Related\Print Pro T-Shir
Settings 2 D:\00 Help Related\Print Pro T-Shit Group 2 Group 3

Fig 49. List to change the Environment Group

- d. **Environment File Path Browse button:** You can use this button to provide the location from where you want to load the environment file.
- e. **Environment File Path Edit box:** It specifies the location of the environment file. You can edit the path if required.
- f. Import environment package: Click this button to invoke "Import environment package" dialog. For details see "Import Export environment package" on page <u>73</u>.
- g. Export environment package: Click this button to invoke "Export environment package" dialog. For details see "Import Export environment package" on page <u>73</u>.
- h. **Reset environment list to factory default:** Click this button to reload the environment list to software default.
- i. Add Env: Allows you to add a new environment name.
- j. **Delete Env:** Allows you to delete selected environments from the list.

Right clicking in the environment list will display the following menu which allows you to add or delete entries.

Add Item
Delete Item

Fig 50. Right Click Context Menu in Manage Env Dialog

Manage Environment Group

Manage Environment group is helpful to manage the environment files into the group, so you can easily identify the required environment file as per the environment group. The dialog used to manage the environment groups is shown and its related parameters are explained below.



Fig 51. Manage Environment Group Dialog

- a. Name of the group.
- b. Environment's name present in the group.
- c. Associated group list.

- d. Press this button to **move** the environment file into the selected group item into the associated group list. This buttons enabled only when appropriate environment is selected in 'Environment list' and appropriate group is selected in the 'Associated group' list.
- e. Add new group. You can use *<Insert>* key to add a new group.
- f. Remove the selected group. Environment file present into the group which is going to delete are moved into the 'None' group. By using <Delete> key you can delete the selected group.

Right clicking in the environment group item or folder will display the context menu shown below which allows you to add, delete and rename group item and transfer environment into associated group.



Fig 52. Right Click Context Menu in Manage Env Group Dialog

Note	You can re-group the environment file by using the <i><ctrl></ctrl></i> + <i>Dragging</i> the item and dropping it on to the new group.
Note	You can not delete the item 'None' from the Environment list.

Import Export Environment Package

Environment package is helpful to bundle environment name, environment file, associated environment group, printer profile and TRC in single package. This is basically used to backup and restore environment file with its dependent files like printer profile and TRC. So user can easily setup printing environment when user install/uninstall software or transfer software from one system to other. The dialog used to import export environment package is shown and its parameters are explained below.



Fig 53. Import Export Environment Package Dialog

- a. Name of the group: Group has one or more environment(s) as child node. If you check/uncheck group then its all child node (environments) also get check/uncheck.
- b. Environment's name: Name of the environment in the group. If this is checked then only it will be imported / exported when you perform import / export task.

- c. **Printer profile:** Printer profile associated with selected environment will get imported / exported along with the environment file when you import / export environment.
- d. Printer TRC: Printer TRC associated with selected environment will get imported / exported along with the environment file when you import / export environment.
- e. **Import Package:** Press this button to import selected environment(s) and its associated group, environment file, printer profile and printer TRC file to the relevant folder.

If any environment already exists then it will prompt the user as follow:

> Air	eady 'Group 2-Settings	1' environment	exist.
Yes	: Replace environ	ment with new	environment.
No	: Rename new er ncel : Skip.	wironment.	

- a. **Yes:** Replace the old environment with new imported environment.
- b. No: If you want to keep both environments then modify the new environment name. For details see "Modify the importing data" on page <u>75</u>.
- c. Cancel: To skip importing this environment.

Note If any imported item like environment file, printer profile and printer TRC already exists then it will prompt the user for corrective action.

- f. **Export Package:** Press this button to export selected group(s) and environment(s) in "Kothari Import Export" (.kie) file.
- g. Load exported package file: Press this button to load previously saved "Kothari Import Export" (.kie) file.
- h. Reset package(s) list: Click this button to reload the package list.

Modify import item info dialog

If any imported item already exists in relevant folder and user wants to keep both items then following dialog appears:

	ou many of money of moniform for fidine : .
	Original Environment name
3	Settings 1
- 1	lew Environment name
	Settings 1_New

Fig 54. Modify import item info dialog

- a. Original imported item name:
- b. New Name of imported item: Specify the new name of imported item.
- c. **Ok:** Press this button to import item with specified name.
- d. Skip: Skip importing this item.
- e. Abort: Cancel importing package.

Summary Page

You can take a look at the print settings summary by pressing the 'Summary' tab present in the 'Print Environment Page' dialog shown on page no. <u>65</u>.

Print environment	Summary
Printer Model :	Comment and a set
Background :	Black
Paper Size :	Full Size (12.72 x 20.47 inch)
Margins :	Left=0.000,Right=0.000,Top=0.000,Bottom=0.000
Media Type :	Cotton 720x720 6pl
Profile :	E:\Print Pro TSIRelated\Help Related\Print Pro T-Shirt WIGA
- White Under	pase (Layer 1) 💌
Print Quality :	Microweaving = MicroWeave through software , DotSize =
Resolution :	360 x 360
- Remark There is no re	emark corresponding to this settings

Fig 55. Summary Page of Custom Print

- a. **Summary:** Summary of the settings made by the user.
- b. **Underbase option:** This underbase option will allow you to select whether the summary of the settings made by the user is for white underbase printing or for color data printing. This option is disabled when the printing is on 'white printing base.
- c. **Remark:** Remarks specified by the user while defining the printer settings.

Summary page shows the summary of the options selected for printing the document. This page shows the current printer selected, paper size used to print, print margins, print quality, media type used for printing, print resolution, currently loaded printer profile, and user remarks if any specified by the user while creating the print environment.

Noto	You	cannot	change	the	unit	of	measurement	simply	by	right
Note	click	ing with	in this w	/indc	W.					

Print Properties

On pressing the button with the caption 'Properties...' labelled as 'g' in 'Print Environment page' you will be presented with the **Print Properties dialog**.

Print properties are grouped under 5 main categories accessible through individual tabs on the 'Print Properties' dialog. These are as follows:

- 1. Media.
- 2. Printing Ink Assignment.
- 3. Layers Selection.
- 4. Color Correction.
- 5. Device Options.

Now let us discuss them one by one in detail.

Media Page

Printer nam	e :	olor conec	
Media s	ize		
Size :	Full Size (12.72 x 20 47 inch)		User size,
	Allow borderless printing in wi	idth	
- <u>S</u> ource	Manual Roll	•	Add/Remove Paper
- Media ty	/pe		
Туре:	Cotton 720x720 6pl		Create media
In <u>k</u> :	Default Ink	•	Check bar options
-Color pr	ofile and screening bad <u>T</u> RC Load White T	R <u>C</u>	Load printer profile
Screeni Screen	ng and Profiling ing info Test patches Cali	ibration <u>b</u> a	rs I <u>n</u> k load test
- Margins - ∭+ 0.0	000 🕂 → 🛛 0.000 🕂 Ť	0.000	≟ ± 0.000 ±
- Remark			*

Fig 56. Media Properties Page

a. **Media size:** Media size shows the list of media (paper) supported by the printer. Here we can specify the page size we want to use. If the printer supports custom paper sizes then select one of the "User defined" paper

sizes from the list whose size can be defined by the user by clicking the 'User size' button (labelled 'c')

- b. **Source:** This is from where the media is to be inserted for printing.
- c. User size...: This button is enabled when the user selects "User defined" paper size from the media size list. When you click this button a dialog appears asking for the width and height of the new media you want to create. To know more refer 'User Size' on page no. <u>81</u>.
- d. Add/Remove paper...: This button is used to add the new paper size or you can remove the paper size which is newly added by you. For more details refer 'Add Remove Paper Size' on page no. <u>82</u>.
- e. **Media type:** It specifies the media on which user wants to print. This can be a user created media or a predefined media. Basically by selecting a new media user selects a new printer profile and TRC curves for printing which was selected by the user while creating that media. Media type can be dependant on ink type or can be independent depending on the printer selected. If a media type is dependant on ink type then only those media are shown which the selected ink type supports. User can still override the printer profile or the TRC curve used by selecting appropriate files using 'Load TRC...' and 'Load printer profile...' buttons.
- f. **Ink:** Ink type shows the list of ink type supported by the printer. Many printers have media type dependant on ink type i.e. for one media type you may want to select the different TRC curve and printer profile and for other ink type a different set.
- g. Create media...: Create media button is used to create a new media or remove a media created. For more details refer 'Create Media' on page no. <u>84</u>.
- h. **Check bar options...**: Use this button for the alignment of bars. For more details refer 'Check Bar Options' on page no. <u>87</u>.
- i. Load TRC: Use this option to change the TRC curves used for printing an image.
- j. **Load White TRC:** Use this option to change the TRC curves used for printing the white base for an image.
- k. Load printer profile: Use this option to select a different printer profile for printing. Remember always load the same number of channel printer profile as in the currently loaded inkset.
- I. **Printer Profile:** Printer Profile shows the currently loaded printer profile name.
- m. **Intent:** It specifies the rendering intent to be used with the printer profile. The available rendering intents are as follows.

- a. Perceptual
- b. Relative Colorimetric
- c. Saturation
- n. Left Margin.
- o. Right Margin.
- p. Top Margin.
- q. Bottom Margin.
- r. **Remark:** Remarks are the user given comments for the given environment setting. The user for recalling why he made these settings for the environment can use this as a memory aid.

Noto	You	can	change	the	unit	of	measurements	simply	by	right
Note	click	ing w	ithin the	'Mec	dia Pro	ope	rties' window.			

User Size

Working with Non-Standard Paper Sizes

Specify a media of a non-standard size. Enter the width and the height of the page and press OK denoted by the "tick" marked button. You can change the unit of parameters by right clicking in the area of the dialog and change the unit to any one of cm, inch, mm, point.

User size setting	-	_
₩ 70.860	-	inch
1 000	-	inch

Fig 57. User Size Dialog

Add Remove Paper Size

In addition to that you can also save a specific user sized paper with any name you want by pressing the button with the caption "Add/Remove Paper.." labeled as 'd' in Fig 56.

User Defined	Paper Size Se	etting		
- <u>M</u> edia Size:	Cotton Roll			2
- ↔ 70.860	inch	王 10	00 📩	incł
		-	æ .	1



- a. Media Size: This field shows the name of the user defined paper size.
- b. Width and Height of the media.
- c. Add Paper: Add the user defined paper size in the list.
- d. **Remove Paper:** Remove the paper size from the list.

Note You can change the units of measurement simply by right clicking within this window.

Modify Paper Info

When user selects environment software tries to load its associated paper info. If paper already exist with some different settings then software will prompt user whether to use the existing settings or overwrite the new settings from selected environment into its database.



Fig 59. Modify Paper Info dialog

- a. Paper Name: Paper name associated with selected environment.
- b. **Original associated info with Paper:** Currently present paper info for the paper.
- c. New associated info with Paper: New paper info for paper.
- d. Press "Yes" button to modify paper info with the one associated with selected environment.
- e. Press "No" button to use existing paper info for selected environment.

Create Media

Media is a combination of a TRC, a printer profile and an inkset (if applicable to that printer) that can be saved by the user and utilized later. On selecting a particular media, the corresponding TRC and printer profile are both loaded.

To create a new media or to alter the settings of an existing media click the button labelled as 'g' in Fig 56.

^p rinter name:	and a	
<u>M</u> edia type:	720x720 Medium 4Pass Black	-
l <u>n</u> k type:		-
Intent :	Perceptual	
Profile:	C:\Program Files\Kothari Info-Tech Ltd\Print	1
TRC:	C:\Program Files\Kothari Info-Tech Ltd\Print	£
WhiteTRC:	C:\Program Files\Kothari Info-Tech Ltd\Print	₽
		<u>له</u> ۲۱+

Fig 60. Create Media Dialog

- a. Media type: Name of the media that can be specified by the user or can be selected from the drop-down list. Ink type: Name of the media that can be specified by the user or can be selected from the drop-down list.
- b. **Ink type:** Name of the media that can be specified by the user or can be selected from the drop-down list.
- c. **Intent:** It specifies the rendering intent to be used with the profile. The available rendering intents are as follows.

- o Perceptual
- o Relative Colorimetric
- o Saturation
- d. Load Profile: Specify the path of the suitable printer profile for the specified media.
- e. **Load TRC:** Specify the path of the suitable TRC curve for the specified media.
- f. **Load White TRC:** Specify the path of the suitable TRC curve for the specified media for printing using white base.
- g. Add media: Click on this to add the newly specified media.
- h. Remove media: Remove the current media.

Note A user can delete all media for a given inkset except the last i.e. at least one media should be present for a given ink type.

Modify Media Info

When user selects environment software tries to load its associated media info. If media already exist with some different settings then software will prompt user whether to use the existing settings or overwrite the new settings from selected environment into its database.

Do you want to mo	odity media into for:		
- Name: 720x72 - Driginal	0 Medium 4Pass Black		
Printer profile:	C:\Program Files\Kothari Info-Ter		
TRC:	C:\Program Files\Kothari Info-Tec C:\Program Files\Kothari Info-Tec Perceptual		
WhiteTRC:			
Intent:			
New			
Printer profile:	D:\00 Help Related\Print Pro T-S		
TRC:	D:\00 Help Related\Print Pro T-S		
WhiteTRC:	D:\00 Help Related\Print Pro T-S		
Intent:	Perceptual d e		

Fig 61. Modify Media Info Dialog

- a. Media Name: Media name associated with selected environment.
- b. **Original associated info with Media:** Currently present media info for the media.
- c. New associated info with Media: New media info for media.
- d. Press "Yes" button to modify media info with the one associated with selected environment.
- e. Press "No" button to use existing media info for selected environment.

Check Bar Options

Check bars are the solid color bars corresponding to each ink present in the currently selected inkset. They can be printed on left or right or both sides of the media / image while printing. The Check Bar related options can be defined by clicking the 'Check bar options...' button labelled as 'h' in Fig 56.

Check bar position	Left	
Align bars to <u>M</u> argin	(€ <u>I</u> mage	
Single Bar <u>w</u> idth	.25 🚔 Unit	
Distance to image	ात्र 🕴 🔤	۱ <u>۲</u>

Fig 62. Check Bar Options Dialog

- a. Align bars to: Select bars to align either to page's margin or Image.
- b. Enter the **width** of the bar and its **distance** from the image.
- c. **Check bar position:** Select the position of the bar. The various available options are as follows:
 - None: No check bars will be printed.
 - Left: Prints the check bars on the left side of the margin / image as specified.
 - *Right:* Prints the check bars on the right side of the margin / image as specified.
 - **Both:** Prints the check bars on left as well as right side of the margin / image as specified.
- d. **Unit:** Unit of measurement.

Noto	You can right click anywhere within the dialog to change the
Note	units of measurement.

Ink Assignment Page

Ink assignment page contains the information about the currently loaded inkset used for printing. This page will show only those inksets which are supported by the printer i.e. if the printer is a 4 channel printer then only those inksets will be shown for which the number of inks in the inkset is equal to or less than 4. Once a proper inkset has been chosen then always remember to choose the corresponding printer profile. Now assign each channel with **given slot in the printer**. If you don't want to print using a channel then set that channel slot number as 'None'. Color channels marked for no use are ignored during printing but each specified color channel has to be rasterized.

The page containing the 'Ink Assignment Page' dialog is shown in $\underline{Fig~63}$. The various options available in the page are explained below.

- a. **Predefined Ink sets:** List of inkset supported by printer. All the ink sets will have same or lesser no. of inks supported in the printer.
- b. List of the inks present in the inkset. This shows the list of available slots and the inks present in them according to the currently selected inkset. The list contains fields *Channel:* It specifies the ink present in the slot. It can be any of the inks present in the ink slot.
- c. **Additional settings:** These are the additional settings pertaining to the white ink.
 - i. **White Underbase:** You can specify the strength of the white underbase along with its generation type. The various generations types available are:
 - **Automatic:** The white underbase generation will be performed automatically by the RIP software.
 - Channel based: The white underbase generation will be performed based upon some spot channel present in the image. The channel to be used for the underbase generation can be specified using the channel palette. To know more on how to specify the spot channel, go to channel palette on page no. 198.
 - Combine: The white underbase will be generated by the RIP software automatically combining with underbase channels defined in the channel palette. To know more on how to specify the spot channel, go to channel palette on page no. <u>198</u>.
 - **Transparent Region:** Select this option if you want the white underbase to be generated based upon the transparent region present in the image.

- Non Transparent Region: Select this option if you want the white underbase to be generated based upon the nontransparent region present in the image. In case of printing from Layout region enclosed by all the images within a platen will be considered as a single image, and portion in this region not occupied by any of the images will be considered as transparent.
- *Full Image:* Select this option if you want the white underbase to be generated over the entire image.
- Gray Gradation: In this white underbase data will be generated as per its gray value of image data. In image where there is white color no white underbase will fired.
- *Inverted Gray Gradation:* In this white underbase data will be generated as per its inverted gray value of image data.
- ii. **White Highlight:** You can specify the strength of the white highlight to be used while printing. Also how the white highlight is to be generated while printing can be specified by you. The available generation types are:
 - *None:* The white highlight won't be used during the printing.
 - Channel based: The white highlight will be applied based upon the white highlight channel. Fuzziness value is disabled and ignored. You can specify which channel to be used as white highlight using the channel palette.
 - On the fly: The RIP will generate the white highlight on the fly during ripping using the fuzziness value provided. This will ignore any highlight channel set otherwise in the channel palette. The fuzziness value works similar to the highlight channel creation option.
 - **Combine:** The RIP will generate the white highlight on the fly during ripping using the fuzziness value that you supply there and will combine it with the highlight channels set in the channel palette.

The fuzziness value works similar to the highlight channel creation options. This will be disabled in the case of Channel based Highlight generator.

iii. Underbase choke: You can specify the strength of the choke mask to be applied during the printing. The choke will be applied based upon the choke channel selected in the channel palette.

	nksets:	CMYK		Determi	ne Ink Order	
1	Ch.					
Stat 1	un	annei Dis sk				
SIDE 1:	-12	біаск Сселе				
SIDE 2;		Cyan				
Slot 3:		iviagenta				
SIDE 4:		Y ENOW				
Slot J:	-	wrnite				
Slot 7.	- 2	Write				
Slot I:		wrnce Woite				
51000;	-	vy/nice				
l Additional se	l ettings :					
-		Strength (%)	Generation typ	be	Fuzziness	
1	La Derra	100.00	Channel based	f	-	
White Und	terbase		On the fly		10	
White Uno White Hig	hlight	100.00	On the fly		76 V	
White Und White Hig Underbase	hlight Cho	100.00 100.00	On the fly Channel Based	i		
White Uno White Hig Underbase	hlight Cho	100.00 100.00	On the fly Channel Basec	i I		
White Unc White Hig Underbase	hlight Cho	100.00 100.00	On the fly Channel Based	1		

Fig 63. Ink Assignment Page

d. **Determine Ink Order:** Click this button if you don't know the ink order of the printer and want to print the 'Ink Order Test Patches'. Clicking this button opens the dialog to print the Ink Order. For more details refer 'Determine Ink Order Dialog' on page no. <u>92</u>.

- e. **Restore to factory default:** On clicking this option the printer setting in the software will restore to the factory default settings.
- f. **Restore to last settings:** On clicking this option the last settings that were set by the user, as the default will be restored.
- g. Set as default: when user clicks this button then the current setting will be set as the last used settings and these settings will be loaded automatically when the user selects this printer next time or clicks the button "Restore to last setting".

Noto	When the specified color order does not meet the actual color
Note	order in your printer "false" colors will be printed.
	This feature ("Ink Assignment Page") may not be available in
Note	some cases depending upon whether your printer supports
	modifying of printing ink assignment or not.
Note	modifying of printing ink assignment or not.

Determine Ink Order

If you are not sure about the 'Ink Order' of the printer then you can determine it using the "Determine Ink Order" button as shown in Fig 63. You can use this dialog to print the 'Ink Order Test' using which the Ink order of the printer can be determined.



Fig 64. Determine Ink Order Dialog

- a. **Page Dimension:** Specifies the dimension of a single page of the media. It is normally same as the size of the media on which profiling is being done.
- b. Patch size: Specifies the size of a single patch.
- c. **Gap Dimension:** Specifies the gap to be left between the consecutive patches in the horizontal and the vertical directions.
- d. **Page offset:** Specifies the offset to be left at the starting of the page from where the printing of the patches will start.
- e. **Unit:** Specifies the current unit in which the values are being shown. You can select any one of the available units from the drop-down list.
- f. **Print:** Starts the printing of the patches.

In the 'Ink Order Test' print you will observe a patch for every ink present in the inkset of the printer and a number printed alongside each patch. *These numbers actually represent the 'Printer slot number' present in the 'Ink Assignment' page.* So, you can assign the inks in the ink-slots according to the order obtained in the print.

Color Correction Page

Edit Profile for primaries		. 1	
→ Edit profile for primanes	<u>A</u> djust priman	BS	_
Printer color adjustment (-100 ~ 100 %)	_	_
<u>C</u> yan		0.00	
Magenta		0.00	14
Yellow		0.00	-
Brightness		0.00	•
Contrast		0.00	-
Color booster			
₩ Use color booster	Color booster value (in %)	10	-
Color strength			
-Color strength value (in %)	100.00		
Note			
Before making changes in the and load the corresponding	is page fisit make selection for opiniter profile.	correct in	cset

Fig 65. Color Correction Page

- a. **Printer Name:** Displays the name of the selected printer.
- b. **Edit Profile for primaries:** Check this to edit manually change the blends of the selected profile.

- c. **Adjust Primaries:** This button pop ups the dialog which lets you adjust the blend manually.
- d. Printer color adjustment: Check this for color adjustment.
- e. **Sliders:** Use these sliders for color correction.
- f. **Color booster:** Adjust the percentage to increase the amount of color depth.
- g. Color Strength: As the name suggests it specifies the strength of the color you wish to use during printing. To use the full strength of the color set it to 100%. Otherwise you can use any intermediate value between 0% and 100% for your optimum quality.

Note 'Edit profile for primaries' option is only enabled when you have opened any image document.

Primary Adjustment

F	Prima	Cyan	Magen	Yellow	Black	Light c	Light	Or
V	Red	0.00	23.14	24.35	0.00	0.39	54.45	0.3
Г	Green	3.50	0.00	93.91	0.00	61.98	0.10	0.0
Г	Blue	58.39	53.95	0.33	0.00	34.68	41.58	2.1
Г	Cyan	11.26	0.00	10.62	0.00	62.76	0.01	0.0
Г	Mage	1.24	34.19	0.04	0.00	34.98	53.10	0.4
1	Yellow	0.02	0.00	86.31	0.00	0.49	0.44	0.0
Г	Black	6.36	50.10	41.88	85.08	21.13	31.32	10.
4		1	TIT	1				

Fig 66. Primary Adjustment Dialog

- a. Manually adjust the blend of the selected profile.
- b. On clicking this button will **automatically** estimate the amount of color used for any primaries.
- c. Load the primary adjustment.
- d. Save the changes made in the primary adjustment.

Printer name :	
White Underbase (Laye	er 1) 💌
- Printing background	Color
- <u>R</u> esolution	360 x 360 👻
- <u>C</u> olor appearance	Color 👻
Print quality	
<u>Microweaving</u>	MicroWeave through software
Print direction	Bi
— Dot si <u>z</u> e	Variable 1 💌 SML 💌
	1 🔆 Weave Overlap (in %) 0.00
Optimize ripping	
Layering	
Multi Pass	👻 Count 1 🚔 Sec Reso. 📃 📼
Advanced head co	ontrol (Nozzle utilization in %)
Ignore initial 1.00	To use 100.00 🕂 Ignore trailing 1.00 📫
Advanced media	Dry time
Banding correction (0.	0121 Perscan 0 🕂 millisec.
- Feed Registration offse	et (in mm) 0.00 🐳 🛛 Before reprint 🚔 sec 🔄
Scan Registration offse	et(in mm) 0.00 📫
	Restore to factory default Restore to last setting

Device Options (Epson based)



a. Printer name.

- b. Underbase option: This underbase option will allow you to select whether the printing is for white underbase printing or for color data printing. This option is disabled when either the printing is on 'white printing base' (see 'b') or 'Use same settings for white base and color' (see 'p') has been set.
- c. **Printing background:** It allows you to select the color of the printing base. It can be one of the following:
 - White
 - o Black
 - Color
 - Dark Color
- d. **Resolution:** This option will specify the resolution at which the user wants to print with his printer. The resolution is displayed in DPI. Here the string specifies horizontal and vertical resolution. If only one is given then in those cases both horizontal and vertical resolution are same. Higher resolutions produce graphic images that are sharper and show finer detail.
- e. **Color appearance:** Select the output color mode which is by default selected as 'Colored'.
- f. Microweaving: This option allows the printer to generate superior output because graphics data is reordered and is printed in finer increments. It reduces the possibility of banding, the light horizontal lines that can mar an image.
- g. **Print Direction:** This option allows you to set the printing direction. It can be unidirectional or bidirectional or automatic.
- h. Dot size: Using this option you can set the size of the dot for printing.
- Dots used: Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "Dot size" selected.
- j. Wet on wet passes: Number of passes to be printed on same position.
- k. Weave overlap (in %): Specify in percentage by how much amount you want to overlap two passes. Specifying value greater than zero will reduce the banding between the passes (resulting in improved print quality) but will also increase the print time.
- I. **Optimize Ripping:** Checking this option will increase the ripping speed.
- m. Layering: Specifies the layering method. It can be any of the options mentioned below.
 - **Multi Pass:** Each layer will be printed in a separate pass.
- **Wet On Wet OnePass:** All the layers will be printed simultaneously in a single pass, (i.e. the layers will be printed when the other layers are wet and not dried yet).
- Wet On Dry (Adaptive) OnePass: All the layers will be printed in a single pass, but there would be enough time for the layers to get a bit dried before the other layers are printed on them.
 This normally gives better results than the 'Wet On Wet OnePass' method in which layers are printed even when other layers are wet.
- n. Layers count: Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently. This option will only be enabled if you are printing layers in multiple passes.
- o. Secondary Resolution: When layers are to be printed simultaneously i.e. using wet on wet or wet on dry One Pass methods, the printing settings of each pass can't be specified separately. This option enables you to specify the resolution of the secondary passes. The available secondary resolutions are based upon the primary resolution set for the printing of the combined pass.
- p. Advanced head control (Nozzle utilization in %): This option is used for masking the nozzles to use for printing. By using this option we can disable starting and trailing nozzles of the print-head from printing. This option is useful in mainly 2 cases.
 - Some of the starting or trailing nozzles are blocked, and then the user can mask this area and can use rest of the printhead for printing.
 - In case of printing on Rotary devices only small middle region of print-head is required for printing and in this cased user can mask unwanted top and trailing nozzles.
- q. Banding correction: Perform settings for media feed compensation. This corrects the errors in the amount of feed of the grit rollers due to the type of media used. Correcting the amount of feed improves the dot positioning accuracy in the feed direction, which can help in enhancing the image quality.
- r. **Feed Registration offset (in mm):** Registration offset (in mm) specifies the feed direction offset between the white ink layer and the color ink layer.
- s. Scan Registration offset (in mm): Registration offset (in mm) specifies the scan direction offset between the white ink layer and the color ink layer.

- t. **Dry time per scan:** Specify the time (in milliseconds) for which the head waits before printing each line.
- u. **Dry time before reprint:** This setting allows the control of the amount of time (in seconds) after which the next layer is to be printed.
- v. **Restore to factory default:** On clicking this option the printer setting in the software will restore to the default settings.
- w. **Restore to last settings:** On clicking this option the last settings that were set by the user as the default will be restored.
- x. Set as default: When user clicks this button then the current setting will be set as the last used settings and these settings will be loaded automatically when the user selects this printer next time or clicks the button 'Restore to last settings'.

	Some of the options referred in the device options page (e.g.
Note	Banding Correction, Dry Time etc.) may be available /
Note	unavailable in your software depending upon the version you
	USE.

Note	Wet On Dry (Adaptive) OnePass method will be available only if it
	is supported by the selected printer.

Device Options (File Based)

Contraction of the second second		
Color (Layer 2)	×	
Printing background	Color	
- <u>R</u> esolution	720 x 720	•
<u>C</u> olor appearance	Color	+
- Compression	Uncompressed	
Print quality		
- Dot size 2 Bit - Optimize ripping	✓ Dots Used SML	•
Output		-
Output file path		
F:\temp\Pm Files\Pr	n Files\00\Temp_ <layer>_<page#>_<(Satisfies Satis</page#></layer>	ave as for files
	n Files\00\Temp_ <layer>_<page#>_<(s s that of source Create directory</page#></layer>	ave as
F:\temp\Pm Files\Pr F:\temp\Pm Files\Pr Use path same as Overwrite old files ✓ Generate unique fi ✓ Create temporary fi	n Files\00\Temp_ <layer>_<page#>_< s s that of source Create directory le names in case of name clashing ile in case of network path</page#></layer>	ove as
	n Files\00\Temp_ <layer>_<page#>_< _s s that of source Create directory le names in case of name clashing ile in case of network path d file for final output</page#></layer>	ove as

Fig 68. Device Options Page (File Based)

a. Printer name.

- b. Underbase option: This underbase option will allow you to select whether the printing is for white underbase printing or for color data printing. This option is disabled when either the printing is on 'white printing base' (see 'b') or 'Use same settings for white base and color' (see 'p') has been set.
- c. **Printing background:** It allows you to select the color of the printing base. It can be one of the following:
 - White
 - o Black
 - Color
 - Dark Color
- d. **Resolution:** This option will specify the resolution at which the user wants to print with his printer. The resolution is displayed in DPI. Here the string specifies horizontal and vertical resolution. If only one is given then in those cases both horizontal and vertical resolution are same. Higher resolutions produce graphic images that are sharper and show finer detail.
- e. **Color appearance:** Select the output color mode which is by default selected as 'Colored'.
- f. **Compression:** Compression specifies the type of compression which we want to apply on the files generated as the output.
- g. Dot size: Using this option you can set the size of the dot for printing.
- h. Dots used: Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "Dot size" selected.
- i. **Optimize Ripping:** Checking this option will increase the ripping speed.
- j. **Save as:** This button is enabled when you have not selected "Use path same as that of source". When the user selects this button then a dialog appears that asks you to enter the save location.
- k. Use path same as that of source: If this option is checked then the output files are stored in the same directory as that of the source file. The output file name is set as follows: <Source file name>_<source file extension>_page number>_<Channel short name>.tif when this check is disabled then user can specify his own file name by clicking the "Save as" button.
- I. **Create Directory for files**: Check this option to create separate directory for the files to be saved.
- m. **Overwrite old files:** If the user wants to overwrite the old files generated then he should check this box. If the user has disabled this button and the file is sent for printing then if previously files with the

given name existed then the creation of the file will stop with an error message that the following files already existed.

- n. Generate unique file names in case of name clashing: This option is only enabled if 'Overwrite Old files' option is disabled. It will generate a unique file name for saving in case of file clashing found while generating the files for output.
- o. Create temporary file in case of network path: When output file path is network path at that time printed file is first created into the local system and after printing is finished that file(s) is transferred to the network path. Temporary file(s) is created into the folder specified in the 'Print Queue Manager Preferences' (on page 55).
- p. Create compressed file for final output: Check this option if you want to compress the files generated as output into a single (*.ZIP) file. This option is very useful in saving the disk space as well as grouping of similar output files.
- q. **Restore to factory default:** On clicking this option the printer setting in the software will restore to the default settings.
- r. **Restore to last settings:** On clicking this option the last settings that were set by the user as the default will be restored.
- s. Set as default: When user clicks this button then the current setting will be set as the last used settings and these settings will be loaded automatically when the user selects this printer next time or clicks the button 'Restore to last settings'.

	Some of the options referred in the device options page (e.g. Banding Correction, Dry Time etc.) may be available /
Note	unavailable in your software depending upon the version you use.

Note Wet On Dry (Adaptive) OnePass method will be available only if it is supported by the selected printer.

Media Ink Assignment Printer name :	Layers Selection	Color correction Devi	ce Options
Color (Layer 1)	÷		
— Printing background	Black		•
— <u>R</u> esolution	720 X 720		*
— <u>C</u> olor appearance	Color		•
Print quality			-
 Print direction 	Bi		*
— Quality	4 Pass		*
- Print mode	High quality		*
Đot size	VSD1	- SML	•
- 🔽 Optimize ripping.			
Layering			
Simultaneously	💽 Dame 1	🚊 Sec. Reso. 7203	× 720 🔸
Advance setting			
- Read Registration vehicle	e(iu.mm) 0.0	∎ ŧ	
Suan Regultation of ta	elimmo 0.0	∎, ÷	
		actory default Restore	to jast settings

Device Options (Mutoh based)



a. Printer name.

- b. Underbase option: This underbase option will allow you to select whether the printing is for white underbase printing or for color data printing. This option is disabled when either the printing is on 'white printing base' (see 'c').
- c. **Printing background:** It allows you to select the color of the printing base. It can be one of the following:
 - White
 - o Black
 - Color
 - Dark Color
- d. **Resolution:** This option will specify the resolution at which the user wants to print with his printer. The resolution is displayed in DPI. Here the string specifies horizontal and vertical resolution. If only one is given then in those cases both horizontal and vertical resolution are same. Higher resolutions produce graphic images that are sharper and show finer detail.
- e. **Color appearance:** Select the output color mode which is by default selected as 'Colored'.
- f. **Print Direction:** This option allows you to set the printing direction. It can be unidirectional or bidirectional or automatic.
- g. **Quality:** Allows the user to select the number of passes required to lay down one line of image on the printer. The greater the number of passes, the better the quality of the image. However, increasing the number of passes also increases the amount of time required to print the image.
- h. **Overlay:** Select predefined passes overlay effect.
- i. **Dot size:** Using this option you can set the size of the dot for printing.
- j. Dots used: Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "Dot size" selected.
- k. Dot type: The printer firmware can automatically adjust the dot size to the specified resolution. But you may specify the dot size yourself using one of available sizes.
- I. **Optimize Ripping:** Checking this option will increase the ripping speed.
- m. Layering: Specifies the layering method. It can be any of the options mentioned below.
 - **Multi Pass:** Each layer will be printed in a separate pass.
 - Simultaneously: All the layers will be printed simultaneously in a single pass.

- n. Layers count: Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently. This option will only be enabled if you are printing layers in multiple passes.
- o. Secondary Resolution: When layers are to be printed simultaneously i.e. using wet on wet or wet on dry One Pass methods, the printing settings of each pass can't be specified separately. This option enables you to specify the resolution of the secondary passes. The available secondary resolutions are based upon the primary resolution set for the printing of the combined pass.
- p. **Media type:** Specifies the media type according to which correction value will be used.
- q. **Correction:** When selected media type is user defined then you can specify the correction value in steps of 0.01 mm.
- r. **Feed Registration offset (in mm):** Registration offset (in mm) specifies the feed direction offset between the white ink layer and the color ink layer.
- s. Scan Registration offset (in mm): Registration offset (in mm) specifies the scan direction offset between the white ink layer and the color ink layer.
- t. **Restore to factory default:** On clicking this option the printer setting in the software will restore to the default settings.
- u. **Restore to last settings:** On clicking this option the last settings that were set by the user as the default will be restored.
- v. Set as default: When user clicks this button then the current setting will be set as the last used settings and these settings will be loaded automatically when the user selects this printer next time or clicks the button 'Restore to last settings'.

Note Some of the options referred in the device options page may be available / unavailable in your software depending upon the version you use.

Device Options (Generic)

1edia Ink Assignment Printer name :	Layers Selection	Color correction Devi	ce Options
Color (Layer 1)	*		
- Printing background	Black		
— <u>R</u> esolution	720 X 720		•
– <u>C</u> olor appearance	Color		•
Print quality			-
 Print direction 	Bi		*
– <u>Q</u> uality	4 Pass		*
 Print mode 	High quality		*
Ðot size · 🔽 Optimize ripping.	VSD1		-
Layering Simultaneously	Dome 1	🗧 Sec. Reso. 🛛 720	x 720 🔸
Advance setting			
- Reed Registration of an	a(u.mm): 0.00	ŧ	
Suan Registration of ra	elimmi 0.00		
	Restore to <u>f</u> ac	tory default Restore	to jast settings



a. Printer name.

- b. **Underbase option:** This underbase option will allow you to select whether the printing is for white underbase printing or for color data printing. This option is disabled when either the printing is on 'white printing base' (see 'c').
- c. **Printing background:** It allows you to select the color of the printing base. It can be one of the following:
 - White
 - o Black
 - Color
 - Dark Color
- d. **Resolution:** This option will specify the resolution at which the user wants to print with his printer. The resolution is displayed in DPI. Here the string specifies horizontal and vertical resolution. If only one is given then in those cases both horizontal and vertical resolution are same. Higher resolutions produce graphic images that are sharper and show finer detail.
- e. **Color appearance:** Select the output color mode which is by default selected as 'Colored'.
- f. **Print Direction:** This option allows you to set the printing direction. It can be unidirectional or bidirectional or automatic.
- g. **Quality:** Allows the user to select the number of passes required to lay down one line of image on the printer. The greater the number of passes, the better the quality of the image. However, increasing the number of passes also increases the amount of time required to print the image.
- h. **Print Mode:** Allows the user to select printing mode like print for high quality or print for high speed.
- i. **Dot size:** Using this option you can set the size of the dot for printing.
- j. Dots used: Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "Dot size" selected.
- k. **Optimize Ripping:** Checking this option will increase the ripping speed.
- I. **Layering:** Specifies the layering method. It can be any of the options mentioned below.
 - **Multi Pass:** Each layer will be printed in a separate pass.
 - Simultaneously: All the layers will be printed simultaneously in a single pass.
- m. Layers count: Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently. This option will only be enabled if you are printing layers in multiple passes.

- n. Secondary Resolution: When layers are to be printed simultaneously i.e. using wet on wet or wet on dry One Pass methods, the printing settings of each pass can't be specified separately. This option enables you to specify the resolution of the secondary passes. The available secondary resolutions are based upon the primary resolution set for the printing of the combined pass.
- o. **Feed Registration offset (in mm):** Registration offset (in mm) specifies the feed direction offset between the white ink layer and the color ink layer.
- p. Scan Registration offset (in mm): Registration offset (in mm) specifies the scan direction offset between the white ink layer and the color ink layer.
- q. **Restore to factory default:** On clicking this option the printer setting in the software will restore to the default settings.
- r. **Restore to last settings:** On clicking this option the last settings that were set by the user as the default will be restored.
- s. Set as default: When user clicks this button then the current setting will be set as the last used settings and these settings will be loaded automatically when the user selects this printer next time or clicks the button 'Restore to last settings'.

	Some of the options referred in the device options page may be			
Note	available / unavailable in your software depending upon the			
	version you use.			

Color Data	-	_
-Printing background	Black	*
- <u>B</u> esolution	600 x 600	*
_ <u>C</u> olor appearance	Color	
Print quality		-
<u> </u>	3 Pass	
- Print direction	Bi Directional	-
— Dot size	Variable	•
— 🔽 Optimize ripping	F4	
Advanced media -Layers count -Registration offset(in r	1 [▲] nm) 0.00 [↓] Dry time Per scan 0 [↓] Before reprint 0 [↓]	millisec – sec <u>—</u>
-Strength (in %) Choke 100.00	🔆 Underbase 100.00 🔆 Highlight 80.0	00 *
Use same settings f	or white & color ink Highlight On the fly Highlight fuzziness 10	*
	e united and the	

Device Options (Aeoon based)

- Fig 71. Device Options Page (Aeoon)
- a. Printer name.

- b. Underbase option: This underbase option will allow you to select whether the printing is for white underbase printing or for color data printing. This option is disabled when either the printing is on 'white printing base' (see 'c').
- c. **Printing background:** It allows you to select the color of the printing base. It can be one of the following:
 - White
 - o Black
 - Color
 - Dark Color
- d. **Resolution:** This option will specify the resolution at which the user wants to print with his printer. The resolution is displayed in DPI. Here the string specifies horizontal and vertical resolution. If only one is given then in those cases both horizontal and vertical resolution are same. Higher resolutions produce graphic images that are sharper and show finer detail.
- e. **Color appearance:** Select the output color mode which is by default selected as 'Color'.
- f. Quality: Allows the user to select the number of passes required to lay down one line of image on the printer. The greater the number of passes, the better the quality of the image. However, increasing the number of passes also increases the amount of time required to print the image. This option allows the printer to generate superior output because graphics data is reordered and is printed in finer increments. It reduces the possibility of banding, the light horizontal lines that can mar an image.
- g. **Print Direction:** This option allows you to set the printing direction. It can be unidirectional or bidirectional or automatic.
- h. **Dot size:** Using this option you can set the size of the dot for printing.
- i. **Optimize Ripping:** Checking this option will increase the ripping speed.
- j. Layers count: Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently.
- k. **Registration offset (in mm):** Registration offset (in mm) specifies the offset between the white ink layer and the color ink layer.
- I. **Dry time per scan:** Specify the time (in milliseconds) for which the head waits before printing each line.
- m. **Dry time before reprint:** This setting allows the control of the amount of time (in seconds) after which the next layer is to be printed.
- n. **Strength:** As the name suggests the strength option is to control the amount of application of each individual option. 0% means no strength

and 100% means full strength. In past whatever you may have created and used with the software was at full strength 100%. Now you could control the application of the amount of the feature. For example, if you use the Choke Strength to be 50% then the choking will be applied by 50% amount of the gray value in the corresponding channel. Similarly, if you use the Underbase Strength to be 50%, the underbase that will be printed will be half the strength that otherwise would be printed when this value is 100%.

- Use Same Settings: Allows you to set the same settings for white underbase and color layer(s). The option will be enabled only if you are printing on black or colored printing base.
- p. Highlight Generator: There are four options-
 - **None:** If you don't want to use "Highlight Generator" during printing then select this option.
 - **Channel Based:** Highlight option will work as usual using the channels. Fuzziness value is disabled and ignored.
 - **On the fly:** The RIP will generate the white highlight on the fly during ripping using the fuzziness value that you supply there. This will ignore any highlight channel set otherwise in the channel palette. The fuzziness value works similar to the highlight channel creation option.
 - **Combine:** The RIP will generate the white highlight on the fly during ripping using the fuzziness value that you supply there and will combine it with the highlight channels set in the channel palette. The fuzziness value works similar to the highlight channel creation option.
- q. Highlight Fuzziness: The fuzziness value works similar to the highlight channel creation options. This will be disabled in the case of Channel based Highlight generator.
- r. Allows you to set the settings **back to factory default**.
- s. Allows you to restore the **last settings**.
- t. Allows you to set the **current settings as default settings**.

	Some of the options referred in the device options page may be
Note	available / unavailable in your software depending upon the
	version you use.

Print Settings

Print Pro offers comprehensive control over print settings. Print setting is accessible through *File > Print Option* from the Application Window or by using the shortcut < Ctrl > + <T >.

Size (in inch)	Size:	Scale Factor:
~ E	₩ 13.01389	≑ 100.00001 ∈ %
	15.01389	÷ 100.00001 = ≈
Resampling	Bicubic	•
Position (in in	ch) eft Corner 💌	X: 0.00000
Mirror / Inver	t Image Mirror Image	Invert Image

Fig 72. Print Options Dialog

- a. As in document: The image in output print is exactly of the same size as the document's dimension.
- b. **Fit to page:** Selecting this option results in Print Pro scaling the image to fit the page size. In case of Page Layout, set job sizes same as platen size. This option fit the job size into platen.
- c. **Custom:** Selecting this option allows you to adjust size or scale factor of the image or job.
- d. **Maintain aspect ratio:** Checking this option forces Print Pro to maintain the aspect ratio of the image.

- e. **Resampling:** The following resampling methods are available:
 - 1. **Stretch and truncate:** Fastest method for expansion or reduction of images.
 - 2. **Bilinear:** Little slower, but produces better images than stretch and truncate.
 - 3. **Bicubic:** Expensive, but produces best results of the three available methods.
- f. Image positioning: Use one of the predefined positions or supply the custom position to place the print's Top Left on the output. In case of Page Layout negative placement is allowed when 'Custom' option is selected in position.
- g. **Mirror Image:** Checking this option will mirror the image about the vertical axis in the print.
- h. **Invert Image:** Checking this option inverts the colors of the image in the print.

N	Pixel unit is defined in the image space and appropriate scaling
Note	is done before printing to the printer.

	In case of 'Page Layout' you can set placement position within
Note	the allowed range such that job does not goes out side the
	platen rectangle.

Print Previewing

This feature allows user to view what each page will carry when it is printed. User can change the settings and Preview the effect immediately.



Fig 73. Preview Window



Fig 74. Print Preview Toolbar

- a. Print the document.
- b. Printer settings.
- C. **Print options.**
- d. Advance to the next page.
- e. Go back to previous page.
- f. Preview single page at a time.
- g. Preview two pages at a time.
- h. Zoom In.
- i. Zoom Out.
- j. Click here to change the Background color for print previewing. After selecting the color background the image will look as in <u>Fig 75</u>. The background color is applied all over in the transparency part of the image.
- k. Context sensitive help.
- L Cancel preview.



Fig 75. Image after Applying Background Color

Note Right click anywhere inside the window to access the list of commonly used commands as shown below.

Zoom In	Ctrl++
Zoom Out	Ctrl+-
Background Color	
Print Options	Ctrl+T
Print Setup	Ctrl+Shift+P
Print	Ctrl+P

Fig 76. Right Click Commands in Print Preview Mode

Page Layout

(Optional Feature)

The Print Pro RIP offers you a very reliable and handy "Page Layout" feature which allows the use of predefined templates for job placements. Using this feature you can print on white, color and black media at the same time!

What is 'Page Layout'?

There can be times when the jobs to be printed are much smaller than the print bed of the printer. Thus multiple such jobs can be printed at the same time to boost the productivity. Usually the placement of such jobs is fixed on the print bed. Such placements can be specified in the form of predefined templates (please see "Platen Organizer" on page 257). Page layout allows using such layout templates to do job placements.

With in the same layout, the jobs placed can have input images having various color spaces, e.g. CMYK, sRGB, AdobeRGB, Lab etc.

Page layout feature handles transparent areas of images as well (available with PSD or PNG). This means the images can be targeted for different colored backgrounds.

Note	The layout is displayed on pressing <i><ctrl>+<l></l></ctrl></i> or by selecting	
Note	Layout > Open Page Layout.	

More details on what you can do with 'Page Layout' are given below

- 1. Arrange images in a single page regardless of its file format.
- 2. Layout images/ jobs each having with its own color profile and color space (Like CMYK, RGB, Lab and Multi Channel etc).
- 3. Layout the jobs on the page with more accuracy and ease with the help of rulers and guidelines.
- 4. Open as many numbers of different page layouts template and print them one by one with great ease.
- 5. Each job in the layout can have its own output parameters (profile, TRC, etc), its own underbase settings and its own white highlight settings.
- 6. Allows setting placement position for film with in the job platen. If Job size is larger than the platen size then job is clipped as per the placement settings.
- 7. Allows the free movement of job within the platen with keyboard and mouse.
- 8. Allows placement of multiple job(s) within a single platen.

Open Layout Template

You can create new layout only by opening the saved layout template file, created using "Platen Organizer" application. Refer page 257.

You can open layout template file by following ways,

1. Select 'Open layout **template'** from Layout setting toolbar combo.



Fig 77. Layout List Drop Down Box

- By selecting Layout > Open layout template command from menu or right click context menu > Open layout template in layout view.
- 3. By selecting managed layout template file list, which appears clicking on quick open button marked as 'C'. You can manage this list using 'Layout Template Management', which appears when you click on Template management button Marked as 'A'. You can also manage the group of templates using the button marked as 'B'.



Fig 78. Managed Layout List



Page Layout Controls

Fig 79. Page Layout

- a. Layout Job Transformation toolbar. Refer page 121.
- b. Layout Job Adjustment: Refer page 123.
- Layout setting toolbar: We'll see detail about it later in this section. Refer page <u>124</u> for details.
- d. Properties window: Refer page <u>126</u>.

- e. **Job list view:** Job list view contains list of jobs. We'll see more about it later in this section. Refer page <u>127</u>.
- f. Layout view: Layout view is the preview of the current layout. It is the main working area of the page layout window. We'll see more about it later in this section. Refer page <u>128</u>.

	You can create as many layouts as you would like and traverse
Note	through them using the 'layout name' combo box in the layout
	tool bar.

Layout Job Transformation Toolbar



Fig 80. Layout Job Transformation Toolbar

- a. Add new Job in layout. The selected Job in the layout list view will be added.
- b. **Delete** selected Job(s). This will delete the all selected Jobs of layout.
- c. Link / Unlink the selected Jobs :



When selected Job(s) are linked with native document then icon marked as 'a' is set and if not then icon marked as 'b' is set for button. In multiple selection if some Jobs are linked and some are not then icon marked as 'c' is set for button.

d. **Show/ Hide** the bounding box:



When bounding box around the selected Job(s) are visible then icon marked as 'a' is set and if not then icon marked as 'b' is set for button. In multiple selections, if bounding box of some jobs is visible and in some jobs is not visible not then icon marked as 'c' is set for button.

- e. Mirror the selected Job(s).
- f. Scale the selected Job.
- g. Change **Job printing setup** to custom.
- h. Change Job placement and other settings.
- i. Color substrate background visualization color.
- j. Rotate job(s) by **90 degree clockwise.**
- k. Rotate job(s) by **90 degree counter clockwise.**
- I. Rotate job(s) by **180 degrees.**
- m. Make Same Height: Makes the height of the selected jobs in the same platen as equal.
- n. Make Same Width: Makes the width of the selected jobs in the same platen as equal.
- o. **Make Same Size:** Makes the width and height of the selected jobs in the same platen as equal.

Note You can not delete or move the platens in the Page Layout.

Layout Job Adjustment



Fig 81. Layout Job Adjustment Toolbar

- a. Brings the focused Job **forward by one level** within the platen.
- b. Brings the focused Job **backward by one level** within the platen.
- c. Makes the focused Job **topmost** (i.e. above all the other job(s)) within the platen.
- d. Makes the focused Job **bottom most** (i.e. below all the other job(s)) within the platen.
- e. **Align left:** Aligns the selected job(s) with respect to the left side of the focused job within the platen.
- f. **Align right:** Aligns the selected job(s) with respect to the right side of the focused job within the platen.
- g. Align top: Aligns the selected job(s) with respect to the top side of the focused job within the platen.
- h. **Align bottom:** Aligns the selected job(s) with respect to the bottom side of the focused job within the platen.
- i. Align center vertically: Aligns the selected job(s) with respect to the vertical center of the focused job within the platen.
- j. Align center horizontally: Aligns the selected job(s) with respect to the horizontal center of the focused job within the platen.
- k. **Center vertically:** Aligns the selected job(s) with respect to the vertical center of the platen.
- I. **Center horizontally:** Aligns the selected job(s) with respect to the horizontal center of the platen.

	Alignment operations 'e' to 'j' will be applied on the selected jobs.
Noto	Operations 'e' to 'j' will be applied with respect to the focused
Note	job. You need to select atleast two jobs to enable the 'Alignment'
	operations.

Nata	For options 'a' to 'd', you need overlapped images to view the
Note	effects after any of these are applied.

Layout Setting Toolbar



Fig 82. Layout Setting Toolbar

- a. **Open** the Layout Template.
- b. To save the Layout Template.
- c. To **remove** layout.
- d. To **change the default name** of the layout. Clicking this, you will be **presented with 'Layout Rename Dialog'**. Use it to rename the layout.

Enter <u>n</u> ame:	
Composite layout 1	

Fig 83. Rename Dialog

- e. To **print the layout by Queue Manager.** You can't modify the layout till it is in the queue manager.
- f. Layout current printing background type: The following drop-down list will appear when you click the button. By selecting any printing background type print setting option you can make it as current printer settings for layout, so when new job is inserted then it takes default printer settings from that current layout printing settings.



- g. Zoom In.
- h. Zoom Out.
- i. Opens Platen Organizer for template creation.
- j. Layout Name.
- Layout template management: It associate generic name with the layout template file. For more details please refer 'Layout Template Management' on page no. <u>138</u>.
- Layout Template Group management: It manages the layout template groups. For more details please refer 'Layout Template Group Management' on page no. <u>141</u>.
- m. Quick open for managed layout template file(s): The following drop-down list will appear as you click the button.



This command shows the managed template file list. You can quickly open layout template file by selecting given generic name to template file path. Also you can browse the template file by selecting 'Open Layout Template'.

NoteOption to open Platen Organizer may be enabled / disabled
depending upon the version of the Print Pro you use.

Properties View





- a. Platen Name.
- b. **Current unit** of the **platen.** The various dimension values will be shown in this unit.
- c. Left-top coordinates of the platen.
- d. Dimension of the platen.
- e. Current cursor position.
- f. The **ruler offsets** are the horizontal and vertical offset of the layout rulers from left top margin of the page.

Property window shows some important properties of the selected platen in the layout.

At the top it shows the platen name. If multiple or none of the platens are selected then it shows appropriate message as per selection type.

Then comes the unit in which all other elements are displayed. Here in this example the unit used is inch. You can change unit by selecting required unit from right click context menu.

Next, Left and Top offset of the selected platen is displayed. These offsets are from the left of margin and top margin of the layout template page. Then height and width of the selected platen is shown.

Cursor position shows the current cursor position with respect to the ruler. The left and top offset of the current platen is also in ruler co-ordinate space.

Job List View

The job list view on the lower left side of the page layout window shows all the jobs present in currently opened documents in Print Pro. This list gets updated automatically whenever you open a new document or close an already existing one. This view shows only relevant jobs.



Fig 85. Job List View

In the list a document with `*' after its name denotes that it is an imported document or Unlinked document.

If you try to close a document, which has at least one job present in any of the page layouts, Print Pro will warn you about the same and ask for permission to close it any way. If you close the document, the jobs from this document in all the layouts in which it is present will be removed.

The fly-over tip in the job list view shows the respective job size in inches apart from job name and type if the cursor is placed above the job's name.

When the cursor is above a document name then fly-over tip shows the full path name of the document. If this document is created by Print Pro and you have not saved it yet, the tool tip will say that this is '*Not a disk file'*. A number inside the braces beside the job name indicates how many copies of this job are in the current layout. E.g., "*TCROPSEP1.psd (2)*" tells that the job named '*TCROPSEP1'* has got two copies in the current layout.

Layout View



Fig 86. Layout View

The layout view shows preview of the current layout. This shows all the job(s) in the page at their respective positions with thumbnail. The gray rectangle inside the page indicates the page margin.

To select a job by the platen or to toggle among several jobs in the layout view you can either click on the Job or use the $\langle Tab \rangle$ key.

To move a job, drag the job while holding the *<Ctrl>* key. You can also use *< Up >* or *<Down>* or *<Left>* or *<Right>* keys for moving the job(s). Note that a job will be move with respect to the top-left of the platen in which it is present. E.g. consider the third platen. If you press the *<Up>* and *<Down>*

keys, then the selected job(s) will move in the horizontal direction rather than the vertical direction, because its top-left corner is rotated by 90 degrees and the movement of the job(s) is done with respect to that corner. Similarly the movement of jobs(s) within different platens are dependent on the top-left corner of the individual platens.

To change print options Use $\langle Alt \rangle + \langle Enter \rangle$ keys simultaneously to get the print option property sheet of the selected job. You can also double click on the job with $\langle Shift \rangle$ key pressed to open the same. In this property sheet only those options relevant to the layout is enabled.

By right clicking on the job you can scale, translate and rotate in steps of 90°. (*Popup menu* > *Scale This Job...*). Use the handles around the job to move its edges. Drag inside the bounding box to move the job. While dragging to restrict the movement to steps of 45° hold *<Shift>*. While dragging an edge of the bounding box use *<Shift>* to maintain the aspect ratio and use *<Alt>* to get reflection around the center. You can also move the center if you want.



Fig 87.

Transformation of Job

You can scale the image on a selected platen by double clicking on it while holding the $<\!Ctrl\!>$ key.

During transformation operation you can cancel it by pressing *<Esc>* key or using menu command *Right click > Cancel Transformation*. To commit a transformation use *<Enter>* key or double click inside the bounding box or use command *Right click > Apply Transformation*.

You can also select the job(s) from one platen and copy them to any other platen by dragging them onto the other platen keeping the $\langle Ctrl \rangle + \langle Alt \rangle$ keys pressed together. The top-left of the copied job(s) will be updated as per the new platen to which the job(s) are copied.

Job in the layout can be rotated in steps of 90°. To rotate a job use the right click menu commands or during transformation of job rotate using mouse move.

Initially the ruler origins are aligned with page margins (left and top). You can change this origin by dragging the cursor from the box marked as 'A' in Fig 86. To reset the origin to the left top of page margin double click in 'A'.

To create guide Drag the cursor from the horizontal or vertical ruler and drop in position where you want the guide. You can use *<Alt>* key to rotate the guide 90°. You can also add a guide by using the menu command *View > Guides > New Guides...*

To move a guide Drag the guide while holding *<Ctrl>* key.

To delete a guide move the guide out of the page. To delete all the guides use menu command *View > Guides > Clear Guides*.

Moving in between job list view & layout view

Using Keyboard:

Use <*Spacebar>* + <*Tab>* keys to move to and fro.

Using Mouse:

Click on the appropriate view.

Note You can not Move, Delete or Copy platen(s) in layout view.

Using Layout Option





- a. Check to show bounding box around the platen.
- b. Normal: Non-selected platen bounding box color.
- c. **Selected:** Selected platen bounding box color.
- d. **Focused:** Focused platen bounding box color.
- e. New Job remains **linked** to native document or **unlinked** when inserted into layout.
- f. Show unlinked document into tree: This option allows you to show or hide unlinked document into the job list view. When unlinked document is visible into job list view you can add new Jobs of that unlinked document into another layout.

Menus and Submenus for Page Layout





- a. **Printer Setup:** Using this command you can change printing settings for each background type.
- b. **Job Print Setup:** Using this command you can synchronize selected jobs with any of the printing background type printing settings or set customized printing settings.
- c. Open/Close Page Layout: To show and hide the page layout. Shortcut <*Ctrl>+<L>.*
d. Add Job: Clicking on this menu will add a single copy of the selected original image into all the selected platen(s) in current Layout. Refer to Fig 90 for better understanding. If you want to add the image two times, you have to click on this menu two times. This function can also be achieved by pressing the <*Insert*> key.



Fig 90. Job List View for Composites

- e. Delete Job: To delete the job/s in your layout, press <Ctrl> and left click on the image that you want to remove/ delete from layout. The particular image will be selected. Then, press 'Delete' button. The job will be removed from the layout. You can also press the key.
- f. **Unlink from native doc:** Using this command you can link/unlink the selected job(s) with the native doc.
- g. **Show/Hide Bounding box:** Using this command you can show/hide bounding box of selected platens.
- h. **Rotate:** Using this command option you can rotate selected job(s) in 90 degree clock wise, 90 degree anti clock wise and 180 degree.
- i. Arrange Jobs: Using these commands you can bring the selected job one to the above or below of the other job(s) present in the same platen.
- j. **Align Jobs:** Using these commands you can align the jobs with respect to the focused object and the platen as per your requirement.
- k. **Layout Print Setup:** When you click on this menu item it shows the current printing base type printer setup settings.

- I. Layout Template Manager: When you click on this menu item it shows Layout Template Management dialog.
- m. Layout Template Group Manager: When you click on this menu item it shows Layout Template Group Management dialog.
- n. **Open Layout Template:** Using this command you can open saved layout template file.
- o. Save layout Template: This command saves the current layout template in ***.klt** format.
- p. Delete Layout: This command delete the current layout.
- q. **Select Layout:** When you click on this menu item it drop down the layout list combo in Layout setting tool bar.
- r. Layout Option: Refer "Using Layout Option" on page <u>131</u>.

Commands	Short Keys
Open / Close Page Layout	Ctrl + L
Open Layout Template	Ctrl + Shift + O
Adding up job in layout	Insert
Delete a job	Del
Select a job in layout	Ctrl + Left Click on that particular job
Select layout	Ctrl + F
Zoom In	Ctrl + +
Zoom Out	Ctrl +
Print Layout	Ctrl + P
Layout Print Setup	Ctrl + Shift + P
Job Property	Alt + Enter or Shift + Double click on job
Select All job(s)	Ctrl + A
Deselect all job(s)	Ctrl + D
Bring to Front	Shift + Ctrl +]
Bring Forward	Ctrl +]
Send Backward	Ctrl + [
Send to Back	Shift + Ctrl + [
Align left	Shift + Ctrl + Left Arrow
Align Right	Shift + Ctrl + Right Arrow
Align Top	Shift + Ctrl + Up Arrow
Align Bottom	Shift + Ctrl + Bottom Arrow

Fig 91. List of Shortcuts

Adding jobs to the Layout

By dropping the necessary files from the Windows Explorer or from the 'File Browser' tab into the layout. This will add job into job list view.

New job is added into all the selected platen(s).

- a. By *double clicking* on the appropriate job from the list on the left pane.
- b. Selecting the job and clicking 'Add' button on the layout tool bar.
- c. Selecting the job and pressing *<Enter>*.
- d. Selecting the Job and pressing *<Insert>*.
- e. By *Dragging* the Job from Job list view and *Dropping* on the Platen.

These controls will remain disabled initially because there are no jobs selected in the job list. You can determine a job's size in inches from the flyover tip by placing the mouse cursor above the job name in the job list view.

Note If any job is already present into platen and you add new job on that platen, then previous job is automatically deleted.

Placing a job in the Layout View

Adding a job places it in selected platen. Then you can move it to anywhere within the platen rectangle.

Use zoom-in and zoom-out commands on the layout tool bar to get a proper view of the page in use.

To move a job by using the keyboard, you need to select it first. Then use the arrow keys in your keyboard to move the selected job in appropriate direction. For faster displacement, use <*Shift*> key in combination with these keys.

If you want to use the mouse, click the left mouse button inside the desired job rectangle and drag it with mouse button still down to the location of your wish.

Note Print Pro constraints the placement of the jobs within the platen rectangle.

Selecting a job in the Layout View

Using Keyboard:

You can navigate through the jobs by pressing the <Tab> key. Press <Shift> + <Tab> to navigate in the opposite direction.

Using Mouse:

Click inside the rectangle that represents the desired job. Press *<Shift>* key along while clicking to select a job that is hidden (overlapped) by another job.

Selecting multiple jobs:

Press *<Shift>* key along with *<Ctrl>* and mouse click to select multiple jobs.

You can also use <Ctrl>+<A> to select all the jobs in the layout. You can use <Ctrl>+<D> to deselect the jobs.

You can also select multiple jobs by drawing a selection rectangle starting form the blank space in the layout while holding the *<ctrl>*key down. All the jobs having at least **8% of their area** in the selection rectangle get selected.

You can also toggle the selection status of the jobs inside the selection rectangle by holding the <Shift> key down in the operation as described above.

While performing any select operation with $\langle Shift \rangle$ key down, it results in toggling the selection status of the job in question.

Multiple selections allow you to align various jobs with respect to each other.

Note You can delete selected job(s) by using the ** key.

Snapping

To place job(s) and guides easily Print Pro snaps the moving guide to the nearest hot edge. In case of guide movement this hot edge is the nearest border or halfway mark of a Platen. This snapping facility for the current moving object can be overridden by holding *<Shift>* key while dragging the guide.

Layout Template Management

Layout template management feature allows you to manage list of saved layout template file for quick access.

When ever you click on the button layout management button in layout setting tool bar, shown as 'A', it will show the dialog shown in Fig 93 for maintaining the template file list. Dialog to manage the group of templates is shown when you click on button shown as 'B'. Managed list of template is shown in pop up menu when you click on button shown as 'C'.



Fig 92. Template Management in Layout Setting Toolbar

Template Name	Template Path	Template Group
Template)Black_1	D:\00 Help Related\Print Pro T-Shir	Black_Group
Template)Black_2	D:\00 Help Related\Print Pro T-Shir	Black_Group
		White Group
	7.8.92	

Fig 93. Layout Template Management Dialog

- a. List of managed template files: It shows Template name in first column and template file path in second column. You can edit the information by double clicking on the item. When you double click on template file path column it shows edit box with browse button.
- b. Template Path: Specifies the path where the template is located.
- c. **Template Group:** Specifies the group to which the selected template belongs. You can select any group from the available list of groups.
- d. Export Layout Template Package: Click this button to invoke "Export layout template package" dialog. For details see "Import Export environment package" on page <u>73</u>.
- e. **Import Layout Template Package:** Click this button to invoke "Import layout template package" dialog. For details see "Import Export environment package" on page <u>73</u>.

- f. Reset layout template management info to the factory defaults.
- g. Add new layout template: Adds new layout template information.
- h. Delete layout template: Deletes selected layout template information.

Right clicking in the list will display the following menu to delete and add layout templates.



Layout Template Group Management



Fig 94. Layout Template Group Management Dialog

The dialog used to manage the group of templates is shown above. The dialog can be obtained by choosing the menu command *Layout* > *Layout Template Group Manager*. The various options available in the dialog are explained below.

- a. **Template Group:** It is the tree like structure containing the groups and the templates belonging to those groups. The different branches of the tree indicate **the group's name and the leaves of the branch indicate the** templates contained within the group.
- b. **Context Menu:** It contains the various options pertaining to the group which are:
 - Add Group: Adds a new layout template group.
 - Delete Group: Deletes the selected template group from the groups' list.

- *Rename Group:* Enables you to rename the selected template group.
- **Transfer Template:** It enables you to transfer the templates within groups.
- c. Associated groups list: It shows the list of all the added template groups.
- d. Add layout template group: Adds a new layout template group.
- e. Delete layout template group: Deletes the selected template group from the groups' list.

Open Document from Job List View

When ever you are importing image or unlink job(s) from native document in layout the newly imported/created document is shown into job list view (Unlinked shown only when 'Show unlinked document into tree' option is checked in Layout Option). But if you want to perform operation(s) on that document, like applying filter, changing printer settings, then you need to open that document.



Fig 95. Open Document from Job List View

To open imported document or unlinked document (marked with '*' in Job list view), **right click on the document name shown into the job list view**. This will show the context menu to open document.

By selecting menu item 'Open Document', the selected document will be opened into the application.

This feature is helpful when you have applied some filters on job and that job is unlinked. Now you want that document for further use, then by opening document from job list view you can perform operation on it.

Channel Palette in Layout

By using channel palette in layout you can change the channel visibility, channel type related data of the selected job(s).



Fig 96. Channel Palette in Page Layout

You can change channel type of selected job(s) by selecting option from the right click context menu on the channel in channel palette.



Printing a Layout

To print the currently active layout, click 'Print the layout' on the layout toolbar or Right click on active layout and select *Print layout* command.

Print Option for Layout

Print option allows you to set placement setting, size and other printing related option for selected job.

Print Options		l	×
Size (in inch)	Size:	Scale Factor:	
्र में भ	₩ 91,66669	100.00002	%
-•	₹ ^{70.83335}	100.00002	%
Resampling	Bicubic		•
Position (in in	n 💌	X: 0.00000 Y: 0.00000	•
Mirror / Inver	t Image Mirror Image	Invert Image	
KITL	0	K. Cano	el

Fig 97. Print Option Dialog

a. As In Document: Set job sizes same as document size.

- b. **Fit to page:** Set job sizes same as platen size. This option fit the job size into platen.
- c. **Custom:** You can set size, scale factor manually.
- d. **Maintain aspect ratio:** Checking this option forces Print Pro to maintain the aspect ratio of the job.
- e. **Position:** Placement position of job.
- f. **Custom Placement Position:** You can set placement settings as per your requirement. In layout negative placement is allowed. You can set placement setting within the allowed range such that job does not goes out side the platen rectangle.
- a. **Mirror Image:** Checking this option will mirror the job about the vertical axis in the layout.
- g. **Invert Image:** Checking this option inverts the colors of the job in the layout.

Layout Print Settings

Printing setting of each background type need to set appropriately otherwise you are not able to print layout.

Here you can change each base printer settings by selection appropriate base settings option from menu. If you select option from Layout setting tool bar button then current printer setting base is changed and it shows on the button. But if you select option from right click context menu then active base type setting is not changed.

Here, Black Base, White Base, Color Base and Dark Color Base settings options are available for substrate printing.

In each background base settings printing base in device option tab must be set as per the option name.

	If you change inkset related settings, port settings and other
Note	printing parameters then it is reflected into other three printing
	background printer settings.

There are four different kinds of print settings as you click on the 'Print Setup' button on the layout setting toolbar.



Fig 98. Print Setup Button on Layout Setting Toolbar

- a. Black base settings: Change the print settings for black substrate.
- b. White base settings: Change the print settings for white substrate.
- c. **Color base settings:** Change the print settings for color substrate.
- d. **Dark Color base settings:** Change the print settings for dark color substrate.

Whenever you are printing layout and if printing settings are not appropriate then you will get the error message and based on that error message you can identify which printing background settings are not matched and which field is not appropriate in that printing settings.

Here from printing settings dialog you can not change the page size and other parameters which affect the page size.

Note In case of 'Page Layout' you can not change the Page size of layout any way. All the controls in 'Print Setup' will remain disabled which affects the page size of the layout.

Job Printing Settings

Job print settings command allows you to set printing settings for job as per printing background type.

Job print settings allows you to set printing background, printing Media type, Printer profile, TRC curves, color correction data and printing background related data for each job.

You can use printer settings of layout for job directly, by selecting printing background type settings option from job print settings menu as per required printing background type.

If you are using any layout printer settings for job then when any change made in the printing settings of layout then it is automatically reflected into the job print settings. E.g. Job is using white base type settings and you change any parameters in white base type print settings of layout then it is reflected into job printing settings.

Job Print setup	✓	Use white background type settings Use black background type settings Use color background type settings Use dark color background type settings
		Use custom print setup

Fig 99. Screen Print Setup Option in Menu

If you select custom print settings for job then you can specify printing related parameters individually for each job.

You can set custom settings by selecting 'Use custom print setup...' from menu or clicking on the layout job transformation button, shown below with circle around it.



Fig 100. Custom Print Setup for Job

When you select 'Use custom print settings' it shows the printing setting dialog. Using that dialog you can change printing related settings for job.

Custom Print Properties for Job





- a. **Printer name:** Selected printer name.
- b. Media type: Specifies the media on which user wants to print. This can be a user created media or a predefined media. Basically by selecting a new media user selects a new printer profile and TRC curves for printing which was selected by the user while creating that media. Media type can be dependent on ink type or can be independent depending on the printer selected. If a media type is dependent on ink type then only those media are shown which the selected ink type supports. User can still override the printer profile or the TRC curve used by selecting appropriate files using 'Load TRC...' and 'Load Printer profile...' buttons.
- c. **Ink type:** Shows the list of ink type supported by the printer. Many printers have media type dependent on ink type i.e. for one media type you may want to select the different TRC curves and printer profile and for other ink type a different set.
- d. **Create Media:** This button is used to create a new media or remove a media created. Refer page **84**.
- e. Check bar options: Use this button for the alignment of bars. Refer page <u>87</u>.
- f. **Load TRC:** Use this option to change the TRC curves used for printing an image.
- g. Load Printer Profile: Use this option to select a different printer profile for printing. Remember always load the same number of channel printer profile as in the currently loaded inkset.
- h. **Load White TRC:** Use this option to change the TRC curves used for printing the white base for an image.
- i. Printer Profile: It shows the currently loaded printer profile name.
- j. **Intent:** It specifies the rendering intent to be used with the profile. The available rendering intents are as follows.
 - o Perceptual
 - o Relative Colorimetric
 - o Saturation
- k. Horizontal Size change by addition processing.
- **Vertical Size change by addition processing.**
- m. **Use default:** This command loads the default settings, which are same as the layout printer settings as per the current printing background type.

Ink Settings

	A distant contract	Color	Concesion Device D	
_	Additional settings :	Strangth (%)	Ganaration time	Europinare
	White Underhase	100.00	Automatic	ruzziness
1	White Highlight	100.00	Channel hased	
	Underhase Cho	100.00	Channel Based	
-	Briderbuse erion.	100,00	citatillar pasca	

Fig 102. Ink Settings Job for Job Print Setup

a. **Additional white ink settings:** These are the additional settings related to the white ink. You can specify the strength, generation type and fuzziness (where applicable) for white underbase, white highlight and underbase choke.

For more details please refer page no. 90.

Color Correction Page

See "Color Correction Page" for more detail on page 93.

Device Options for Job Printer Settings



Fig 103. Device Options for Job Print Setup

- a. **Printing Background:** It allows you to select the color of the printing base. It can be any one of the following.
 - o White
 - o Black
 - Color
 - Dark Color

Note	If multiple Jobs are selected then focused job's printing data is filled into above dialogs for displaying. Also when settings are
Note	applied then all the selected job's printing settings changed as
	per the new settings.

Filters

What are Adjustment filters?

These filters make adjustments in the pixel color, based either some statistical property of the image or on its color value or a combination of both.

Print Pro offers the following two types of filters:

A. Based on statistical information of the image:

- 1. Levels
- 2. Auto Levels
- 3. Auto Contrast
- 4. Curves
- 5. Equalize
- 6. Threshold

B. Based on the pixel color value:

- 1. Brightness / contrast
- 2. Color Balance
- 3. Hue / Saturation / Lightness
- 4. Desaturate
- 5. Channel Mixer
- 6. Invert
- 7. Posterize
- 8. White Highlight Channel
- 9. White Underbase Choke Mask
- 10. Add Transparency channel
- C. **Assign Profile:** It's not a filter. It is used to apply an ICC profile to the image using which the image is displayed and printed.
- D. **Histogram:** Technically not a filter, but only displays the statistical information of the image.

In General, filters with tuneable properties will show an options dialog, where **you can fine tune the filter's specific option(s). Each such options dialog will** have a preview check box in common as shown in the figure below.

T	Preview

Check this box to view the effect of the settings in the options box online.

Making Color Adjustments

You can access these filters by invoking the appropriate submenu from the Adjustment menu or alternatively by using the appropriate shortcut key.

Adju	istment	
	Levels	Ctrl+E
	Auto Levels	Shft+Ctrl+E
	Auto Contrast	Alt+Shft+Ctrl+E
	Curves	Ctrl+Shift+M
	Color Balance	Ctrl+B
	Brightness / Contrast	
	Histogram	
	Hue / Saturation	Ctrl+U
	Desaturate	Shft+Ctrl+U
	Channel Mixer	
	Invert	Alt+Ctrl+I
	Equalize	
	Threshold	
	Posterize	
	Assign Profile	

Fig 104. Adjustment Menu

The following details regarding each of these filters will help you in choosing what filter to apply.

Levels

You can correct the tonal range and color balance of an image by adjusting **the levels of intensity of the image's shadows,** midtones and highlights. Levels dialog can visually guide you to adjust the important tones in an image. You can also save and load a particular set of levels parameters from within the dialog.

Choose Adjustment > Levels... or the keyboard shortcut $\langle Ctrl \rangle + \langle E \rangle$ to open the levels dialog.



Fig 105.

Level Adjustment Dialog

- a. Output slider
- b. Image level histogram
- c. Input slider

Using Levels to set highlights, shadows, and midtones:

By moving the inputs sliders, you can set the highlights and shadows in an image to the first group of pixels on both ends of the Levels histogram. This results in the mapping of these pixels (the darkest and the lightest) to black and white, increasing the tonal range of the image and improving the overall contrast. For making adjustments to the midtones intensity values use the middle Input slider.



Fig 106. Levels Filter Sample

To adjust tonal range using levels:

- 1. Invoke the levels dialog.
- 2. To adjust tones for a specific color channel, choose an option from the Channel menu.
- 3. To adjust the shadows and highlights, do one of the following:
 - Drag the black and white Input Levels sliders to the edge of the first group of pixels on either end of the histogram. You can also enter values directly into the first and third Input Levels text boxes.
 - Drag the black and white Output Levels sliders to define new shadow and highlight values. You can also enter values directly in the output levels text boxes.

For example, suppose your image pixels cover only the range 0-X for some X < 255. If the input slider is dragged to X, pixels with intensity values of X and higher are mapped to 255; pixels with lower intensity values are mapped to corresponding lighter values. This normalization lightens the image, increasing the contrast in highlight areas.

Suppose instead you want to decrease the contrast in the image then you will have to drag the Output Levels slider to X, pixels with intensity values of 255 are remapped to X, and pixels with lower intensity values are mapped to corresponding darker values. By doing this, you will darken the image because of decrease in contrast in the highlight areas.

- 4. Click OK.
- 5. To view the adjusted histogram, reopen the Levels dialog or open the Histogram Dialog.

Auto Levels

This filter will automatically set the shadows and highlights in an image. It defines the lightest and darkest pixels in each color channel as white and black and then redistributes intermediate pixel values proportionately. Since, this filter manipulates each channel individually it might introduce or eliminate color casts. Auto Levels gives good results when an image with an average distribution of pixel values needs a simple contrast adjustment or when an image has an overall color cast.

Choose Adjustment > Auto Levels or keyboard shortcut <Shift> + <Ctrl> + <E> to apply auto-levels to an image.



The effect of applying the Auto Levels is shown below.

Original Image with Histogram

After applying Auto Levels

Fig 107. Auto Levels Filter Sample

Auto Contrast

The Auto Contrast command adjusts the overall contrast and mixture of colors in an image automatically. Since auto contrast filter does not **manipulate individual channels it won't eliminate or introduce color casts.** After applying this filter, highlights will become lighter and shadows will become darker.

Auto Contrast can improve the appearance of many photographic or continuous-tone images. It does not improve flat-color images.

To use the Auto Contrast command, choose *Adjustment* > *Auto Contrast* or the keyboard shortcut *<Alt>* + *<Shift>* + *<Ctrl>* + *<E>*.



The effect of applying the Auto Contrast is shown below:

Curves

Like the Levels dialog, the Curves dialog lets you adjust the entire tonal range of an image. However, instead of making adjustments using only three variables (highlights, shadows, midtones), with Curves you can adjust any point along a 0-255 scale while keeping up to 16 other values constant. Using curves you can make accurate changes to individual color channels in an image. You could save the currently defined curve or load a previously saved curve from within the dialog.

Choose Adjustment > Curves... or the keyboard shortcut <ctrl> + <shift> + <M> to invoke the curves dialog.



Fig 109. Curves Dialog

- a. Click here to select a particular channel.
- b. Click here to draw the curve in **free hand** using the mouse.

To adjust the color balance of the image, choose the channel (or channels) you want to adjust from the Channel menu. Do any of the following to adjust the curve:

- 1. Click on the curve to **define the point** and **move** the points around for changing the shape of the curve.
- 2. You can use the pencil tool provided in the dialog to draw the curve **using the mouse.**

Equalize

The Equalize command redistributes the brightness values of the pixels in an image so that they more evenly represent the entire range of brightness levels.

You might use the Equalize command when a scanned image appears darker than the original and you want to balance the values to produce a lighter image. You could use equalize and histogram in combination to compare the brightness before and after applying equalize filter.

To use the Equalize command:

Choose *Adjustment > Equalize...*

Threshold

The Threshold command converts grayscale or color images to high-contrast, black-and-white images. You can specify a certain level as a threshold. All pixels lighter than the threshold are converted to white; all pixels darker are converted to black.

To use this command, choose *Adjustment > Threshold....* This opens the Threshold dialog.

The Threshold dialog displays a histogram of the luminance levels of the pixels in the current image.



Fig 110. Threshold Dialog

Drag the slider below the histogram until the threshold level you want appears at the top of the dialog, and click OK.

Brightness / Contrast

The Brightness / Contrast command lets you make simple adjustments to the tonal range of an image. Unlike Curves and Levels, this command makes the same adjustment to every pixel in the image. The Brightness / Contrast command does not work with individual channels and it is advisable not to use it for high-end output because there could be a loss in the image details.

To use the brightness/contrast command:

Choose *Adjustment > Brightness/Contrast...*

Surgers				Preview
Brightness :	<u> </u>	0	-	<u>R</u> eset
Contrast				OK
3		0	-	Cancel

Fig 111. Brightness / Contrast Dialog

Color Balance

The Color Balance command changes the overall mixture of colors in an image for generalized color correction.

Color	Levels :		Preview
⊆yi	an-Red :	0	<u>R</u> eset
			ОК
Ma	genta- <u>G</u> reen :	0	Cancel
Yel	low-Blue :	0 =	Load
			<u>S</u> ave



a. Select the tonal range to be changed from here.

Choose Adjustment > Color Balance... or use the keyboard short-cut <Ctrl> + to use the Color Balance command: It opens the Color Balance dialog.

- Make sure the composite channel is selected in the Channels palette. This command is available only when you're viewing the composite channel e.g. RGB and not R & B alone.
- Open the Color Balance dialog.
- Select Shadows, Midtones, or Highlights to select the tonal range on which you want to focus the changes.
- Select Preserve Luminosity to prevent changing the luminosity values in the image while changing the color. This option maintains the tonal balance in the image.
- Drag a slider toward a color you want to increase in the image; drag a slider away from a color you want to decrease in the image.
- You can also provide values for the parameters in the text box provided alongside every slider.

Hue/Saturation/Lightness Adjustment

The Hue/Saturation command lets you adjust the hue, saturation, and lightness of the entire image or of individual color components in an image. There are two ways this filter could be used:

- 1. To give a tint to the whole image.
- 2. To adjust the hue/saturation.

To use this filter:

Choose Adjustment > Hue/Saturation... or use the keyboard short-cut <Ctrl> + <U>. It opens the Hue/Saturation/Lightness dialog.

Edit Color :	Yellow 🔻		
38°/69°	98°/129°	1 14 1-	<u>C</u> olorize
4			
Hue :			Preview
	4	0	Reset
Saturation :			ОК
		• •	Cancel
Lightness :		- o 🔅	Load
			Save

Fig 113. Hue/Saturation/Lightness Dialog

To use the Hue/Saturation/Lightness command:

- 1. Open the 'Hue/Saturation/Lightness' dialog. The two color bars in the dialog represent the colors in their order on the color wheel. The upper color bar shows the color before the adjustment; the lower bar shows how the adjustment affects all of the hues at full saturation.
- 2. For Edit, choose which colors to adjust:
 - Choose Master to adjust all colors at once.
 - Choose one of the other preset color ranges listed for the color you want to adjust. An adjustment slider appears between the color bars, which you can use to edit any range of hues.
 - If you tick the **colorize** option, you won't be able to make adjustments for individual hue areas.
- 3. Tick the **colorize** option to give a tint to the image.
- For Saturation, enter a value or drag the slider to the right to increase the saturation or to the left to decrease it. Values can range from -100 to +100.

5. For Lightness, enter a value or drag the slider to the right to increase the lightness or to the left to decrease it. Values can range from -100 to +100.

To modify the range of an adjustment slider:

- 1. Choose an individual color from the Edit menu in the dialog.
- 2. Do any of the following to the adjustment slider:
 - Drag one of the white bars to adjust the amount of color fall-off without affecting the range.
 - Drag the area between the triangle and the vertical bar to adjust the range without affecting the amount of fall-off.
 - Drag the center area to move the entire adjustment slider, selecting a different color area.
 - Drag one of the vertical white bars next to the dark gray area to adjust the range of the color component. Increasing the range decreases the fall-off, and vice versa.
 - Ctrl-drag the color bar so that a different color is in the center of the bar.



Fig 114. Adjustment Slider Dialog

- a. Adjusts fall-off without affecting range.
- b. Adjusts range without affecting fall-off.
- c. Moves entire slider.
- d. Adjusts range of color component.
- 3. To edit the range by choosing colors from the image, select the eyedropper tool *P* in the dialog and click in the image. Use the eyedropper + tool to add to the range; use the eyedropper tool to subtract from the range.

Note Always select the Eyedropper from the Tool Palette before editing the range of colors from the image.

Desaturate

The Desaturate command converts a color image to a grayscale image in the same color mode. For example, it assigns equal red, green, and blue values to each pixel in an RGB image to make it appear grayscale. The lightness value of each pixel does not change.

This command has the same effect as setting Saturation to -100 in the Hue/Saturation dialog.

To use the Desaturate command:

Choose Adjustments > Desaturate or the keyboard shortcut <shift> + <ctrl> + <U>.

Channel Mixer

The Channel Mixer command lets you modify a color channel using a mix of the current color channels. With this command, you can do the following:

- Make creative color adjustments not easily done with the other color adjustment tools.
- Create high-quality grayscale images by choosing the percentage contribution from each color channel.
- Create high-quality tinted images.
- Swap or duplicate channels.

To mix color channels

- 1. In the Channels palette, select the **composite** color channel.
- 2. Choose *Adjustment* > *Channel Mixer...*. The 'Channel Mixer' dialog appears on the screen.
| Input Channels : | | - | | Monochrome |
|------------------|-----|-----|----------|--------------|
| Red | | 100 | • % | Desident |
| | | | _ | Eleview |
| Green | | 0 | ÷% | Reset |
| | 4 | | | ОК |
| Blue | ~ | 0 | - % | Cancel |
| | | | | Load |
| | Red | | <u> </u> | <u>S</u> ave |
| Constant : | | 0 | - % | |



- 3. For Output Channel, choose the channel in which to blend one or more existing (or *source*) channels.
- 4. Drag any source channel's slider to the left to decrease the channel's contribution to the output channel or to the right to increase it, or enter a value between -200% and +200% in the text box. Using a negative value inverts the source channel before adding it to the output channel.
- 5. Drag the slider or enter a value for the Constant option. This option adds a black or white channel of varying opacity; **negative** values act as a **black** channel, **positive** values act as a **white** channel.
- 6. Select Monochrome to apply the same settings to all the output channels, creating a color image that contains only gray values.

Use the Channel Mixer with the Monochrome option applied to control the amount of detail and contrast in the images you plan to convert to grayscale.

If you select and then deselect the Monochrome option, you can modify the blend of each channel separately, creating a tinted appearance.

Invert

The Invert command inverts the colors in an image. You might use this command to make a positive black-and-white image negative or to make a positive from a scanned black-and-white negative.

When you invert an image, the brightness value of each pixel in the channels is converted to the inverse value on the **256-step color-values scale**. For example, a pixel in a **positive** image with a value of **255 is changed to 0**, and a pixel with a value of **x to 255-x.**

To use the Invert command, choose Adjustment > Invert or by using keyboard shortcuts as <Alt> + <Ctrl> + <I>.

Posterize

The Posterize command lets you specify the number of tonal levels (or brightness values) for each channel in an image and then maps pixels to the closest matching level. For example, choosing two tonal levels in an RGB image gives six colors, two for red, two for green, and two for blue.

This command is useful for creating special effects, such as large, flat areas in a photograph. Its effects are most evident when you reduce the number of gray levels in a grayscale image. But it also produces interesting effects in color images.

	Preview
Levels: 4	Reset
Δ	ОК
	Cancel

Fig 116. Posterize Dialog

To use the Posterize command, choose *Adjustment > Posterize...* and enter the number of tonal levels you want and click OK.

White Highlight Channel Creator

Strangth /in 0/) .		✓ Preview
Sciendin (in w) :		Reset
Euzziness		ОК
	10 1	Cancel

Fig 117. White Highlight Channel Creator

To use the White Highlight Channel creator command:

Choose Image > Add White Highlight Channel....

Strength as the name suggests the amount by which to reduce the gray value representing the amount of white ink for the pixel under consideration. This value is constant for all the pixels of the image. 100% represents full strength, whereas 0% represents no inking.

Fuzziness determines the selection of the colors that are near to white. Large value will include more colors that are away from white.



White Underbase Choke Channel

Choking / shrinking white underbase choke could be required while printing on **non-white background** (like black or colored or dark colored substrates). In these cases, the white underbase layer sometimes peeks through the color layer printed above it causing objectionable image quality. This is more visible at the image edges. The reason may be related to ink spreading or chemical composition of inks or mechanical limitations or incorrect layer gap between the white & color ink layers. So it becomes necessary to shrink this white ink layer by some amount so that it never peeks beneath the color layer. **To shrink this white ink layer we apply the white underbase choke**.

To use the choke feature:

- 1. Load any image.
- 2. Select the correct printing mode. Please note in case of black background, profile also has an impact on the choke mask generated.

Choose *Image > Add WhiteUnderbase choke...*. You will get the dialog shown below that will help you create the boundaries.

Width (in Pixels) :	Preview
1.00	*
Eareground limit (White underbase value):	<u>R</u> eset
255	Advance
Use white underbase choke mask	ОК

Fig 118. White Underbase Choke Channel Creator

Choke boundary can be defined as number of pixel wide. This number can be in fraction of the pixel. The white pixels edges in the image are however spared from being choked. See the example shown below.





Advance Dialog

By default white pixels are defined as RGB 255,255,255. You can specify the starting values in the Advance dialog. In that case the white pixels will be defined as per range from the RGB value defined in the Advance dialog to RGB 255, 255, 255.

White an	ea cut o	lfset -	T.
Red:	255	*	<u>R</u> eset
Green :	255	*	OK
Blue :	255		Cancel

Fig 120. White Area Cut Offset

	On the Device Option tab of the printer properties dialog, there is a setting that can be used to control the strength of the choke.
Note	The range is between 0255. 255 is the maximum choke strength.

	You can create multiple choke channels and combine them by
Note	setting their visibility on. Print Pro will combine these channels
	into the single choke channel during the print.

White Underbase Choke Mask Channel

In some portion of the artwork where the elements of the design are very thin, applying choke could remove the white all together from the underbase and as a result color data printed will not be visible depending upon the color of the substrate. In such cases, you would want not to apply choke in these areas or in other words **mask** the white underbase in such portion of image from Choking. This is where 'White underbase choke mask' is useful.

The use is simple. Create a spot channel in your design software with completely white background. On the portion of the image, where you do not want to apply the choke mark the portion in 'Black' color. The shades of gray will mask the choke partially.

Ensure that you mark this channel as "White underbase choke mask" in Print Pro.



(Image type where Choke Mask may be needed)



(This is how Choke Mask Channel may look like)

Fig 121. White Underbase Choke Mask Channel

Note

Make sure to designate this channel as "White underbase choke mask" in Print Pro.

```
Note
```

You can't create this channel in Print Pro. This Channel needs to be created as Spot Channel inside Image editing software.

Add Transparency Channel

Transparent images are useful when you are not certain of the page background color on which your image will be displayed, or you intend to display your image in front of a complex background rather than a single background color. It also helps you to knock out some colors which you don't want to print on image without the intervention of other software.

To use this tool, either go to *Image > Add Transparency Channel* or press <*Ctrl>* + <*Shift>* + <*T>*.

Color to make transparent :	1			Preview Reset
Strength :				Teser
		100	•	OK
Euzziness	- 1	10	-	Cancel
Note: Press <ctrl> key while se the target transparency color fro</ctrl>	lecting and on mimage.	drag	ging	

Fig 122. Add Transparency Channel

In this dialog, you can select the color that you want to make transparent by clicking on the color bar shown in the dialog. The color picker dialog will be popped-up in which you can select the color from the color window, or manually enter the color values. Instead of remembering the color values, simple press the *<Ctrl>* key. The eyedropper is ready to pick the color from the image and drag it on the color bar of the dialog.

Strength: Strength is defined as transparency depth. Using this you can make the selected color portion 100% transparent by entering 100 in

strength edit box or semi - transparent by entering 50 in the strength edit box.

Fuzziness: Enter the value for color distance from 0 to 200. Enter the low value (say 0) to match the exact color value that you want to make transparent. Higher value will make the broader range of selected color to be transparent.

On pressing the "OK" button, one channel named as "Transparency1" will be created in the channel palette.

Consider the image shown below.



Fig 123. Image With Transparent Channel

If you want to print on any color substrate, the white background will be printed which looks like the patch in the printing. To avoid this type of the printing problem, knock off the white background using this tool.

Histogram

Other than Filters the Adjustment menu has one more command of "Histogram".

A histogram illustrates how pixels in an image are distributed by graphing the number of pixels at each color intensity level. This can show you whether the image contains enough detail in the shadows (shown in the left part of the histogram), midtones (shown in the middle), and highlights (shown in the right part) to make a good correction.

Choose *Adjustment > Histogram*...

The histogram gives a quick picture of the tonal range of the image. Below figure shows an image and its corresponding histogram. If you hover the mouse pointer over the histogram you will see the corresponding statistics of that portion of histogram. You can also select a portion of the histogram to see the statistics of that selected portion.



Fig 124. Histogram

Statistical information about the intensity values of the pixels appears below the histogram:

- 1. **Mean:** Represents the average intensity value.
- 2. **Standard deviation (Std Dev):** Represents how widely intensity values vary.
- 3. Median: Shows the middle value in the range of intensity values.

- 4. Level: Displays the intensity level of the area underneath the pointer.
- 5. **Count:** Shows the total number of pixels corresponding to the intensity level underneath the pointer.
- 6. **Percentile:** Displays the cumulative number of pixels at or below the level underneath the pointer. This value is expressed as a percentage of all the pixels in the image, from 0% at the far left to 100% at the far right.
- 7. **Pixels:** Represents the total number of pixels used to calculate the histogram.
- 8. **Cache Level:** Shows the setting for the image cache. If the Use Cache for Histograms option is selected in the Memory and Image Cache, the histogram displays more quickly and is based on a representative sampling of pixels in the image (based on the magnification), rather than on all of the pixels (equivalent to a cache level of 1). Deselect this option if you want to check for posterization in the image.

Assign Profile

The Assign Profile command lets you choose the ICC profile using which the image is to be rendered, both while displaying and printing the image. This option is only available for the images having RGB or CMYK color modes. This command is very useful when you want to see the result of applying different profiles to the image and then choosing the most suitable profile for the image according to your requirement.

To use the Assign Profile command, choose *Adjustment > Assign Profile....*



Fig 125. Assign Profile Dialog

- a. **Don't manage document's colors:** Ignores the ICC profile embedded in the image document and displays the image according to the default working RGB profile if the image is in RGB color mode and CMYK profile if the image is in CMYK color mode.
- b. **Working profile:** Displays the image according to working RGB profile if the image is in RGB color mode and CMYK profile if the image is in CMYK color mode.
- c. **Profile:** Shows the list of ICC profiles currently installed on the system and also the ICC profile embedded in the image if any. The user can select any of the profile present in the list or can also load an ICC profile from any other location.

The Application Interface

In this chapter, we will look at the general interfaces and other features offered by Print Pro for carrying out the task of printing images.

The Application Window





Application Window

- Menu bar. a.
- b. Tool bar.
- C. **Tool Palette** (Eye Dropper, Selection Tool, Pan tool, Zoom tool).
- d. Design Window: Shows the composite design output. Right click anywhere in the window to access the list of commonly used commands.
- Application background: Double click here to get the 'File Open e. Dialog'.
- f. **Channel Palette:** Lists all the channels present in the design.

Menu Bar

List of commands offered by Application 'Menu bar'.

File Ctrl+O ---- Open... a b — -Save As... с — Close Load Print Settings... d — Save Print Settings e f — Print... Ctrl+P q — Print Preview F9 h — -Print Options... Ctrl+T i — Print Setup... Ctrl+Shift+P 1 unicorn.jpeg 2 white.bmp 31.jpg 4 C:\00 To Del\...\Table_1.png Exit Ctrl+Q

File Menu Commands

Fig 127. **File Menu**

- a. **Open:** Open a design document. Refer 'Supported File Formats' on page <u>239</u>.
- b. **Save As:** Save the design document in either of bmp, Jpeg, Pcx, Png, Psd, Psb Tiff or Tga format.
- c. **Close:** Close the active design document.
- d. **Load Print Settings:** Load Printer settings from the file for the active design document.
- e. **Save Print Settings:** Save Printer settings of the active design document to a file. Refer 'About PST Files' on page <u>240</u>.
- f. Save Print Settings As: Enables saving printer settings with another name. Refer 'About PST Files' on page <u>240</u>.
- g. Print: Print the active design document.
- h. **Print Preview:** Preview the active design document, with page layout etc..
- i. **Print Options:** Print settings for the active design document.
- j. **Print Setup:** Printer settings.
- k. Recent active windows: Last accessed design documents.
- I. Exit: Exit Print Pro.

Edit Menu Commands



Fig 128. Edit Menu

- a. **Undo / Redo:** Use this command to restore the change, when any filter is applied on the image.
- b. **Step Forward:** To get the next series of changes applied by filters on any image.
- c. **Step Backward:** To get the previous series of changes applied by filters on any image.

Image Menu Commands





- a. **Rotate 90 CW:** Rotate the image by 90 degrees in Clock Wise direction. A new document is created in this case.
- b. Rotate 90 CCW: Rotate the image by 90 degrees in Counter Clock Wise direction. A new document is created in this case.
- c. **Rotate 180:** Rotate the image by 180 degrees. A new document is created in this case.
- d. **Rotate...:** Rotate the image by user specified angle and options. A new document is created in this case.
- e. **Flip Horizontal:** Flip the image horizontally. A new document is created in this case.
- f. **Flip Vertical:** Flip the image vertically. A new document is created in this case.
- g. **Skew Horizontal:** Skew the image horizontally by desired degree. A new document is created in this case.
- h. **Skew Vertical:** Skew the image vertically by desired degree. A new document is created in this case.
- i. Add White highlight channel. Refer page <u>171</u>.
- j. Add White Underbase Choke. Refer page <u>172</u>.

k. Add Transparency channel. Refer page 175.

Adjustment Menu Commands

See 'Making Color Adjustments' on page 156.

Selection Menu Commands



Fig 130. Selection Menu

- a. Create/ Delete selection: To Create/ Delete the selection.
- b. Show / Hide selection: To Show / Hide the selection.
- c. Crop: Crop the selected portion as a new document.
- d. Transform Selection: Resize the selection.

Color Menu Commands

See 'Color Management Options' on page 29.

Queue Manager Menu Commands



Fig 131. Queue Manager Menu

- a. **Show/Hide Queue Manager:** To Show/ Hide the Queue Manager interface.
- b. Add The Active Document: To add the active document to the print queue.
- C. Add All Opened Documents: To add all the opened documents to the print queue.
- d. Load Job...: To load a job from the disk.
- e. Port Manager...: To access the port manager.
- f. **Map Port Name:** Opens the 'Map Port Name' dialog. For more details on the dialog refer page no. <u>62.</u>

Note See also Chapter on 'Printing' on page <u>47</u>.

Options Menu Commands



Fig 132. Options Menu

- Print preferences: These are the settings that are assigned by default to a job whose print settings are not set even once. See also 'Using Print Preferences' on page <u>231</u>.
- b. General Preferences: Settings for cache and scratch space. See also 'General Preferences' on page <u>10</u>.
- Queue Manager Preferences: See 'Print Queue Manager Preferences' on page <u>55</u>.
- Default Post script settings: See 'Default Post script settings' on page 233.
- e. Custom Printer Preferences: Check details on page 232.
- f. Change custom printer list:
- g. Ink Cost: Refer page 236 for more details.
- h. User default folder path: Refer page 235 for more details.

	Support for PDF and PS file formats is an optional feature that
Note	may or may not be available in your software depending upon
	the version you use.

View Menu Commands



Fig 133. View Menu

- a. Toolbar: Shows or hides the toolbar.
- b. Custom Print Toolbar: Shows or hides the Printer settings toolbar.
- c. Layout Job Transformation Toolbar: Shows or hides the Layout Job Transformation Toolbar. Refer page no. <u>121</u> for more details.

- d. Layout Job Adjustment Toolbar: Shows or hides the Layout Job Adjustment Toolbar. Refer page no. <u>123</u> for more details.
- e. Layout setting Toolbar: Shows or hides the Layout Setting Toolbar. Refer page no. <u>124</u> for more details.
- f. **Status Bar:** Shows or hides the status bar.
- g. Channel Palette:

Channel Palette	•	Hide
		Hide Channel Thumbnail

Fig 134. Channel Palette in View Menu

- Show/Hide the channel palette.
- Show/Hide the channel thumbnail view.
- h. Show/hide Tool Palette: See 'tool palette' on page 197.
- i. Show/hide Notepad: See 'Notepad' on page 216.
- j. Show/hide Info palette: See 'Info palette' on page 201.
- k. Show/hide Q Rip: See 'Q Rip' on page 229.
- Show/hide File browser: See 'file browser' on page <u>217</u>.
- m. Show/hide Passive Queue: See 'Passive Queue on page 218.
- n. **Zoom to Fit:** Zoom the active design to fit the window size that is containing it.
- o. **Zoom In:** Zoom in the active design.
- p. Zoom Out: Zoom out the active design.
- Image Info: Image related information. See also 'Image Info' on page <u>206</u>.
- r. Show Rulers: Show / Hide the rulers for the current document.
- s. Show Current Operation InfoTip: Show / Hide the current operation info tip. Refer 'Current Operation InfoTip' on page no. 209.
- t. Guides:

Guides	F		Lock Guides	 -	i
		\checkmark	Show Guides	 	ii
			Clear Guides		iii
			New Guide		iv

Fig 135. Guides in View Menu

- i. Lock Guides: Locks all the guides in the document.
- ii. Show Guides: Shows / Hides the guides in the document.
- iii. *Clear Guides:* Removes all the guideline(s) from the document. To clear an individual guideline, drag and drop the guideline over the ruler.
- iv. *New Guide:* Adds a new guide line at the specified position in the layout.

Orienta	tion	
• Hori	zontal	Vertical
Position	1.00	inch
ITL	ОК	Cance

Fig 136. Add New Guide Dialog

you can specify the position at which you want to add the new guideline along with the orientation of the guideline.

u. **Reset Toolbars:** Resets the position, visibility state and floating state of all toolbars.

Language Menu Commands

The Language menu offers the following commands, which enables you to run the application in different languages as per your choice:

Language				
	Chinese			
✓	English			

Fig 137. Language Menu

As shown in the above dialog, the 'Language menu' may offer several languages from which you can select any one in which you would prefer to run the Print Pro application.



Window Menu Commands





The Window menu offers the following commands, which enable you to arrange multiple views of multiple documents in the application window:

- a. **Close:** Close the current file in use.
- b. **Close All:** Close all the opened files.
- c. **Cascade:** Arranges windows in an overlapped fashion.
- d. Tile: Arranges windows in non-overlapped tiles.
- e. Arrange Icons: Arranges icons of minimized windows.
- f. **Window 1, 2...:** It shows the list of all the opened documents. You can go to any of the opened windows by clicking on it.

Help Menu Commands

(<u>H</u> elp	2
	Help Topics
	Print Pro Manual
	Print Pro Quick Start Printing Guide
	<u>A</u> bout Print Pro

Fig 139. Help Menu

The Help menu offers the following commands, which provide you assistance with this application:

- Help Topics: Offers you an index to topics on which you can get help.
- Print Pro Manual: Opens the Print Pro user manual.
- **About Print Pro...:** Displays the copyright notice and version number of this application.

Toolbar

Toolbar provides shortcuts to the most commonly used menu commands.





- a. **Open** a design document.
- b. **Print** the active design document.
- c. Printer settings.
- d. Print options for the active design document. See also chapter on 'Printing' on page <u>47</u>.
- e. **Preview** the active design document, with page layout etc. See also chapter on 'Printing' on page <u>47</u>.
- f. Image related information. See also 'Image Info' on page 206.
- g. Settings for cache and scratch space. See also 'General Preferences' on page <u>10</u>.
- h. Color management settings. See also chapter on 'Color Management' on page <u>20</u>.
- i. **Spot color gain.** See 'Specifying Spot Color Gain' on page **24**.
- j. Click here to set the **color** in which you want to view the **white** highlight channel data.
- k. **Open or close** the **Layout** session interface.
- L About Print Pro.
- m. Context sensitive help.
- n. Exit Print Pro.

Printer Settings Toolbar



Fig 141.

Custom Print Toolbar

- a. Choke.
- b. Underbase Choke.
- c. White Highlight.
- d. Color Strength.

'a', 'b', 'c' and 'd' options are strength related options. Color strength is used to control the amount of application of each individual option. 0% means no strength and 100% means full strength. In past whatever you may have created and used with the software was at full strength i.e. 100%. Now you could control the application of the amount of the feature. For example if you use the Choke Strength to be 50% then the choking will be applied by 50% amount of the gray value in the corresponding channel. Similarly, if you use the Underbase Strength to be 50%, the underbase that will be printed will be half the strength that otherwise would be printed when this value is 100%.

- e. Highlight Generator: It can be any of the four available options.
 - i. **None:** If you don't want to apply 'Highlight Generator' feature, then select this option.
 - ii. **Channel Based:** Highlight option will work as usual using the channels. Fuzziness value is disabled and ignored.
 - iii. On the fly: The RIP will generate the white highlight on the fly during ripping using the fuzziness value that you supply there. This will ignore any highlight channel set otherwise in the channel

palette. The fuzziness value works similar to the highlight channel creation option.

- iv. **Combine:** The RIP will generate the white highlight on the fly during ripping using the fuzziness value that you supply there and will combine it with the highlight channels set in the channel palette. The fuzziness value works similar to the highlight channel creation option.
- f. **Highlight Fuzziness:** The fuzziness value works similar to the highlight channel creation options. This will be disabled in the case of Channel based Highlight generator.
- g. **Color booster:** Adjust the percentage to increase the amount of color depth.
- h. **Horizontal Position:** specifies the offset with which the page will be printed.
- i. **Vertical Position:** specifies the offset with which the page will be printed.
- j. Pallet Size: specifies the currently selected pallet size.
- k. Environment: Environment name shows the currently loaded environment settings. As described earlier you can save the snap shot of a print setup as print environment file. Default settings of a printer are always loaded as "Custom".
- Manage env: Manage env button enables a user to load to associate a generic name with an environment file. The user can then select the name associated from the name list to load the environment settings saved in the environment file associated with the selected name. Pressing the button displays "Manage Environment" dialog. Refer page <u>68</u> for more details.
- m. Manage env Group: Manage env Group button enables a user to manage the environment file into group. Pressing the button displays the 'Manage Environment Group' dialog. Refer page 71 for more details.

Tool Palette



Fig 142. Tool Palette

- a. **Eye Dropper Tool:** The eyedropper tool samples color to designate a new foreground or background color.
- b. **Selection tool:** Use this tool to create a selection (Use *<Shift>* + *<Click>* to open 'Creating Selection' dialog).
- c. **Pan tool:** Use this tool to navigate through the design.
- d. **Zoom tool:** Zoom in or out the design. Press *<Alt>* key along with the mouse click to zoom out.

Channel Palette



Fig 143. Channel Palette

- a. Channel Information.
- b. Channel Visibility.
- c. Channel Thumbnail.
- d. Channel Name.
- e. Channel Type*.
- f. Channel Color.

- g. **Right click Context Menu:** It is the context menu obtained on right clicking on any of the channels of the image. Using this menu you can specify the channel type. The available channel types are as follows:
 - **Default:** The channel will act same as that in the original image without any modification done for the printing.
 - *Transparency:* The channel will act as a transparent channel.
 - *White highlight:* The channel will be used for printing the white highlight.
 - *White Underbase:* The channel will be used for printing the white underbase.
 - *White Underbase Choke:* The channel will be used for printing the white underbase choke.
 - *White Underbase Choke Mask:* The channel will be used for printing the white underbase choke mask.
 - Modify channel options: Choose this option to modify the selected channel related options. You can specify the solidity (strength) of the selected channel using this dialog.

Channel Options	×
 Name: green	
KITL	w N



- a. Name: Name of the channel you clicked.
- b. Solidity: Select the solidity (or, 'Channel fill opacity' or simply 'Opacity') that you wish to provide to the selected channel. If you wish to convert a particular spot(S)/ transparency(T) channel into a direct firing channel(D), then channel solidity (opacity) must be equal to '0 (zero)'. A layer's opacity determines to what degree it obscures or reveals the

layer beneath it. A layer with 1% opacity appears nearly transparent, while one with 100% opacity appears completely opaque.

* Legends: A- Alpha, + - Additive (e.g. RGB), - - Subtractive (e.g. CMYK), E - Encoded (e.g. LAB), T - Transparent, H - White Highlight, W - White Underbase , C - White Underbase Choke, M - White Underbase choke mask, S - Spot.

Info Palette

Info palette lets you know the color value of the pixel below the mouse pointer when the mouse hovers over the image. The info palette also shows a visual color sample of that pixel color and much more. Info palette lets you compare the color value of a pixel in two different color spaces simultaneously.

Info palette is capable of providing all of the following information:

- The numeric value (Grayscale, RGB, HSB, CMYK, Lab and LCH) of the color beneath the mouse pointer in two different color spaces simultaneously.
- The opacity value for the pixel below the pointer.
- The x and y-co-ordinates (in inch/cm/mm/points/pixels) of the pointer.
- The width, height and the anchor point, when a region of the image is selected using the selection tool. You can view this information in all basic units (inch, cm, mm, points and pixels).

When you use any color adjustment dialog (for example, Curves), the Info palette displays the before and after color values of the pixels beneath the pointer.

You can view the info palette by choosing the command View > Show Info from the menu.

You can use the info palette to see the color value of pixels of the image under the pointer. It also shows the width and height of the selected portion in units that are being used in the rulers.





The info palette is shown above along with the details of the information available from the info palette.

- a. Tracks actual color value.
- b. Tracks user chosen color value.
- c. Shows a **visual sample** of the pixel color.
- d. Tracks cursor co-ordinates below mouse pointer.
- e. Tracks selection width and height.
- f. Shows **anchor position** of the selected area.

By default the top-left cell shows the color value in the color mode of the image and the top-right cell displays in Lab.

Info palette after applying color adjustments filters:

The info palette lets you know the current pixel color as well as the pixel color before applying filters (if applied) simultaneously. A sample palette window after making color adjustments is shown below.

Info	▼ _ ×	Info	▼ _ ×
/ 🍄 Info		/ 🌾 Info	
R: 179 G: 116 B: 49	L: 55 a: 22 b: 46	R: 179/49 G: 116/179 B: 49/107	L: 55/65 a: 22/-48 b: 46/27
	+ X:8.931 Y:3.972		+ X:8.931 Y:3.972
₩:2.764 H:1.625	Γ, X: Υ:	₩ :2.764 H :1.625	Γ, X: Υ:

Fig 146. Info Palette after Applying the Filters

The color sample patch is divided into two parts. The left part of the sample box shows the original color and the right part shows the color after the adjustment. The numeric values also denote the color value in "original/current" format.

Using different options in info palette:

a. You could change the **color space** in which the numeric values of the color are displayed at any point of time using the menu provided with these cells. The menu will be presented to you when you press the *t* button in the cells denoting the color values.



Fig 147. Info Palette with Menu

The menu has the items listed below:

- 1. Actual color: This selection will show the color value in the current color mode of the image.
- 2. **Different color spaces:** You are also given the option to view the color value in grayscale, RGB, HSB, CMYK, Lab and LCH mode.
- 3. **Opacity:** You can select this option if you want to view the opacity of the pixel below the pointer.
- b. You will see a tick mark besides the option using which the color value is being viewed currently. You can change the **units** in which you are viewing the mouse co-ordinates, the width and height of selection and the anchor point of the selection. You need to click on the button provided in their respective cells to change the units. You are provided the options to view them in inches, cm, mm, points and pixels. You can click on the buttons to view them in the window to view the units menu. Changing the units using any of these buttons will change the units in all the cells.


Fig 148. Info Palette with Unit Menu

Other Features

Let's take a closer look at the other features that provide useful support to rest of the application components.

Image Info

File Name:	F:\Test Images\35.jpg
File Type:	JPEG File Interchange Format (JPG)
Dimensions :	Width = 14.222, Height = 10.667 inch
Res(X x Y) :	XRes = 72.000, YRes = 72.000 DPI
Mode:	RGB



The information about the design selected for printing can be obtained collectively from the Image information dialog which can be accessed from *View > Image Info*. This information includes file name along with the path, file type, dimensions of the design, design resolution and design mode.

Creating Selection



Fig 150. Selection Tool

- a. Style: You can select either the normal style in which the selection box is of any size and the other style is 'Fixed' style in which the selection rectangle is of fixed size. Another one is 'Fixed Aspect Ratio' style in which you have to specify the aspect ration in X and Y direction and selection rectangle will increase as per that aspect ratio.
- b. **Height** and **Width** of the selection rectangle when the fixed style is selected and Aspect ratio in case of 'Fixed aspect ratio' style.
- c. **Unit:** It specifies the unit of measurement.



Color Picker

You can use the Color Picker to select the foreground or background color by choosing from a color spectrum or by defining colors numerically.





- a. **Currently selected color:** It indicates the currently selected color. You can drag the slider anywhere within the colored area.
- b. **Slider:** You can use this slider to move within the range of the selected color component in 'e'.
- c. Currently selected color: It indicates the color selected in `a'.
- d. **Previously selected color:** This box indicates the previous color which is to be replaced with the selected color.
- e. Numerically select the color based on the *HSV, Lab, RGB* and *CMYK* color spaces.

Current Operation InfoTip

When performing various operations using mouse in Print Pro, a small window as shown below appears on the screen and remains nearby the mouse till the operation is completed. This is called Current Operation InfoTip, as it gives the information about the parameters related to the currently ongoing mouse operation.



Fig 152. Current Operation InfoTip Window

To enable the infotip, go to *View > Show Current Operation InfoTip*.

A typical infotip window is divided into blocks in rows and columns. Each block has the following components.

- a. **Icon:** This indicates value of which parameter of the operation is shown in the block. Each icon is self explanatory and can be easily understood in regards to the operation being performed.
- b. **Value:** This indicates the exact value of the parameter indicates by the icon shown on the left side.
- c. **Unit:** This indicates the unit of the value. It's same as the currently selected unit in the image.

Rotate

Rotation of the image by a user specified angle and background color. A new document is created in this case.

A <u>ng</u> le —		6 44
310	degree(s)	
Backgro	und color	
•		sparent
Lorest.	OV.	Paulat

Fig 153. Rotate Parameters

You can rotate the image either clockwise (select CW) or Counter clockwise (select CCW).

You can skew the image either horizontally or vertically by desired degree. A new document is created in this case also.

File Saving Options

Bmp Options



Fig 154. BMP Save Option Dialog

While saving the file in the BMP format, you can select whether the file should be compressed or not.

Tiff Options



Fig 155. Tiff Save Option Dialog

Many file formats use compression to reduce the file size of images. You can select any of the given compression scheme while saving the file in ".tiff" or ".tif" format.

Jpeg Options



Fig 156. Jpeg Save Option Dialog

- a. **Image Quality:** To specify the image quality, choose an option from this menu.
- b. Format options: You can select any of the following format options:
 - Select Baseline ("Standard") to use a format recognized by most Web browsers.
 - 2. Select **Baseline Optimized** for optimized color and a slightly smaller file size.
 - 3. *Progressive* to display a series of increasingly detailed scans (you specify how many) as the image downloads.

File Opening Options

PDF Properties



Fig 157. PDF Properties Dialog

The dialog shown above will appear while loading the PDF file. You can set the following properties.

- a. Resolution Property: This section will let you set at what resolution you want to load the file. You can select any of the given color modes i.e. select either RGB or CMYK or Gray or Lab. Check the 'Transparent document' option for the transparency while loading the PDF file.
- b. **Rasterization Property:** This displays the total number of PDF pages while loading the selected document. Either you can load all the pages or pages of your choice.
- c. **Smoothening Property:** Specify whether you want to smooth texts, line-arts or images.
- d. This gives the **preview** of the file to be loaded.
- e. Enter the **page number** you want to see in the preview.
- f. Page Matrix Property: Specify the option how you want multipage document to be opened. 'As separate docs'-each page as separate document or 'As page matrix' - open all pages in single document as page matrix.

Post Script Properties

The dialog shown in below will appear while loading the PS or EPS file. You can set the following properties.

- a. Resolution Property: This section will let you set at what resolution you want to load the file. You can select any one of the given color modes i.e. select either of RGB or CMYK or Gray or Lab. Check the 'Transparent doc' option for the transparency while loading the Post script file. Checking 'Pages to channels' option will divide the pages into channels.
- b. Page Matrix Property: Specify the option how you want multipage document to be opened. 'As separate docs'-each page as separate document or 'As page matrix' - open all pages in single document as page matrix. This is disabling if you checked 'Pages to channels' option.
- c. **Paper Size Property:** This section will let you change the document size. You can customize the document size. Enter the width and height of the document in points.

- d. **Rasterization Property:** This displays the total number of post script pages while loading the selected document. You can load all the pages or selected pages of your choice.
- e. This gives the **preview** of the file to be loaded.
- f. **Smoothening Property:** Specify whether you want smoothen texts, line-arts or images.

Resolution		-Multipage Option
X (in dpi) 300.000	⊻ (in dpi) 300.000	As separate Docs
Use square pixel	Mode: RGB 👻	Page matrix:
Transparent doc	Pages to channels	Number pages: 1
Page size		Columns: 1
Use Document size	Width (in point) 1000	Rows: 1
Custom 💌	Height (in point) 1000	
Io raster		PA9696'
Total pages: 1	M All pages	
Pages: 1	(eg. 1, 2, 6-10)	
Smooth		1 of 1 "1"
✓ Texts	Line-arts Images	

Fig 158. Post Script Properties Dialog

Note Support for **PDF** and **PS** file formats is an optional feature that may or may not be available in your software depending upon the version you use.

Notepad





Notepad can be used to write comments related to a design, and these comments are automatically saved in the PST file on close of the image next time these comments will be automatically loaded.

File Browser



Fig 160. File Browser

a. List of the files in a folder that can either be opened inside Print Pro or can be imported directly into the page layout by drag and drop. Files shown in the bold letters indicate that a corresponding .PST files exists. .PST for 106.jpg, 108.jpg and 11.jpg.

Passive Queue

Passive Queue is a collection of folders having images, which needs to be processed by the Print Pro. Each folder is linked with the unique member of Passive Queue. These members are arranged group wise.

Each folder is monitored by Passive Queue for following operations: new image file addition, image file deletion, renaming of image file. You can change these settings that either you want to monitor specified folder of passive queue or not.

Each member of Passive Queue is associated with single print environment. Images from the associated folder of this member will be opened with this related print environment. Passive Queue manages the state of images within the folder, whether it has been processed by the Print Pro or not.

🦳 Passive Queue 🛛 🔻 🗕 🗙	
Passive Queue	
None	a
image test_1.psd	, r
layers error_1.psd	
🛱 📲 Group 1	
🚊 📇 Member3	c
🛨 🖅 🖽 Member5	c
🚊 🛱 Group 3	
⊟ [] Member4	
🛋 Aadhar card_1.psd	6
🔤 🔂 all test.pdf	
🗄 🖷 Group 2	f
👩 i 🔤 🤤	
	ļ
g h ⁱ	
Fig 161. Passive Queue	

- a. This is a group of Passive Queue members. It has been displayed in normal text as it is in expanded state and displaying all of the members within the group.
- b. These are the images within the folder associated with Passive Queue member. These files can either be opened by the Print Pro or can be imported directly into the page layout by drag and drop. It has been displayed in bold text as this images are still not processed i.e. not opened within the Print Pro.

Right clicking on the image file name in passive queue will display the menu as shown below



Fig 162. Image file context menu

- Open file: it allows a user to open selected image file directly to the Print Pro. File will be opened with the environment associated with related Passive Queue member as default settings.
- **Delete file:** It allows a user to delete selected image file directly from the Print Pro. File will be removed from Disk. User can also use <Delete> key to use this option.
- **Move to processed folder:** It allows a user to move selected image file within the sub folder of related folder which is named as Processed.

Note Whenever user Add, remove, delete or rename the image file within the folder associated with Passive Queue member being scanned then this image file list is automatically updated by the Print Pro. For the folders whose associated Passive Queue member is not being scanned by the Print Pro then user should have to update the image file list manually by clicking the "Refresh Passive Queue" button.

c. This is the Passive Queue member within the associated group. It has been displayed in normal text as it is in expanded state and displaying all of the images within the folder associated to it.

Right clicking on member will display the menu,

Open all files from selected folder Delete all files from selected folder Move all files to processed folder

Fig 163. Passive Queue member context menu

- Open all files from selected folder: It allows a user to open all the image files within the associated folders of selected Passive Queue members directly to the Print Pro. Files will be opened with the environment associated with related Passive Queue member as default settings.
- Delete all files from selected folder: It allows a user to delete all the image files within the associated folders of selected Passive Queue members directly from the Print Pro. Files will be removed from Disk. User can also use <Delete> key to use this option.
- Move all files to processed folder: It allows a user to move all the image files within the associated folders of selected Passive Queue members to the sub folder of related folder which is named as Processed.
- d. This is the Passive Queue member within the associated group. It has been displayed in bold text indicating that some of the images within the linked folder are not yet processed by the Print Pro and it is not showing the list of images within the associated folder.
- e. This is the image within the folder associated with Passive Queue member. It has been displayed in normal text as this image is processed i.e. opened within the Print Pro.

Whenever any image file, from the passive queue member

associated folder, being opened within the Print Pro or being loaded into the Queue-manager, then image file name is displayed into the normal text indicating that the file is now processed by the Print Pro.

- f. This is the Passive Queue member group. It has been displayed in bold text indicating that some of the members do have images which are not yet processed by the Print Pro and it is not showing the list of members within the group.
- g. Refresh Passive Queue: Click this button to refresh the folder contents which are not being monitored by Passive Queue. This helps the user to synchronize with latest contents of the folder for which contents are not being synchronized automatically by Passive Queue.
- h. Manage Passive Queue members: This button enables a user to manage "Passive Queue members" data through a dialog as explained on page <u>222</u>.
- Manage Passive Queue Group members: This button enables a user to "Manage Passive Queue member Group" through a dialog as explained on page <u>224</u>.



Manage Passive Queue members

Fig 164. Manage Passive Queue members

- a. **Name:** This denotes the name associated with the Passive Queue member. It can be edited by first selecting the desired name and then clicking on the selected name.
- b. **Folder path**: This is the path of the folder with which you wish to associate the Passive Queue member. This field can be modified in the same way as the Passive Queue member name can be.
- c. Passive Queue member associated folder path Edit box.
- d. Passive Queue member associated folder browse button.
- e. **Environment:** This is the environment which you wish to associate to the Passive Queue member. This field can be modified in the same way as the Passive Queue member name can be. It shows the all available environments within the Print Pro as shown below. User can also load the custom environments by using the browse button.
- f. **Passive Queue member group:** This is the name of the group which particular Passive Queue member belongs. You can change the Passive

Queue member group by clicking on the group name. It shows all the available group in the drop-down list as shown in the figure below.

g. **Scanning state:** This is the state of the Passive Queue member whether related folder is being scanned by the Print Pro or not. You can change its state by clicking on the related scanning state.

Note	If the folder is being scanned by the Print Pro then image file list within the folder, associated with the member, is always synchronized with the actual folder on the disk. For members which are not being scanned by the Print Pro, user should use
	Refresh Passive Queue button as shown in <u>Fig 161</u> to have the latest file list of the folder.

- h. Add Passive Queue member: Allows you to add a new Passive Queue member.
- i. **Delete Passive Queue member:** Allows you to delete selected entries from the list.

Right clicking in the list shown in the dialog of <u>Fig 161</u> will also allows addition and deletion of entries using context menu shown below.

<u>A</u>dd Passive Queue member <u>D</u>elete Passive Queue member



Manage Passive Queue members group



- a. Name of the group.
- b. Passive Queue member name present into the group.
- c. Associated group list.
- d. Press this button to move the Passive Queue member into the selected group item into the associated list. This button enabled only when appropriate Passive Queue member is selected in 'Passive Queue member list' and appropriate group is selected in the 'Associated groups list'.
- e. Add new group. You can use <Insert> key to add a new group.
- f. Remove the selected group. Passive Queue members presents into the group which is going to delete are moved into the 'None' group. By using <Delete> key you can delete the selected group.

Right clicking in the Passive Queue member group item will display the following menu which allows you to add, delete, rename group item and transfer Passive Queue member into new associated group.

Add Group
Delete Group
Rename Group
Transfer Passive Queue member to group 'Group 3'

Note	You can re-group the Passive Queue member by using the
	<ctrl> + dragging the item and dropping on to the new group.</ctrl>

	You can not delete the item 'None' from Passive Queue member
Note	list.

Job addition in layout from Passive Queue

User can add jobs from Passive Queue management window as shown in Fig. 161 window to the layout by dragging the image files from the list and dropping on the layout or load the files into the Print Pro by normal file opening procedure and then adding the loaded image file into the layout.

Since image file loaded from the folder associated with passive queue does have the associated default environment settings, User can only add the images having same environment as of layout, or he/she has to use the layout environment for the loaded images. This condition is described below.

In this case suppose user have created a layout for black media for some printer as shown below and Passive Queue member named as 'Member 4' is associated with the environment of white media of same printer.





Now if user tries to add the image named 'Embedded profile_1.psd' to the layout then Print Pro will show the message indicating that both the environments are not same (one is of image loaded from Passive Queue and second is of platen of layout) and asks for the user confirmation to use platen environment for the loaded image else image cannot be loaded into the respected platen as shown below.



Environment association with image file

Suppose Passive Queue member named '*Member-2'* is associated with Environment of Black media for some printer. Now the associated folder of this member, which is '*D*:\temp\temp2\', contains an image file named '*image test_1.psd'*.

If this image is opened in Print Pro (by normal file opening procedure or from passive queue directly), then the default environment of this opened image will be of '*Black media*' of that printer (Environment associated with the Passive Queue member).

🦰 Passive Queue 🛛 💌 🗕 🗙
Passive Queue
NoneNone Member2 Folder path: C:\00 To Del\temp2 Environment: Member2 Folder path: C:\00 To Del\temp2 Environment: Member3 Child Nodes: 2 Member5 Aadhar card_1.psd Member4 Aadhar card_1.psd Member4 Group 3 Group 2 Member 2 Child Nodes: 2 Member 4 Member 4 Membe
· •



Print Setup		Passive Queue	
Print enviror	ment Summary	E-GNone	
- Enviror Evox	nent sk White Media Evox mtx8 Prope	Binage Binag	e test_1.psd error_1.psd Ided profile 1.psd
Medi Size :	Max Size (23.63 x 31.50 inch)	Member5 Member5 Adha	r card_1.psd
Port	v. 1300	□	st, pui

Fig 168. Environment association with image file

Quick RIP

	Q Rip (Print Options)						
	/ 🖪 Q Rip (Print Options)						
(Size (in inch)						
	₩ 11.11111 🚔 99.99996 🚔 %						
	ⓒ 🕂 🛨 8.33333 🚔 99.99996 🚔 %						
	° 🛄 🔽 👸						
a	Resampling Bicubic						
	Position (in inch)						
	X: 0.000						
	Y: 0.000						
	Mirror / Invert Image						
	E Mirror Image Invertimage						
	KITL 🗳 🎒						
	b c						

Fig 169. Quick RIP

- a. **Q Rip Settings:** Commonly used settings for a print job including its size, position in page layout, mirroring the image about the vertical axis and inverting the colors of the image in **the print. See also 'Print Settings' on page 111**.
- b. **Print Setup:** Access to printer setup.
- c. **Print:** Print the active document / job.

Using Memory and Scratch Space Settings



Fig 170. Memory and Scratch Space Adjustment Dialog

To know the available options in details please refer 'General Preferences' on page no. **10**.

Using Print Preferences

Print buffer size	Unit Inch 💌
- Small 💌	Use application wide same unit
Size ↔ 0.10000 ÷ inch 10000 inch	Position Top Left Corner Paper/film settings Mirror Image Invert Image
•	

Fig 171. Print Preferences

- a. **Print Buffer Size:** The amount of design data transferred to the printer in single shift (W x H = Size x Size).
- b. Standard Prepress values: These values are to be used when loading the file and no previous settings are present. For more details 'Print Options'.
- c. Use application wide same unit: Check this box to preserve same unit for whole application.

These default settings are used for the designs that are opened for the first time or the one's having no equivalent .PST files. See also 'About PST files' on page 240.

Using Custom Print Preferences





- a. Specify the segment size checkbox: Check this button to specify the segment size. This option is not available in Microsoft® Windows® 98 & Microsoft® Windows® ME systems.
- b. Segment size (in MB): Maximum size for the each segment which you want to allow. In the Windows® 98 & ME systems, the maximum size allowed for file is 2GB. If you are saving the kprn file which is more than 2GB & if your operating system is Windows® 98 & ME, then that kprn file will not be saved. To overcome this problem we are allowing you to specify the maximum size of each segment so that your kprn file will be saved & gets loaded properly. By default we are keeping the segment size as 2GB for Windows® 98 & ME systems.

Using Default Post-Script Settings



Fig 173. Default Post-Script Properties Dialog

- a. Enter the **mode** of the image for printing.
- b. Check whether the pages to be **converted to channels** or not.
- c. Check whether the document open as transparent document or not.
- d. Check this to get the **same size** as in document over the fixed size.

- e. Select the **size of the media.** You can customize the size of the media **by selecting 'Custom' from the list of the media given.**
- f. Enter the **height** and **width** of the media if you select media type is 'Custom'.
- g. Enter **resolution** to be used.
- h. Select whether you want to print the '1st page only' or all pages or every time you want to get notified that which page is to be printed next.
- i. Select the items to be printed **smoothly.**
- j. Browse to search for fonts in additional folders.
- k. Specify the option how you want multipage document to be opened. 'As separate docs'-each page as separate document or 'As page matrix' open all pages in single document as page matrix.



Using User Default Folder Path

The dialog used for defining user default folder path settings can be accessed using the menu command *Options > User default folder path...*.



Fig 174. User Default Folder Path Dialog

- a. **Print environment files (.env):** Specify the print environment files default path. You can change this file path also by using the browse button.
- b. **Printer profiles (.kcm, .icm, .icc):** Specify the printer profiles files default path. You can change this file path also by using the browse button.
- c. **Linearization / Transfer function files (.trc):** Specify the printer trc files default path. You can change this file path also by using the browse button.
- d. **Images files:** Specify the images files default path. You can change this file path also by using the browse button.



Ink Cost

	Cost	4	F	Name	Cost	Туре	White	Black	Color	Dark
Cyan	100.00		1	Pretreat	5.00	Per Page	Γ	~	~	~
Magenta	100.00	E								
Yellow	100.00									
Black	100.00									
White	100.00									
/arnish	100.00									



a. Ink cost per litre: Ink cost per litre for the individual ink. If any ink present other than the CMYK, White and Clear then set cost into the 'Other'. You can enter or modify the cost of any ink by double clicking on its corresponding cell.

Use the dialog shown above to specify the ink **cost per liter** of ink. This cost is used to compute the cost of the print.

b. **Additional Cost**: Add additional cost which has occurred during completion of the printing process of the single job. (e.g. Pre treatment, Maintenance etc.).

To add additional cost provide following input

- **Name**: Specify meaning full name for the additional cost so that it will be easy to understand the cost.
- **Cost**: Specify ink cost in respective currency.
- **Type:** Specifies on what bases of measure cost needs to be calculated. Select from the available options.
 - i. Per page

- ii. Per Area(Sq. mm)
- iii. Per Area(Sq. cm)
- iv. Per Area(Sq. inch)
- c. White, Black, Color and Dark: Check indicates the printing background for which this cost is applicable.
- d. Add New Additional Cost: Click this to add additional cost field.
- e. **Remove Selected Additional Cost:** Click this to remove selected additional cost entry.
- f. Load: Click this to load ink cost settings from (.kic) file.
- g. Save: Click this to save ink cost settings in to the file.

The currency for the cost is taken from the regional settings. Regional settings for modifying the currency can be accessed from Control Panel. The path to change the currency depends upon the operating system.

- For Windows-7: Control Panel > Regional & Language. Press the 'Additional Settings...' button, go to 'currency' tab and change the currency symbol as desired.
- For Windows XP/Vista: Control Panel > Regional & Language Options
 > press the 'Customize this format' button, Go to 'currency' tab and change the currency symbol as desired
- For Windows 95, 98, ME and 2000: Control Panel > Regional Options > Go to 'currency' tab and change the currency symbol as desired.

Cost of the print is available for viewing in the "Print Queue" as shown in Fig <u>176</u>. You can view these details after the job is saved, ripped or printed. Following are the details displayed.

- 1. Individual ink coverage (Optional feature).
- 2. Ink Cost (Optional feature).
- 3. Additional cost(Optional feature).
- 4. **Total cost**(*Optional feature*).

This cost analysis is for single copy irrespective of the total number of copies entered in queue manager. However this does include the number of passes of underbase layer, color layer, and white highlight layer if any.



Fig 176. Ink Coverage & Cost of the Print in the 'Print Queue'

Note This dialog (*"Ink Cost"*) is marked as the Optional feature; so it may or may not be present in the basic version of the software.

Supported Image File Formats

Print Pro supports only raster file formats. The formats recognized by Print Pro are as follows.

- 1. **BMP:** It doesn't support files with Jpeg and ICC extensions.
- 2. GIF: Version 89a.
- 3. JPG: Version 1.02. It does not support YcbCr, YCCk color spaces.
- 4. PCX: Version 3.0.
- 5. **PNG:** It does not support 2 bit per pixel PNG.
- 6. **TGA:** Version 2.0.
- 7. **TIF:** It doesn't support files with Jpeg and Zip compression.
- 8. **PSD**.
- 9. **PSB**.

Other File Formats

- 1. *.kcm : Kothari Color Management files
- 2. *.env : Kothari Environment files
- 3. *.kpa : Kothari Primary Adjustment files
- 4. *.pst : Printer settings files
- 5. *.trc : Tone Reproduction Curve files
- 6. *.lin: Linearization files
- 7. *.fcm : Channel Mixer files
- 8. *.fsc : Selective Color files
- 9. *.fhs : Hue Saturation files
- 10. *.flv : Level files
- 11. *.fcv : Curve files
- 12. *.fcb : Color Balance files
- 13. *.icc, *.icw : ICC Color Profiles
- 14. *.prn, *.kprn : File format to save ripped data
- 15. *.klt : Kothari Layout Template
- 16. *.kic : Kothari Ink cost settings
- 1. *.kpm Kothari Port Mapping files.
- 17. *.kie Kothari Import Export files.

Note Supported file formats will depend on the software version you use and vary accordingly.

About PST Files

PST is Print Pro's file format for storing the print options that you may specify for the document in Print Pro. Since none of the image file formats mentioned above supports the features offered by Print Pro, therefore Print Pro makes a file with the same path, name and .PST extension when you close the design. Next time when you open the same design Print Pro will read these options automatically, so as you don't have to remember and reenter those options.
Productivity Features

Print Pro's user interface has been designed to boost your productivity.

General Patterns

Commonly needed tasks are either accessible through right button click 'List of commands' or keyboard shortcuts.

Shortcuts

The 'Application Window' provides the following keyboard shortcuts,

- **Open :** <Ctrl> + <O>
- **Print :** <Ctrl> + <P>
- Print Preview : <F9>
- Print Options : <Ctrl> + <T>
- Print Setup : <Ctrl> + <Shift> + <P>
- General Preferences : <Ctrl> + <K>
- Color Management : <Ctrl> + <Shift> + <K>
- Spot Color Gain : <Ctrl> + <G>
- Image Info : <Ctrl> + <Shift> + <l>
- **Zoom In :** <Ctrl> + <+>
- **Zoom Out :** <Ctrl> + <->
- **Help :** <F1>
- Context Sensitive Help : <Shift> + <F1>
- Next Pane : <Ctrl> + <F6>
- Previous Pane : <Shift> + <Ctrl> + <F6>

The 'Adjustment Interface' provides the following keyboard shortcuts,

- Levels : <Ctrl>+<E>
- Auto Levels : <Shift>+<Ctrl>+<E>
- Auto Contrast : <Alt>+<Shift>+<Ctrl>+<E>
- **Curves :** <Ctrl>+<Shift>+<M>
- Color Balance : <Ctrl>+
- Hue / Saturation : <Ctrl>+<U>
- **Desaturate :** <Shift>+<Ctrl>+<U>

The 'Print Preview Interface' provides the following keyboard shortcuts,

- **Print :** <Ctrl> + <P >
- Print Setup : <Ctrl> + <Shift> + <P>
- Print Options : <Ctrl> + <T>
- View Next Page : <Ctrl> + <PgDn>
- View Previous Page : <Ctrl> + <PgUp>
- View One Page : <Ctrl> + <1>
- View Two Pages : <Ctrl> + <2>
- **Zoom In :** <Ctrl> + <+>
- **Zoom Out :** <Ctrl> + <->
- Close Print Preview : < Esc>

The "Edit Menu" provides the following keyboard shortcuts,

- **Undo :** <Ctrl> + <Z>
- Step Forward : <Shift> + <Ctrl> + <Z>
- Step Backward : <Alt> + <Ctrl> + <Z>

Right click 'List of Commands'

For Application Window

Zoom to fit	
Zoom <u>I</u> n	Ctrl++
Zoom <u>O</u> ut	Ctrl+-
Image Info	Ctrl+Shift+I
Print Preview	F9
<u>P</u> rint	Ctrl+P
Load Printer Settings	
Save Printer Settings	



For Print Preview

Zoom <u>I</u> n	Ctrl++
Zoom <u>O</u> ut	Ctrl+-
Background Color	
Print Options	Ctrl+T
Print Setup	Ctrl+Shift+P
<u>P</u> rint	Ctrl+P

Fig 178. Right Click Options Available in Print Preview Interface

Others

- 1. Whenever you need to change units, right click option to change the units is available.
- In every value edit box along with a spin control, values can be incremented or decremented by using *<Up>* and *<Down>* keys respectively.

Common messages and trouble-shooting

Messages

Printing Related

"Print settings have changed. Save new settings?"

Print Pro will ask you this question before closing a document, if it finds print options for this document has changed. Upon confirmation it saves the modified print options in a file on the disk with name same as that of the document but with the extension PST.

"There is nothing to print. Please make a selection for printing."

If there is no job selected for printing Print Pro will issue this message. It is possible that you may have forgotten to select the job that you want to print.

"There are no channels visible in the document. So the document will be ${\it blank.}''$

Make at-least one channel visible by selecting it on the channel palette. This message generally appears when no channel is visible and user is trying to print a composite/color image.

"Failed to acquire printer. Check the printer availability."

Print Pro issues this message when it fails to get handle to the printer driver. There may be no printer driver installed on the system. If so, install the driver for the printer you want to work with. If driver is already installed, then restart the system.

"Not a valid media Info"

TRC and printer profiles as specified in the media definition are missing.

"Ink Type not present"

Ink type for the given media type is not present. Remedy is to reinstall the software.

"Media Type not present"

Current selected media type definition cannot be found. Remedy is to reinstall the software.

"Loaded Env file <name> is empty" "Environment file <name> is damaged"

Currently loaded environment file is empty/ damaged. Load correct/different environment file.

"Loaded Kprn file <name> is empty" "Kprn file <name> is damaged"

'.Kprn' file contains the ripped data. Currently loaded ripped file is empty/ damaged. Load correct/different ripped file.

"Error in RTL Writer" "Custom writer has performed an illegal operation" "CustomPrint has performed an illegal operation"

Error occurred while converting the data to the printer format. We recommend you to save all the data and restart your computer.

"Error in writing printer data"

There was some error while writing the ripped data to the temporary file. We recommend you to increase the free disk space and restart the job.

"Error in transforming image data"

There was some error while converting the given image data into the desired mode. We recommend you to save all the data and restart your computer.

"The margins overlap or they are off the paper. Enter a different margin size."

Margins of the paper are overlapping i.e. very less effective page size is remaining for printing. So either increase the page size or decrease the margin.

"White base is present in more slots than allowed."

The number of ink slots assigned to the white under base ink is more than the maximum permissible slots for the white under base. The maximum value is the difference between the total ink slots in the printer and

"Selected port is not a valid port name." "Default printer is not found" "Error in starting the print job." "Cannot read from the Spot Gain file. Using default value instead. Choose the appropriate setup using the Spot gain setup dialog."

When the spot gain file is corrupted for some reason the default gain file is utilized. This message conveys the same.

"Too small page size to hold a single calibration bar."

When the calibration bar cannot be printed within a single selected page size.

"Error in generating patches."

When some error occurs while creating test patches for printing.

"The margins overlap or they are off the paper. Enter a different margin size."

The margins are not valid for the selected paper size.

"Error while generating printing data"

Some error occurred while generating printing data.

"Error while resampling image data."

Error occurred while applying the sampling method to the data.

"<name> is not a valid port name."

Port selected for printing is invalid.

Color Management Related

"Error in color profile" "Doesn't recognize this printer profile"

Currently selected printer profile for printing the image data is not valid. Select a valid printer profile.

"Error in initializing the TRC Curves" "Error in reading the TRC Curves"

There was some error in reading the TRC Cures. We recommend you to check the TRC Curves file. If problem persist then restart your computer.

"Didn't got the Working RGB profile"

We recommend you to select a valid RGB profile from color management dialog.

KDEF Related

"Media is Already Present"

Informs that an exact media is already present for the printer selected, when a new one of same name and settings is added.

"Not a valid media Info"

The settings for the media were invalid.

"Ink Type not Present"

The ink type requested is not present.

"Media Type not Present"

The media type requested not present.

"Last media entry cannot be deleted."

The media that the user is trying to delete is the last user, hence cannot be deleted. There has to be at least one media present.

"Damaged KDF File" "KDF file for printer <printer name> is damaged" "KDF file for printer <printer name> is empty" "File <filename> is not a valid KDF File."

Printer definition file for the Print Pro's custom driver is damaged. Remedy is to reinstall the software.

"Not a valid paper Info"

Information provided for paper is invalid.

"Last paper entry cannot be deleted"

The paper info that the user is trying to delete is the last user, hence cannot be deleted. There has to be at least one user-defined paper info present.

"Paper Size not present"

Requested paper size is not available.

"Unable to Add/Remove paper size as other properties dependant on it."

It is not possible to modify paper info since there are other dependents on it.

"Kdef file reader has performed an illegal operation"

There was some error while interpreting the data for custom printer driver. We recommend you to save all the data and restart the application. If the problem persists then restart the computer.

Standard Error Messages

"Low on memory"

The system is low on memory.

"Error in Tiff Separation Writer"

Error in tiff writer.

"Error while halftoning the image data"

Error occurred while halftoning the data.

"Error in color profile"

Error occurred because of some problem in color profile.

"Error in writing printer data" "Error in transforming image data" Error occurred while applying transformation to the image data.

"Error in initializing the TRC Curves"

TRC curves could not be initialized.

"Error in reading the TRC Curves" "Didn't get the SRGB profile"

The sRGB profile is unavailable.

"Didn't got the Working RGB profile"

The working RGB profile is unavailable.

"No printer selected" "No printer to remove" "No printer is selected to be added" "Default printer is not present in the selected printer list." "Damaged CustomPrint.ini file"

The .ini file for Print Pro is damaged.

Resources Related

"System is low resources. We recommend you to shut down and start again." "Low on memory" "Not enough memory to complete the operation"

This message is issued typically when the RAM available to Print Pro is very less, or Print Pro fails to acquire the required resources to carry out the requested operation. It is a general indication of system getting unstable.

"Lower RAM than minimum required for working of the application. Upgradation of RAM suggested."

This message is issued at the time of application initialization, if the available RAM is less than that instructed to use for Image management. Remedy is to

add more RAM to the system. Print Pro needs minimum of 4 MB physical RAM for its image handling system.

"Low RAM available than requested. Trying with maximum available RAM."

This message is issued at the time of application initialization, if the available RAM is less than that instructed to use for Image management. Print Pro continues initialization with whatever amount of physical RAM available.

File Reading / Writing Related

"Could not read the file. An error occurred while reading."

The file may be corrupt.

"Could not write the file. An error occurred while writing."

Disk may be full. Free some space on the disk and try again. Or you may be trying to write on a read only media.

"Unable to read/write ICC profile."

The given ICC profile may be either corrupt or may not be compatible with Print Pro.

Application Related

"Application could not be initialized properly .We recommend you to reinstall the application."

Initialization file/s may have got corrupted. Reinstall the application.

Page Layout Related

"Layout is empty nothing will be printed." or "There are no jobs in the layout to print."

Print Pro will issue this message when the page layout being printed is empty.

"The following layout(s) contain(s) screen or composites from this document. If you close this document these screens will be removed from respective layout" "DO you still want to CLOSE?"

Print Pro issues this message when you are closing an open document and jobs from that document are present inside a page layout.

"Error in rotating the image buffer for printing."

When some error occurs in rotating the image while printing the layout.

"Template file <file name> is invalid." "Error in reading layout template file <file name>."

Template file you are trying to open is invalid or corrupted.

Section 3

PLATEN ORGANIZER

Platen Organizer

(Optional Feature)

What is 'Platen Organizer'?

Platen Organizer allows to place multiple platens in a single page. Through use of platen organizer one can avoid wastage of printing material as well as time by efficient placement of platens. Platen is used to hold the print job within the platen bounding rectangle.

Platen Organizer allows you to create layout template using various page size and printer combinations as you want and that designed template is used into Print Pro to print the composed design.

To launch the Platen Organizer application click on the 'Open Platen Organizer' button in 'Layout Setting' toolbar of Print Pro.

Layout setting				8
6 8 8 6 6 6	*	Ð	Q	
Composite layout 1	•		à	□+

Fig 179. Launch Platen Organizer button in Print Pro

Another ways to launch the platen organizer is *Start > Programs > Print Pro WIGA > Platen Organizer.*

More details on what you can do with 'Platen Organizer'

- 1. Arrange platens in a single page with different page size and printer combinations.
- 2. Layout the platens on the page with more accuracy and ease with the help of rulers and guidelines.
- 3. Automatic spacing between different platens on the page at equal or any other distance as desired.
- 4. Layout and nest multiples copies of the original platen in fraction of a second.
- 5. With Multiple selections of the platens in the platen organizer, replicating each job is easy.
- 6. Arrange the bunch of designs in exact center of the page and also align other platens as per the focused platen placement.
- 7. It allows you to specify printer settings for white, black, color and dark color background substrates.
- 8. Manage list of platens with various size as per requirement.
- 9. Saving/Loading of layout template.
- 10. Manage list of saved layout template files for quick open.

Application Window





Application Window

- a. Menu bar.
- b. Layout template setting tool bar.
- c. Layout platen adjustment tool bar.

- d. Job properties view shows properties of the currently selected platen.
- e. Custom print quick settings tool bar.
- f. Job list view contains list of available platens to add into the layout.
- g. **Layout view** is the preview of the current layout. It is the main working area of the platen organizer.

Menu Bar

List of commands offered by Application 'Menu bar'.

File Menu

The File menu offers the following commands:



Fig 181. File Menu

- a. New Layout Template: Create a new layout template.
- b. **Open Layout Template:** Open a saved layout template file.
- c. Save Layout Template: Save the designed template into file.
- d. **Merge Platen settings and positions:** Refer 'Merge Platen settings and positions' on page <u>311</u>.
- e. **Exit:** Exit from the application.

Layout Menu

The Layout menu offers the following commands:

	Lay	put				
a-	_	Add Platen in Template	Ins			
b —	_	Delete Platen(s) from Template	Del			
С -	_	Ups	Shft+Ins			
d —	_	Auto Arrange				
e-	_	Layout White Background Print Settings				
f —		Print Setup	<u>+</u>		White backgrou	und settings
g-	_	Insert New Platen in List	Ctrl+Shift+N		Black backgrou	ind settings
h —	_	Rotate Platen(s) 90 CW			Color backgrou	ind settings
_ i –	_	Rotate Platen(s) 90 CCW			Dark Color Dack	iground settings
j —	-	Rotate Platen(s) 180				
k-	_	Check Overlaps	Ctrl+C			
		Align Platen(s)	<u>+</u>	-	Left	Ctrl+Shift+Left Arrow
					Right	Ctrl+Shift+Right Arrow
					Тор	Ctrl+Shift+Top Arrow
					Bottom	Ctrl+Shift+Bottom Arrow
					Vert. Center	
					Horz. Center	



a. Add Platen in Template: Clicking on this menu will add a single copy of the selected original platen in current Layout. If you want to add the platen two times, you have to click on this menu two times.



Fig 183. Job List

Alternatively, you can press on '*Add'* button on the page layout window to add a copy of the selected platen.

- b. Delete Platen(s) from Template: To delete the platens in your layout, press <*Ctrl>* and right click on the platen that you want to remove/delete from layout. The particular platen will be selected. Then, press '*Delete'* button. The platen will be removed from the layout. You can also press the <*Del>* key.
- c. Ups: Clicking on this menu will display the dialog shown below. Enter the number of copies of original platen wanted and press OK button. Automatically all the copies will be placed in the layout page immediately.

Platten 1		
Number of copies	5	-

Fig 184. Ups Dialog

- d. **Auto Arrange:** Selection of this menu will automatically guide the software to arrange platen in the layout while optimizing media space. Alternatively, you can right click on your layout and select the option 'Auto Arrange' from the menu bar.
- e. **Layout White Background Print Settings:** This option is allowed to change the print setup for the current background print settings.
- f. **Print Setup:** Change the print setup as per the selected print background type.
- g. Insert New Platen in List: Allows adding new platen into the job list view.
- h. Rotate Platen(s) 90 CW: Rotate the selected platens in 90 degree clock wise.
- i. Rotate Platen(s) 90 CCW: Rotate the selected platens in 90 degree counter clock wise.
- j. Rotate Platen(s) 180: Rotate the selected platens in 180 degree.
- k. Check Overlaps: This menu will help to ascertain if there is any platen overlaps in the current layout. When you will click on this menu, it will show message box 'Overlap found' OR 'No overlap found' for the current

page layout. If there will not be any overlaps in your layout, it will show message - "No overlap found".



Fig 185. Check Overlaps

This feature is very useful when you place multiple copies of the platen in your layout and do not specify any gap in between the platens.

I. **Align Platen(s):** Align selected platen left, right, top, bottom as per the focused platen. To put selected platen horizontally and vertically center in page select Horz. Center and Vert. respectively.

View Menu

The View menu offers the following commands:

	<u>V</u> iew			_		
а —	-	Layout Platen Adjustment Toolbar				
b-		Layout Settings Toolbar				
с —	~	Custom Print Quick Settings Toolbar				
d —		Layout Options				
е —		Zoom In	Ctrl++	[Lock Guides
f —		Zoom Out	Ctrl+-		<	Show Guides
g —	-	Show Current Operation InfoTip				Clear Guides
h —	_	Guides) 	$\left \right $		New Guide
i —	-	Snap				
j —		Snap To	+-	$\left \right $	✓	Guide
k —		Reset Toolbars			✓	Bounding Box

Fig 186. View Menu

- a. Layout Platen Adjustment Toolbar: Shows or hides the layout platen adjustment toolbar.
- b. Layout Settings Toolbar: Shows or hides the layout settings toolbar.
- c. **Custom Print Quick Settings Toolbar:** Shows or hides custom print toolbar.
- d. **Layout Options..:** These are the various settings like spacing between the platens and color of the bounding rectangle for the platens etc. that can be specified by the user.
- e. **Zoom In:** Zoom in the active design.
- f. **Zoom Out:** Zoom out the active design.
- g. **Show Current Operation InfoTip:** Shows or hides the infotip shown during the mouse operations.
- h. **Guides:** Shows the list of operations which can be performed on guidelines. For more details please refer page no. <u>189</u>.
- i. **Snap:** Checking this option results in snapping of the objects while dragging/moving.
- j. **Snap To:** Using these options you can enable/disable the snapping from the guideline as well as the bounding box of the platens.

k. Reset Tool bars. Help Menu

The Help menu offers the following commands:

Help	
	Help Topics
	About Platen Organizer

Fig 187. Help Menu

The Help menu offers the following commands, which provide you assistance with this application:

- Help Topics: Offers you an index to topics on which you can get help.
- **About Platen Organizer:** Displays the copyright notice and version number of this application.

Layout Template Setting Toolbar



Fig 188. Layout Template Setting Toolbar

- a. Create new layout template.
- b. **Open** saved layout template file (*.klt).
- c. **Save** layout template into template file (*.klt).
- d. Add new platen into job list view.

e. **Change the page printer settings** of this layout. Here when you click on the arrow button the following options are shown.



- f. Automatically arranges the present platens in the layout to optimize the space used by them in the layout. If required it will also rotate the platen in order to optimize the space consumed. This also takes into account the default spacing between the platens as specified in the "Layout options".
- g. Zoom in.
- h. Zoom out.
- i. Context Help.
- j. **Open layout template manager** for maintaining the templates.
- k. **Open layout template manager** for maintaining the template groups.
- I. **Opens layout template** from managed files.
- m. Currently selected printer name.
- n. Open layout option dialog.
- o. Check to find overlap.

Layout Platen Adjustment Toolbar



Fig 189. Layout Platen Adjustment Toolbar

a. Add a platen in layout. See 'Adding Platens into Layout' on page <u>302</u>.

- b. **Delete** selected layout platen(s).
- c. **Duplicate** the selected platen(s).
- d. Align the selected Platen(s) to the left of the focused Platen.
- e. Align the selected Platen(s) to the **right** of the focused Platen.
- f. Align the selected Platen(s) to the **top** of the focused Platen.
- g. Align the selected Platen(s) to the **bottom** of the focused Platen.
- h. Align the selected Platen(s) to the **vertical** center of the focused Platen.
- i. Align the selected Platen(s) to the **horizontal** center of the focused Platen.
- j. Align the selected Platen(s) to the **vertical** center of the page.
- k. Align the selected Platen(s) to the **horizontal** center of the page.
- I. Rotate platen(s) by 90 degrees clockwise.
- m. Rotate platen(s) by 90 degrees counter clockwise.
- n. Rotate platen(s) by 180 degrees.

Custom Print Quick Setting Toolbar

Refer "Printer Settings Toolbar" on page 195

Properties View



Fig 190. Properties View

- a. Platen name.
- b. **Unit:** Unit in which values are shown.
- c. Left (L)-top (T) position of the platen in the layout.
- d. Current cursor (XY) position.
- e. **Ruler offsets:** The offset of the origin of the ruler with respect to the origin of the printable area of the page (margins excluded from the physical page size).

Property window shows some important properties of the selected platen in the layout.

At the top it shows the platen name.

Then comes the unit in which all other elements are displayed. Here in this example the unit used is inch. This unit is always same as that of the layout ruler. This can be changed by right clicking on the layout ruler.

Next Left and Top offset of the selected platen is displayed. These offsets are from the left of margin and top margin of the page.

Cursor position shows the current cursor position with respect to the ruler. The left and top offset of the current platen is also in ruler co-ordinate space.

Job List View

The job list view on the lower left side of the platen organizer shows all the available platen. This list gets updated automatically whenever you add a new platen.



Fig 191. Job List View

Whenever platen organizer application is started, standard platens managed by user are automatically added into job list view.

When template file is opened in platen organizer, platens present into the template file are added into the job list view.

Layout View

The layout view shows preview of the current layout. This shows all the platens in the page at their respective positions. The gray rectangle inside the page indicates the page margin. Platen cannot move beyond this rectangle. The margin can be changed by changing printer options.



Fig 192. Layout View

To select a platen you can either click on the platen or use $\langle Tab \rangle$ key. In case of overlapped platen you can click by holding $\langle Shift \rangle$ key to select a platen below the selected platen.

To move a platen, drag the platen while holding <Ctrl> key. Or use <Up> or <Down> or <Left> or <Right> keys. You can move a copy of the selected platen by holding the <Alt> key.

Platen in the layout can be rotated in steps of 90°. To rotate a platen uses right click menu commands.

Initially the ruler origins are aligned with page margins (left and top). You can change this origin by dragging the cursor from the box marked as 'A' in Fig 192. To reset the origin to the left top of page margin double click in 'A'.

To create guide Drag the cursor from the horizontal or vertical ruler and drop in position where you want the guide. You can use *<Alt>* key to rotate the guide 90°. You can also add a guide by using the menu command *Layout > Guides > Create Guides...*

To move a guide *Drag* the guide while holding *<Ctrl>* key.

To delete a guide Move the guide out of the page. To delete all the guides use menu command *View > Guides > Clear Guides*.

Right Click Context Menu



Fig 193. Right Click Context Menu

Commands	Short Keys
Insert new platen in job list view	Ctrl + S
Close Page Layout	Ctrl + L
Ups	Shift + Insert
Adding up platen in layout	Insert
Insert New Platen In List	Ctrl + Shift + N
Delete a platen	Del
Select a platen in layout	Ctrl + Left Click on that particular platen
Align left	Ctrl + Shift + Left Arrow
Align right	Ctrl + Shift + Right Arrow
Align Top	Ctrl + Shift + Up Arrow
Align Bottom	Ctrl + Shift + Down Arrow
Select all platens	Ctrl + A
Deselect all platens	Ctrl + D
Change printer settings	Ctrl + Shift + P
Check overlap	Ctrl + C
Zoom In	Ctrl + +
Zoom Out	Ctrl +

Fig 194. List of Shortcuts

Creating New Layout Template

You can create the new layout template by using the 'New Layout Template' wizard. It will guide you throughout the wizard that how to create new layout template with required settings.

To open a layout template wizard click on the 'New Layout Template' button in layout setting toolbar or select new layout template option from the *File* > *New Layout Template* menu.

New Layout Template	Layout Settings
Open Layout Template	
Save Layout Template	
Merge Platen settings and positions	Printe
Exit	

Fig 195. New Layout Template Wizard

Step 1. Define Printer Settings.

In this step specify that, how do you want to begin. By loading printer settings for all background type from existing template file or continue with the default print settings.

ew Layout Template Wizard	
lefine Printer Setting	
Defining printer setting involves spec TRC and other technical parameters Color background.	Sfying the printer, printer port, printer resolution, profil for printing on 1. White, 2. Balck, 3. Color, 4. Dar
You can either start with printer setting default settings.	is from an existing template file or you can start with
How do you want to begin a	2
C Load printer s	ettings from an existing template file
	or
Start with defa	ault printer settings
	in the second second



- a. Showing the **short description** about the current step.
- b. Load printer settings from an existing template file: By selecting this option you can load printer settings from the existing template (.klt) files which are previously saved.
- c. **Start with default printer settings:** You can continue with the default settings which are previously saved default settings by you.
- d. Set Settings as default: This option is used to set the configured printer settings as default for the current printer when you finished the wizard. This option will become enabled only when the last page comes. So next time print settings will be automatically loaded into wizard when particular printer is selected.
- e. Moves to the **previous step.**
- f. Moves to the **next step.**

Step 2. Loading Printer Settings from the Existing Template.

This page is visible only when you select the 'Load settings from existing template' in step 1.

aoding Printer Setting from	n an Existing Template
To load printer setting from layout se either - From the list below or - Press file open button to lo	elect the template whose printer setting you want to use oad from the disk.
Layout Template	
Custom	

Fig 197. Loading Printer Setting from an existing template

You can load printer settings of existing template (klt) file for create new wizard.

- a. List showing the **list of template file** which are managed using the layout template manager.
- b. Click on the **open** button to load template file from the disk.

Step 3. Specify Printer, Printer Port and Ink Layer Order.

ipecify Printer and Pr	inter Port			
- Select printer driver from t	he available printer	list		
Printer :	and Section			•
Select port on which print	er is connected			•
Feed adjust between pas Feed adjust : 0.0	ses(in mm)			
			()	~

Fig 198. Specify Printer and Printer Port

In this step you can specify the printer and port on which printer is connected.

- a. **Printer:** This shows the list of available printers. Whenever you change the printer, default settings for that printer are loaded.
- b. **Printer Port:** This shows the list of available printer ports. Select printer port from the list on which the printer is connected.
- c. Feed Adjust between passes (in mm): It's the offset to be kept

between the first pass and the subsequent passes. If the subsequent passes are having higher offset than the feed adjust will be +ve and if lower offset than the feed adjust will be -ve.

Step 4.	Specify	Media	Size	and	Margins.
---------	---------	-------	------	-----	----------

pecify Media Size and Margins		
elect media(paper) size and media source from the s	upported list.	
media size is "user defined" then you can defined si	ze by clicking	the 'User size' button.
'ou can create new media size using 'Add/Remove F	^o aper'.	
Media		
Size : UserSize1 (3.94 x 3.94 inch)		User size
Allow borderless printing in width		Check bar options
Source : Bin 1	•	Add/Remove Paper
Margins		
	0.000	↓ 0.000 <u>+</u>
Screening info		



In this step you can specify the media on which the printing is to be done and the margins to be left on the four sides of the media if needed.

- a. Media size: This field shows the list of media (paper) supported by the printer. Here we can specify the page size we want to use. If the printer supports custom paper sizes then select one of the "user defined" paper sizes from the list whose size can be defined by the user by clicking the 'User size' button.
- b. **Source:** It determines from where the media is inserted for printing.

- c. User size: This button is enabled when the user selects "User defined" paper size from the media size list. When you click this button a dialog box appears asking for the width and height of the new media you want to create.
- d. **Check bar options:** Opens the dialog to modify the check bar related options.
- e. **Add/Remove paper:** This button is used to add the new paper size or you can remove the paper size which is newly added by you.
- f. **Margins:** From this field you can specify the left, right, top and bottom margin for the paper. Specify margins such that they does not overlap or go off the paper.

abreaty title	STATE STOL		4
Select approp	oriate inkset from the supported	inkset list.	
Predefined I	nksets-CMYK	•	
	Channel		9
Slot 1:	Black		
Slot 2:	Cyan 🔚		
Slot 3:	🗾 📶 Magenta		
Slot 4:	Yellow		1
Slot 5:	White		
Slot 6:	White		
Slot 7:	White		
Slot 8:	White		-

Step 5. Specify Printer Ink Slots.

Fig 200. Specify Printer Ink Slots

Ink assignment page contains the information about the currently loaded inkset used for printing. This page will show only the inkset which are supported by the printer i.e. if the printer is a 4 channel printer then only those inkset will be shown for which the number of inks in the inks set is equal to or less than four.

- a. **Predefined Inksets:** List the inkset supported by the currently selected printer.
- b. **Entries of the selected inkset**: These fields are used to specify colors for every channel slot as present on the printer i.e. specify on which slot which ink is present for the concerned printer. If your printer has white inks, specify which slots have those. If you do not want to print using a channel, set that channel slot number as 'None'.

pecify supported printing	base type			1
Select supported printing backgr	round type who's	adata will b	e present in th	e template.
White	~	Color		
V Black	Y	Dark Colo	r	
NOTE: 1) Unselected printing backgro 2) Atleast one printing backgro	ound(s) settings v ound type must b	vill not be a e selected	available for us for saving in th	e in this template. e template file.
			_	_

Step 6. Specify Supported printing base type.

Fig 201. Specify supported printing base type

In this step you can choose which printing backgrounds you want to be present in your template. You should select the background types which you will need during the printing and ignore the rest by deselecting them.

Later, you need to define the settings related to only the background types you have selected here.

Note At least one printing background must be selected in the template file.

Step 7. Media type, Printer Profile and TRC for White background.

In this step you can specify the media type, profile and TRC settings for the white background substrate.

Specify Media type for Color ink layers. You can create new media by clicking on 'Create media' button. Media type Type : Cotton 720x720
You can create new media by clicking on 'Create media' button. Media type → Type : Cotton 720x720 → Ink: Default Ink Precify TRC for Color inks. Also specify printer profile. Color omfile and screening
pecify TRC for Color inks. Also specify printer profile.
pecify TRC for Color inks. Also specify printer profile.
Color pmfile and screeping
color provide and solecrining
Load TRC Load WhiteTRC Load printer profile
Profile : E:\Help Related\Print Pro WIGA\Debug\PrinterlccProfile Perceptual
Caution Select the correct printer profile with the same number of channels as that the number of inks in the selected inkset.

Fig 202. Specify Media type, Printer Profile and TRC For White Background

- a. **Media type:** It specifies the media on which user wants to print. This can be a user created media or a predefined media. Basically by selecting a new media user selects a new printer profile and TRC curves for printing which was selected by the user while creating that media. Media type can be dependent on ink type or can be independent depending on the printer selected. If a media type is dependent on ink type then only those media are shown which the selected ink type supports. User can still override the printer profile or the TRC curve used **by selecting appropriate files using 'Load TRC...' and 'Load** Printer Profile...' buttons.
- b. **Ink type:** This field shows the list of ink type supported by the printer. Many printers have media type dependent on ink type i.e. for one media type you may want to select the different TRC curves and printer profile and for other ink type a different set.
- c. Create media: To create a new media or remove an existing media.
- d. Load TRC: To change the TRC curves used for printing an image.
- e. **Load printer profile:** Use this option to select a different printer profile for printing. Remember always load the same number of channel printer profile as in the currently loaded inkset.
- f. Load White TRC: Use this option to change the TRC curves used for printing the white base for an image. For white background white TRC is not required, so this button will remains disabled.
- g. **Printer Profile:** It is the currently loaded printer profile name.

Step 8. Specify Media type, Printer Profile and TRC for Black background.

In this step you can specify the media type, profile and TRC settings for the black background substrate.

In this step all the input remains same as the `Step - 6' except `Load White TRC...' button remains enabled to specify the White TRC for white layer labeled as `f'.

Step 9. Specify Media type, Printer Profile and TRC for Color background.

In this step you can specify the media type, profile and TRC settings for the color background substrate.

In this step all the input remains same as the `Step - 6' except `Load White TRC...' button remains enabled to specify the White TRC for white layer labeled as `f'.

Step 10. Specify Media type, Printer Profile and TRC for Dark color background.

In this step you can specify the media type, profile and TRC settings for the dark color background substrate.

In this step all the input remains same as the `Step - 6' except `Load White TRC...' button remains enabled to specify the White TRC for white layer labeled as `f'.

Nata	Some	of	these	steps	may	not	be	present	in	your	wizard
Note	depend	ding	upon t	he bacł	kgrour	nds se	elect	ed in prev	viou	is step	

Step 11. Specify Additional Ink Settings For White background.

A	dditional settings :				
		Strength (%)	Generation type	Fuzziness	
1	White Underbase	100.00	Automatic		
	White Highlight	100.00	Channel based		
I	Inderbase Cho	100.00	Channel Based		
t					
4					

Fig 203. Specify Additional Ink Settings For White background

In this step you can specify the additional settings related to the special ink and white background.

- a. **Additional white ink settings:** These are the additional settings pertaining to the white ink.
 - i. **White Underbase:** You can specify the strength of the white underbase along with its generation type. The various generations types available are:
 - **Automatic:** The white underbase generation will be performed automatically by the RIP software.
 - Channel based: The white underbase generation will be performed based upon some spot channel present in the image.

The channel to be used for the underbase generation can be specified using the color palette.

- Combine: The white underbase will be generated by the RIP software automatically combining with underbase channels defined in the channel palette.
- *Transparent region:* The white underbase will be generated based upon the transparent region present in the image.
- *Non Transparent region:* The white underbase will be generated based upon the non transparent region present in the image.
- *Full Image:* The white underbase will be generated based upon the entire image.
- *Gray Gradation:* The white underbase will be generated based upon gray value of image data.
- *Inverted Gray Gradation:* The white underbase will be generated based upon inverted gray value of image data.
- ii. **White Highlight:** You can specify the strength of the white highlight to be used while printing. Also how the white highlight is to be generated while printing can be specified by you. The available generation types are:
 - *None:* The white highlight won't be used during the printing.
 - Channel based: The white highlight will be applied based upon the white highlight channel. Fuzziness value is disabled and ignored. You can specify which channel to be used as white highlight using the channel palette.
 - On the fly: The RIP will generate the white highlight on the fly during ripping using the fuzziness value provided. This will ignore any highlight channel set otherwise in the channel palette. The fuzziness value works similar to the highlight channel creation option.
 - **Combine:** The RIP will generate the white highlight on the fly during ripping using the fuzziness value that you supply there and will combine it with the highlight channels set in the channel palette.

The fuzziness value works similar to the highlight channel creation options. This will be disabled in the case of Channel based Highlight generator.

- iii. **Underbase choke:** You can specify the strength of the choke mask to be applied during the printing. The choke will be applied based upon the choke channel selected in the channel palette.
- b. Use same settings for all printing backgrounds: Check this option if you want the same settings for all the selected backgrounds.

Step 12. Specify Additional Ink Settings For Black background.

In this step you can specify the additional settings related to the special ink and black background. All the settings are similar to those of white background.

Step 13. Specify Additional Ink Settings For Color background.

In this step you can specify the additional settings related to the special ink and colored background. All the settings are similar to those of white background.

Step 14. Specify Additional Ink Settings For Dark Color background.

In this step you can specify the additional settings related to the special ink and dark colored background. All the settings are similar to those of white background.

	If you have specified the additional settings to be same for all the
Note	backgrounds in the previous step, then these steps will not be
	present in the wizard.

Nata	Some	of	these	steps	may	not	be	present	in	your	wizard
Note	depend	ding	upon t	he back	kgrour	nds se	elect	ed in the	ear	lier ste	ep.

Step 15. Specify Color Correction Settings for White background.

or White Background					
ake changes only if you o avoid modify any change	lesire or this will effect the output ima is in the input image.	ge. You can leave this as it is			
Printer color adjustme	nt (-100 ~ 100 %)				
Cyan	<u> </u>				
Magenta	-1	0.00			
Yellow	<u> </u>	0.00			
Brightness	j	0.00			
Contrast	د ــــــــــــــــــــــــــــــــــــ	0.00			
Color booster		Color strength (in %)			
✓ Use color booster C	olor booster value (in %) 0.00	100.00			
Use same settings for a	Il printing backgrounds				
ALL POINT COURT IN A					

Fig 204. Specify Color Correction Settings For White Background

- a. Printer color adjustment: Check this for color adjustment.
- b. **Sliders** for color correction.
- c. Use Color booster: Check this to enable color booster.
- d. **Color booster value:** Adjust the percentage to increase the amount of color depth.
- e. **Color Strength:** As the name suggests it specifies the strength of the color you wish to use during printing. To use the full strength of the color set it to 100%. Otherwise you can use any intermediate value between 0% and 100% for your optimum quality.
- f. **Use same settings for all printing backgrounds:** Check this option to use same color correction settings for all the selected backgrounds.

	Make changes only if you desire or this will affect the output
Note	image. Leave these settings as it is to avoid any changes in the
	input image.

Step 16. Specify Color Correction Settings for Black background.

In this step you can specify the color correction settings for the black background. All the settings are similar to those of white background.

Step 17. Specify Color Correction Settings for Color background.

In this step you can specify the color correction settings for the colored background. All the settings are similar to those of white background.

Step 18. Specify Color Correction Settings for Dark Color background.

In this step you can specify the color correction settings for the dark colored background. All the settings are similar to those of white background.

Note If you have specified the color correction settings to be same for all the backgrounds in the previous step, then these steps will not be present in the wizard.
--

Note Some of these steps may not be present in your wizard depending upon the backgrounds selected in the earlier step.

Step 19. Specify Print Quality Settings for Individual Layer(s) (Epson based).

ecify resolution and (Color apperance settings(output color mode).	
Resolution	720 x 720	•
Color appearance	Color	-
Print quality		
Microweaving	MicroWeave through software	•
Print direction	Bi	•
Dot size	Variable2 6pl SML	•
 Wet on wet passe Optimize rippin 	s 1 🔆 WeaveOverlap (in %) 0.00	
Layering	-	

Fig 205. Specify Print Quality Settings For Individual Layer(s) (Epson Based)

- a. **Resolution:** Select the resolution at which you wish to print.
- b. **Color appearance:** Select the output color mode. Colored or monochrome.
- c. Micro weaving: This option allows the printer to generate superior output because graphics data is reordered and is printed in finer increments. It reduces the possibility of banding, the light horizontal lines that can mar an image.
- d. **Print Direction:** This option allows you set the printing direction. It can be unidirectional or bidirectional.
- e. **Dot size:** Using this option you can set the size of the dot for printing.

- f. Wet on wet passes: Number of times the same row to be printed.
- g. Weave Overlap (in %): Specify in percentage by how much amount you want to overlap two passes. Specifying value greater than zero will reduce the banding between the passes (resulting in improved print quality) but will also increase the print time.
- h. Wet on wet passes: Checking the Optimize Ripping will increase the ripping speed.
- i. Layering: Specifies any of the below mentioned layering methods.
 - **Multi Pass:** Each layer will be printed in a separate pass.
 - Wet On Wet OnePass: All the layers will be printed simultaneously in a single pass, (i.e. the layers will be printed when the other layers are wet and not dried yet).
 - **Wet On Dry (Adaptive) OnePass:** All the layers will be printed in a single pass, but there would be enough time for the layers to get a bit dried before the other layers are printed on them.
- j. **Layers count:** Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently. This option will only be enabled if you are printing layers in multiple passes.
- k. Secondary Resolution: When layers are to be printed simultaneously i.e. using wet on wet or wet on dry One Pass methods, the printing settings of each pass can't be specified separately. This option enables you to specify the resolution of the secondary passes. The available secondary resolutions are based upon the primary resolution set for the printing of the combined pass.

Specify Print Quality Settings for Individual Layer(s) (File Based).

or White Underba	se + Color + Clear (Layer	1) Ink Layer(s)
Specify resolution and (Color apperance settings(output co	lor mode).
- <u>R</u> esolution	360 x 360	•
<u>Color appearance</u>	Color	•
- Compression	Uncompressed	•
Print quality		
Dot size 2 Bit	▼ Dots Used SML	Optimize ripping-
Output		# 01 Luff Sources
F:\temp\Pm Files\P	In Files \UU \Temp_ <layer>_<page< td=""><td></td></page<></layer>	
	file in case of petwork path	Create directory for files -
Create compresse	ed file for final output	Generale unique file name

Fig 206. Specify Print Quality Settings For Individual Layer(s) (File Based)

- a. **Resolution:** Select the resolution at which you wish to print.
- b. **Color appearance:** Select the output color mode. Colored or monochrome.
- c. **Compression:** Compression specifies the type of compression which we want to apply on the tiff files generated as the output.
- d. Dot size: Using this option you can set the size of the dot for printing.
- e. **Dots used:** Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "**Dot size**" selected.

- f. **Optimize Ripping:** Checking this option will increase the ripping speed.
- g. **Save as:** This button is enabled when you have not selected "Use path same as that of source". When the user selects this button then a dialog appears that asks you to enter the save location.
- h. Use path same as that of source: If this option is checked then the output files are stored in the same directory as that of the source file. The output file name is set as follows: <Source file name>_<source file extension>_page number>_<Channel short name>.tif when this check is disabled then user can specify his own file name by clicking the "Save as" button.
- i. Create temporary file in case of network path: When output file path is network path at that time printed file is first created into the local system and after printing is finished that file(s) is transferred to the network path. Temporary file(s) is created into the folder specified in the 'Print Queue Manager Preferences' (on page 55).
- j. Create compressed file for final output: Check this option if you want to compress the TIFF files generated as output into a single (*.ZIP) file. This option is very useful in saving the disk space as well as grouping of similar output TIFF files.
- k. **Create Directory for files**: Check this option to create separate directory for the files to be saved.
- I. Overwrite old files: If the user wants to overwrite the old files generated then he should check this box. If the user has disabled this button and the file is sent for printing then if previously files with the given name existed then the creation of the tiff file will stop with an error message that the following files already existed.
- m. Generate unique file names in case of name clashing: This option is only enabled if 'Overwrite Old files' option is disabled. It will generate a unique file name for saving in case of file clashing found while generating the TIFF files for output.

Specify Print Quality Settings for Individual Layer(s) (Mutoh Based).

pecify resolution	and Color apperance s	ettings(o	utput color mo	ie).	
Resolution	720 x 720				7
Color appeara	ance Color				*
Print quality			_		
Print direction	Bi		Dot size	Variable	
-Quality	2 Pass		Dots Used	SML	*
-Overlay	Fine and Wave 1		Dot type	Heavy	-
Optimize rip	ping				
Layering					
.ayering Multi Pass	▼ Count	1 =	Sec Res	. (

Fig 207. Specify Print Quality Settings For Individual Layer(s) (Mutoh Based)

- a. **Resolution:** Select the resolution at which you wish to print.
- b. **Color appearance:** Select the output color mode. Colored or monochrome.
- c. **Print Direction:** This option allows you to set the printing direction. It can be unidirectional or bidirectional or automatic.
- d. Quality: Allows the user to select the number of passes required to lay down one line of image on the printer. The greater the number of passes, the better the quality of the image. However, increasing the number of passes also increases the amount of time required to print

the image.

- e. **Overlay:** Select predefined passes overlay effect.
- f. **Dot size:** Using this option you can set the size of the dot for printing.
- g. **Dots used:** Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "**Dot size**" selected.
- h. **Dot type:** The printer firmware can automatically adjust the dot size to the specified resolution. But you may specify the dot size yourself using one of available sizes.
- i. **Optimize Ripping:** Checking this option will increase the ripping speed.
- j. **Layering:** Specifies the layering method. It can be any of the options mentioned below.
 - Multi Pass: Each layer will be printed in a separate pass.
 - Simultaneously: All the layers will be printed simultaneously in a single pass.
- k. Layers count: Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently. This option will only be enabled if you are printing layers in multiple passes.
- Secondary Resolution: When layers are to be printed simultaneously i.e. using wet on wet or wet on dry One Pass methods, the printing settings of each pass can't be specified separately. This option enables you to specify the resolution of the secondary passes. The available secondary resolutions are based upon the primary resolution set for the printing of the combined pass.

|--|

ecify resolution and [olor apperance settings(output color mode).	
Resolution	720% 720	•
Color appearance	Color	<u>(</u>
Print guality		_
Print direction	Bi	9
- Quality	4 Pass	+
- Print mode	High quality	
Dot size	VSD1 - SML	
🗸 Optimize ripping	1	
ayering		
Simultaneously	★ Gaunt 1 = Sec. Reso. 720 × 720	

Fig 208. Specify Print Quality Settings For Individual Layer(s) (Generic)

- a. **Resolution:** Select the resolution at which you wish to print.
- b. **Color appearance:** Select the output color mode. Colored or monochrome.
- c. **Print Direction:** This option allows you to set the printing direction. It can be unidirectional or bidirectional or automatic.
- d. Quality: Allows the user to select the number of passes required to lay down one line of image on the printer. The greater the number of passes, the better the quality of the image. However, increasing the number of passes also increases the amount of time required to print

the image.

- e. **Print Mode:** Allows the user to select printing mode like print for high quality or print for high speed.
- f. Dot size: Using this option you can set the size of the dot for printing.
- g. Dots used: Specify the combination of dots to be used for generating printing data. Availability of this option depends upon "Dot size" selected.
- h. **Optimize Ripping:** Checking this option will increase the ripping speed.
- i. **Layering:** Specifies the layering method. It can be any of the options mentioned below.
 - **Multi Pass:** Each layer will be printed in a separate pass.
 - Simultaneously: All the layers will be printed simultaneously in a single pass.
- j. **Layers count:** Enter the no. of layers of white underbase or color data to be printed depending on the option selected currently. This option will only be enabled if you are printing layers in multiple passes.
- k. Secondary Resolution: When layers are to be printed simultaneously i.e. using wet on wet or wet on dry One Pass methods, the printing settings of each pass can't be specified separately. This option enables you to specify the resolution of the secondary passes. The available secondary resolutions are based upon the primary resolution set for the printing of the combined pass.

Step 20. Specify Advanced Media Settings for Individual layer(s) (Epson Based).

You can leave	these settings a	as it is if you want.			
 Advance 	d head control	(Nozzle utilization	n in %) ——		
Ignore initial	0.00	To use 100.	00 📫	Ignore trailing	0.00 ≑
Scan Registr	ation offset(in m	im) 0.00 📩			
Specify 'Dry tim	e perscan' for of the amount o	which head waits f time after which t	before printing e he next layer is	each line and 'D printed.)ry time befo
ephric to contri					
Dry time					1.

Fig 209. Specify Advanced Media Settings For Individual Layer(s) (Epson Based)

- a. Advanced head control (Nozzle utilization in %): This option is used for masking the nozzles to use for printing. By using this option we can disable starting and trailing nozzles of the print-head from printing. This option is useful in mainly 2 cases.
 - a. Some of the starting or trailing nozzles are blocked, and then the user can mask this area and can use rest of the printhead for printing.
 - b. In case of printing on Rotary devices only small middle region of print-head is required for printing and in this cased user can mask unwanted top and trailing nozzles.

- b. Banding correction: Perform settings for media feed compensation. This corrects the errors in the amount of feed of the grit rollers due to the type of media used. Correcting the amount of feed improves the dot positioning accuracy in the feed direction, which can help in enhancing the image quality.
- c. **Registration offset (in mm):** Registration offset (in mm) specifies the offset between the white ink layer and the color ink layer.
- d. **Dry time per scan:** Specify the time (in milliseconds) for which the head waits before printing each line.
- e. **Dry time after print:** This setting allows the control of the amount of time (in seconds) after which the next layer is printed.

As this is the final step of the wizard, there is one option available in this step mentioned below.

Set settings as default: Check on this button to set currently configured printer settings as default the selected printer. Whenever you change the printer during new layout creation dialog, these settings will be automatically loaded. This option will be enabled in the **Next** (or in the **Last** step depending on your version of software) step.

Specify Advanced Media Settings for Individual Layer(s) (Mutoh Based).

Specify Advanced Media Settings For White Underbase (Layer 1) Ink I	aver(s)	1
You can leave these settings as it is if you wa Specify Banding correction(for media feed c	ant. ompensation), layer count setting and	dry time
Media setting Media type Blossy paper Feed Registration offset(in mm) 0.0 Scan Registration offset(in mm) 0.0	Correction = 0 10 + 10 +	(1) ra m
	/ Back New Y	Panca

Fig 210. Specify Advanced Media Settings For Individual Layer(s) (Mutoh Based)

- a. **Media type:** Specifies the media type according to which correction value will be used.
- b. **Correction:** When selected media type is user defined then you can specify the correction value in steps of 0.01 mm.
- c. **Feed Registration offset (in mm):** Registration offset (in mm) specifies the feed direction offset between the white ink layer and the color ink layer.
- d. Scan Registration offset (in mm): Registration offset (in mm)

specifies the scan direction offset between the white ink layer and the color ink layer.

e.

Or

Specify Advanced Media Settings for Individual Layer(s) (Generic).

1951			
you want.			
eed comp	ensation), I	ayer count setting) and dry time
	_		
0.00	÷		
0.00	$\frac{1}{2}$		
	-		_
	(gs) vou want. eed comp 0.00 0.00	(95) you want. eed compensation), i 0.00 ÷ 0.00 ÷	ign you want eed compensation), layer count setting 0.00 = 0.00 =

Fig 211. Specify Advanced Media Settings For Individual Layer(s) (Generic)

- a. **Feed Registration offset (in mm):** Registration offset (in mm) specifies the feed direction offset between the white ink layer and the color ink layer.
- b. Scan Registration offset (in mm): Registration offset (in mm) specifies the scan direction offset between the white ink layer and the color ink layer.

Adding Platens into Layout

By using menu command *Layout* > *Insert New Platen in List*, you will get an 'Insert Platen' dialog to add new platen. This will add new platen into the job list view.

Platen		
- Name Platte	en1	L\$-
- Width 5.000	0 📩 Height 5.0	00 🕂 inch —
- Stadard Plat	tens—(in inch) ——	
Platten1 (Platten2 (5.000 x 5.000) 10.000 x 10.000)	
Platten3 (Platten4 (15.000 x 15.000) 17.000 x 17.000)	_
a server a	e de de la contra de	
1		
		ति अ

Fig 212. Insert Platen Dialog

- a. **Platen name:** Platen name should be unique; otherwise new platen is not added into job list view.
- b. Add current platen info into the standard platen list.
- c. **Width of platen:** This should be up to maximum allowed paper width for current printer.
- d. **Height of platen:** This should be up to maximum allowed paper height for current printer.
- e. List of the available standard platens.
- f. Reset standard platen list with factory defaults.
- g. Delete selected platen from standard platen list.

You can add new platen into page as follows:

- 1. By **double clicking** on the appropriate job from the list on the left pane.
- 2. Selecting the job and clicking 'Add' button on the layout tool bar.
- 3. Selecting the job and pressing *<Enter>*.
- 4. By **dragging** the job from job list view and **placing** into the layout view.

	CICCL
Note position, it tries to put it through 90° rotation. Rotated pla	atens
are indicated by vertically displayed platen names.	

Note	Standard platens are automatically added into job list view when
Note	application starts.

Placing a Platen in Layout View

Adding a platen places it at the first location on the media where it can fit it in an optimized way. Then you can move it to anywhere within the margins of the page.

Use zoom-in and zoom-out commands on the layout tool bar to get a proper view of the page in use.

To move a platen by using the keyboard, you need to select it first. Then use the arrow keys in your keyboard to move the selected platen in appropriate direction. For faster displacement, use <*Shift>* key in combination with these keys.

If you want to use the mouse, pressing $<\!\!Ctrl\!>$ key, click the left mouse button inside the desired platen rectangle and drag it with mouse button still down to the location of your wish.

While dragging a platen if its edge reaches near enough to an edge of another platen, the other platen attracts it and tries to place it as closer as possible without overlaps. (This is done to save printing material). If you want to override this snapping feature then use *<Shift>* key while dragging and place the platen anywhere you like.

Nata	Platen Organizer constraints the placement of the platen within
Note	the margins of the page.

Selecting a Platen in Layout View

Using Keyboard:

You can navigate through the platens by pressing the $\langle Tab \rangle$ key. Press $\langle Shift \rangle + \langle Tab \rangle$ to navigate in the opposite direction.

Using Mouse:

Click inside the rectangle that represents the desired platen. Press *<Ctrl>* key along while clicking to select a platen that is hidden (overlapped) by another platen.

Selecting multiple Platens:

Press *<Shift>* key along with *<Ctrl>* and mouse click to select multiple platens. You can also use *<*enter> key while moving between the platens using the *<tab>* or *<shift>+<tab>* key to make multiple selections.

You can also use $\langle ctrl \rangle + \langle A \rangle$ to select all the platens in the layout. You can use $\langle ctrl \rangle + \langle D \rangle$ to deselect the platens.

You can also select multiple platens by drawing a selection rectangle starting form the blank space in the layout while holding the *<ctrl>*key down. All the platens having **at least 8% of their area** in the selection rectangle get selected.

You can also toggle the selection status of the platens inside the selection rectangle by holding the <*shift*> key down in the operation as described above.

Checking for Overlaps

Platen Organizer offers automatic checking for overlaps between any two platens of a layout. To use page optimally, platens should be placed as near as possible. But while doing so sometimes a platen may be placed over another.

Check 'Check overlaps' on the layout tool bar to prevent such catastrophe. Overlaps would be highlighted in real time (as you move a platen) by crossed hatch marks over the overlapped area as shown below. You can also use *Layout* > *Check Overlaps* to check current overlap status (this is a one time checking as against real time checking).

Nata	If overlap	is	present,	you	will	not	be	able	to	save	the	layout
Note	template.											



Fig 213. Check Overlap Button

It can also issue warnings about overlapping of platens visually in real time if you want.

When you will check the for the overlap region, it will show message box 'Overlap found' OR 'No overlap found' for the current page layout.



Fig 214. Overlapped Platens

Auto Arrange

Platens are placed in the layout one after another as you keep adding. But they can be arranged in the layout such that their cumulative area is minimized.

The auto-arrange command tries to arrange all platens in such a way that they occupy minimum printable area.

The space between two successive platens can be set from *View > Layout Options...*.

Snapping

To place platens and guides easily Platen Organizer snaps the moving platen or guide to the nearest hot edge.

In case of guide movement this hot edge is the nearest border or halfway mark of a platen.

In case of platen movement a hot edge is the nearest edge of another platen or a guide.

This snapping facility for the current moving object can be overridden holding *<shift>* while dragging the object (a platen or guide.)

If you don't want snapping by default, check off menu command *View* > *Snap*. Checking this command again will enable snapping.

You can also switch off snapping with platen bounding box and guides individually. Use menu command *View > Snap To > Guide* switch on/off snapping with guides. Use menu command *View > Snap To > Bounding Box* switch on/off snapping with platen bounding boxes.

Layout Template

Layout template is all about saving of the multiple platens in a single page with printer settings and placement positions that you made for each base type, with or without guidelines. Place the multiple platens in a layout whose width and height is defined by you.

Save the layout using "Save layout template". This can be achieved from the following ways:

Eile	1.5	
New Layout Template	Layout Settings	
Open Layout Template		
Save Layout Template		
Merge Platen settings and positions	Printer:	
Exit		

Fig 215. Save Layout Template Option

- Right clicking layout will pop up the context menu in which Layout template will help you to save the layout or from the main layout menu
 File > Save Layout Template will help you the same.
- b. By using the **Save** button of Layout setting tool bar.

While saving the layout template following requirements should be fulfilled.

- 1. No **overlap** should be present into layout.
- 2. **Printer settings** for each printing base type should set appropriate as per the printing background type for color data and white data.

It saves the template file with *.klt *(Kothari layout template)* extension. It saves the printer settings, guidelines and platens with their positions.

Open layout template from file using "Open Layout Template". This can be achieved from the following ways:

New Layout Template		Layout Settings	
Open Layout Template	>		
Save Layout Template			
Merge Platen settings and	positions		
Exit			

Fig 216. Open Layout Template Option

- 1. Click on **open** button in **Layout setting tool bar.**
- 2. From **right click context menu** select *Layout Template > Open Layout Template.*

Layout Template Management

Layout template management feature allows you to manage list of saved layout template file for quick access. For more details please refer 'Layout Template Management' on page no. <u>138</u>.

Layout Template Group Management

Layout template group management feature allows you to manage the group of the saved layout template files for quick access. For more details please refer 'Layout Template Group Management' on page no. <u>141</u>.

Using Layout Options



Fig 217. Layout Options Dialog

- a. **Unit:** Unit of displayed job spacing values.
- b. **Horizontal:** Default horizontal spacing desired between the jobs in the layout.
- c. **Vertical:** Default vertical spacing desired between the jobs in the layout. If same spacing button is checked then vertical spacing set same as horizontal spacing.
- d. Show bounding box: Check to show bounding box around the platen.
- e. Normal: Non-selected platen bounding box color.
- f. Selected: Selected platen bounding box color.
- g. Focused: Focused platen bounding box color.
- h. Show standard platen(s) in job list view: If this option is unchecked then standard platens will not be added into the job list view when application starts or new template is created.

When the number of platens exceeds the page size in a page layout, further platens can only be added after resizing the page. Auto resizing is available for only those printers, which supports it.

Merge Platen settings and positions



Fig 218. Merge Platen settings and positions Dialog

- a. **Print settings to use:** Load printer setting files to use while generating combine files. User can load multiple setting files.
- b. **Platen positions to use:** Load platen template files to use while generating combine files. User can load multiple template files.
- c. **Destination Path:** Specify the folder path where you want to generate output files.
- d. **Generate Files:** Click this button to generate combined template files. It will pick each and every combination of printer setting file to platen template file.

Appendix A

Glossary

Calibration

Adjusting the instrument so that it produces accurate and consistent results.

Channel

Equivalent of a printing plate.

Clear Ink

Special inks which are used to give special effects to the printing.

СМҮК

It is a color space comprising of four inks Cyan, Magenta, Yellow and Black based upon subtractive color mixing theory.

Color separation

Process of converting a color image into one or more color plates is called color separation. These plates would then used for reproducing the original color image on a press.

Densitometer

It is an instrument for measuring the gray density in an area on the film.

Dot gain
The change in the size of a printing dot from the film to the printed sheet, usually expressed in terms of percentage.

Gamma

A numerical value use to represent the non-linear response curve of an output device to light intensity.

Gray scale

Shades between black and white colors.

Interpolation

Interpolation is a process useful in generating the missing information from the given data samples. Alternatively in the context of images, interpolation is addition of pixels between others, usually done when enlarging the bitmap.

Pixel

It is the smallest addressable unit on the printer/monitor.

RGB

It is a color space comprising of three basic primaries Red, Green and Blue based upon additive color mixing theory.

Resolution

Resolution is usually defined as the number dots in a linear inch (DPI).

Threshold

This is a level, below which all pixels are considered as black and otherwise as white.

TRC compensation

Tone Reproduction Curve compensation. Process of compensating for tonal gains/losses during printing.

Wedges

Gray scale ramp varying from 100% black to 0% black, changing with predefined steps.

White Underbase

The white mask that is printed using white ink over the printing base on which color data will be printed during subsequent pass.

Appendix B

The length that can be output by Print Pro on your printer using Windows Printer Driver is a function of two variables. The resolution at which you want to print and the version of Microsoft Windows you are running Print Pro on.

Windows 95, 98 or ME puts the limitation of the maximum number of pixels that can be addressed on the printer to 32767. Let us call this as addressable length X. If you were printing on a printer with a resolution of Y DPI (dots/ pixels per inch), then it would translate to X/Y inches in physical terms. For example, if you are printing on a 300 DPI printer the maximum length/width that can be printed on a page is 32767 / 300 inches or approx. 109.223 inches.

Windows NT or 2000 puts the limitation on maximum number of pixels that can be addressed to 2147483648 pixels. This would mean that on the same 300 DPI printer you can print a length of up to 2147483648 / 300 inches or 7158278.826 inches approx.

Not only the above limitation, but there is another limitation which is enforced by the common dialog library of Windows on the reported page sizes by them. This size is limited to 129 inches in width and height. On all the Windows 95, 98 or ME and Windows NT or 2000 this limitation is applicable.

The above discussion is true for both Non-Postscript and Postscript printers when printing is done through Windows GDI. Print Pro uses GDI for communicating with the printer. Postscript printer tries to solve the issue by dividing the reported printer DPI by 2 till the resulting number of pixels remain well within the range, but the limitation on the paper size reported still remains.

You can still have any size plots from Print Pro by the help of its pagination feature, which of course needs to be stitched together.