Bundled with all PRO II machines

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

Get it right on a Roland

RSC Introduction

◆ **Bundled with all PRO II printers**

◆ **New, Easy User Interface**

◆ **Full Featured Layout Options**

◆ **IntelligentPrintControl**

◆ **Robust Color Management System**

◆ **Networking Capabilities**

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

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RSC Specifications

◆ **Supported Operating Systems**

- Windows 2000/XP
  - Windows 98/ME Clients
- Mac OS X (in development)
  - No Mac OS 9 (Classic) support

◆ **Minimum 2000/XP Requirements**

- CPU: Pentium 4 1.5GHz or faster
- RAM: 512 MB or more
- Drive: 10 GB or more
- Monitor: 1024 x 768 resolution w/32 bit color
- Recommended: Pentium 4 2GHz, 512 MB RAM, 40G HD, 100 Base-TX

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

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◆ **Bi-Directional Communication with PRO II printer**

- Printer Type
- Printer Status
- Port Info
- Media size
- Ink levels

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

RSC Specifications

◆ **File Formats Supported**

- DCS 2.0
- EPS
- JPEG
- PDF 1.4 (Acrobat 5 format)
- PS
- TIFF

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland SelectColor

Main screen

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

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RSC Interface

Add files as multiple jobs

Delete job

Save job

RIP job

Print job

Nest job UnNest job

Tool Bar

Printer Preview

Printer information

Print File Preview

Print File information

Print Indicator

Print Preview Area

Status Bar

Roland SelectColor

File Edit Printer View Help

Roland Hi-Fi JET PROII FJ-540

Preview Information

Manufacturer: Roland
Model name: Hi-Fi JET PROII FJ-540
Status: Printer online
Hot folder: C:¥Program Files¥Roland Select(
Port: TCP/IP:192.168.0.100:9100
Driver version: 1.0.923.29976
Color mode: CMYKLcLm(2bit)
Color depth: 2
Resolution: 720X720
Media type: PET-G :Hi Gloss White Film
Paper size: Roll Paper(54in)
Halftone method: Stochastic Screen
Output ICC profile:FJPro2PigLcLm_PET-G_Std.icm

Name	Status	Sender	Cop...	For...	File size	After prin
Blue Bird	Pending	kato	1	TIFF	5.500MB	Delete

Blue Bird

Preview Information

VM:617MB 412MB Free   C:28.2GB Free

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

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RSC – Blazing Speed

SPEED

◆ **2.5 times faster than Roland ColorChoice (RCC)**

- New, more efficient RIP architecture

◆ **Direct RIP of non-PostScript Files**

- TIFF and JPEG files no longer have to be converted to PostScript before ripping

◆ **Image rotation does not affect rip speed**

Roland

Get it right on a Roland

SPEED

◆ RIP time improves as file size increases

Ripping Speed (Unit=second)

Image3
- RCC: 8Color — 431
- RCC: 4Color — 236
- RSC: 6Color — 71

Image2
- RCC: 8Color — 152
- RCC: 4Color — 81
- RSC: 6Color — 32

Image1
- RCC: 8Color — 14
- RCC: 4Color — 13
- RSC: 6Color — 5

Legend:
- ☐ RCC: 8Color
- ☐ RCC: 4Color
- ■ RSC: 6Color
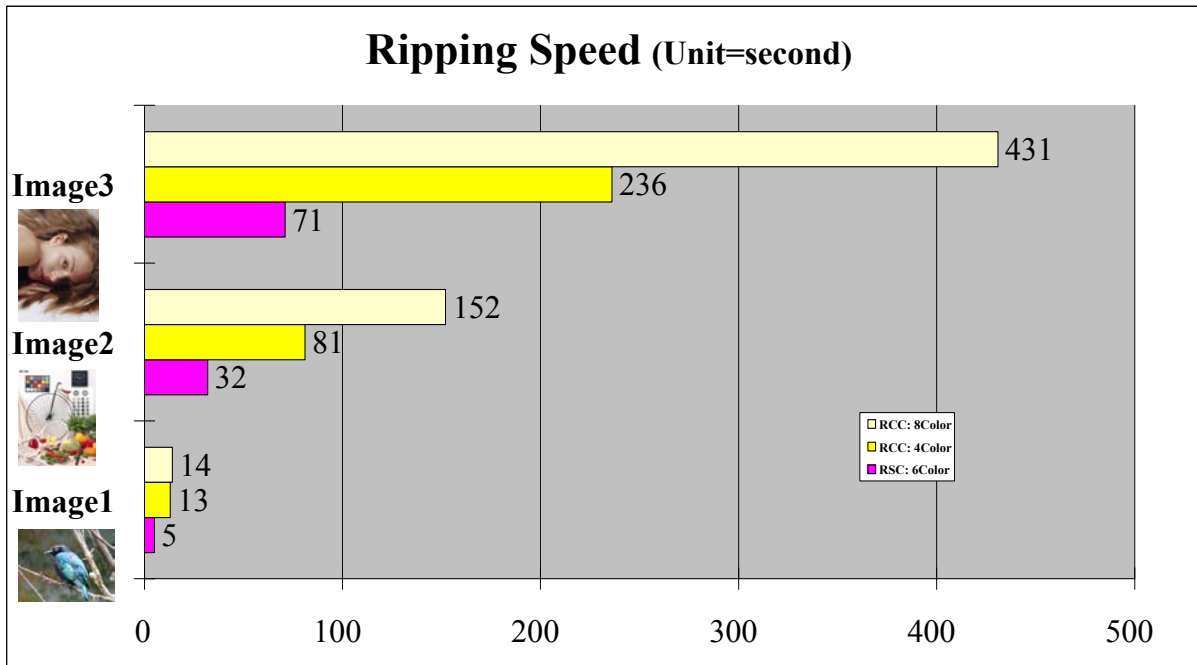
(x-axis: 0, 100, 200, 300, 400, 500)

Image1: 2.8MB TIFF
Size: 8 x 6"

Image2: 11MB TIFF
Size: 35 x 44"

Image3: 63.8MB TIFF
Size: 53 x 30"

Test Parameters

PC: Pentium4 2.26GHz / 512MB RAM / 30GB Hard Drive

RIP: RSC1.0 vs. RCC ver.4.5

RSC Print mode:	Standard （PET-G）	720 x 720 dpi
RCC Print mode:	vSUPER(PET-G)	720 x 720 dpi

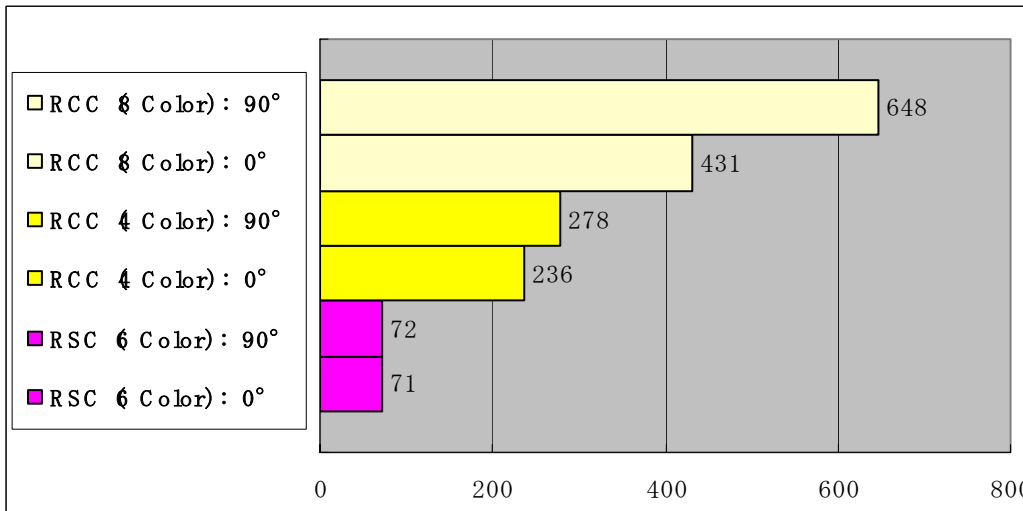NOTE: Test includes Rip time only, does not include print time

☐ **Roland**

Get it right on a Roland

RSC vs RCC

◆ Same Rip time when image is rotated

- RCC incurs significant delay after rotation

0° Rotatio

90° Rotation

Chart data:

Category	Value
RCC (8 Color): 90°	648
RCC (8 Color): 0°	431
RCC (4 Color): 90°	278
RCC (4 Color): 0°	236
RSC (6 Color): 90°	72
RSC (6 Color): 0°	71

(x-axis: 0, 200, 400, 600, 800)

Test Parameters

PC: Pentium4 2.26GHz / 512MB RAM / 30GB Hard Drive

IMAGE: "Model_Brown" TIFF 63.8 MB @ 150 dpi / 53 x 30"

RIP: RSC1.0 vs. RCC ver.4.5

RSC Print mode:	Standard （PET-G）	720 x 720 dpi
RCC Print mode:	vSUPER(PET-G)	720 x 720 dpi

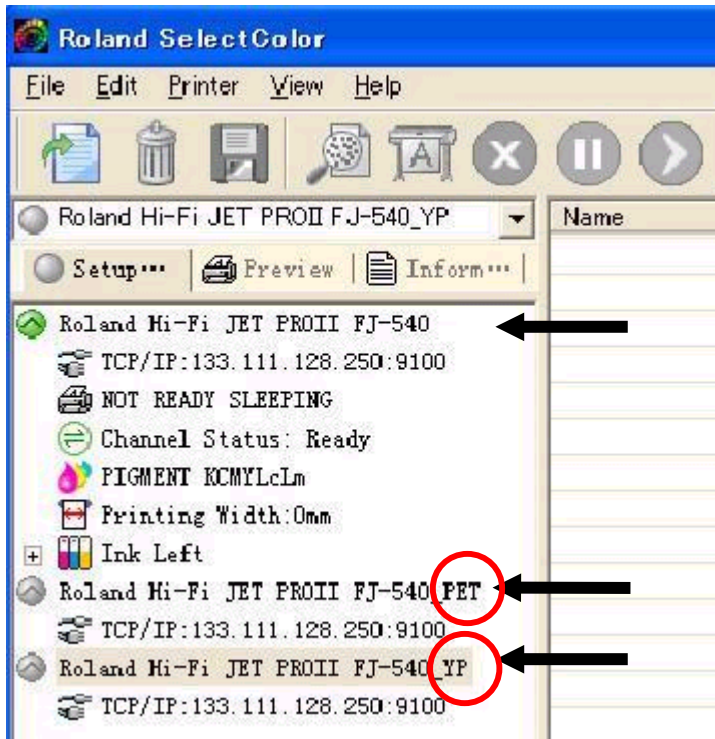NOTE: Test includes Rip time only, does not include print time`

Roland

◆ **Setup multiple queues for each printer**

Each print queue can be defined with separate print, media and layout settings

Each queue can be custom named to help signify customized settings

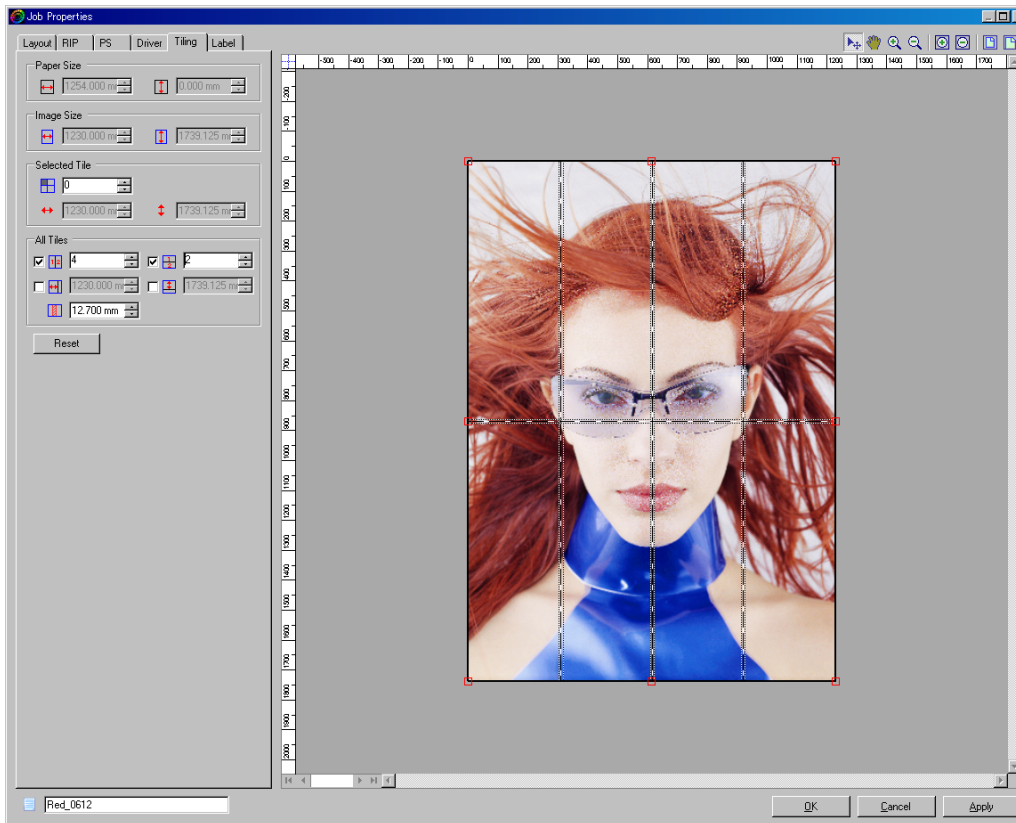**All queues can be seen by client workstations as separate printers**

VERSATILITY

◆ **Automatic and Manual**

Tiling allows you to separate your job for custom-sized output "panels"

Helpful when printing images larger than the printer's maximum print width

Can manually set specific panel sizes to adjust to specific elements of an image

FJ-540

CJ-540

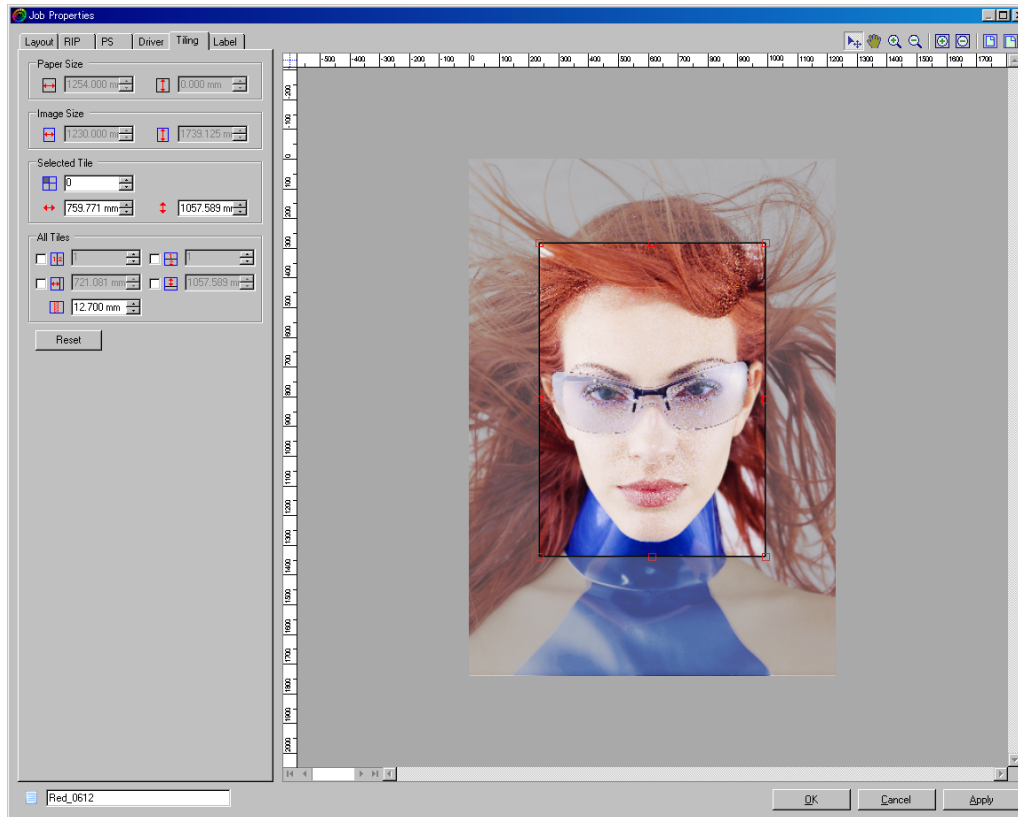SC-540

SJ-540

SJ-740

Cropping

Built-in cropping tool allows you to print only the selected portion of your image.

Use for partial prints and color checks

FJ-540

CJ-540

SC-540

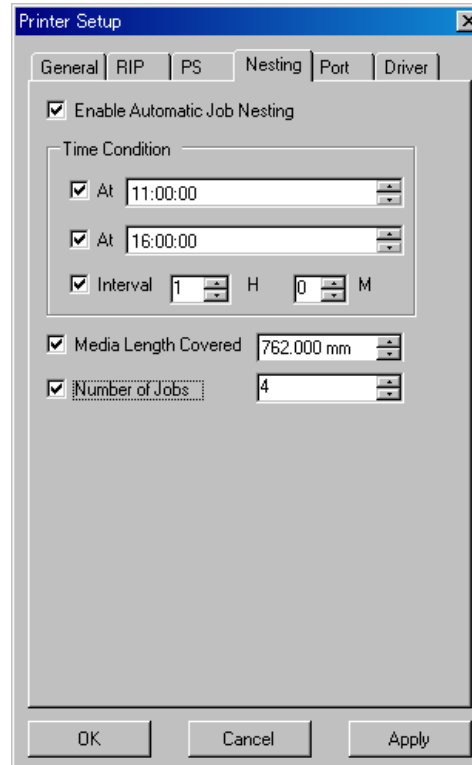SJ-540

SJ-740

Roland

Get it right on a Roland

VERSATILITY

◆ Automatic Nesting
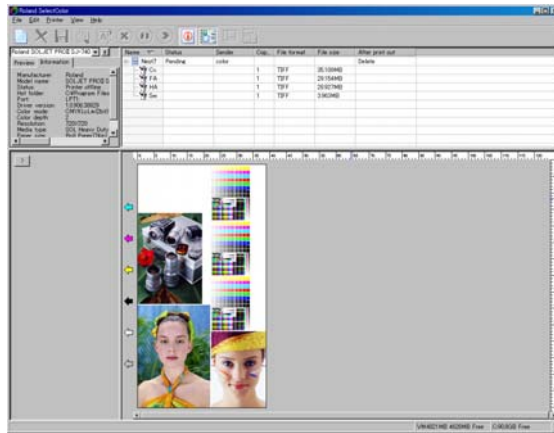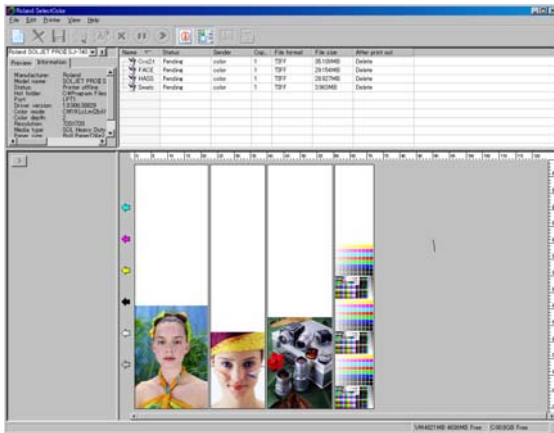
Multiple jobs can be nested for more efficient media usage.

Each nested job still retains it's own individual and individual job properties.

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Nesting

◆ **Manual Nesting**
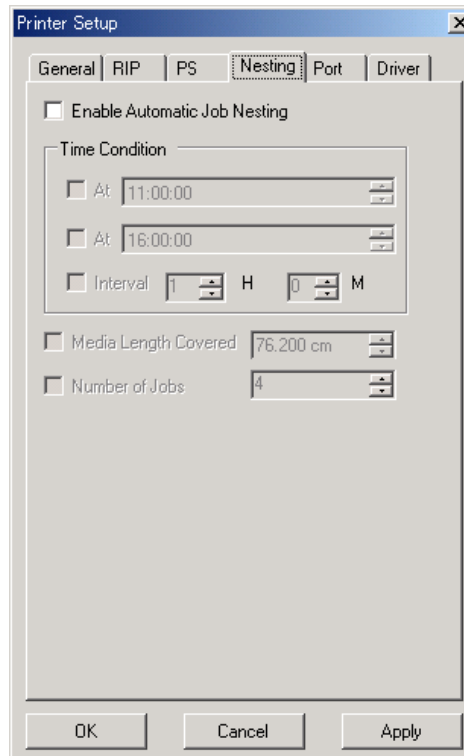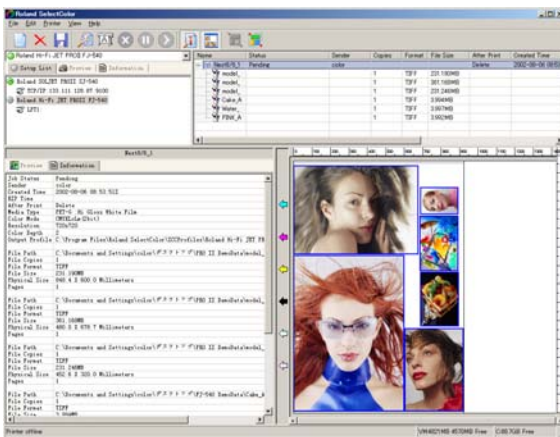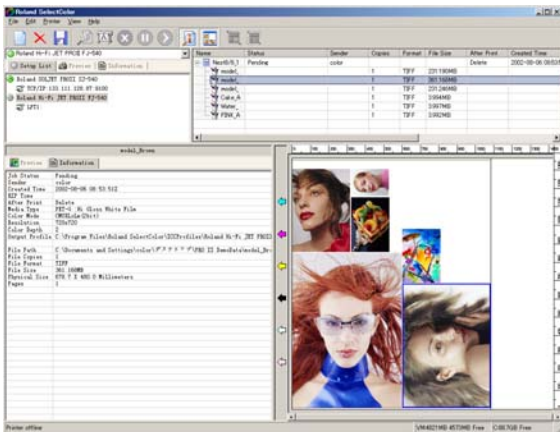
Multiple jobs can be nested for more efficient media usage.

User can determine which image will print in what order

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Get it right on a Roland

Multiple Page Support

◆ **Automatically steps & repeats multiple pages**
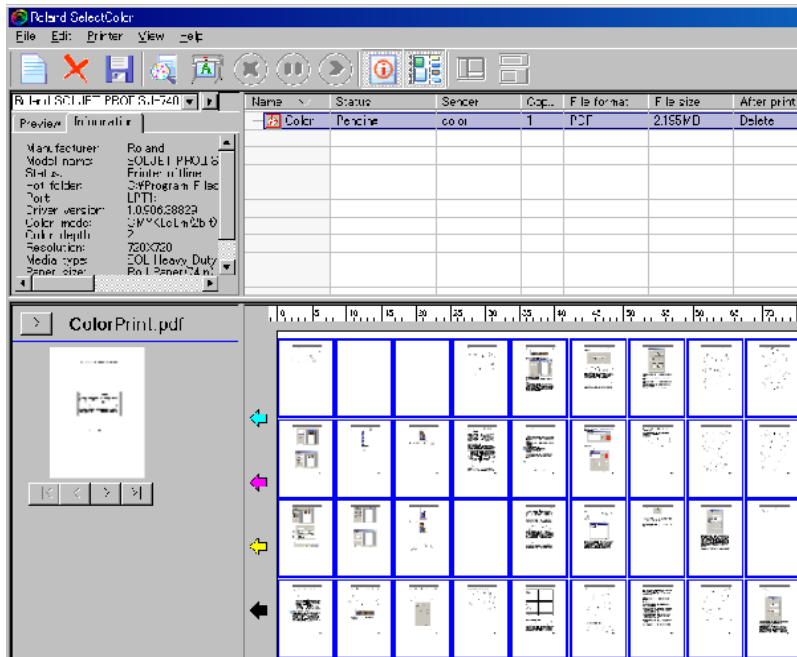
Multiple page PDFs

Will fit all pages automatically within media width

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Get it right on a Roland

Print Job Properties

◆ **Print various "labels" or job properties**
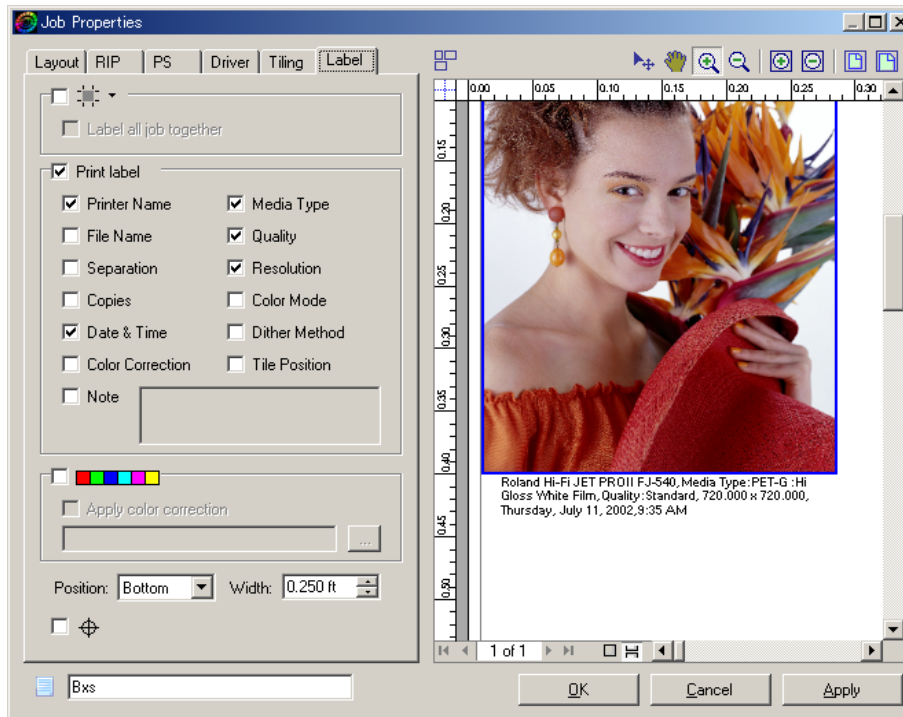
Helps to track job properties easily

Imperative for tracking color management

Color Bars

Registration & Cropmarks

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

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IntelligentPrintConrol - IPC

- ◆ **Provides simplified settings for the user**
- ◆ **Conventional printing modes:**
  - Draft, Fast, Fine, Normal, vNormal, Super, vSuper, Photo and vPhoto
  - Too many choices
- ◆ **IPC Modes:**
  - Speed, Standard, Quality
  - Settings are more understandable

Speed   *Priority*   *Image quality*

Production priority ⟷ **Photo priority**

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

Get it right on a Roland

IntelligentPrintConrol - IPC

◆ **Simplified IPC settings are determined by media**

◆ **User chooses Speed/Standard/Quality print modes in Roland SelectColor**

◆ **IPC is optimized for better color fidelity between print modes**

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

Get it right on a Roland

◆ **Each print mode is optimized to others**

RCC + FJ-500

RSC + FJ-540

vNormal	vSuper	vPhoto	High Speed	Standard	High Quality
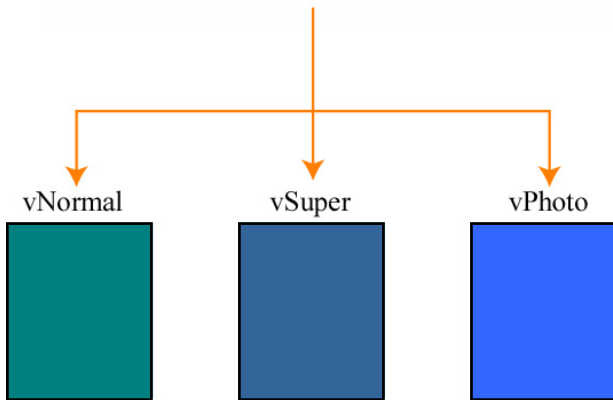
Some Color Difference
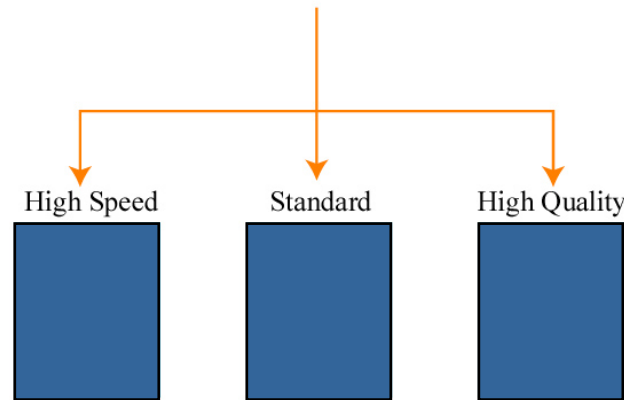
Better Color Fidelity

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

IPC Benefits

◆ **Beginning Users can easily select the best print mode for each job**

  ▪ Experienced users can bypass IPC to gain access to advanced print modes

◆ **Less media waste**

  ▪ Too many options means more trial and error to find the "best" print settings

◆ **Colors match on supported profiles**

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

Get it right on a Roland

Intelligent Print Modes

Applications	Media	Print Mode	Resolution (dpi)	Pass	Dot Control	Speed
Standard	Matte Finish	Speed	450 x 360	2	Variable	28 sqm/hr (300 sqft/hr)
		Standard	360 x 720	4		14 sqm/hr (150 sqft/hr)
		Quality	720 x 720	8		7 sqm/hr (75 sqft/hr)
	Glossy Finish	Speed	360 x 720	4	Variable	14 sqm/hr (150 sqft/hr)
		Standard	720 x 720	8		7 sqm/hr (75 sqft/hr)
		Quality	720 x 1440	16		3.6 sqm/hr (39 sqft/hr)
Screen Print	Clear PET Film	Speed	720 x 720	8	Fixed (Large)	T.B.D.
		Standard	1080 x 1080	18	Fixed (Middle)	T.B.D.
		Quality	1440 x 1440	32	Fixed (Small)	T.B.D.
FineArt	FineArt Paper	Photo	1440 x 1440	32	Fixed (Small)	T.B.D.

Roland — *Get it right on a Roland*

Embedded Profile Support

Printer Setup

General | RIP | PS | Nesting | Port | Driver

☑ Automatic Print Option Selection

Media Type: SOL Heavy Duty Banner(SPVCB)
Quality: High Quality
Resolution: 720x1440
Color Mode: CMYK(2bit)
Dithering: Error Diffusion   Edit...
Interpolation: Nearest
Density: none   Edit...

☑ Enable Color Correction

Output Profile
SJ2Sol_SPVCB_720x1440.icm   ...

Input Profile   ☑ Use Embedded ICC Profile
JapanStandard.icc
ITU-R_BT.709D65Gamma1.8.icm
DefGray.icm

☐ Enable Special Color Matching

OK   Cancel   Apply

If option is checked, user can utilize embedded profiles.

Acknowledges profile decision of original artist

Adobe Photoshop and Illustrator can embed profiles

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

Get it right on a Roland

QUALITY

ProfileEdit

RIP

Profile: SJ2Sol_SPVCB_720x1440.icm

Rendering Intent

Saturation

Perceptual

Saturation

Relative Colorimetric

SOLJET PROII SJ-540

Ink: No ink
Media: SOL Heavy Duty E
Quality: High Quality
Color: CMYK(2bit)
Version: 1.0

OK   Cancel
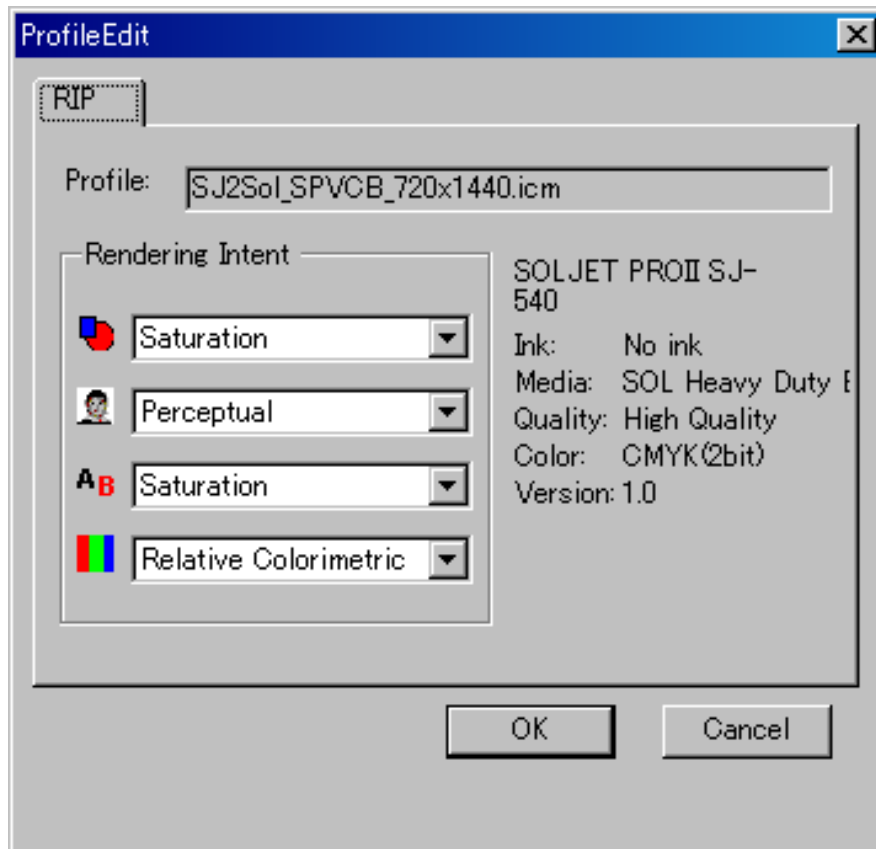
Assign different CRDs (Rendering Intents) to Vector, Bitmap, Text and Gradient elements.

Black text can now be defined to print with only black ink

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

DCS Density Curve Control
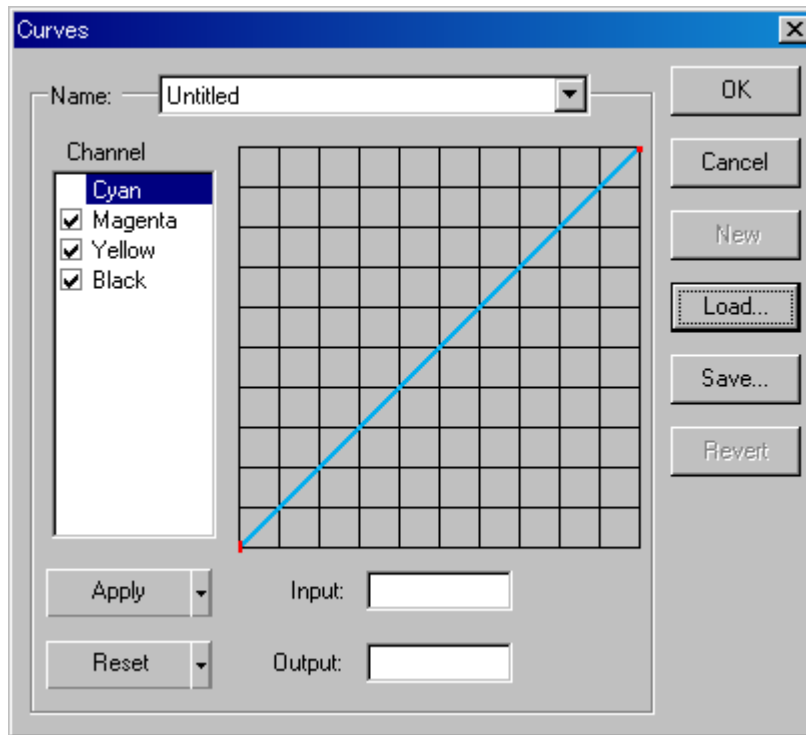
Density adjustment can be performed on each color layer of a DCS 2.0 file.

Use for Hexachrome workflow or manual color correction

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland

Get it right on a Roland

Spot Library Support

◆ **Pantone/DIC/TOYO Support**

- Define swatch library in Illustrator
- RSC handles the incoming library to create a LUT for proper color conversion
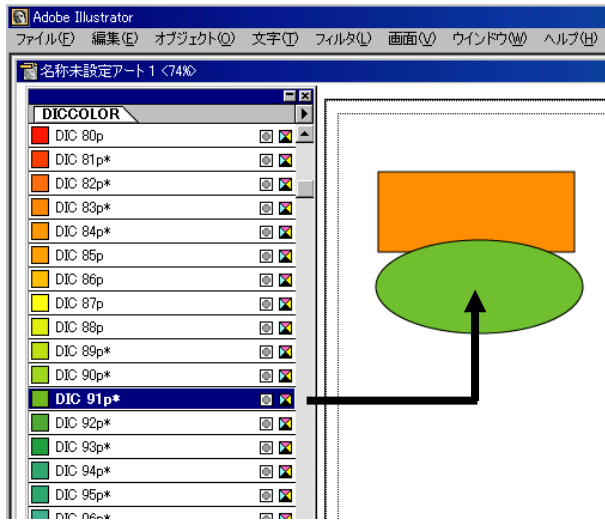
Swatch Library in
Adobe Illustrator

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Process Spot Color Chart

◆ **Color Chart Steps**

- Print Color Charts

- Compare target color to chart swatch

- Choose the closest color and input into RSC

- Color Management without a color device

Visually find the closest match and enter the corresponding number into RSC

Color Chart

Print Sample

Roland

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

◆ Stand Alone

- ■ Windows XP or 2000
- ■ Mac OS X (under development)

PC

Ethernet
Cross cable

Mac

Ethernet
Cross cable

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland   *Get it right on a Roland*
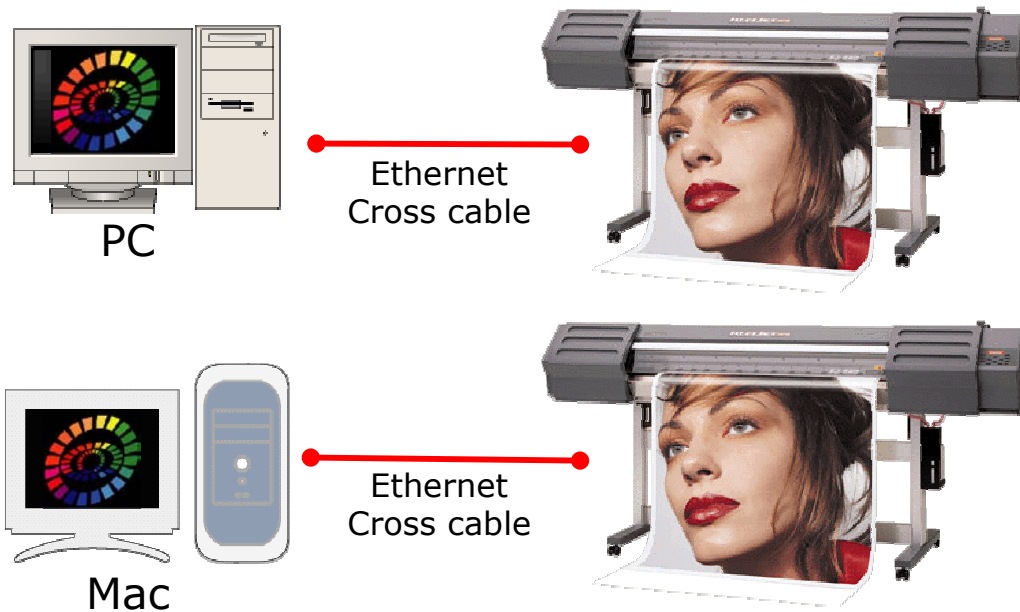
◆ **One server, one client**

- ■ RSC installed on Windows 2000 server
- ■ Client can be Windows 98, ME, 2000 and XP
- ■ Client can also be Mac
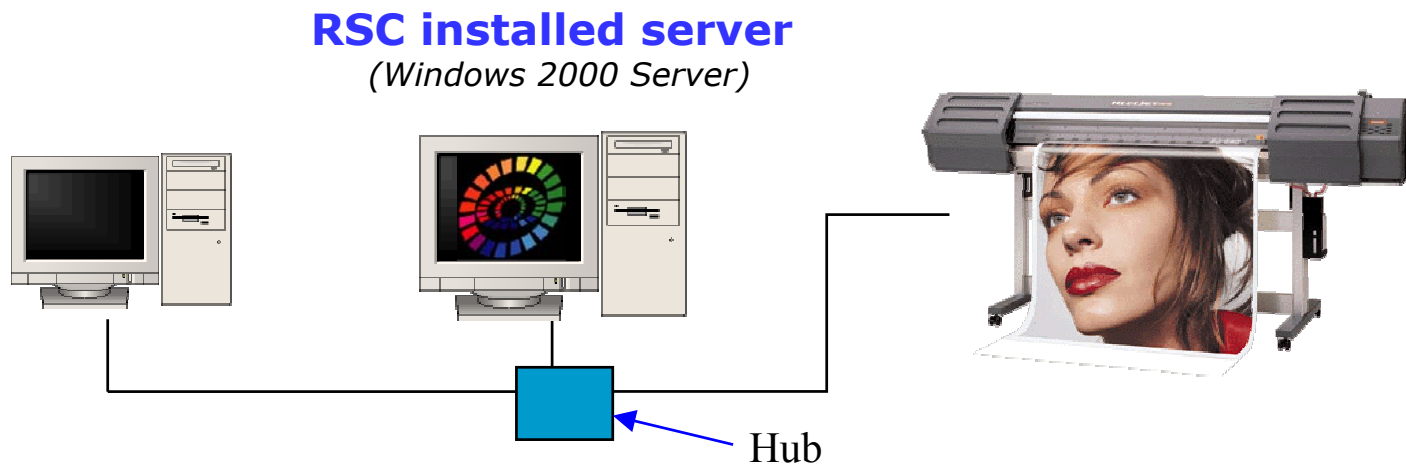
RSC installed server
(Windows 2000 Server)

Hub

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Networking

◆ Office Environment

RSC installed server
(Windows 2000 Server)

PS data

Hub

PC   PC   Mac   Mac

FJ-540

CJ-540

SC-540

SJ-540

SJ-740

Roland   *Get it right on a Roland*
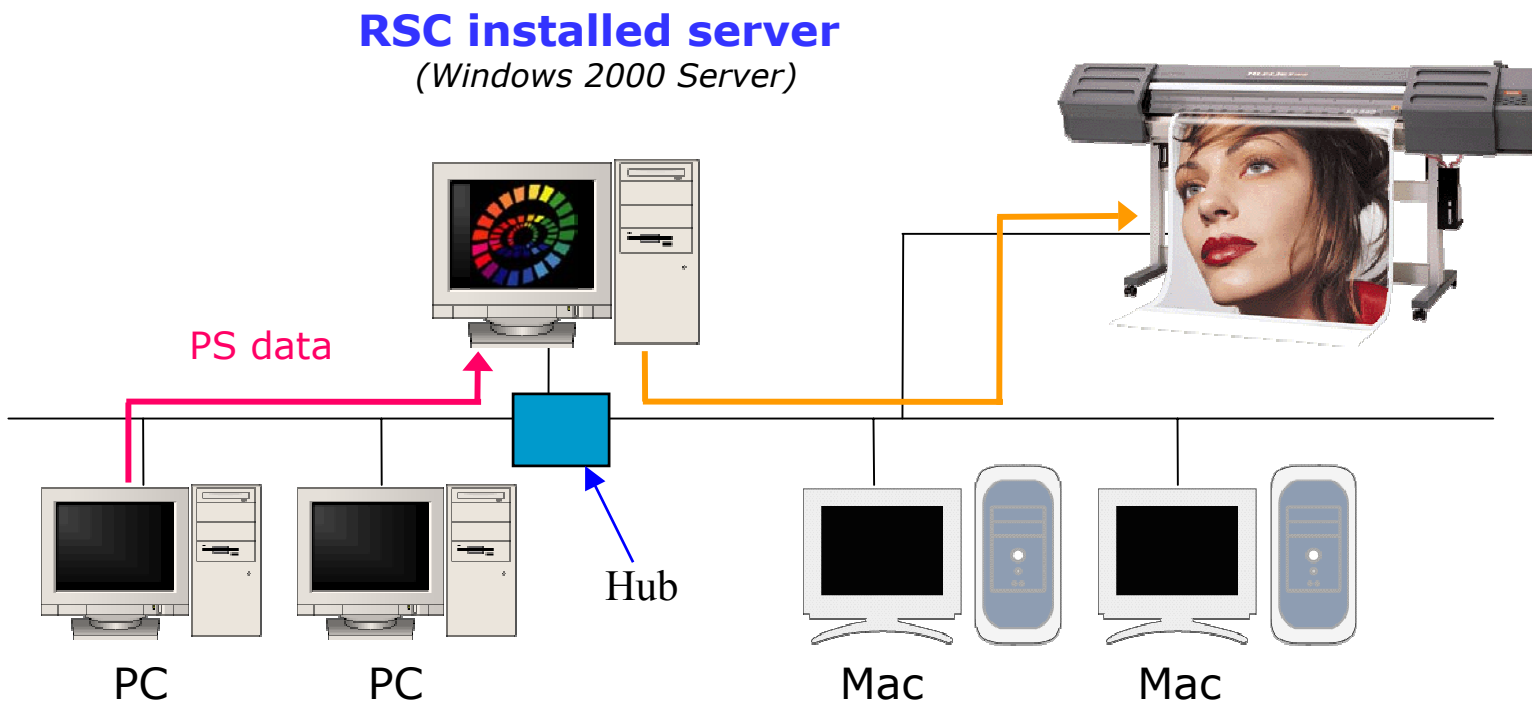
Halftone Customization

◆ **Can precisely control variable droplet size thresholds**

Case 1

small dot | middle dot | large dot

30%   60%

Case 2

small dot | middle dot | large dot

40%   65%

Conceptual Diagram

Case 3

small dot | middle dot | large dot

45%   90%
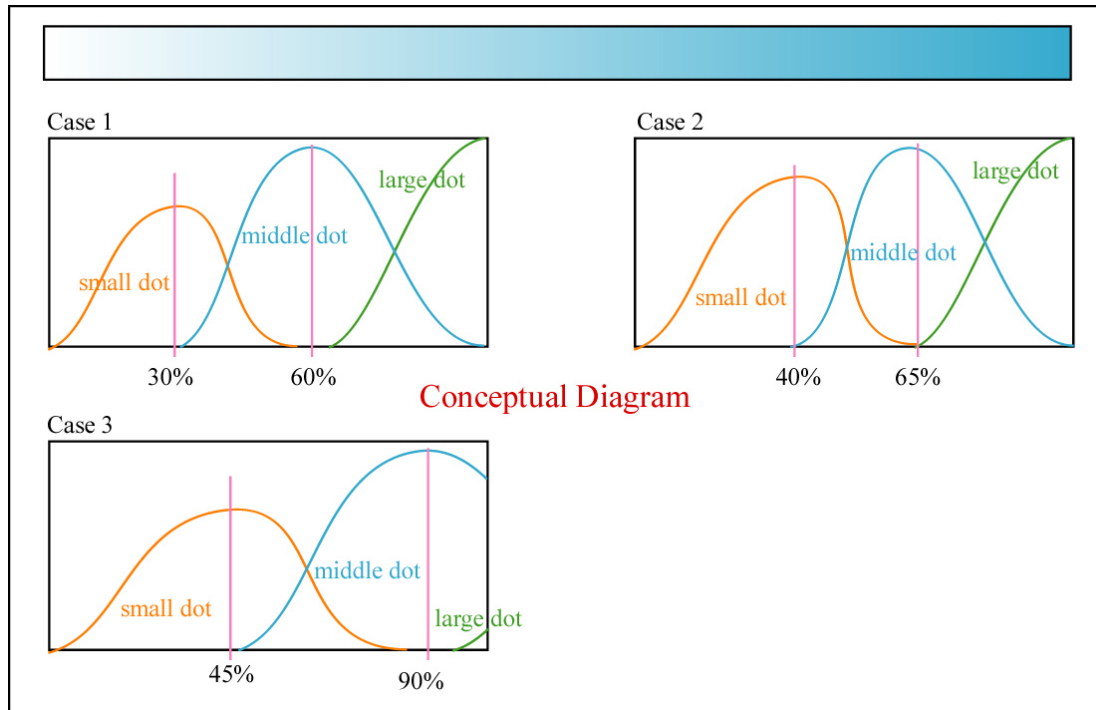
Feature allows for color fidelity between different print modes and different media types

Reduces color shifts in grays and gradations

Offers better con-trol of linearization process

FJ-540

CJ-540

SC-540
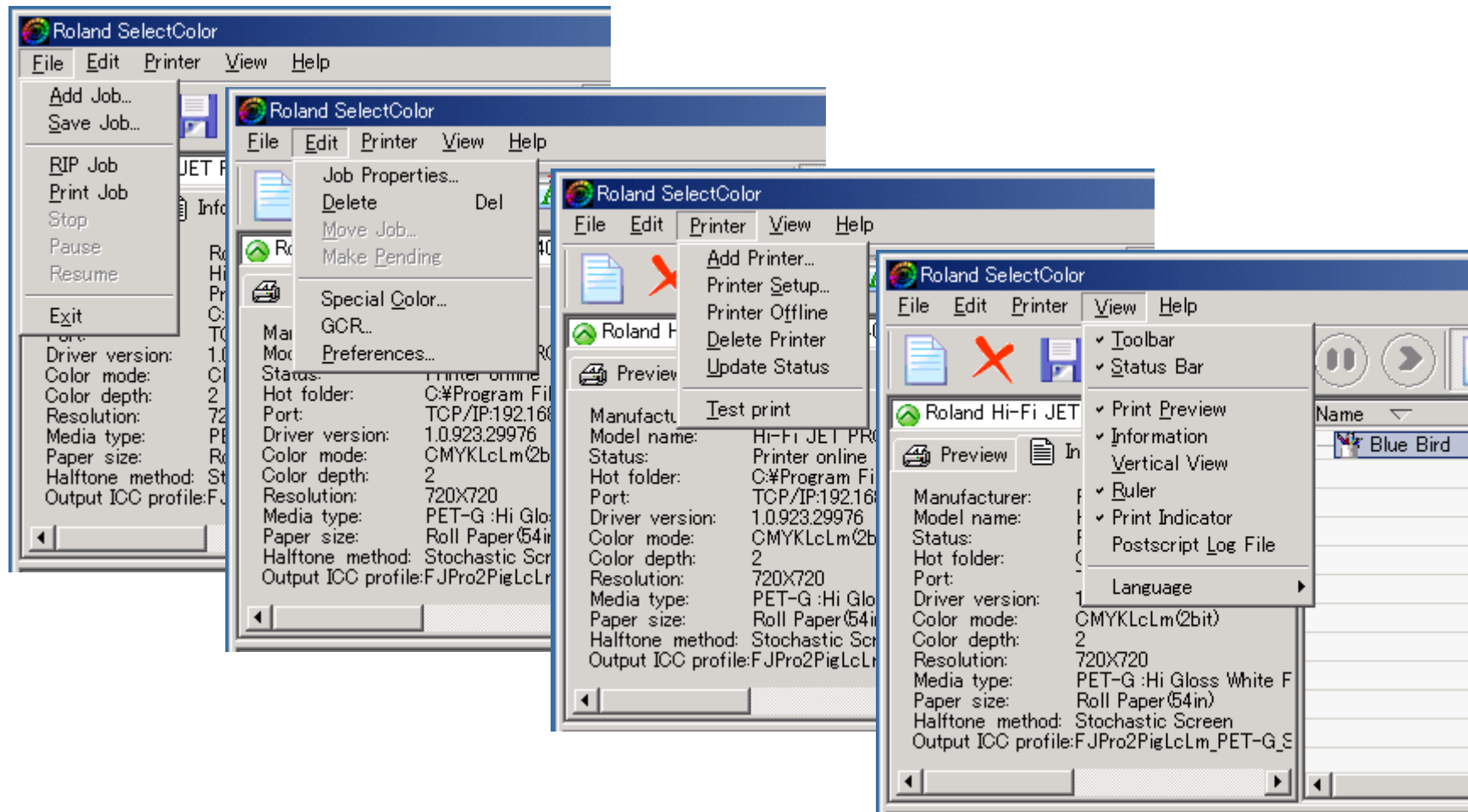
SJ-540

SJ-740

Roland SelectColor — File menu
- Add Job…
- Save Job…
- RIP Job
- Print Job
- Stop
- Pause
- Resume
- Exit

Roland SelectColor — Edit menu
- Job Properties…
- Delete   Del
- Move Job…
- Make Pending
- Special Color…
- GCR…
- Preferences…

Roland SelectColor — Printer menu
- Add Printer…
- Printer Setup…
- Printer Offline
- Delete Printer
- Update Status
- Test print

Roland SelectColor — View menu
- ✓ Toolbar
- ✓ Status Bar
- ✓ Print Preview
- ✓ Information
- Vertical View
- ✓ Ruler
- ✓ Print Indicator
- Postscript Log File
- Language ▶

Roland

Get it right on a Roland

Printer Setup — General tab

Manufactory: Roland
Model Name: Hi-Fi JET PROII FJ-540
Printer Name: Roland Hi-Fi JET PROII FJ-540
Hot Folder: C:¥Program Files¥Roland SelectColor¥

Browse...

☐ RIP and Print after jobs received
☑ Auto rotate image
☑ Rip and Print at the same time
After Printing: Delete

Media Information
Roll Paper(54in)
↔ 137.160 cm   ↕ 0.000 cm
0.305 cm   0.305 cm
0.305 cm   0.305 cm

OK   Cancel   Apply

Printer Setup — RIP tab

☑ Automatic Print Option Selection
Media Type: PET-G :Hi Gloss White Film
Quality: Standard
Resolution: 720x720
Color Mode: CMYKLcLm(2bit)
Dithering: Stochastic Screen   Edit...
Interpolation: Nearest
Density: none   Edit...
Color Correction: ICC Profile

Output Profile
FJPro2PigLcLm_PET-G_Std.icm   ...

Input Profile   ☑ Use Embedded ICC Profile
USWebCoatedSWOP.icc
sRGB Color Space Profile.icm
DefGray.icm

☐ Enable Special Color Matching

OK   Cancel   Apply

Printer Setup — PS tab

☑ Overprint
☐ Use Embedded Halftone screen
Flatness: 0.20
Print pages

OK   Cancel   Apply

Printer Setup (Nesting tab)

General | RIP | PS | **Nesting** | Port | Driver

☐ Enable Automatic Job Nesting

Time Condition
- ☐ At `11:00:00`
- ☐ At `16:00:00`
- ☐ Interval `1` H `0` M

☐ Media Length Covered `76.200 cm`
☐ Number of Jobs `4`

OK | Cancel | Apply

Printer Setup (Port tab)

General | RIP | PS | Nesting | **Port** | Driver

Port	Description
☐ FILE:	
☐ LPT1:	
☐ LPT2:	
☐ LPT3:	
☑ TCP/IP	

Port Parameter
IP Address:192.168.0.100
Port:9100

Configure...

OK | Cancel | Apply

Printer Setup (Driver tab)

General | RIP | PS | Nesting | Port | **Driver**

☑ Use Driver Setting
☑ Enable Calibration   ☐ Auto Cut Paper

Print Direction
- ○ Unidirection Printing
- ● Bi-direction Printing

Page Space `10 mm`
Over Print `1`
Drying Time `0 sec`

OK | Cancel | Apply

Job Properties

Layout | RIP | PS | Driver | Tiling | Label

Paper Size
Roll Paper(54in)
↔ 137.160 cm   ↕ 0.000 cm

Paper Margin
0.305 cm   0.305 cm
0.305 cm   0.305 cm

Size
↔ 40.640 cm   ↕ 30.480 cm
↗ 200.00 %   ⬚

Position
0.000 cm   0.000 cm
3   0.635 cm

☑ Rip and Print at the same time
☐ Apply to entire job
After Print: Delete

Blue Bird

Job Properties

Layout | **RIP** | PS | Driver | Tiling | Label

☑ Automatic Print Option Selection

Media Type: PET-G :Hi Gloss White Film
Quality: Standard
Resolution: 720x720
Color Mode: CMYKLcLm(2bit)
Dithering: Stochastic Screen   Edit...
Interpolation: Nearest
Density: Job Embedded   Edit...
Color Correction: ICC Profile

Output Profile
FJPro2PigLcLm_PET-G_Std.icm   ...

Input Profile   ☑ Use Embedded ICC Profile
USWebCoatedSWOP.icc
sRGB Color Space Profile.icm
DefGray.icm

☐ Enable Special Color Matching

Blue Bird

Job Properties

Layout | RIP | **PS** | Driver | Tiling | Label

☑ Overprint
☐ Use Embedded Halftone screen

Flatness: 0.20

Print pages: 1   (Total 1 Pages)

Blue Bird

Roland

Get it right on a Roland

Job Properties — Driver tab
- Layout | RIP | PS | Driver | Tiling | Label
- ☑ Use Driver Setting
- ☑ Enable Calibration   ☐ Auto Cut Paper
- Auto Cut Paper
- Print Direction
  - ○ Unidirection Printing
  - ● Bi-direction Printing
- Page Space   10 mm
- Over Print   1
- Drying Time   0 sec
- Blue Bird

Job Properties — Tiling tab
- Layout | RIP | PS | Driver | Tiling | Label
- Paper Size   ↔ 137.160 cm   ↕ 0.000 cm
- Image Size   ↔ 40.640 cm   ↕ 30.480 cm
- Selected Tile   0   ↔ 40.640 cm   ↕ 30.480 cm
- All Tiles
  - ☑ 3   ☑ 2
  - ☐ 40.640 cm   ☐ 30.480 cm
  - 1.270 cm
- Reset
- Blue Bird

Job Properties — Label tab
- Layout | RIP | PS | Driver | Tiling | Label
- ☑ ☐ Label all job together
- ☑ Print label
  - ☑ Printer Name   ☑ Media Type
  - ☑ File Name   ☑ Quality
  - ☑ Separation   ☑ Resolution
  - ☑ Copies   ☑ Color Mode
  - ☑ Date & Time   ☑ Dither Method
  - ☑ Color Correction   ☑ Tile Position
  - ☑ Note   Sample
- Position: Bottom   Width: 1.270 cm
- ☑
- Blue Bird