

# RIPs for Ink-Jet Printers: The State of a Large Market

**I**N THE past ten years, we have witnessed the fastest evolution of any digital printing technology: ink-jet. The high resolution, image quality, speed and low cost of ink-jet printers have resulted in the demise of many previously relied-upon printing technologies. In 1994, Seiko Epson Corporation introduced its first color ink-jet printer, the Epson Stylus Color. Six years later, Epson ink-jet printers are found in many different work environments, including homes, offices, industrial sites and (in 1998) a NASA space mission. Epson is not the only vendor with such a success story. Canon, Encad, HP, Roland and others have also jumped on this bandwagon of opportunity and have been equally successful in filling the demand for today's computer-oriented society.

Although many ink-jet printers today offer impressive speed and resolution, the quality of the printed output is only as good as the quality of the data sent to the printer from the RIP. A RIP takes the PostScript file, creates a display list of all the items on the page, applies screening to images, and spits out composite or separated bitmap files. All output devices are "slaves"; they simply print these bitmap files, and poor input data to the printer results in a garbage in/garbage out scenario.

## Identify the workflow size

Choosing an ink-jet printer is generally considered the "easy part" (and often the cheapest part) of an investment. The next task is to decide which RIP you should use to drive the printer. Unfortunately, there is no such thing as an ideal RIP for all users; if there were, it would make the selection process much easier. However, every user workflow has different requirements, such as trapping, color management, file types, imposition, OPI support, network, queue management and much more.

In order to decide which RIP is appropriate for a particular user, it is important to identify the features of available RIPs, and whether such features are appropriate for the end application. In addition, it is important to assess the workflow environment in which the RIP will be used, as all RIPs are designed for different size workflows. Generally, there are three broad workflow sizes:

- **Small workflows.** These workflows are typical for designers and service bureaus. The RIP is required to drive only one printer with one print queue, and few features are needed in the RIP. Typical RIPs for such workflows include CAD Link PhotoScript, Strydent StyleScript or TechPool Transverter Pro.
- **Medium workflows.** Usually found in small-to-medium-size organizations, these workflows typically require the RIP to drive more than one printer, to publish multiple printer queues and to save paper by imposing two or more RIPped files on one page. Typical RIPs for such workflows include Aurelon DeskCheck and Wasatch SoftRIP.
- **Large workflows.** Mainly aimed at large organizations, or perhaps several organizations that are networked across a WAN, these

workflows require the RIP to offer advanced print queue management, to have robust multitasking ability (the ability to receive and parse queued jobs seamlessly while sending data to several printers) and offer superior performance and processing speed. Typical RIPs for such workflows include CreoScitex Brisque, EFI Fiery LX, and Xitron Navigator XPR.



## Homework time

In this study, we have compiled a comparison table to do the homework for you. Our table analyzes many of the current RIPs available for ink-jet printers today, and compares the key features

**Just for ink-jet.** Aurelon's DeskCheck is one of many RIPs developed specifically for ink-jet printers. The RIP is available in several configurations (a studio edition, a large-format edition, a production server and a complete system) and supports both Mac and Windows platforms.

and specifications of each product. However, for the fullest details, you should consult our Web site at [www.seyboldreport.com/rips/chart.html](http://www.seyboldreport.com/rips/chart.html), which provides many additional specifications (and any post-publication updates) for each RIP.

When assessing the various products in the comparison table, it is important to understand each table field and its relevance to the product. Listed below is an explanation of the different fields used in the table:

- **System type.** RIPs are available either as software products or as stand-alone systems. Contrary to popular belief, there is no such thing as a "hardware RIP." Although many people do refer to boxed systems (such as EFI's Fiery product) as hardware RIPs, these are merely computers with a simple user interface and preinstalled RIP software. A stand-alone system refers to a complete "out-of-the-box" solution, where the RIP software is sold with a computer.
- **Platforms supported.** This column lists the different operating systems for which the RIP software is available.
- **Printers supported.** Only ink-jet printers are listed in this column. Some RIPs may drive additional output devices, such as imagesetters, platesetters, or electrophotographic devices.
- **PostScript interpreter.** The PostScript interpreter is the core component in a RIP; it parses the code, screens images and creates the bitmap file. Many RIPs use third-party interpreters in their RIPs, such as Adobe CPSI, Harlequin, 5D Jaws or GhostScript.

## More Details on the Web Site

The chart in this printed article necessarily focuses on basic comparisons. But on our Web site, space limitations do not arise, and there you will find many more points of comparison to help you in choosing a RIP. The entry point is [www.seyboldreports.com/rips/](http://www.seyboldreports.com/rips/).

In addition to repeating (and perhaps updating) the information on these pages, we present the following details:

**Creates ICC profiles?** Some RIPS allow printer profiles to be created by printing a target, measuring the target's color patches with a spectrophotometer and feeding the data to a profile-creation module.

**Output device linearization?** Ink-jet printers, like other digital output devices, are not linear. Many RIPS compensate for non-linearity by applying predefined transfer curves during the rasterization process. (The RIP vendor supplies transfer curves for the printer models that are supported.) However, some vendors offer a printer linearization module, claiming that it is necessary to build transfer curves for each individual printer, taking into account environmental variances such as relative humidity, which can affect paper absorbency and ink droplet size.

**In-RIP trapping?** Trapping capability may be required if the proof should show trapping that will occur in the final printed product.

**Trap editability?** For certain applications, manual trap editing may be required. Some RIPS offer this feature.

**Number of devices RIP can drive.** Many RIPS have the ability to drive more than one output device at a time. These might be printers, but could also include platesetters, imagesetters, electro-photographic plotters, etc.

**Number of device queues that can be created.** Print queues provide users with the ability to print to a device using predefined parameters, such as page setup, resolution, media type, target ICC profile and more. If the RIP allows several queues to be created, then different print queues can be assigned for differing print applications.

**Can the RIP create output files?** Some users may require the RIP to produce an output file from the ripped data (in such diverse formats as PDF, TIFF, JPEG, etc.) for soft-proofing, archiving or other purposes.

**What PostScript level does the RIP support?** Not all RIPS offer PS Level 3 support. This may be an issue for certain workflow environments.

**What PDF level does the RIP support?** With the increasing use of PDF files, there is a growing trend among RIP vendors to offer native PDF support (i.e., a PDF file can be sent straight to the RIP without converting it to a PS file). However, many RIPS are limited

in their PDF support, so it is advisable to verify whether the RIP can handle the language level you will use.

**Does the RIP have an imposition module?** For ink-jet printers, particularly medium- and large-format printers, the ability to impose two or more ripped files on one page to save media can significantly reduce consumable costs.

**Does the RIP provide 2-byte font support?** Due to the large number of characters in East Asian languages (anywhere from 2,000 to 6,000 characters in each font), they require two bytes per character to reference their fonts, whereas Western language fonts require only one byte. Not all RIPS provide this font support. There are also differences in the file formats used by different font foundries.

**Does the RIP publish printer queues for network users?** If multiple users send jobs the RIP across a network, then the RIP will be required to publish one or more printer queues.

**Can the RIP spool and parse queued jobs while sending data to a printer?** For medium or high RIP usage, the RIP should have the ability to spool and parse queued jobs while printing, or bottlenecks may occur in the workflow.

**Can users monitor status of queued jobs?** For network use, a queue status monitor application allows users to check on the files waiting to be processed.

**Can status be viewed remotely through a browser?** For many network environments, it may not be practical for users to go to the RIP every time they want to view its queue status. Some RIPS publish a Web page that enables users to view job status remotely without a special application program.

**Is there a priority system, whereby a rush job can be jumped ahead of jobs already queued up?** For certain workflow environments, it may be necessary to assign a priority status to queued jobs so that urgent jobs can be pushed through.

**Support for output devices other than ink-jet printers?** Many of the RIPS in this comparison table offer support for other output devices. This may be useful for workflows where one RIP is required to drive other devices, i.e., a platesetter or electro-photographic device.

**Base price.** The price stated in this field is the list price without additional options. All prices are subject to change; buyers are recommended to verify current prices before making purchasing decisions.

**Available modular options.** Although a basic RIP product may not have all the features you'd like, more functions may be offered as a modular option at an additional cost.

## RIPS for Ink-jet Printers

Company and URL	Product	Platforms	Printers	Postscript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
3M (www.mmm.com) (see note 1)	Cactus Ink-jet	Mac, Win NT	Encad NovaJet 500, 630, 700, PROe, PRO 600; HP DesignJets	Cactus	Yes	Yes	NA	No	\$2,085-\$4,555 (depending on driver)
Adobe (www.adobe.com) (see note 2)	PressReady	Mac, Win 95, Win 98, Win NT	Canon BJC-8500; Epson Stylus Color 800, 850, 900 1520, 3000, Stylus Photo 1200, Stylus Pro 5000; HP 2000C, DeskJet 895C, 1120C, DesignJet Color Pro GA	Adobe	Yes	Yes	Prints direct from applications	No	\$250
Alan Graphic Systems (www.alangraphics.com)	alanRIP	Stand-alone	Encad NovaJets; Epson (all); HP DesignJets	Adobe	Yes, Kodak	Yes	NA	NA	\$26,400
	PanDot	Win 2000, Win NT	Encad NovaJets; Epson (all); HP (all)						\$9,500-\$15,900 (depending on driver)
ArtQuest (www.artquest.com)	JetBox	Win 2000, Win NT	Agfa AgfaJet Sherpa; HP DesignJet 1050C, 1055CM, 2000CP, 2500CP, 2800CP, 3000CP, 3500CP, 3800CP	Jaws 5D	Yes	Yes	PS, PDF	No	\$6,000
Aurelon (www.aurelon.com)	DeskCheck	Mac, Win NT	Canon BJC-8500; Epson Stylus Color 1520, 3000, Stylus Photo 700, 750, 870, 1200, 1270, Stylus Pro 5000, 7000, 7500, 9000, 9500; HP DesignJet 2000CP, 3000CP, ColorPro GA; Roland Hi-Fi Jet FJ-40, FJ-50	Aurelon	Yes	No (uses proprietary data format)	PS, EPS, TIFF, Scitex CT, JPEG, BMP, GIF, PCX, PNG and Photoshop	No	\$700-\$4,200 (depending on driver and options)
Best Software (www.bestcolor.com)	BestColor Designer Edition	Mac only	Epson Stylus Color 1160, 1520, 3000, 760, 860, Stylus Photo 1200, 1270, 2000P, 870, Stylus Pro 5000; HP DesignJet 2500CP, ColorProGA, DeskJet 1120C, 1220C; Canon BJC 5500, 7000, 8500	NA	Yes	Yes	PS, EPS, PDF	No	\$700
	BestColor Medium	Win 95, Win 98, Win 2000, Win NT	Canon BJC-8500; Epson Stylus Color 1520, 3000, Stylus Pro 5000; HP DesignJet ColorProGA	GhostScript (Artifex)	Yes	Yes	PS, EPS, TIFF, Delta list	No	\$3,500
	BestColor XL	Win 95, Win 98, Win 2000, Win NT	The above models plus 24-inch printers: Encad Chroma 24; Epson Stylus Pro 7000 and 7500						\$3,000
	BestColor XXL	Mac, Win 95, Win 98, Win 2000, Win NT	Agfa Sherpa; Canon BJC 8500; Encad NovaJet Cromax 24, Cromax II, III and IV, PRO 36, 42e, 50, 600e, 60e, 700; Epson Stylus Color 1520 and 3000, Stylus Pro 5000, 7000, 7500, 9000, 9500; HP DesignJet 1050C, 1055CM, 2500CP, 2xxx VarWare series, 3xxx VarWare series, 650C, 650CM, 750C, 755CM, ColorProGA; Mutoh Falcon RJ 4000, RJ 4100, RJ 6100; Kodak Professional 2042, 2060, 3038, 3043, 3062; Roland CammJet CJ-70, Hi-Fi Jet; Mimaki JV 1300, JV 2-130						\$3,500
Cadlink Technology (www.cadlink.com)	PhotoScript Plus	Mac, Win 95, Win 98, Win 2000, Win NT	Apple ColorStyleWriter 4500; Brady ColorPix 54, 36; CalComp Color TechJet, CrystalJet; Canon BJ-W7000, BJC-4550 PS, BJC-4650 PS, BJC-600 PS, BJC-620 PS, BJC-820 PS, BJC-820 SCSI, BJC-7000 PS; Encad (all); Epson ESC-P2 Stylus Color, ESC-P2 Stylus Pro, ESC-P2 Stylus Pro XL, Stylus Color 400, 440, 500, 600, 640, 660, 740, 760, 800, 1520, 3000, Stylus Pro 9000; Graphtec SignJet Pro JX 1060, 1130; HP DeskJet 1100C PS, 560C PS, 690C PS, 870C PS, DesignJet 350, 450, 650C, 750C, 2000CP, 2500CP, 2800CP, 3000CP, 3500CP, 3800CP; Mimaki JV-2, JV-1300; Mutoh Falcon RJ-4000, RJ-4100, RJ-6100; Roland HiFi Jet FJ-40, FJ-50, CammJet CJ-70, CJ-500, ColorCamm PRO PC-50 1C, PC-50 4C, PC-60; Selex SRL	CADlink	Yes, Agfa ColorTune engine	Yes	PhotoScript prints direct from applications	No	\$300-\$1,800 (depending on driver)
	PhotoScript Lite	Mac, Win 95, Win 98, Win 2000, Win NT							\$1,000

Note 1. In 2001, the Cactus Ink-jet will be marketed by Onyx Graphics.

Note 2. Adobe has suspended development on PressReady.

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Company and URL	Product	Platforms	Printers	PostScript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
CGS Publishing Technologies International (www.cgs.de)	Oris Color Tuner	Win 2000, Win NT	Epson, HP, Sherpa, Encad and any Windows printer	CGS	Yes	Yes	PS, PDF, EPS, TIFF, JPEG, TIFF/IT-P1, TIFF-G4, Scitex Handshake, Scitex NLW	Yes	\$2,450-\$5,750
	Oris Color Tuner for Epson Lite	Win 2000, Win NT	Epson (all)						\$2,000
Colorbus (www.colorbus.com)	Cyclone Office LF	Stand-alone, uses Win NT	Canon BJW-7000; HP DesignJet 750C, 755CM, 1055CM, 2000CP, 2500CP, 2800CP, 3000CP, 3500CP, 3800CP; Encad NovaJet 3, PRO, PROe; Mimaki JV2, JV-900, JV-1300; Mutoh Falcon RJ-4000; Roland CammJet CJ-70; Selex SRL	Jaws 5D	Yes, Kodak DCS	Yes	PS, EPS, PDF, TIFF	No	\$7,000
	Cyclone Professional LF								\$13,000
	CycloneJet	Win NT							HP DesignJet 1050, 1055, 5000; Epson 7000, 7500, 9000, 9500; Canon BJW 7000
ColorGate (www.colorgate.com)	ColorGate Base	Win 95, Win 98, Win 2000, Win NT	Encad Cromas24; Epson Stylus Color 3000, Stylus PRO 9000; Graphtec SignJet PRO; Kodak Professional LFP 2042, 2060; Mimaki JV2-130, JV-1300; Mutoh Falcon RJ-4000, RJ-4100, RJ-6100; Roland CammJet CJ-400, CJ-500, Hi-Fi Jet FJ-40, FJ-50	Jaws 5D	Yes, ColorBlind	Yes	PS, EPS, PDF, TIFF, Targa, etc. (total 36 formats)	No	\$3,000
	ColorGate Personal	Win 98							\$1,500
	ColorGate Pro Server	Win 95, Win 98, Win 2000, Win NT							\$4,000
	ColorGate Pro Server Plus	Win 95, Win 98, Win 2000, Win NT							\$5,000-\$5,800 (depending on driver)
ColorSpan (www.colors span.com)	See Macdermid Colors span, below								
ColorBurst Systems (Compatible Systems Engineering) (www.colorburstrip.com)	ColorBurst	Win 95, Win 98, Win 2000, Win NT	Encad Cromas24, NovaJet 2, 3, 4, 500, 630, 700, PRO, PRO 50, PROe, PRO 600e; Epson Stylus Color 3000, Stylus Pro 5000, 9000; Graphtec SignJet Pro; HP DesignJets; Iris 3024, 3047, 4012, 2Print, 4Print, Gprint, Realist 1, 2, 5015, 5	Jaws 5D	Yes, Kodak	Yes	PS, EPS, PDF, TIFF, Targa, CT, JPEG	No	\$1,500- \$7,500
Compose Systems (www.composeusa.com)	Express RIP	Mac, Win 2000, Win NT	Canon BJC-8500; Encad NovaJet 3, 4, PRO, PRO 42e3, PRO 50, PRO 60e, PRO 600e60; Epson Stylus 600, 800, Stylus Color 1520, 3000, Stylus Pro 5000, 9000, XL+; Graphtec SignJet Pro JX 1060, 1130; HP DesignJet 650C, 750C, 2000CP, 2500CP, 3000CP, 3500CP	Harlequin	Yes	Yes	PS, EPS, PDF	Yes, Harlequin module	\$1,500-\$3,900 (depending on driver)
Condé Systems (www.conde.com)	SubliPrint RIP	Win 95, Win 98, Win 2000, Win NT	Epson Stylus Color 800, 850, 1520, 3000	Jaws 5D	Yes	Yes	PS, EPS, PDF, TIFF	Yes	\$600
CreoScitex (www.creoscitex.com)	Brisque Digital Front End	Stand-alone, AIX 4.2.1	Encad NovaJet PRO 42e, PRO 50, PRO 60e; HP DesignJet 650C, 750C, 1050C, 2000CP, 3000CP; Iris (all)	Adobe	Yes	Yes	PS, PDF, PDF/X-1, EPS, DCS1&2, TIFF, TIFF/IT-P1, 1-bit TIFF, TIFF/G4, LW/CT, Handshake, ICF	Yes	\$45,000
	PS/M	Mac	CreoScitex imagesetters		No	No	PS, EPS, PDF, TIFF, TIFF IT-P1, JPEG, JFIF and CreoScitex formats	Yes	NA
DCS Software (www.dcssoftware.co.uk)	PosterJet 6	Mac, Win 95, Win 98, Win NT, Win 2000	Epson Stylus Pro 9000; HP DesignJets; Kodak Digital Science 1000, Professional 2042, 2060, 4742, 4760	Jaws 5D	Yes, Kodak	Yes	PS, PDF, EPS and 70+ raster formats	No	\$1,125-\$4,245
DuPont (www.dupont.com)	Color Station	Win 95, Win 98, Win NT	Epson Stylus Pro 5000, 7000, 7500, 9000, 9500	BEST Software (GhostScript)	Yes	Yes	PS, TIFF, TIFF IT-P1, EPS, JPEG, DCS, DCS 2, Delta List	No	\$4,000-\$5,000 (depending on driver)
Durst-Dice America (www.diceamerica.com)	Cheetah 2000	Stand-alone system, dual Pentium III 800 MHz, 512 MB RAM, 36 GB SCSI disk and two IDE disks	Durst Lambda, Durst Epsilon, LVT Rhino+, LVT 1010, LVT 1620, CSI LJ5000, CSI LJ2080, Scitex Novo, Scitex Grandjet, Wide Format Ink-jet	NA	Yes, Kodak	Yes	TIFF, PS, EPS, Scitex CT, PDF	Yes (option)	\$27,700
	Cheetah 2000 Lite		LVT Rhino, various digital minilabs, Kodak LED						\$9,900

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Company and URL	Product	Platforms	Printers	PostScript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
Electronics For Imaging (www.efi.com)	Fiery LX/LX-W	Stand-alone, Unix	Epson Stylus Pro 5000; Encad NovaJet PRO, PROe, PRO 600e	Adobe	Yes	Yes	PS, EPS, PDF, TIFF	No	\$4,500–\$5,000 (depending on vendor)
	Fiery X2/X2-W		Encad NovaJet 500, 630, 700, PRO 600e; Epson Stylus Pro 7000, 9000; HP DesignJet 2000CP, 2500CP, 3000CP, 3500CP; Xerox Xpress						\$6,000–\$7,000 (depending on vendor)
Epson (www.epson.com)	ESR-Stylus RIP	Mac, Win 95, Win 98, Win NT	Epson Stylus Color, 800, 850, 900, 1520, 3000, Stylus Photo, EX, 1200, 1270, Stylus Pro 5000, 9000	Adobe	NA	NA	Prints direct from applications	No	\$145
Gerber Scientific Products (www.gspinc.com)	Omega ImageRIP	Win 95, Win 98	Encad NovaJet 3, PRO 36, PRO 50; Graphtec SignJet Pro; HP DesignJet 450C, 488CA, 750C Plus, 755CM	NA	Yes	Yes	JPEG, TIFF, BMP, PCX, Corel, Gerber	No	\$1,000
GMG Weihing (www.colorproof.de)	ColorProof	Win NT	Iris Smart, 3024, 3047, 5015, 5030, 2Print, 4Print; Epson 3000, 5000, 7000, 9000; Fuji Pictroproof; HP Designjets; Encad Novajets; Mimaki JV2 series; Minolta CF900, CF910	Jaws 5D	Yes	Yes	PS, PDF, TIFF, TIFF-IT, CT, LW	Yes	\$2,000–\$15,000 (depending on driver)
Graphics Integration Technologies (www.graph-int.com)	Graphics-Pro	Mac, Win 95, Win 98, Win NT	Encad NovaJet PRO, PRO 50, PROe, PRO 600e; Epson Stylus Color 1520, 3000, Stylus Pro 5000, 9000; HP DesignJet 350C, 650C, 750C, 755CM, 2000CP, 2500CP, 3000CP, 3500CP; Mutoh Falcon RJ-4000	Harlequin	Yes, HIPP	Yes	PS, EPS, JPEG, PDF, TIFF, TIFF/IT-P1, RIP Page Buffers	Yes	\$1,900
Graphx (www.graphx.com)	RasterPlus Windows Edition	Win 95, Win 98, Win 2000, Win NT	Fuji Pictrography 4000, 3500, 3000, Pictrostat 400; Epson Stylus Pro 9000, 7000; Encad NovaJet PROe, PRO 600e, NovaJet Pro, Pro 50, Cromax24; Gretag FotoPrint 500, 1000, 2000, 3000, 5000	Jaws 5D	Yes	Yes	PS, EPS, PDF, EXIF, TIFF, JPEG, GIF, PCX, Targa, Sun Raster, PICT, PNG, CALS, Gem Image, MacPaint, Microsoft Paint, Photo CD, FlashPix, PhotoShop	No	\$800–\$2,000 (depending on driver)
	RasterPlus Macintosh Edition	Macintosh	Fuji Pictrography 4000, 3500, 3000, Pictrostat 400		No	No		No	\$800–\$2,000 (depending on driver)
Highwater Designs (www.highwater.co.uk)	Micro Torrent	Win 95, Win 98, Win NT	Encad NovaJet 42, 630, PRO, PRO 60e; Epson Stylus Color 3000, Stylus Pro 5000, 7000, 9000; HP DesignJet 450C, 455CA, 650C, 750C, 750C Plus, 755CM, 2000CP, 2500CP, 3000CP, 3500CP; ColorSpan DisplayMaker Series XII	Harlequin	Yes	Yes (with HIPP option)	PS, EPS, PDF, JPEG, CCITT; option for TIFF-IT	NA	\$1,600–\$2,400 (depending on driver)
	Torrent	Win 95, Win 98, Win NT							\$1,600–\$3,200 (depending on driver)
Ilford (www.ilford.com)	RIPStar R Series	Win NT	Encad Cromax24, NovaCut, NovaJet 2, 3, 600e, 630e, 700e, PRO, PROe; HP DesignJet 700, 750C, 750C Plus, 755CM, 2000CP, 2500CP, 3000CP, 3500CP; Ilford IJT 520, IJT 620, IJT 720, IJT 1000	Jaws 5D	Yes (Logo)	Yes	PS, EPS, PDF	No	\$1,000–\$6,000 (depending on driver)
Image Technologies (www.imagetechdev.com)	Wisp-PS	Win 95, Win 98, Win 2000, Win NT	Canon BJC-8500; ColorSpan DisplayMaker VIII, XII, FabriJet; Encad (all); Epson Stylus Pro 9000; HP DesignJet 750C, 1050C, 1055CM, 2000CP, 2500CP, 3000CP, 3500CP; Mutoh Falcon RJ-4100, RJ-6100; Roland Hi-Fi Jet FJ-40, FJ-50	Jaws 5D	Yes (ColorBlind)	Yes	PS, EPS, PDF, HPGL	Yes (option)	\$1,200–\$7,000 (depending on driver)
Imation (www.imation.com)	Matchprint Ink-jet System	Win 2000, Win NT	Canon BJC-8500; HP DesignJet ColorPro GA	Adobe	Yes	Yes	PS, PDF, TIFF, CT, Photoshop	No	\$1,000
iProof Systems (www.iproofsystems.com)	PowerRIP 2000	Mac, Win 98, Win ME, Win 2000	All Epson Ink-jets and all new HP DeskJets. Also Epson, HP and Encad plotters	Adobe	Yes	Yes	PS, EPS, PDF	No	\$250

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Company and URL	Product	Platforms	Printers	PostScript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
MacDermid ColorSpan (www.colors span.com)	ColorMark Pro 7000	Stand-alone, Athlon 700 MHz, 256 MB RAM, 20 GB disk	DisplayMaker Series XII, DisplayMaker HiRes 8-Color Series, Giclee PrintMakerFA, DesignWinder, DisplayMaker Express, DisplayMaker Professional	PowerPage	Yes	Yes	PS, EPS, TIFF, JPEG	No	\$8,500
	RIPStation 600	Stand-alone, Athlon 600 MHz, 256 MB RAM, 16 GB disk	DisplayMaker Series XII, DisplayMaker HiRes 8-Color Series, Giclee PrintMakerFA, DesignWinder, DisplayMaker Express, DisplayMaker Professional		Yes (option)	Yes (option)			\$4,500
Management Graphics (www.mgi.com)	EDOX 99	Stand-alone	Encad Crom a24, NovaJet 3, 500, 630, 700, PRO 36, PRO 42e, PRO 50, PRO 60e, PRO 600e; HP DesignJet 650C, 750C, 755CM, 2000CP, 2500CP, 3000CP, 3500CP	NA	Yes	Yes	PS, PDF, TIFF	No	\$8,000-\$15,000 (depending on driver)
	EDOX 2000		Encad Crom a24, NovaJet 3, 500, 630, 700, PRO 36, PRO 42e, PRO 50, PRO 60e, PRO 600e; HP DesignJet 650C, 750C, 755CM, 1050C, 1055CM, 2000CP, 2500CP, 3000CP, 3500CP						\$8,000-\$15,000 (depending on driver)
Microspot (www.microspot.com)	GraphicPak	Mac	Advance Bryans Colorwriter 6200DS10, 6310, 6320; CalComp 1023, 1025, 1026, 1041GT, 1042GT, 1043GT, 1044GT, 1073, 1075, 1076, 1077, PaceSetter 2024, 2036, DesignMate 81, 83, 720, 945A, 965A, 3024, 3036, TechJET 5324 D, 5336 E, 5424 D, 5436 E; Encad CadJet 1, 2, NovaJet 3, 840; Facit 4551; Graphtec FD5211, FP5301, GP1002, GP1102, GP9001, GP9101, MP1000, MP2000, MP3100, MP3200, MP3300, MS8603, PD9011, PD9111; HP 4220, 7440A Color Pro, 7470A, 7475A, 7550A, 7585B, 7586B, DraftMaster I 7595A, SX 7595B, SX Plus 7595C, II 7596A, RX 7596B, RX Plus 7596C, MX 7599A, MX Plus 7599B, DraftPro Plus C3170A, C3171A, DesignJet 200, 220, 230, 250C, 300, 330, 350C, 430, 450, 455CA, 600, 650C, 700, 750C, 750C-Mono, 750C Plus, 755CM, 755CM-Mono, 2000, 2500CP, PaintJet XL; Hitachi 672; Houston Instruments DMP29, DMP40, DMP41, DMP42, DMP51/MP, DMP52/MP, DMP55, DMP56/MP, DMP61/MP, DMP62/MP, E595DN, E795DN, PC595, PC695; Mutoh: F-920, IP-530, XP-500, XP-501; Numonics 5860; Océ: G1012, G1022, G1032, G1052/C, G1052-U, G1814, G1824-C, G1825-C, G1954, G1964R, G1965E, G1965R; Roland Camm-1 PNC-1000/1800, Camm-2 PNC-2100, DPX-2200, DPX-2500, DPX-2600, DPX-3300, DPX-3500, DPX-3600, DPX-4600, DXY-880, DXY-885, DXY-960, DXY-990 DXY-1100, DXY-1200, DXY-1300, GRX-300/AG, GRX-400/AG, GSX-3000, GSX-4000, SketchMate RP-11, RP-12, RP-21; Zeta Graphics 3600, 8/912, 824/924, 836/936, ZetaDraft 90Z	Non-PostScript	Yes	NA	TIFF, JPEG, BMP, PICT, HPGL	No	\$600
	NetworkPak (Ultra GraphiPak)								\$950
	MacPlot PRO								Most CAD and Drafting applications. Text, Lines and Patterns only.

## RIPS for Ink-jet Printers

Company and URL	Product	Platforms	Printers	PostScript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
MMS (www.imac-rip.de)	iMac RIP-Station	Mac	Canon BJC-4650, BJC-5500, BJC-7000, BJC-8500; Encad Cromas24, NovaJet 3, 4, PRO 36, PRO 50, PRO 60e, PRO 600e; Epson Stylus Color 1160, 1520, 3000, Stylus Photo 1200, 1270, Stylus Pro 5000, 7000, 9000; HP DeskJet 1120C, 2000C, 2500C, DesignJet 450C, 75	NA	Yes	Yes	PS, EPS, PDF, TIFF	No	\$1,204-\$2,270 (depending on driver)
Onyx Graphics (www.onyxgfx.com)	PosterShop PS	Win 95, Win 98, Win NT	CalComp CrystalJet, EcoGraphics, EcoPRO, DrawingMaster, TechJet 5500; Encad Cromas24, NovaCut, NovaJet 2, 3, 4, 500, 700, PRO, PROe, PRO 600e; Epson Stylus, Stylus Color 3000, Stylus Pro 5000, 9000; Fujifilm Color Production System 36, 54; HP DesignJet 200C, 220B, 230B, 250B, 330, 350C, 600B, 650C, 700, 750C, 750C Plus, 755CM, 1050C, 1050CM, 2000CP, 2500CP, 3000CP, 3500CP, DeskJets (all); Mimaki JV2, JV-1300; Mutoh Falcon RJ-4000; Roland Hi-Fi Jet FJ-40, FJ-50	Jaws 5D	Yes	Yes	PS, EPS, PDF, TIFF, TIFF-IT, JPG, eMapper, MrSid, BMP, PCX, PhotoCD	No	\$1,200
	PosterShop Pro	Win 95, Win 98, Win NT	Same as PosterShop PS product, with additional drivers for: ColorSpan: Giclée; PrintMaker FA, DesignWinder, DisplayMaker, DisplayMaker Series XII; RasterGraphics DSP Arizona, PiezoPrint 1000, 5000, 6000						\$3,000
	PosterShop Server	Win 95, Win 98, Win NT	Same as PosterShop Pro product						\$3,000
	PosterShop Pro Server	Win 95, Win 98, Win NT	Same as PosterShop Pro product						\$1,195-\$4,995
	PosterGenie	OEM component only	Same as PosterShop Pro product	Jaws 5D	Yes	Yes	Only reads PosterGenie Template Format, based on PDF	No	\$2,000-\$4,000 (depends on quantity)
Pixelis (www.pixelis-online.com)	ProofCreator	Mac	Agfa AgfaJet Montana, Sherpa; Canon Entire BJC Printer Range; ColorSpan DisplayMaker; DuPont Digital WaterProof; Encad NovaJets; Epson Stylus Color 600, 640, 660, 740, 800, 850, 860, 900, 3000, Stylus Photo 1200, 1270, Stylus Pro	Harlequin	Yes	Yes	PS, EPS, PDF, 1-bit TIFF	NA	\$800-\$1,700 (depending on driver)
	ProofRoom		As above, but in a ROOM workflow						\$2,000
Pixo Arts (www.pixoarts.com)	Picaxo Bureau 2000	Win 95, Win 98, Win 2000, Win NT	Any non-PostScript printer (RIP uses vendor's printer driver)	GhostScript (Artifex)	Yes	Yes	TIFF, JPEG, PhotoCD, FXP, BMP, EPS, TGA, EXIF, PCX, PSD, PCG, AS, WPG, PICT, AVI. Also Twain scanners	No	\$5,000
Repro Precision (www.prepressimage.on.ca)	Dispatch-it (formerly PixelPower Pro)	Win 2000, Win NT	Encad NovaJets; Epson Stylus Color 3000, Stylus Pro 5000, 9000; GEI ColorProof XL; HP DesignJets; Mutoh (all); Selex (all)	Jaws 5D	Yes	Yes	PS, EPS, DCS2, TIFF, PDF	No	\$4,000
RIPit Computer (www.ripit.com)	OpenRIP	Stand-alone, Pentium 3 650 MHz, 128 MB RAM, 20 GB disk	Encad Cromas24, NovaJet 2, 3, 4, PRO, PRO 50, PROe; Epson Stylus Color 800, 1520, 2000, 3000, 5000, 7000, 7500, 9000, 9500, Stylus Pro, Stylus Pro XL; HP DesignJet 650C, 750C, 2000CP, 3000CP	Adobe	Yes, uses Windows 2000 CMM	Yes	PS, EPS, PDF	No	NA

## RIPS for Ink-jet Printers

Company and URL	Product	Platforms	Printers	Postscript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
Scanvec-Amiable (www.amiableworld.com)	PhotoPRINT	Mac, Win 95, Win 98, Win 2000, Win ME, Win NT	Brady ColorPix, Pro; CalComp TechJet, 175i, 5524, 5536; Canon BJC-8500; Compu-Dif First; Data Mate Rembrandt I, II; Encad Cromaz4, NovaJet 2, 3, 4, PRO, PROe, PRO 600e; Epson Stylus Color 500, 1520, 3000, Stylus Photo EX, Stylus PRO, PRO XL; FujiFilm Kaleida CPP, CPS; G&C Crisper; HP DesignJet 350C, 450C, 455CA, 650C, 750C, 750C Plus, 755CM, 2000CP, 2500CP, 3000CP, 3500CP; Mimaki JV-1300, TJ-50; Mutoh RJ-1300, 1300V2, RJ-1800, SpectraJet 424, 436; Para System PLBP-6016; Seiko IP-4000; Selex SR-850D, SR-850E, SR-950, SR-950D, SR-950E; ZYnd 4-Color model	Adobe	Yes	Yes	PS, EPS, PDF, TIFF, JPEG, PCD, PSD, BMP, DCS	No	\$900-\$3,000 (depending on options)
SeeColor (www.seecolor.com)	Computer to Proof	Win NT, 2000	HP DesignJet 1000, 2000, 3000, and 5000 series	None, bitmap proofing only	Yes, SeeColor's Spectral Color Matching System	No	1-bit TIFF	No	\$10,000
Serendipity Software (www.riponce.com)	BlackMagic	NT 4.0, Win 2000, Linux, IRIX, Solaris	Agfa Sherpa; CalComp CCRF, TechJet/CrystalJet; Canon BJC 8500, 600, 800; Encad NovaJet; Epson 7000, 9000, 7500, 9500; Epson 1520, 2000, 3000, 5000; Fuji FirstProof; HP 1050, 2000, 3000, 5000, 1120C, 2500GA, Mono Laser, Color Laser; Mimaki; Mitsubishi DiamondProof; Mutoh RJ-1500; RasterGraphics 5000; Roland CammJet, HifiJet, FJ-500/400	GhostScript (Artifex)	Yes	Yes	PS, EPS, PDF, TIFF, JPEG and ripped files from Harlequin, Celebra, Delta, Taipan and others.	No	\$4,500-\$15,000 (depending on features)
	MegaRIP	Win 2000, Win NT, Linux							\$2,000
Shira (www.shira.com)	ShiraProof Pro	Win NT	DuPont Digital Waterproof; Epson Stylus Color 3000, Stylus Pro 5000, 9000; HP DesignJet 650C, 750C, 2000CP, 2500CP, 3000CP, 3500CP; Iris 2Print, 4Print, Realist 5015, 5030	Jaws 5D	Yes	Yes	PS, EPS, PDF, Scitex, Brisque	Optional	\$5,000+ (depending on driver)
Sign-Tronic (www.sign-tronic.dk)	Colour Graphics Server	Standalone, Solaris on Sun	Encad NovaJet 2, 3, 4, 500, 700, PRO 36, PRO 42e, PRO 50, PRO 60; HP DesignJet 650C, 750C, 750C Plus, 2000CP, 2500CP, 3000CP, 3500CP; RasterGraphics Arizona, PiezoPrint 1000, 5000	NA	Yes	NA	EPS, TIFF	Yes	\$6,700
Storm (www.storm.de)	Prooflink	Mac, Win NT or 2000	Canon BJC-8500; Epson Stylus Color 1520, 3000, Stylus Pro 5000, 7000, 9000	Harlequin	Yes	Yes	PS, EPS, PDF, TIFF, JPEG	No	\$800-\$3,000 (depending on driver and options)
Strydent Software (formerly Infowave) (www.strydent.com)	StyleScript 5.0	Mac	Epson Stylus Color 740, 740i, 760, 860, 900, 900N, 900G, 1160; HP Deskjet 1120C	Adobe	Yes (ColorSync and CRDs)	Yes	PS, EPS, PDF	No	\$120
	StyleScript 3.8	Mac	Apple Color StyleWriter 6500, 4500, 4100, 2500, 2400, 2200, 1500, 1200, II, Pro; Canon BJC-4550; Epson Stylus Color 500, 600, 800, 1520; HP DeskJet 850C, 855C, 870C, 1120C, DeskWriter 550C, 600, 660C, 680C	Adobe	Yes (CRDs only)	No	PS, EPS	No	\$120
TechPool Software (www.techpool.com)	Transverter RIP	Macintosh, Win NT, Win98, Win95	Fuji Pictography 3000/4000, Pictostat Digital 400	Jaws 5D	Yes	Yes	PS, PDF, EPS, TIFF, JPEG	No	\$1,300
Visual Edge Technology (www.vetechnology.com)	ImageJet 24	Mac, Win 95, Win 98, Win NT	Encad Cromaz4; Epson Stylus Color 1520, 3000; HP DesignJet 350C, 450C	Harlequin	Yes	Yes	PS, EPS, PDF, TIFF	No	\$600
	ImageJet 36	Mac, Win 95, Win 98, Win NT	CalComp TechJet 5500; Encad Cromaz4, NovaJet 2, 3, 4, PRO; Epson Stylus Color 1520, 3000; HP DesignJet 350C, 450C, 650C, 655C, 750C, 755PS, 2000CP, 2500CP						\$1,300

## RIPS for Ink-jet Printers

Company and URL	Product	Platforms	Printers	PostScript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
Visual Edge Technology (www.vetechnology.com)	ImageJet 2000	Mac	CalComp TechJet 5500; Encad Cromaz4, NovaCut 54, NovaJet 2, 3, 4, PRO, PRO 50, PROe 42, PROe 60, PRO 600e; Epson Stylus Color 1520, 3000, Stylus Pro 5000, 9000; Graphtec JX 1130; HP DesignJet 350C, 450C, 650C, 655C, 750C, 755PS, 1050C, 2000CP, 2500CP	Harlequin	Yes	Yes	PS, EPS, PDF, TIFF	No	\$2,500-\$4,000 (depending on options)
	ImageJet EX	Mac, Win NT	CalComp TechJet 5500; Encad Cromaz4, NovaCut 54, NovaJet 2, 3, 4, PRO, PRO 50, PROe 42, PROe 60, PRO 600e; Epson Stylus Color 1520, 3000; Graphtec JX 1130; HP: DesignJet 350C, 450C, 650C, 655C, 750C, 755PS, 1050C, 2000CP, 2500CP, 3000CP, 3500CP; Mimaki JV-1300; Roland CammJet CJ-70						\$2,500
	ImageJet XL	Mac, Win NT	Same as ImageJet EX product						\$4,500
Vividata (www.vividata.com)	PShop	HP-UX 10, IBM AIX, IRIX, Linux, Solaris	Canon BJC-50, BJC-80, BJC-85, BJC-1000, BJC-2000, BJC-2100, BJC-3000, BJC-5100, BJC-6000, BJC-8200, BJC-8500, LR1; Epson Stylus printers; HP DeskJet 310, 320, 340, 340C, 350C, 400, 400L, 420, 420C, 500, 500C, 510, 520, 540, 550C, 560C, 810C	GhostScript	Yes	Yes	PS, PDF, TIFF, JPEG	No	\$500-\$15,000 (depending on driver and options)
Vivid Image Technology (www.vividimage.com)	WC7500	Stand-alone, Pentium 433 MHz, 64 MB RAM (expandable), 10 GB disk, Linux OS	Calcomp TechJet 5524, 5536; Canon BJ-W7000; Encad Cromaz4, NovaCut 24, 54, NovaJet II, III, PRO 36, PRO 50, PRO 42e, PRO 60e, PRO 600e, 500, 630, 700; Epson Stylus Pro 3000, 7000, 7500, 9000, 9500; Fujifilm Pictography 3000, 4000, Pictostat Digital 400; Graphtec SignJet Pro JX 1060, JX 1130; HP DesignJet 350C, 450C, 455CM, 750C, 755CM, 1050C, 1055CM, 2000CP, 2500CP, 3000CP, 3500CP; Kodak 2042, 2060; Mutoh HJ-800M, RJ-1300V2, RJ-1800, RJ-4000; Océ 5351, 5352; Selex SG950	Jaws 5D	Yes	Yes	PS, TIFF, JPEG	No	\$3,500
Wasatch (www.wasatchinc.com)	SoftRIP	Win 95, Win 98, Win 2000, Win NT	Brady ColorPix 54, 36; CalComp CrystalJet, TechJet 5500; Encad Cromaz4, NovaJet, NovaJet 500, 630, 700, PROe, PRO 600e; Graphtec SignJet JX 1300; HP DesignJet 350C, 650C, 750C, 1050C, 1055CM, 2000CP, 2500CP, 2800CP, 3000CP, 3500CP, 3800CP; Selex SG9	Jaws 5D	Yes (Kodak, Agfa, Microsoft plug-ins available)	Yes	PS, EPS, PDF, TIFF, Targa, MrSid	No	\$1,000-\$7,000
	SoftRIP Light	Win 95, Win 98, Win 2000, Win NT							\$1,600
Xitron (www.xitron.com)	Epson Navigator XPR	Mac, Win 2000, Win NT	Epson Stylus Color 1520, 3000, Stylus Pro 5000, 7000, 9000	Harlequin	Yes	Yes	PS, EPS, DCS, PDF, JPEG; TIFF/IT P1 (option)	No	\$1,500-\$3,000 (depending on driver)
Yarc Systems (www.yarc.com) (see note 3)	YARC EZ	Mac	Encad (all); HP DesignJets; Epson Color Stylus 3000, Stylus Pro 5000, 7000, 7500, 9000, 9500; Roland CJ Series, FJ Series; Mutoh Falcon RJ4000, RJ4100	Yarc	Yes	Yes	PS, PDF	Yes	\$1,500
	YARC Extreme	Mac	Epson Stylus Pro 3000, 5000, 7000, 7500, 9000, 9500						\$250-\$750 (depending on printer)
	YARC XP Server	Standalone, Intel ATX with Linux plus PowerPC RIP	Encad NovaJets, NovaCut; Graphtec Signjet; HP DesignJets; Epson Stylus 3000, Stylus Pro 5000, 7000, 7500, 9000, 9500; Roland CJ, FJ and Camm series; Mutoh Falcon series						\$5,000-\$11,500 (depending on configuration)

Note 3. In December, Yarc reported that it has suspended operations.

## RIPS for Ink-jet Printers

Company and URL	Product	Platforms	Printers	PostScript Interpreter	Integrated CMS	Reads ICC profiles	Input file formats	OPI support	Price
Zeh Graphic Systems (www.zeh.com)	NetPlot	Linux, Unix, Win NT	Epson Stylus 3000, 5000, 7000, 7500, 9000, 9500; HP DesignJet 750, 755, 2000, 2500, 3000; Fuji PictroProof	NA	NA	NA	PS, CGM, JPEG, GIF, TIFF, BMP, RLE, PCX, XWD, HPGL2	NA	\$5,000
	ZEHPlot PE	Linux, Unix, Win 95, Win 98, Win NT	HP DesignJets						\$400
Zenographics (www.zeno.com)	SuperPrint	Win 95, Win NT	Canon BJ-10e, BJ-10ex, BJ-20, BJ-30, BJ-200, BJ-200e, BJ-200ex, BJ-230, BJ-300, BJ-330, BJC-70, BJC-150, BJC-210, BJC-240, BJC-600, BJC-600e, BJC-610, BJC-620, BJC-800, BJC-820, BJC-4000, BJC-4100, BJC-4200, BJC-4500, BJC-5500; Epson Stylus 800, 1500	GhostScript	NA	NA	PS, EPS, PDF, GIF, JPEG, TIFF, Targa, BMP, PCX and printing direct from Windows applications	No	\$5,000

- **Color management system integrated with the RIP?** With the increasing adoption of color management, a color management system (CMS) is a common component in many workflows today. There is an increasing trend to apply color management at the RIP, so that device independence in a file can be maintained through the entire workflow, right up to the output system.
- **Supports ICC profiles?** As ICC profiles are the current standard in color management, many RIPS provide support for this format.
- **Which input file formats are supported?** Many RIPS offer support for multiple input file formats. A key consideration when planning a RIP investment is to identify the file format used in your current workflow and ensure that the RIP offers such compatibility. For example, if you use a PDF workflow, you do not want to have to create special PostScript files for the RIP—you want a RIP that accepts PDF files.

- **Provision of OPI support?** OPI servers are still a popular component in many workflows today. For such workflows, it is critical that the RIP can read and honor attached OPI comments from the low-res images.

### Conclusion

As you look over the tables on these pages, it may seem that the market is overwhelmingly—and perhaps unnecessarily—complex. But that’s because ink-jet technology has been such a success that it can span a huge range of applications, and the market is big enough that it’s worth optimizing products for each of them. With a very little study of the tables (and some ruthless weeding out of products that clearly don’t meet your needs), we think you’ll be able to narrow the choices down to a manageable number.

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