

# Test Drive

## Bring on the Heat

Roland's mild-solvent SOLJET Pro II EX printer offers performance value.

BY NORM GOBERT



*Norm Gobert co-owns and operates a Signs Now franchise in downtown New Orleans. He has been working with large-format PostScript printing since 1994, and prior to that spent 14 years as systems engineer and printing systems specialist for IBM and IBM Printing Systems Co.*

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If you keep up with the trades, you may have seen recent rather silly display ads from Roland DGA touting the fact that “you can go uncoated...” with the company’s new mild-solvent printers. But I’m writing to tell you there’s nothing silly about the performance value of the new Roland SOLJET Pro II EX series.

Having put this unit to the test for a whopping six months, this printer is tops in its class. Why would I make such a strong statement regarding this Test Drive? Just keep reading.

**Manufacturer:** Roland DGA Corporation, 15363 Barranca Parkway, Irvine, CA 92618, Phone (800) 542-2307, [www.rolanddga.com](http://www.rolanddga.com)

**Product:** Roland SOLJET Pro II EX Series inkjet printer

**Cost:** \$29,995 (64" model), \$32,995 (74" model), \$69,995 (104" model)

**Maximum material width:** 64" (SJ-640 EX), 74" (SJ-740 EX) and 104" (SJ-1000 EX)

**Ink Option:** Six-color mild-solvent Advanced Eco-SOL INK (CCMMYK)

**Media:** Uses low-cost uncoated media (PSV, fabric, film etc.)

**Connectivity:** High-speed Ethernet connectivity (Mac or PC)

**Printing method:** Drop-on demand piezoelectric inkjet printhead

**Resolution Options:** 450 x 360, 360 x 720, 720 x 720, 720 x 1440 and 1440 x 1440 dpi selectable (SJ-640 EX and SJ-740 EX); 360 x 360, 360 x 720, 720 x 720 and 720 x 1440 dpi selectable (SJ-1000 EX)

**Speed:** Up to 300 sqft/hr at 450 dpi (SJ-640 EX and SJ-740 EX); up to 484 sqft/hr at 360 dpi (SJ-1000 EX)

### QUICK STUDY

Earlier this year, I had a client-site printing job and needed a printer capable of printing a minimum of 140+ square feet per hour that could print onto an inexpensive adhesive-backed vinyl media that matched output from a superwide grand format printer. I needed it to work with an affordable ink set and require no lamination for outdoor usage. And lastly, my print environment would not

allow for smelly, nauseating ink fumes typically found with most solvent-based inkjet printers. And by the way, poking a hole in the ceiling or walls to make room for ventilation was not an option in this particular multi-million dollar facility.

My solution came in the form of the new Roland SOLJET Pro II SJ-540 EX\* (print only model) with mild-solvent Eco-SOL INKS and Roland’s uncoated MCVP matte calendared pressure-sensitive vinyl. This 54" six-color Piezo inkjet printer produced 360 x 720 dpi output at speeds in the neighborhood of 150 square feet per hour without any print banding. So, if you’re following closely, Roland has introduced a printer that can print on media utilized by the likes of behemoths like VUTEK, NUR and Scitex. In my case, we printed directional signage on a VUTEk 2360 with MPI3001 adhesive-backed vinyl at the home office, then we took our shop on the road with the Roland machine to produce on-demand signage that had to match output with the prints we made at home. Can you say *proofing and production device*? Yup - and all in one package.



**Figure 1:** Roland's Eco-Solvent ink uses dual ink cartridges that boost the ink delivery system of the new SOLJET Pro II EX series. The Advanced Eco-SOL INK works in conjunction with an integrated media heating system to bond aggressively to economical media, including both coated and uncoated substrates.

\* Editor's Note: The 54" SJ-540 EX model that Norm used in this Test Drive has since been replaced by Roland with the wider 64" SJ-640 EX print only model.

How did I do that? It can't be that easy!  
What about color matching?

### BRING ON THE HEAT

Here's how the SOLJET Pro II EX did it. Earlier models of the SOLJET got the ball rolling, but they really required specially coated media for best performance, and the speed was a tad bit slow for some less-demanding print projects such as "outdoor signage." First and foremost, the new EX series comes with an improved ink set, the Advanced Eco-SOL INK set (see Figure 1).

This mild-solvent ink works in conjunction with an integrated media heating system that aids in the bonding between ink and economical media, like Avery's uncoated MPI3001, FLEXcon's transit-approved BusArt and many others. The new mild solvent ink prints beautifully at high resolution and high speeds without special ventilation, and is virtually odor free. Since the inks come in a 220 ml cartridge it offers "no mess" handling. To me, success is at hand with the new Eco-SOL INK and the heating system. (see Figure 2)



**Figure 2:** The heating unit on the SOLJET Pro II EX enhances the fixation of the Eco-SOL INK on the media and dries ink faster by preheating the media before printing. The controller allows users to adjust the heater temperature to match the media.



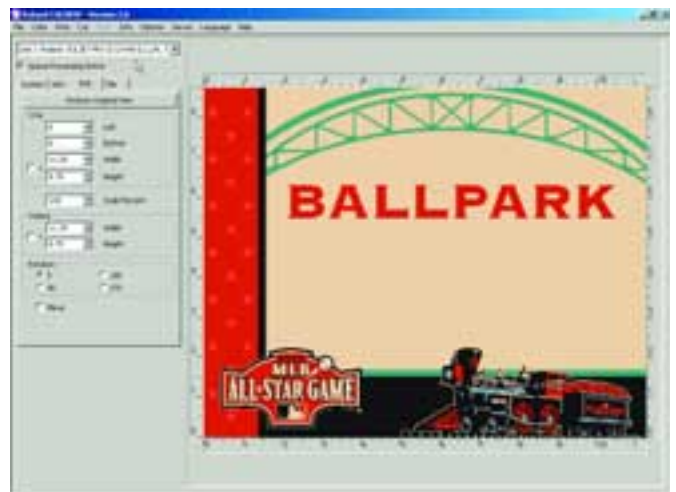
The Roland SOLJET Pro II EX allows you to "go uncoated."

### ROBUST RIP SOFTWARE

The next biggest addition to the SOLJET EX Series is the Roland COLORIP (RCR) RIP software, supplied free of charge. The RIP was designed exclusively for the Pro II EX Series of printers and printer/cutters.

Normally, software that comes free with the purchase of a printer is rather limited. However, this RIP system is quite good. It is based on Wasatch SoftRIP

(see Figure 3), one of the most respected RIP and print management software packages on the market. Roland's COLORIP system provides a robust list of key features including interactive previews, color control, ICC profile management and management of job queues for unattended output. COL-



**Figure 3:** Roland's COLORIP software is supplied free of charge and is based upon the Wasatch SoftRIP, one of the most respected RIP and print management packages on the market. Roland COLORIP provides a robust list of key features like interactive previews, color control, ICC profile management and management of job queues for unattended output. COLORIP also includes enhanced productivity tools such as cropping, tiling and nesting.

**Figure 4:** Producing heavy coverage images, like this 4' x 8' post-game interview board, took very little time at speeds near 150 square feet per hour.



ORIP also includes enhanced productivity tools such as cropping, tiling and nesting.

As a driver-based RIP, RCR can print directly from your favorite graphics programs. An integrated help guide visually walks you through printing, cutting and color workflow. But that's hardly the whole picture — there's an impressive list of well-designed media profiles supplied for all types of Roland media, including: cast and calendared adhesive-backed vinyl, translucent films, banners, fabrics, paper, window perf and heat transfer textiles.

## PROJECT

After installing the unit at Reliant Stadium in Houston for my "on the road" project, the SOLJET EX Pro II was able to print terrific directional and promotional signage at a variety of print modes. For example, short-term outdoor signage like the graphics I created during Super Bowl XXXIV was a cinch. The project called for both low-density output and pieces requiring high-density ink coverage, including a 4' x 8' post-game interview board (see Figure 4).

I was successful using an existing profile (matte calendared vinyl or MCVP) supplied with Roland's COLORIP to match color output from our VUTEK printer. And we did it, time and time again. The printer ran almost non-stop eight hours a day for an entire week. Amazingly, this ink and media combination produced results in accordance with Roland's claim of an average running cost of 65 cents per square foot. That's not bad for a printer investment that comes in under \$30,000.

## BRINGING IT HOME

After the Super Bowl job, I returned to my shop in New Orleans and the machine picked up right where it left off. I connected the printer via its Ethernet port and we

began sending jobs from both Mac and PC workstations.

With the Roland-supplied COLORIP software, my staff quickly picked up on the easy-to-use features of the printer and the RIP software, thus making the SOLJET EX Pro II an immediate contributor to our bottom line. Even if your staff is new to large-format printing, the COLORIP's online help and easy-to-read operator's manual gets you up and running in no time at all. On the other hand, if you're adding the Pro II to your existing workflow, it's as easy as plug and play. The COLORIP software is capable of accepting all the major file formats including, PDF, EPS, PS, JPG and TIF.

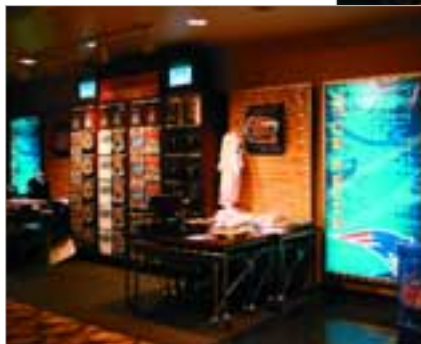
Printing on a variety of media was just as simple. The quick media loading procedure was the same for each media type — regardless of whether you were loading PSV, scrim banner vinyl or

soft signage fabrics. The three-step adjustable printhead height allows for variable setting. For example, when printing on Roland's Flame Retardant Scrim Banner (FRSB), we adjusted the printhead height and

produced P.O.P. graphics that doubled as translucent displays and banners (see Figure 5).

When printing on a wide variety of media, we did find that some media required additional dry times. For instance, banners with heavy coverage areas running at the faster speeds needed additional time to dry. Printing onto Roland's new Solvent Glossy Paper was a real eye opener — the product worked great and it made easy work of those demanding high-res print jobs.

A closer look at the printer's hardware



**Figure 5:** Printing on a variety of media was simple. The easy media loading procedure was the same for each media type, regardless of whether you were loading PSV, scrim banner vinyl or soft signage fabrics. For instance, when printing on Roland's FRSB Flame Retardant Scrim Banner, we adjusted the printhead height and produced P.O.P. graphics that doubled as translucent displays and banners.

## COURTESY

**Roland DGA** — Roland SOLJET Pro II printer (model SJ-540 EX) with take-up reel and Roland Eco-SOL Media (GCVP, FRSB, MCVF, SGP)

**Avery Graphics** — MPI3001 adhesive-backed vinyl, MPI1005 EZ uncoated media

**3M Commercial Graphics** — IJ3555 and IJ180C films

**Flexcon** — transit-approved BusArt media

**Dell** — Precision 650 computer with Windows XP Pro operating system



**Figure 6:** In my opinion, the take-up reel is no longer an option when you consider the increased throughput speeds of the EX series — it's a must-have.

reveals a beefed-up ink delivery system which sports dual ink cartridges and is complimented by an optional take-up reel (see Figure 6). If you ask me, the take-up reel is not really an option when you consider the increased throughput speeds of the EX series — it's a must-have. And lastly, the printer has a handy Auto Head cleaning feature for min-

imum operator intervention. During my Test Drive the unit did not require any manual cleaning procedures.

### WORTH IT

The SOLJET Pro II EX is certainly a keeper — so much so that it's taken up permanent residence across the street from the Louisiana

Superdome. The machine features the Roland-supplied COLORIP software for easy print-and-cut functions, quality media profiles for a comprehensive list of media, an affordably low running cost starting at 65 cents per square foot, and all for a very reasonable purchase price.

If you want print-and-cut capability Roland also offers the SOLJET SC series that fits that request nicely. And for added value you can throw in the fact that when you use certain 3M graphic films with the SOLJET Pro II EX Series and Eco-SOL INK, 3M now offers a Performance Guarantee for your digital output. Not bad. **DG**

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