GraphExpo '99 (cont'd.): CTP Imagers, Digital Printing and Workflow Systems

WE'VE COVERED much of the Graph Expo show in our last few issues, including scanners, color proofing, an array of new products from Scitex and Agfa, and the use of the Internet in marketing printing services. We conclude our coverage of the show in this issue with CTP and other high-resolution imaging topics, workflow, digital presses and on-press imaging.

CTP on parade. In the CTP arena, new products for imaging metal plates were everywhere, including these items:

- The four-page Plater 2000 from Akron Technology of Taiwan, based on holographic technology.
- ECRM's Tigercat, which is a commercial version of the Wildcat covered at IFRA *(see our last issue)*.
- Optronics' thermal MultiSetter, which images plates and proofs on the same machine.
- Screen's PlateRite 4000, which is a four-page version of the 8000, plus an automatic plate-handling capability.
- Thermal versions of Purup-Eskofot's ImageMaker, with technology to achieve greater speed than other systems using the same plates.
- Two variations on Barco's new Crescent II.
- A faster version of the BasysPrint UVSetter.
- An enhanced version of the Cymbolic Sciences PlateJet 8.
- Automated plate handling for the Creo VLF machines.
- Five new Lotem products from Scitex: a four-up 4000, a faster 8000, a very large-format XL, a version for flexo plates and a proofing capability.

Workflow explosion. Workflow products exploded on the scene. At the low end, Ultimate Technographics debuted its ezWorkflow; in a new midrange market, Barco is attempting to bring a version of its high-end software to mass markets; and farther upmarket, Fuji unveiled a new system that is also being sold on an OEM basis by Xitron. We also saw enhancements to existing workflow products from IPTech and Shira, plus a new thrust by Harris with its MaxWorkFlow system, which is being sold by ECRM.

CTP Developments

We covered CTP developments in the newspaper market in conjunction with our review of the IFRA show in our last issue. Here we'll catch up on the latest developments in the commercial printing market, which was the focus of Graph Expo.

For the most part, the platesetters sold to the newspaper market differ substantially from those aimed at commercial applications, since each market has its own requirements for size, speed and resolution, among other factors. One exception is the new Cat family from ECRM, which comes in two versions: the Wildcat for newspapers, which we covered at IFRA, and the Tigercat for commercial use, which we'll touch on here as one of the highlights of Graph Expo. Another interesting development at Graph Expo was the first U.S. appearance of a Taiwanese company named Akron Technology, which uses holographic technology in its platesetter.

Akron a hit with HIT

One exhibitor that drew a good crowd was Akron Technology Corp. of Taiwan, a new company for us, demonstrating a prototype of a new product. Although we hadn't seen the company before, we had seen its technology many times. In the past, the technology was demonstrated by Holo Imaging Technology (HIT), of Langhorne, PA. We'll say more about the history later.

Akron, which claims to be the leading supplier of platesetters in Taiwan, offers two CTP lines: the Plater and the Eclipse, both of which incorporate holographic laser scanning technology developed and patented by HIT. The Plater range comprises five models for imaging silver, hybrid and polymer plates, covering plate sizes from 18×24 inches (457×610mm) to 32.3×44.5 inches (810×1,130mm). The Eclipse is a system for turning existing step-and-repeat machines into CTP imagers through a retrofitting process.

Plater 2000 CTP system. The new item in the booth was a flatbed, four-page visible-light platesetter handling a maximum image area of 20×29 inches. It is based on holographic deflector technology developed by HIT. The basic technology, which was first demonstrated publicly more than ten years ago, incorporates a second stationary hologram to reduce bowing and scan errors, which Akron claims are inherent in a system with a single spinning hologram.

At GraphExpo, the unit was operating with only one beam from the hologram, which resulted in a relatively slow speed of ten inches per minute at 1,270 dpi, or a rate of about a plate every three minutes. Next year, we were told, Akron will be using three beams, which should yield an operational speed of up to 30 inches per minute, or about a plate a minute.

Resolutions supported range from 1,270 to 2,540 dpi. The unit operates with any visible-light gas laser (helium-neon, argon-ion or frequency-doubled YAG).

Akron says it will offer both manual-loading and automatic-loading models of the Plater 2000. The unit on display was a manual one, with an estimated price of less than $90,000. We noticed some image quality problems, but Akron said they will be cleared up in the near future.

Akron has a licensing agreement with Harlequin under which it is incorporating the ScriptWorks RIP Management System into front-end controllers for the Plater and Eclipse systems. The RIP will be marketed under the brand name AkronRIP.

The company. Long-time readers of this publication may recall the name Robert Hsieh, who was a frequent speaker at early Seybold

Akron's Plater 3244. The focus of the Akron booth at Graph Expo was on the smaller Plater 2000, but this is the largest unit in the five-model range, the Plater 3244. Both use holographic imaging technology.

Seminars when he was a founder, strategist and marketer at Microtek, the then-fledgling Taiwanese scanner supplier. Hsieh is the chairman of Akron, where he is responsible for long-term strategy.

Other key executives at Akron include:

- William Y. T. Lin, president, has more than 30 years of experience in the electronics and computer industries. He served as a professor at Tatung Institute of Technology, established an R&D division at Tatung Co. to address consumer electronics and other fields, and served in a wide variety of other capacities.
- Tom Chiang, chief technology officer, is the inventor of the holographic laser scanning technology used in the earlier imagesetter and current platesetter lines. He has 25 years of experience and founded Holo Image Technology
- Hans Hedbom is VP of marketing and sales, as well as general manager of Akron Technology Europe. He has 20 years of experience in product development and four years in marketing and sales, including ten years at Misomex AB handling product development and worldwide marketing of CTP products.

Akron Technology Corp.; info@akron.com.tw, www.akron.com.tw.

Barco adds to new Crescent line

At Nexpo in June, Barco Graphics introduced a new version of the old Gerber Crescent platesetter, called the Crescent News. It had a few significant changes to enhance its performance and quality.

At Graph Expo, Barco introduced the Crescent II line of platesetters, of which the Crescent News is one model. The other two are the Crescent II/32 and the Crescent II/42. The basic engine is the same. They differ only in software.

The Crescent II line uses the same internal-drum technology and plate handling as earlier Crescents. The key enhancements are in the optical system, which has been made more accurate and reliable through the incorporation of air bearings and a linear motor to drive the spinner carriage. The spinning mirror itself is now helmeted to prevent dust particles from landing on the mirror surface. There is also an optical zoom mechanism to adjust the spot according to the media thickness.

Besides the differences in plate size, the II line offers two choices of laser technology:

- A Crescent II/42 with an argon-ion (blue visible light) laser supports resolutions of 1,270, 1,905, 2,540 and 3,810 dpi and images eight plates per hour at 2,540 dpi.
- A version with a 1,064nm thermal ND-YAG laser runs at a single 2,540-dpi resolution and produces 5–8 plates per hour.

BasysPrint ready with new imaging heads

Earlier this year, we wrote a detailed article on the BasysPrint UVSetter line. In that article, we stated that the company was working on a new, high-speed head that would enable the line to be both significantly faster to image standard UV plates instead of just high-sensitivity projection plates. This new head, which was promised for late this year, is now working and will be shipped with both the UVSetter 710 and 1116 models. We were not able to find out the imaging speeds for machines with the new heads, but BasysPrint plans to disclose these figures soon.

The impact of the new heads could be very significant, since the UVSetters are the only commercial CTP units that can image conventional UV printing plates, rather than special CTP plates. Up to now, the UVSetters have been somewhat slower than other CTP systems. With the high-speed heads, this will probably no longer be the case. It will mean that customers can continue using the same plates for both conventional analog imaging and for CTP imaging. Such plates are significantly cheaper than CTP plates.

Creo VLF adds automated plate handling

The main new development from Creo, besides the color proofing news covered earlier, was the addition of an automatic plate handling system for the Trendsetter VLF models. The unit, which can be added to any Trendsetter VLF, doesn't prevent the device from being operated manually.

The automatic plate-handling unit comprises elements that fit on either side of the machine. The plate loader, on the left, can accommodate a single plate cassette or multiple cassettes for different sizes of plates.

A plate is taken from a cassette and moved to the loading table of the Trendsetter VLF, from where the normal loading procedure takes over, raising the table for the plate to move into the imaging unit. Following imaging, the plate is ejected in the normal fashion onto the VLF loading table, from where the automatic system moves it to the right-hand side of the machine into a plate buffer unit. It is held there until the plate processor is ready for the plate to be fed in. At this point, it is possible also to turn the plate to allow the narrow side to enter the processor.

The whole unit has been engineered beautifully to enable such a module to be added onto a machine that initially wasn't designed to support this automated function. The operation looks efficient and notably doesn't prevent manual operation. The only real downside concerns the amount of floor space required for the entire plate-handling system, including links to the plate-processing line.

Cymbolic unveils Emerald and Ruby

Cymbolic Sciences introduced two new machines: the PlateJet Emerald and PlateJet Ruby recorders. One is a new model of the company's own internal-drum design; the other is an OEM version of an Optronics external-drum unit.

The Emerald is based on the PlateJet 8, but this new visible-light system offers higher productivity, multiple imaging resolutions and a more accurate micro-positioning system. The main change is the incorporation of a linear motor and air bearing system to move the imaging carriage. This ensures greater accuracy and reduced maintenance. The Emerald also offers the user a choice of variable resolutions, ranging from 1,000 to 3,600 dpi, instead of supporting only the two fixed resolutions of the PlateJet 8. The objective is to allow a user to select the most suitable resolution for a job, which can substantially improve imaging times.

The Emerald is priced at $180,000.

In conjunction with the arrival of the Emerald, Cymbolic Sciences has reduced the price of the eight-up PlateJet 8 to $169,000 and the four-up PlateJet 4 to $129,000.

Ruby. The PlateJet Ruby is an external-drum, eight-up thermal platesetter. In reality, it is an Optronics Aurora ThermalSetter that is being sold by CSI on an OEM basis. *(See Optronics.)*

ECRM Tigercat joins Wildcat

In our last issue, we covered the ECRM Wildcat, which was introduced to the newspaper market at the IFRA show. At Graph Expo a week later, the commercial "twin" was introduced—the Tigercat, which shares the same hardware base and pricing. It isn't quite an identical twin, though, since the two machines differ slightly in their specs.

The Tigercat for commercial work offers seven resolutions between 1,270 and 3,556 dpi, varies the spot size between 10 and 35 microns, and is rated for production of line screens up to 200 lpi. The Wildcat for newspaper and magazine applications offers eight resolutions from 1,000 to 2,540 dpi, spot sizes of 14–35 microns, and a maximum screen of 175 lpi. The Tigercat's speed is quoted as fifty 24×29.5-inch plates per hour at 1,270 dpi and 20 per hour at 3,556 dpi. (The Wildcat runs a little faster because of its lower-resolution option.)

Both are four-page units (maximum plate size of 24.3×32.3 inches), come with 25-plate supply cassettes (with optional 400-plate capacities), and support automatic loading. Both use 12,000-rpm spinning holograms to produce five laser spots per revolution, for a total of 60,000 spots per minute.

And both are priced at $99,500 with a red laser and $115,000 with a green laser—extremely aggressive pricing for this market. As we said in our earlier reports, we think these machines will set a new price-performance standard for others to try to match.

The Cats are already in use in the field.

For an update on CTP in the newspaper market, see our last issue.

Proofing capability. The new Optronics MultiSetter is capable of imaging thermal plates and digital halftone proofs on popular proofing materials from the same engine.

Optronics adds proofing capability

Optronics used the occasion of the show to introduce both its new Aurora MultiSetter and its "new" company, now under the direction of owner Tony Fong.

The MultiSetter is a version of the Aurora ThermalSetter that has the capability to image halftone proofs as well as plates using Kodak Polychrome donor-transfer material. It is an eight-up, external-drum device with a multi-beam 830nm IR diode head. The ThermalSetter utilizes a high-rotational-speed drum and prepunched plates that are loaded manually onto register pins on the drum and held in place by vacuum.

In the MultiSetter, donor imaging sheets are mounted the same way as plates, on top of a previously mounted transfer sheet. Proofs in four- or eight-up format can be imaged. The MultiSetter supports resolutions of 1,800, 2,400 and 2,540 dpi. At 1,800 dpi, an eight-up plate can be imaged in around 3.5 minutes. A complete eight-up proof takes around 25 minutes.

The MultiSetter uses the same basic hardware as the ThermalSetter. It differs only in factory adjustments to accommodate the proofing materials, including the focusing capability to accommodate different width materials; the power, since the proofing materials require a longer dwell time; and the Media Mats that must reside on the drum with the proofing materials.

The MultiSetter is priced at $259,900, including installation, training and a three-year warranty (covering the head as well as other items). That's an attractive price for a machine with its capabilities. A ThermalSetter without the proofing capability sells for $225,000.

The MultiSetter is driven by the Optronics RipRight NT RIP, built around a Harlequin ScriptWorks 5.1 interpreter, with spooling and queue management. Also available is a version of the RIP, called the RipRight LE, for driving low-resolution imposition

Purup-Eskofot's laser can produce 13 B1-size plates per hour at 2,540 dpi. An Agfa Galileo images the same plate at 2,400 dpi at a speed of around eight plates per hour.

proofing devices. Optronics demonstrated the Barco Gerber Impress 2000 proofer and conventional HP engines, both using Optronics' screening technology for enhanced quality at low resolution.

A look ahead: flexo and large formats. In a press conference at the show, Optronics preannounced some future developments, primarily two items now targeted for Drupa introductions: the ability to image flexo plates and very large-format imagers. On the latter item, the current spec calls for a format of 55×69.5 inches and an imaging head comprising a 32-beam laser diode. (The current head employs 16 beams.)

Optronics also said we would see an automatic loading capability, but no schedule was mentioned.

New regime. In calling attention to its new executive team and reinvigorated company, Optronics introduced the members and noted a few key points:

- It has increased its staff by 10 percent since a year ago.
- Its sales level is up from a year ago. (No details were given.)
- It has added to its distribution channels, most notably through an OEM deal under which Cymbolic Sciences is now selling the ThermalSetter and MultiSetter under its PlateJet Ruby brand *(see Cymbolic Sciences)*.

Purup-Eskofot launches thermal units

Purup-Eskofot launched thermal versions of its ImageMaker CTP system, which are available in B1 and B2 sizes, imaging 32.3×42.5-inch and 24.4×31-inch areas, respectively. Both are internal-drum machines supporting resolutions of 1,270, 2,540 and 3,175 dpi and custom head- and tail-punching capabilities.

A unique aspect of these two devices is the laser used: a 1,064nm laser that is amplified by optical fiber. When the main laser beam is led through an optical fiber, a series of auxiliary laser diodes will "pump" the main beam to increase the power of its output. This technology, which derives from the use of high-capacity fibers in telecommunications, is claimed to give the laser both high reliability and a longer life (20,000 hours). The amplified beam is then focused through the Purup-Eskofot OptoLink in which a fiber-optic cable is used to transmit energy from the laser to the carriage. The imaging carriage is driven by linear motors for a high degree of accuracy.

Performance edge. The benefits of this technology are evident in the machine's performance. Imaging Agfa Thermostar plates, the machine can produce 13 B1-size plates per hour at 2,540 dpi. At 1,270 dpi, the speed is 21 plates per hour. For comparison, with an Agfa Galileo imaging the same plate at 2,400 dpi, the speed is around eight plates per hour. One of the messages from Purup-Eskofot is that the claims of some other vendors—that it isn't possible to image at high speed using internal-drum technology with a single 1,064nm laser—are wrong. In fact, at 1,270 dpi, this is the fastest thermal commercial platesetter on the market.

Pricing and configurations. The ImageMaker is available in a semiautomatic configuration, where the plate is placed on the loading table, transported into the drum, punched, imaged and transported to an online processor.

A fully automatic configuration has an automatic plate-handling system with a capacity of up to 500 plates. This is configured as five 100-plate magazines, allowing a user to work with five different plate sizes online. If the same plate sizes are in more than one magazine, the software will automatically switch magazines when the first magazine becomes empty.

The thermal version of the ImageMaker CTP will be commercially available in the first quarter of next year.

Scitex bolsters Lotem line

Scitex used Graph Expo to fill out its CTP product range. Until the show, the only product it was able to deliver was the Lotem 800V, which has been very successful. At Graph Expo, as we noted in a separate article at the time of the show, Scitex added a range of other devices. Some of them had been previewed in earlier stages of development, but at Graph Expo they were all operational, and all were either entering beta testing or were being shipped to customers.

Since we covered all of these items in the aforementioned article, we will just reiterate what the products are here.

- *Lotem 400V*—a four-up platesetter with a 24-beam IR diode head, imaging up to 14 plates per hour at 2,540 dpi. The initial version has a semiautomatic plate-handling system, but a fully automatic plate facility will be added later.
- *Lotem 800V*^{2}—a high-speed version of the Lotem 800V, using a 48-beam head that images up to 16 eight-up plates per hour.
- *Lotem XL*—a very large-format unit that is available in three sizes: 16-, 24- and 32-page formats. The maximum-size plate that can be handled by the largest machine is 55×80 inches. In the 16-up format, the unit can image ten plates per hour at 2,540 dpi.
- *Lotem Flex 40/45*—a flexo plate imager based on the Lotem 800V and using a 48-beam head. It images a 39×45.3-inch plate in 16 minutes at 2,540 dpi.

LotemProof. Scitex has added a proofing option for the Lotem 400V and 800V models, imaging donor-transfer materials from Kodak Polychrome Graphics and other suppliers. A special mat is first mounted on the imaging drum, followed by the transfer material. Then the four donor sheets are mounted, in turn, for imaging. The final proof is then made by laminating the transfer sheet with the four colors to the press sheet. This capability isn't deliverable yet. An automatic mounting facility is being developed using the new, single-plate loading option as a part of a new automatic plate loading cassette. When used in proofing mode, the system automatically sets its power and drum rotation by selection of an imaging profile. This will allow the unit to image different types of proof material without requiring an engineer to reset the machine.

Harlequin will focus on being 'first to market' with new products. We expect to see developments in PDF workflows, variable-data processing and functionality for RIP modules.

Screen adds auto loading and 4-up unit

Screen added two new capabilities to its lineup: an automatic loading feature and a four-page model.

Last year, when Screen introduced its PlateRite 8000 external-drum, thermal system (sold also as the Fujifilm Javelin), it required manual loading. It is now available with automatic loading and unloading, working from a single cassette and a bridge to the platesetter. With a single-cassette loader, the PlateRite 8000 has a claimed speed of 11 plates per hour at 2,400 dpi, including the time for plate punching. In the future, Screen will support a multi-cassette capability handling up to five online cassettes of 100 plates each. No performance estimates have been issued yet for this five-cassette system.

Also new from Screen was a four-page machine—the PlateRite 4000—which is basically a smaller version of the 8000. It uses the same 32-channel, infrared diode array to image plates up to 25.4×32.7 inches (645×830mm). The speed is up to 16 plates measuring 24.2×28.5 inches per hour at 2,400 dpi. Online punching is optional, with a choice of formats. Resolutions range from 1,200 to 4,000 dpi.

The initial model requires manual loading, but an automatic version accommodating a single 100-plate cassette will shortly become available. A multiple-cassette unit holding three cassettes is under development. Both automatic units handle interleaf sheet removal.

RIPs, Film and Polyester Plates

Although the CTP field dominated the area of high-resolution imaging, there were some notable developments in film and polyester plate imaging. The two most important items—both focusing on speed—had been announced before the show: Agfa's four-page Phoenix and Fujifilm's three-laser version of the eight-page Sumo Luxel F9000.

The speed issue. Interestingly, although these two machines both use internal-drum technology, they take different approaches to speed. The Phoenix employs a 68,000-rpm spin motor, which is the fastest motor we have encountered in this market. The Sumo motor spins at only 30,000 rpm, but the fastest version of the machine employs three lasers, which, you might say, yields the equivalent of a 90,000-rpm spinner. The net result, from a user's viewpoint, might be stated more usefully in square inches per minute or plates per hour.

Agfa quotes speeds of 1,664 sq. in. per minute for the Phoenix at 1,200 dpi (1,836 sq. in. per min. at 1,016 dpi for the version aimed at the newspaper market). Agfa says this corresponds to 92 four-up flats per hour. The three-laser Sumo has a top rate of 58 flats per hour, but since they are eight-page flats, that would correspond to 116 four-up flats, giving it a higher throughput rate than the Phoenix.

Agfa ships Phoenix, bundles AccuSet

Agfa had two developments on the imagesetter front. First, shipments of its new Phoenix internal-drum imagesetter were scheduled to begin the week of show. For detailed coverage of the Phoenix, *see Vol. 29, No. 1*.

Second, a bundled version of the capstan-technology AccuSet has reduced its price. The new bundle configures a new AccuRIP with an AccuSet 800, 1000 or 1500 engine for a price of $23,950, $26,950 or $29,950, respectively. The AccuRIP is based on an Adobe PostScript 3 interpreter, but it lacks a soft preview capability and it doesn't enable saving a RIP'ed job on disk.

For the sake of comparison, an AccuSet 1500 with a full-function Agfa RIP costs $36,450 ($23,950 for the engine and $12,500 for the software RIP).

Fuji's 3-laser Sumo: fastest imagesetter?

Fujifilm released the three-laser version of the Sumo internal-drum imagesetter, with a productivity rating of up to 58 eight-page flats per hour at 1,219 dpi, which Fujifilm claims is "five times the productivity capability of computer-to-plate solutions." Fuji doesn't say how it reaches that conclusion, but it surely is fast.

We've covered this machine on numerous occasions in the past, so we'll limit this discussion to a few of the main points. It supports a maximum image area of 44.1×36.6 inches, two online supply cassettes, internal punches, four imaging resolutions (1,219, 1,828, 2,438 and 3,657 dpi), screen rulings up to 400 lines per inch and a repeatability of 5 microns (0.2 mil). It can be driven by any of Fuji's RIPs.

To accommodate the high speed, Fuji uses an Ultra-Wide SCSI link to transfer data from the RIP to the recorder at a rate of 20 MB per second. The Sumo contains a high-capacity disk buffer to store new pages coming from the RIP as preceding pages are being imaged.

To handle the film processing load, Glunz & Jensen has designed a special processor, called the AP-1250X, with deep tanks.

The price of the three-laser Sumo is $189,000.

Harlequin says it's back on track

Harlequin used Graph Expo to preview a new version of its ScriptWorks RIP Management System and to reassure the industry that it is back on track following its bankruptcy filing and subsequent acquisition by Global Graphics.

As evidence of its recovery, Harlequin reported these items:

- It signed new OEM deals with Harris Publishing Systems (for its MaxWorkFlow), Rorke Data (for its PageComposer file-combining and conversion package), Nur Macroprinters (for the Nur Flash RIP driving its Fresco wide-format printer), Storm CPD (for a new proofing system) and Konica Corp. (to drive its Konsensus digital halftone proofers sold in Japan).
- The product line has been stabilized with the divestiture of its Dylan technology, which had been draining the company's re-

sources, and the retention of both the Printing and Publishing Division and the Information Management unit. The latter has been involved in a major contract with the Canadian government, the details of which haven't been disclosed.
- It had a strong first quarter. (No details were offered.)

Strategy. COO Bob Freidah described the company's strategy for the near future as taking a "back to basics" approach. The focus will be on being "first to market" with new products, as Harlequin had done in its early days. Freidah said the company would be market-driven, partly by keeping in closer touch with its partners. Among the areas where we can expect to see developments are PDF workflows and components, variable-data processing, and expanded functionality for RIP modules.

In implementing the new strategy, Harlequin has created an Advanced Technology Group under the direction of David Earle, chief technology officer. No details were revealed.

ScriptWorks 5.3. Harlequin previewed the next version of its RIP system, which is scheduled to be released to OEM customers early in January. One focus of version 5.3 is native processing of PDF 1.3 and PDF/X-1 files. (Harlequin was one of the first RIP suppliers to process native PDF files prior to the release of these new versions of PDF early this year.) Other areas addressed by version 5.3 include enhanced performance in outputting TIFF/IT-P1 files and full support for the CID font format, which is needed especially with Far Eastern ideographic languages.

Printware scans, punches; sells PlateJet 4

Printware had news on several fronts. First, it is finding customers wanting to move to larger formats, so it has signed an OEM deal with Cymbolic Sciences to offer the four-page PlateJet 4. It is selling the units through the same channels (mostly direct sales) that it sells PlateStream polyester-plate systems. In addition to the benefits of an upgrade path for its traditional users, Printware has found another advantage it can offer: attractive financing, partly the result of the company's public stock offering of a few years ago, which produced a fair amount of cash.

The second news item was that the PageStream now supports an integrated punch option. The customer can choose among a Bacher C2000 for use with presses such as the Heidelberg Quickmaster 46 and Ryobi 3300, a pin-bar format for use with duplicators from the likes of A.B. Dick, and a hook-bar pattern. Other formats are available on request. Used in combination with the machine's "cut to fit" option, the PlateStream can produce ready-to-print polyester plates.

Third, a focal point of the booth was a Umax Astra 1260S scanner being used to scan hard copy directly to plate. For users concerned about whether the scanned image is ready for the plate, it is possible to "scan to PDF" and use a program such as PitStop to preview and edit the job before imaging the plate.

For producing plates with multi-page formats, Printware supplies imposition software from Quite Imposing. The PlateStream

Scan to plate. Printware exhibited a Umax scanner *(left)* scanning hard copy directly to a PlateStream polyester-plate imager. As an alternative, scanning to PDF gives the operator a chance to check the image before imaging the plate.

comes in two models: the larger PlateStream 46 handling images up to 18.1×27 inches and the standard model limited to a maximum of 13.4×22 inches.

Printware also announced that it is selling silver-halide plate material for the PlateStream, under the SilverStream brand, to offer its customers "one-stop shopping." It is available in 280-foot rolls—40 percent longer than the rolls previously available.

RipIt offers one-click 'scan to RIP'

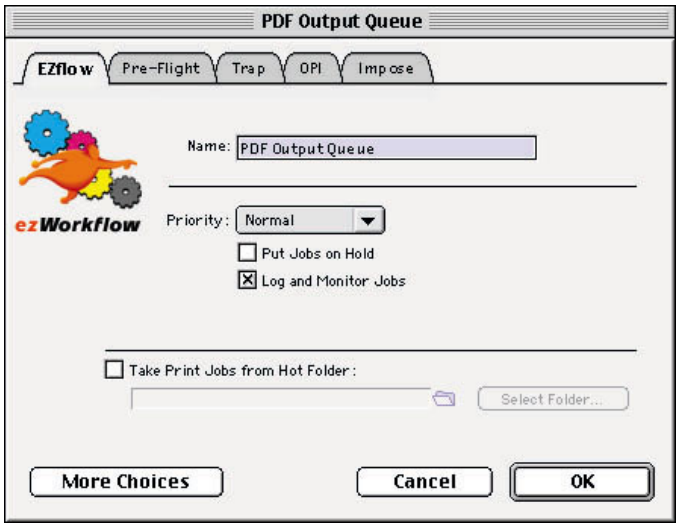
RipIt Computer has enhanced its imagesetter packages notably:
- It is upgrading the RIP to PostScript 3 capability in December.
- It has added optional software to scan hard copy directly to the RIP, initiated by a single-click function. The user picks a scanner to suit individual quality needs. RipIt offers the software for $495, plus a driver for an Epson printer for $495 to create an inexpensive, good-quality color copier. The target application is scanning line art.
- It is offering an optional in-RIP trapping package for $1,995.

A basic package comprising an Exxtra imager, RipIt RIP and integrated online processor is priced at $32,000, including installation and training. A software RIP alone, without trapping or scan-to-disk functionality, sells for $7,500.

Workflow Systems

Last year it was asset management. This year, workflow. Although there were important new developments in other areas at Graph Expo *(see our last two issues)*, the major "explosion" was in workflow, which was a focal point of many prepress equipment suppliers. In short, it has become clear that workflow software will be a critical component of most digital printing operations in the future, so the

EzWorkflow. Ultimate Technographics brought the price of a workflow system to $5,995, including basic preflight, trapping, imposition and proofing capabilities, but not high-resolution output. The user interface is designed for people who aren't heavy-duty computer users.



suppliers of various imaging products and software modules are jockeying for position as the dominant suppliers of workflow in the future.

Of particular note were the introductions of new products from high-end prepress suppliers Barco and Fuji, plus a very aggressively priced entry-level product from Ultimate Technographics. In addition, OEM deals have brought workflow systems to ECRM and Xitron, adding to the market momentum now forming behind workflow systems.

New products. Among new products, there was plenty to see:

- At the low end, Ultimate introduced its ezWorkflow suite of applications that adapt existing technology to entry-level users at a rock-bottom price of $5,995, including a hard disk containing the software and Macintosh operating system preinstalled. For Ultimate, the system could serve as a foot in the door that leads to sales of higher-end workflow products.
- In another adaptation of existing technology to address a new market, Barco has brought its workflow technology to midrange markets in its Presstige system. It lacks some of the functionality of earlier Barco products, but it has a user interface that should appeal to a larger group of users, and its price of $30,000 should be competitive.
- At a higher price level, Fuji and Xitron demonstrated new workflow technology developed by Fuji and sold as the Fuji CelebraNT Plus workflow RIP and the Xitron Xenith workflow system. The system will sell for about $50,000 from either vendor.
- Operating at two price points, ECRM jumped in with deals for the Harris MaxWorkFlow and IPTech workflow product suite. In ECRM's case, the activity is indicative of an effort to become a supplier of complete solutions, a new role for a company that has a long and successful history in the imagesetter market.
- Another new item addressing part—but not all—of the workflow was featured by ScenicSoft: planning software obtained when it acquired Holt Software of Australia. The product, which has been renamed UpFront, handles the planning of editions through the press and bindery functions.

Besides the debuts of new products, the show provided an opportunity to look for trends. Notably, we didn't find one in job tickets, where most systems still follow their own format, if they have a job ticket, rather than coalescing behind a standard one.

Our coverage. In this report, we won't try to cover every booth, since many companies showed products that we had covered before or that had been given relatively minor enhancements. Instead, we'll focus on new products and new marketing arrangements that we haven't covered previously. Thus, we won't cover the PDF workflows built around Adobe Extreme (the Agfa Apogee, Scitex Brisque Extreme and Heidelberg-Creo Prinergy) or the ones that have been serving prepress needs for years (*e.g.*, products from Rampage, PCC Artwork Systems, and so on).

Ultimate at low end with ezWorkflow

Among several new products on display, Ultimate Technographics broke new ground by introducing a fully automated workflow system for less than $6,000. Called ezWorkflow, it is aimed at customers who need basic functionality and don't want to learn a lot of new technology. Target markets include quick printers, on-demand printing applications and corporate environments without prepress traditions.

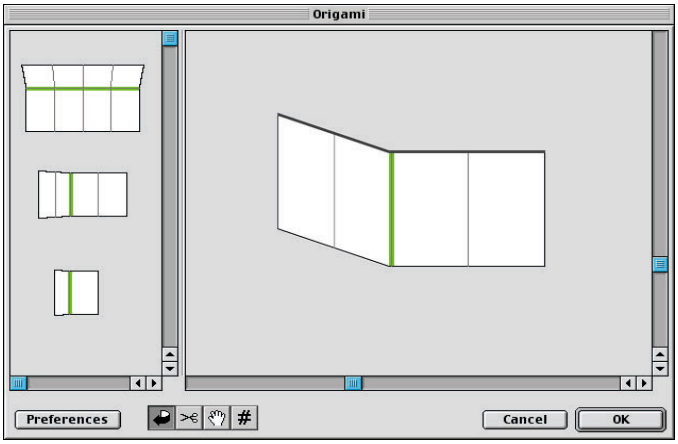
There are several keys to ezWorkflow:

- It provides the basic functionality needed in common workflows—preflight checks, trapping, OPI image replacement, imposition and print management—without many of the controls offered with more expensive systems. The base price also includes an Adobe PostScript 3 RIP for trapping and plate preview. (Driving a high-resolution imager requires another RIP.)
- It is easy to use, employing a drag-and-drop interface to initiate a workflow, with access to all main functions from a single menu.
- Installation is about as simple as it could be. The entire suite of software comes installed on a Macintosh hard disk, ready to run as soon as it is plugged in.
- It doesn't require a big investment to get started: $5,995 for a version that supports jobs up to four pages imposed; $7,995 for eight-page impositions. If that sounds too high, leasing is available for $149 or $189 per month for the two systems. Prices include a year of technical support and free software upgrades. They also include the 4.5-GB, Ultra-Wide SCSI hard disk that contains all the software. Hardware requirements are reasonable: a G3 or G4 Macintosh.

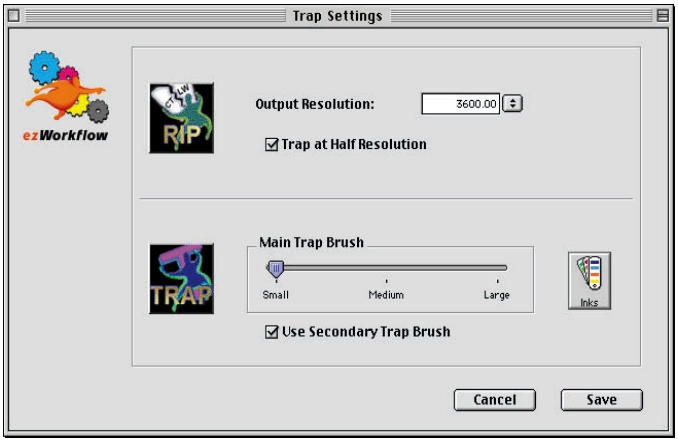
The program comes with some default workflow settings for trapping, OPI and imposition, but the user has the opportunity to adjust some basic settings, all initiated from a single, five-tab menu. After establishing a workflow queue, the user can control job priorities for the queue (normal, high, hold), the use of hot folders, preflight checks, trapping, OPI and imposition.

Functionality and controls are very basic. For example, the preflight function checks for fonts and images. (The user can specify where the system should look to find fonts and high-resolution images.) Similarly, the trap setting dialog enables the user to specify

Paper folding. EzWorkflow provides this graphic representation of folding options to assist the user in setting up impositions.



EzTrapping. The Ultimate trapping program lacks the sophistication of the company's Trapeze product, but it provides basic automatic trapping functionality in an easy-to-use way. This slider sets the brush size.



the output resolution and to move a slider bar to determine the size of the trap brush, ranging from small to large. *(See below for more details on limitations.)*

Modules. The main modules making up ezWorkflow are either existing Ultimate products or versions of them, which means they shouldn't require much breaking in. The functionality and controls are basic.

The system includes the following:

- *Preflight* checks for missing fonts and images, but it doesn't RIP the file to uncover PostScript errors or attempt to correct errors.
- *EzTrapping*, based on Ultimate's Trapeze technology and an Adobe PostScript 3 RIP, automatically traps up to 16 inks (including metallics), handles PostScript and PDF files, and provides a trap viewer with a "soft" ink densitometer.
- *EzImposition*, based on Ultimate's Impress module, imposes four-page (maximum size: 22×29 inches) or eight-page (maximum size: 30×41 inches) flats and an unlimited number of pages per document. It accepts files from more than 150 different applications. Functionality includes items such as automatic adjustments for creep, but it lacks much of the sophistication of Impostrip. The program comes with a set of ten standard impositions, but custom signatures can be created with the aid of a "virtual paper folding" display.
- *EzOPI and Workflow Manager*, based on the PrintDesk technology Ultimate acquired more than two years ago, handles OPI picture replacement, balances the load among multiple output devices, supports an unlimited number of users without licensing fees, and automatically creates PDF files.

What it doesn't do. EzWorkflow accepts PostScript and PDF files from more than 150 applications, but it doesn't handle TIFF/IT, Brisque or Delta formats, for example.

The imposition module supports hot folders and automated insertion of color bars, but it lacks many of the high-end features of Impostrip.

The trapping module doesn't support trap pairs and doesn't let the user define the secondary brush size. (The secondary brush is always set as half of the primary brush.)

EzWorkflow doesn't support ICC profiles in the workflow, although they could be applied in the RIP.

As noted above, ezWorkflow doesn't drive high-resolution imagers, but it outputs PostScript files that should be accepted by any RIP on the market (Adobe, Harlequin, etc.).

For users who start with ezWorkflow and want additional functionality, ezWorkflow is upgradable to Ultimate's On-Q Server, which supports the full Impostrip and Trapeze modules, plus ICC profiles and other features.

Full Plate. Ultimate also debuted a job-ganging program called Full Plate. Its objective is to optimize the use of a plate's image area by combining PostScript or PDF files with signatures imposed using Impostrip. The benefit is more efficient use of film and paper in printing, plus materials used in proofing, large-format printing, etc. It also should result in speed benefits by producing more jobs in one operation.

Full Plate, which runs on both the Mac and PC, includes software to gang multiple items automatically and tools to modify the layout manually with the aid of a screen preview. The preview is generated by an Adobe PostScript 3 RIP.

In operation, the user creates a "virtual plate" and adds jobs to it as they are ready. The program automatically formats the jobs in the most efficient way it can find within the plate area. Because some jobs may require being oriented according to the grain of the paper, the algorithm doesn't rotate them as it attempts to achieve a better fit. However, the operator can rotate a job manually and the rotation will be honored by the automatic algorithm.

Besides the automatic placement of items, the program has some very useful features:

- A preflight capability looks for missing elements.
- Documents can be rotated to any degree by user command.
- It automatically handles step-and-repeat functions.
- A "magnetic" grid aids in aligning elements within user-defined tolerances.
- A neat feature aligns the front and back of a duplex sheet. First, the screen displays the two sides in such a way that the alignment can be viewed. If the two sides aren't correctly aligned, they can be nudged into alignment. Then, if the file is to be

output on a two-sided printer (*e.g.*, a color copier), the alignment is maintained when the job is output.

Full Plate, which is currently in beta testing, will sell for $1,995, including the RIP and viewer. It will be included free with Impostrip. One advantage it will provide is to enable Impostrip users to incorporate different sizes of a page on a single plate, which currently isn't possible with Impostrip.

Estimate 4.0. Ultimate also introduced a new version of its estimating management program for prepress and printing jobs. Version 4.0 of Estimate adds job costing and imposition planning tools, a Report Designer for customizing reports, and a Quick Quote feature that allows customers to create their own estimates without revealing the underlying associated costs.

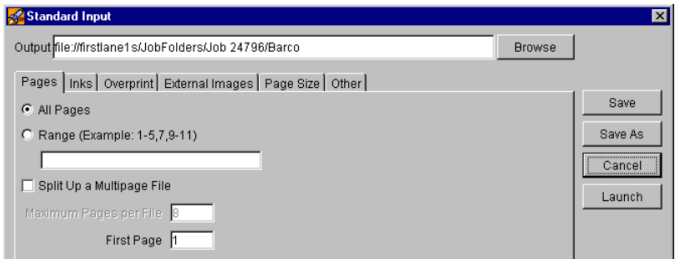
Barco offers stand-alone workflow system

Barco Graphics introduced a stand-alone workflow product based on its high-end FastLane system, but aimed lower in the market. Called Presstige[1], it is targeted at small, commercial printers that are unlikely to buy traditional Barco systems. Among its components are modules to handle file input, trapping, imposition, proofing and high-resolution output. Presstige runs on standard NT hardware, supports multiprocessor computers and uses Java-based client software on Macs and PCs to control and monitor tasks. The graphical interface is new, modified to make it easier to use than the FastLane one.

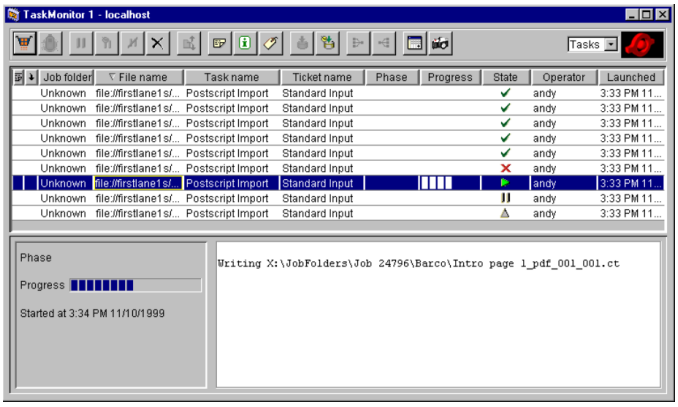
One aspect of Presstige that differentiates it from other workflow products is that it translates incoming files into Barco's internal format for trapping and imposition before outputting jobs in PostScript or PDF format to drive standard PostScript output devices. In an effort to assure customers that the use of its own format is both trustworthy and properly blessed by Adobe, Barco also announced the development of a new technology to ensure that PostScript 3 and PDF files input to the system are stable, compact and reliable.

The new technology, called CertIn (for "certified input"), interprets and "normalizes" incoming files, while preserving the attributes of the original file. Colors and screens remain; art retains its vector format; layers are preserved; and PostScript vignettes are recognized and converted to Barco's smooth, high-quality vignettes. In theory, CertIn files could be edited using Barco's editing software, which will be possible with FastLane systems using CertIn *(see below)*. At this point, Barco isn't supporting its editing software within Presstige, although the long-run strategy in this regard will depend on market considerations.

[1] Barco's style on spelling its products is to use caps and small caps: PRESSTIGE, FASTLANE, CERTIN, OUTRIGHT, FASTFORMAT. We generally try to follow more orthodox rules of English for proper nouns and use an initial capital, followed by lower-case letters.



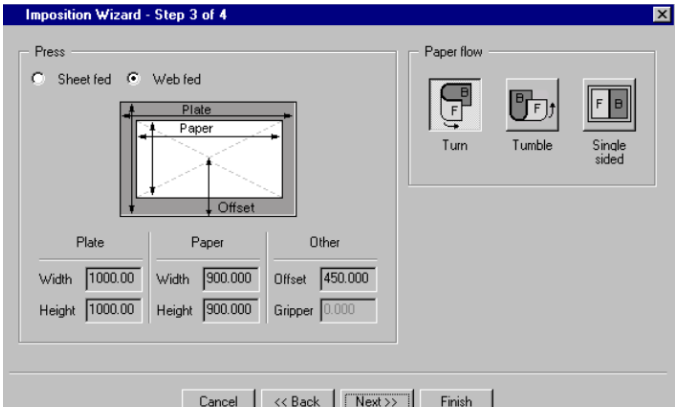
Import ticket. This ticket describes how files are brought into Presstige, including defining how spot colors should be handled, where OPI images are located, etc.



Presstige Task Monitor. The Task Monitor shows the status of launched tasks. Tasks that are awaiting processing can be put on hold or canceled. Note the column reporting the progress of the task being performed on the selected job and the progress indicator in the lower left.

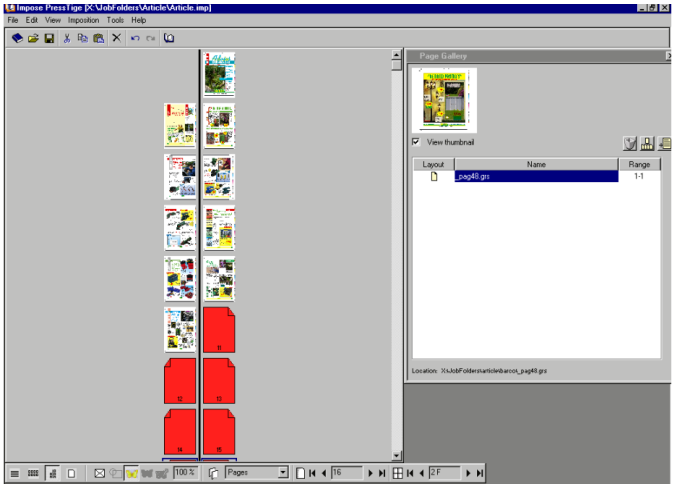
Other features. Besides the CertIn technology, Presstige supports these features:

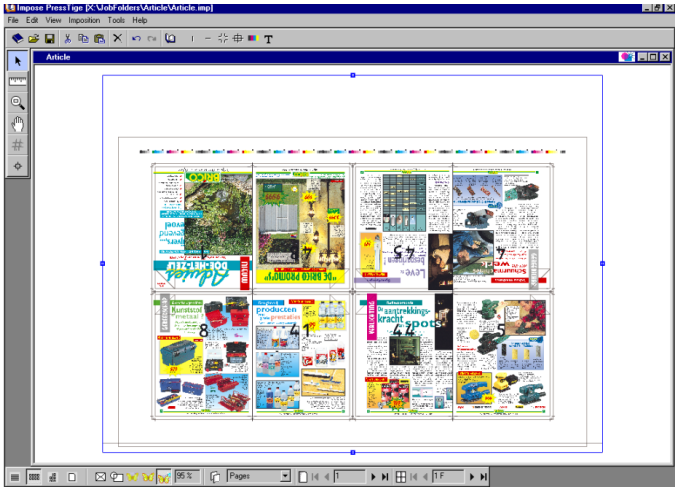
- *Imposition* is based on Barco's Impose program, but it has been streamlined to serve broader markets. It employs a new user interface with wizards to simplify operations, grid lines to aid in alignment and the ability to copy elements from one form to another through a cut-and-paste function. Imposition templates can be created on the fly or saved and reused. Among the features supported are creep adjustments (but not bottling); color-bar insertion; and the ability to handle different binding requirements (including gatefolds), sheet and web presses, and different paper widths. Unlike most imposition programs, which use low-resolution proxy files, Presstige works with the full file, which it samples on the fly to create a low-resolution preview. One advantage of this approach is that it is possible to zoom in



Imposition wizard. Presstige Impose contains a wizard to guide the user through the process of creating an imposition. This is step three of a four-step process.

Working with Presstige Impose. *Left:* Assigning pages in Presstige is accomplished by dragging files from the page gallery and dropping them on the appropriate pages. Thumbnails are generated on the fly to provide visual feedback. *Right:* The Impose tool set and user interface are very simple. The preview ability supports soft proofing before generating output.





progressively to see greater detail, to the extent that text can be read on the page *(see illustration)*.

- *Java clients* enable users at Macintoshes or PCs to launch and monitor tasks. The monitor function displays a progress bar to show the status of current tasks and reports the time to complete each task *(see illustration, previous page)*.
- *Job tickets,* based on Barco's own format, specify how a job will be handled in terms of inks, OPI functions, overprinting, screening, etc. Comments can be inserted and read by other users. Job tickets can be saved and reused.
- *Corrections* are handled by going back to the application (*e.g.*, Xpress), fixing the page or pages that need correcting, and replacing only those pages. Pages are merged on the fly during the output process, so it is possible to change individual pages up to the last minute.
- *OutRight* guarantees the reliability of files output to PostScript devices, including the correct rendering of transparency data, overprints and ink mixes, plus the color accuracy of proofs printed with arbitrary inks on four-, six- or eight-color ink-jet proofers. It handles composite and separated files.
- *Trapping* is based on Barco's existing software. Traps can be viewed (using the preview capability in the imposition program) before outputting a job.

It is possible to maintain jobs in multi-layer format to support multiple versions *(see illustration, below)*.

Pricing and availability. Presstige will be sold through Barco's existing dealer channels for a price of $30,000 (software only), available by year-end. The target market is commercial printers producing eight-up and smaller jobs.

PackEdge for packaging. Besides introducing Presstige for commercial printers, Barco also unveiled a product for the packaging market:

Right: **Layers.** Jobs with multiple language versions can be built in one imposition file by creating new layers. Each layer can be assigned a new page list.

PackEdge. Like Presstige, it brings a high-end application to a more open platform in a stand-alone application running under NT.

In this case, the high-end product is Barco's market-leading packaging application, PackLine, running on Barco's proprietary BG-2500 workstations and on SGI workstations linked to a DEC server. PackLine still fills the role of Barco's high-end packaging application, but PackEdge is entering the market at a lower level to challenge the position of PCC Artwork Systems.

PackEdge incorporates most of the same software modules as Presstige, namely CertIn for the input of PostScript and PDF data and conversion into the Barco internal format; IntelliCurve for intelligent dot-gain compensation; Barco's trapping; and OutRight for PostScript output. In addition to these, it offers a range of unique packaging software elements.

A key difference between the two is that PackEdge supports the editing of files in the Barco format, whereas Presstige doesn't. Files can be opened and all elements edited, including traps. Files can be viewed, with traps and overprints, using Barco's FinalEye software. The system also handles step-and-repeat functions using Barco's QuickStep software.

Barco also has ported its Print Rule Checker to NT, providing software to verify that a design complies with specified press characteristics or limitations in the printing process, thus avoiding press stoppages.

Barco's ColorJudge color management tools are available to indicate exactly how a job is going to come off the press. Besides providing ICC compatibility, ColorJudge accurately renders process and special inks, even when they mix or overprint.

For enhancing the package design, PackEdge provides the BoostX Illustrator plug-ins and the FinalEye quality control and viewing tool running on the Macintosh. This allows Illustrator to be tightly integrated with PackEdge for both the input and output of designs.

FinalEye provides precision functions that work with Illustrator, including high zoom factors to check the placement and alignment of objects and to measure items such as an object's size or trap widths. It offers different viewing modes for individual or combined separations, with precise inspection tools and color-

accurate previews. It enables two versions of the same job to be viewed on top of each other to detect changes between versions. FinalEye can be used for both quality control and inhouse proofing, either in soft- or hard-proof form.

One thing we would like to see being brought across from the SGI environment to the PC is Barco's excellent PS-Fix and Design Rule Checker products. These are excellent not only for checking files input in PostScript or Illustrator formats, but also for correcting faults within them.

FastFormat for FastLane. Barco also announced that its FastLane system now supports the new CertIn and OutRight technology *(see above)* when handling PostScript 3, DCS 2.0 and PDF files. CertIn is used to produce reliable, stable input. OutRight renders overprint and transparency conditions authentically. Barco will add support for PDF/X if it receives industry acceptance. Unlike the Presstige system, which doesn't support Barco's editing capability, CertIn files in a FastLane workflow are fully editable using Barco editing software, up to the last minute.

Barco also announced the development of Java-based clients with FastFormat, enabling Macintoshes and PCs to control and monitor workflow activity.

The initial release of FastFormat will include input support for PostScript 3, DCS 2.0 and PDF 1.2, plus output support for PostScript 3. Remaining items will be added later.

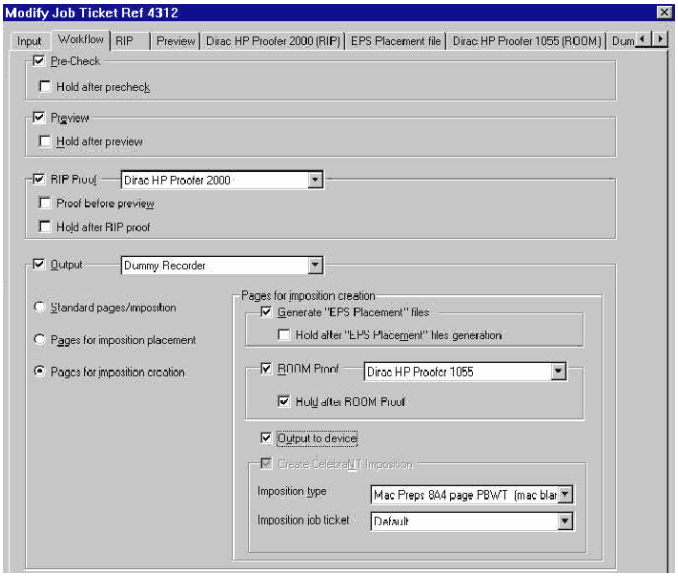
Partnership with G.E. Richards. Barco announced a new dealer partnership with G.E. Richards, of Landisville, PA, a distributor of supplies and services. It will be selling Presstige workflow systems and Crescent II platesetters. It has annual sales of more than $200 million through its 19 branches in 18 states.

Fuji adds workflow features to RIP

Fujifilm, which has been offering a wide variety of RIPs to drive its imaging systems, has taken one of its RIPs a big step forward with the addition of sophisticated workflow functionality. Both the earlier version, called the CelebraNT, and the new one, called the CelebraNT Plus, are based on Adobe PostScript 3 interpreters and run on NT platforms. The Plus model provides good support for PDF workflows, but it doesn't require the use of PDF. For example, it can accept files in TIFF/IT-P1 and retain them in TIFF/IT-P1 to preserve their integrity. It also allows users to continue operating PostScript workflows and upgrade to PDF at a later time.

We'll also mention at the outset that Fuji is supplying the CelebraNT Plus technology to Xitron through an OEM deal for incorporation into Xitron's Xenith workflow system, which we'll describe in more detail under Xitron, below.

Valiano. Readers may recall that Fuji is one of several companies offering a workflow product based on MidSystem Technology software, called Valiano, which hasn't been released to the market yet. (It's in beta testing in Europe. Plans for a U.S. introduction haven't been announced.) As Fuji describes it, Valiano is an umbrella term



Fuji's job ticket. Fuji provides a job ticket to set up the processes to be performed within the CelebraNT Plus. This is the workflow tab, where basic procedures are set up. For example, a preflight check or a preview can be called for, after which the job can be held or not.

covering all of the products it offers as part of a workflow, including CelebraNT Plus. A key point is that Valiano technology will be able to address early stages in the workflow, prior to the involvement of CelebraNT Plus for output processes.

Basic workflow. In its basic structure, the CelebraNT Plus workflow begins with the input of files from an application program directly to the workflow server. Input formats supported include PDF 1.2 and 1.3, PostScript Level 2 and 3, TIFF/IT and TIFF/IT-P1, and EPS. A job ticket is either assigned from an existing database or created to specify certain facts about how the job will be processed—what preflight software will be used, what imposition format is required, what previews and proofs will be generated, etc.

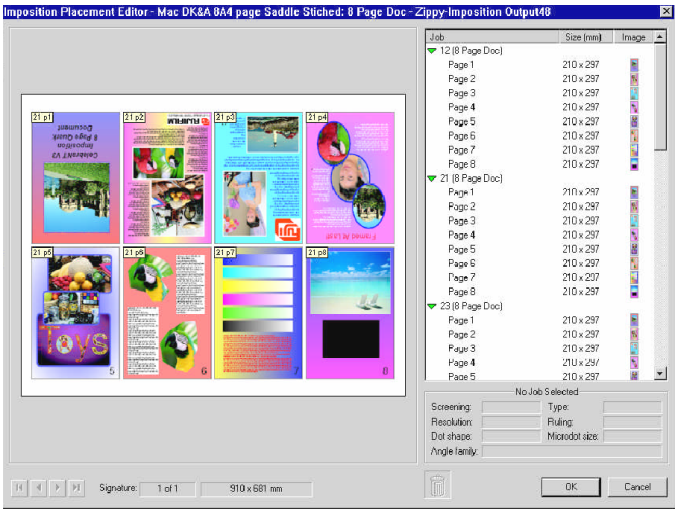
As is the case with many workflow systems, the job ticket being supported initially doesn't conform to one of the standard ones being proposed for adoption throughout the industry. However, Fuji says it is working with the Adobe PJTF as a future possibility.

The RIP begins processing the job to create independent pages. It creates low-resolution proxy images in EPS format for all pages and sends them to an imposition program, where the imposition template is imposed, not the full bitmap data. This imposition step takes place concurrently with the RIP'ing of high-resolution data to create page bitmaps and store them for later use. If high-resolution graphics have been placed on an OPI server, CelebraNT Plus retrieves the high-resolution versions for incorporation into the page bitmaps.

Trapping is performed as part of the RIP process, using Adobe's in-RIP trapping technology.

After the job has been imposed and RIP'ed, it is available for proofing without re-RIP'ing, in accord with ROOM procedures under which data from the RIP are downsampled to the required resolution of the proofing device, descreened as necessary. Proofs can be generated in PostScript, PDF or TIFF, for printing or display on a

CelebraNT Plus imposition editor. Impositions can be previewed and pages manipulated with the CelebraNT Plus. The operator first selects a job from the list at right. Then it is possible to move pages manually by selecting and dragging them.



monitor. The CelebraNT Plus supports hard-copy proofs on Fuji's PictroProof, PreProofer 2000 and FinalProof, as well as on most of the HP DesignJet large-format plotters. (In all cases except the PictroProof, the CelebraNT Plus RIP drives the proofer. The PictroProof requires its own RIP.)

At this stage, ink data to control a press also can be exported in CIP3 format.

If corrections are required following RIP'ing, such as after viewing proofs, pages are handled independently. Any page that requires changes can be accessed as an individual element. If changes need to be made to text or images, only changed pages need to be re-RIP'ed. If the pages were supplied initially in PDF, the PDF pages can be edited in PDF using Enfocus PitStop. If they are in TIFF/IT or PostScript, the user has to go back to the original application to make changes.

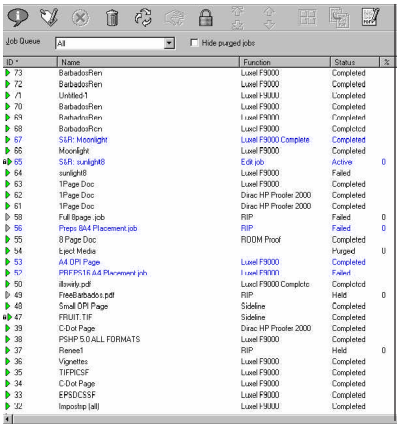
If the only change that needs to be made is to alter the page order, pages can be dragged visually to new locations without requiring reprocessing.

High-resolution output can be produced on any of Fuji's current imaging devices: the Celix family, the Sumo Luxel F9000, the Javelin Luxel T9000 and the PlateJet 4 and 8. To drive other output devices, it is possible to use Xitron's Raster Blaster software module, which drives dozens of image- and platesetters *(see Xitron, below)*.

There currently are no facilities for archiving data after completion of the workflow.

Alternative workflow. A nice feature of CelebraNT Plus is the ability to begin the workflow procedures before a job has been received. In this situation, the imposition can be created in advance and the pages can be submitted to the workflow when they are ready, such as by dropping them in a hot folder that will move them automatically to their required location.

One advantage of this option is that it enables the imposition task to be handled by one person while other people perform other tasks. Another advantage is that it makes it necessary to purchase only one copy of the imposition software, thus saving money.



Job queue. The CelebraNT Plus displays this list of jobs, tasks (output to CTP, film, proof, etc.) and their status (completed, active, held, failed, purged).

Tracking. CelebraNT Plus provides client-server setup and tracking to enable local or remote users to interact with the workflow. The main tracking function is a display of the job queue—all jobs within the system (except PictroProof jobs, which have their own job queue because they have their own RIP). The display identifies the job, the process and its status. It isn't possible to get a view of all tasks currently under way, which would probably be a necessary addition if the system supported multiple RIPs.

Fuji points out that it would be possible to use CelebraNT Plus in conjunction with Valiano to get more comprehensive tracking information, such as recording RIP times for individual jobs. (The release date for Valiano hasn't been disclosed.)

Pricing, configurations and distribution. The CelebraNT Plus workflow server is sold through Fuji's regular distribution channels for a price of $49,950, which includes an Adobe PostScript 3 RIP, trapping software, the workflow server, Acrobat 4.0, EnFocus PitStop, a driver and color tables for the PictroProof printer (the engine costs $23,500), the Impose module for single-page editing and page replacement, and ROOM proofing with a license to drive an HP printer. (The bundled price is $10,000 lower than the sum of the prices of these modules purchased separately. The basic RIP with trapping but no workflow features is available for $25,000.)

The hardware platform adds $7,100 (dual 500-MHz Pentium III processors, an 18-GB disk drive and 256 MB of memory). Other available options are high-resolution TIFF output ($8,000), CIP3 support ($11,500) and Studio Expose ($18,500) for compatibility with legacy Crosfield systems.

Unfortunately, one CelebraNT Plus supports only one RIP, so it isn't possible to enhance productivity by using two or more RIPs to drive a single imager, as is done with some other systems.

Xitron deals with Fuji, Cortron

Xitron announced two OEM deals to get into the workflow business. First, through an arrangement with Fuji, Xitron will offer the Fuji CelebraNT Plus workflow system under the Xenith brand. To the Fuji software, Xenith adds one key ingredient: the Raster Blaster output module that enables the system not only to drive more than 75 different output devices, but it also makes it possible to

Xitron's Raster Blaster outputs screened TIFF images from a RIP to any of more than 75 high-resolution recorders, platesetters and color proofers, with load balancing.

drive more than one plate- or imagesetter concurrently, with load balancing to enhance system throughput.

Second, Xitron will market two imposition programs based on Cortron's Impose-X technology. The two—a basic and a professional version—will go under the name XiStrip.

Xenith workflow. The basic workflow functionality and user interface for Xenith are the same as those in the Fuji CelebraNT Plus *(above)*. Xitron's key addition is the Raster Blaster, which enables it to drive output devices outside the Fuji line. Raster Blaster outputs screened, rasterized TIFF images generated from a RIP to any of more than 75 high-resolution recorders, platesetters and color proofers. Xitron has developed the device drivers and interface cards. The Raster Blaster can be used to balance the load among multiple recorders. Because it runs on a stand-alone PC, it doesn't have an adverse effect on RIP performance. Raster Blaster provides a Web interface to allow remote monitoring of print status through a Web browser.

To handle imposition, which takes place after RIP'ing, Xenith supports the major products on the market, including Preps and PressWise. XiStrip, based on Cortron technology, also can be used.

In conjunction with planning its support for trapping, Xitron says it conducted a test of leading trapping products in which 44 different trapping relationships were analyzed, including sliding traps, pixel-by-pixel contone trapping and trapping of one-bit TIFF images. Xitron said Adobe's in-RIP trapping handled all the elements in the test correctly.

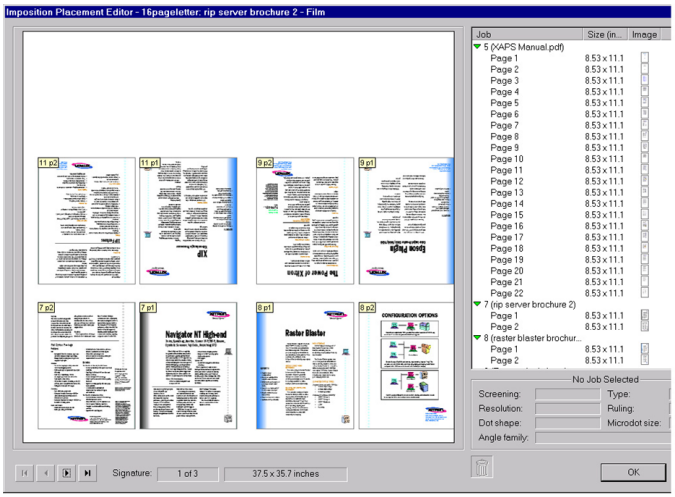
Initial shipments of Xenith are targeted for January 2000. It will be available from certified Xitron dealers. The price is expected to be $50,000–$55,000 for a complete package.

Imposition. Xitron announced a partnership with Cortron to develop a post-RIP imposition package with electronic stripping features. Called XiStrip, it runs on a RIP server with Java-based client software running on the front-end workstation where imposition layouts are created. Jobs are RIP'ed into single pages and proxy files are created for use in the imposition layout client. Among XiStrip's key features are job setup wizards and previews of imposed pages.

There will be two configurations:

- XiStrip Basic will include the key elements: stripping template editors, step-and-repeat features and manual imposition. It is expected to be available in the second quarter for a price of $4,000.
- XiStrip Professional adds more automated features, including shingling and bottling compensation, support for multiple signature combinations and special folding aids. It is expected to be available in the third quarter for $6,000 (about the same price that Cortron charges for Impose-X).

XiStrip is a post-RIP imposition program that is compatible with Xitron's Navigator NT product line (the Harlequin-based RIP).



Xitron's new Xenith workflow system. Xitron introduced its version of the Fuji product, with the addition of Xitron's Raster Blaster to drive more than 75 output devices.

ECRM widens scope with Harris, IPTech

As the focus of the industry's output technology shifts from film to CTP and workflow issues, ECRM has taken critical steps to try to maintain its position as a key supplier. It continues to offer a full line of imagesetters, but, in addition, it has added two impressive CTP systems *(see the first section of this article and Vol. 29, No. 5)* and two lines of workflow products. The latter two items, both launched at Graph Expo, are the result of OEM deals: one with Harris Publishing Systems for its MaxxWorkFlow system and one with IPTech for its TurboRip and related workflow modules.

The new products reflect the company's intent to become more of a supplier of systems than output components. The strategy is being directed by George Carlisle, who took over as president and CEO early this year.

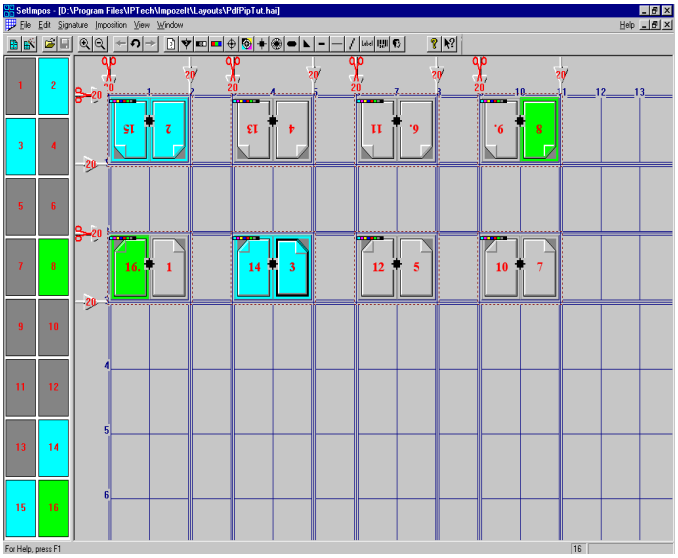
MaxxWorkFlow. We've covered the MaxxWorkFlow system on several occasions in the past, most recently at IFRA in our last issue, so we'll keep our comments here brief.

ECRM has obtained nonexclusive worldwide distribution rights to MaxxWorkFlow, covering all markets. It will be available to ECRM dealers to supplement their imaging products. The system has primarily addressed newspapers in the past, but recently it has been moving into commercial areas. It fits well into an ECRM environment, since its output modules have supported ECRM imagers.

One of the strengths of the product is its user interface, which provides drag-and-drop functions to set up workflows. It also offers load-balancing features that go beyond the simple "first available RIP" ping-pong approach. Besides looking for an available RIP, MaxxWorkFlow considers the file size before it sends a job to a queue.

As a Harris product, MaxxWorkFlow has incorporated a 5D Solutions Jaws RIP, but since ECRM already sells Harlequin RIPs, it will offer MaxxWorkFlow with a Harlequin RIP.

MaxxWorkFlow isn't quite complete yet. Its imposition software is still under development (existing imposition products can be used instead) and it doesn't support job tickets. (Harris hasn't decided what ticket format to support.)



IPTech's ImpozeIt. With ImpozeIt, users can send completed pages to a signature while other pages in the same signature are still being worked on. Then, as flats are completed, they are sent to an output device, whether or not the other flats comprising the job have been completed. Colors are used to show the status of each page.

ECRM will price the Harris modules approximately the same as Harris's own sales outlets. The two main modules—covering a workflow server and a RIP—cost $6,450 each, which includes one output driver. Modules for trapping, OPI, preflight and other functions are optional, bringing a typical system price to $18,000–$20,000, according to ECRM. That puts a system midway between an Ultimate ezWorkflow system and a Barco Presstige.

IPTech. The deal with IPTech was spurred more by the RIP than by the workflow capabilities. IPTech uses an Adobe RIP, which ECRM didn't have. (The Riptide development project with Lucid Dream, which used an Adobe RIP, apparently never resulted in any sales and has been discontinued.)

Besides the RIP, IPTech is developing a full suite of workflow modules, many of which are already available *(see IPTech, below)*.

ECRM will price the Adobe RIP at $6,000 and entire workflow systems at $15,000–$18,000, slightly less than a MaxxWorkFlow system.

IPTech upgrades RIP, deals with ECRM

IPTech, which supplies most of the components of a digital workflow, showed a new version of its TurboRIP, announced a deal to supply its product suite to ECRM *(see ECRM, above)* and reported the adoption of its imposition software by the largest printer in Holland.

Unlike most of the suppliers of workflow products, IPTech was focusing on its independent modules, not on the "glue" that ties them together. We inquired about the workflow software that was announced and demonstrated a couple of years ago under the name Prepress Factory and were told that the name is changing, and we should hear more about it in the future. Meanwhile, IPTech's focus continues to be on its CanOPI OPI server, TurboRIP and ImpozeIt imposition software.

IPTech is one of the Adobe OEM partners that hasn't opted for the Extreme workflow, although it has considered it. The main new items in TurboRIP 2.1 are support for PDF 1.3 and Adobe's in-RIP trapping, both of which have been well publicized and don't need elaboration here. In addition, it includes enhanced screening controls—a wider choice of spot shapes and rosette types, plus better control over screen angles.

The TurboRIP now supports a Java interface to enable it to be run from any workstation.

The TurboRIP, which drives more than 50 different imagesetters, sells for $9,995 in its basic configuration, which doesn't include the trapping software and has some other minor limitations. Pricing of a higher-end version, with trapping, hasn't been announced.

Dutch printer picks ImpozeIt. IPTech also announced that Krips BV, the largest printer of scientific books and magazines in the Netherlands, has adopted ImpozeIt as its standard imposition package at its production plant. The operation produces 600 plates per day using three CTP systems and 24 presses. Work comes in from all over the world, much of it in PDF format, Krips said. PDF files are RIP'ed straight to the CTP system.

ImpozeIt, which has a particularly attractive, easy-to-use interface featuring wizards to automate procedures, supports adjustments for creep and bottling, step-and-repeat functions, and nice previewing, lists for $3,995.

Shira features 'right to' line, adds staff

The dichotomy of approaches continues. As PDF workflows and late editability of files gain ground in some quarters, Shira is one of another group maintaining support for RIP'ing jobs first into a fixed format to guarantee reliability as the job proceeds through the remainder of the workflow. The focus of the Shira booth was the "Right-to" product line that had been introduced at the CMM show last April and shown again at a meeting of the Heidelberg users in May *(see Vol. 28, No. 19, pp. 18–19)*.

Besides using TIFF/IT-P1 as the standard format, the focus of the Right-to products is on moving the RIP and proofing functions upstream, where they are easily accessible to the originator. ("What you proof is what you print" is the Shira catch phrase.) The output device then receives flat, single pages and performs imposition, screening and high-resolution imaging on film or plates. If corrections are needed, they are done back at the origin and the changed elements are processed again.

The system supports scriptable hot folders for automated workflows.

The Right-to line, which started with the Right-to-RIP and Right-to-Proof, was joined by Right-to-Trap at Graph Expo. The trapping module supports automatic trapping of raster files. Trapping information can be previewed, pixel for pixel, using the Right-to-Proof preview. Right-to-Trap, including an Intergraph workstation, lists for $11,500. Right-to-RIP and Right-to-Proof sell for $15,500 and $10,500, respectively.

MediaSaver. Shira announced its MediaSaver for automatically scattering files to economize on the use of consumables in proofing and high-resolution imaging. It runs under NT and places individual images or pages efficiently on the output medium, tagged to ensure that they are given the appropriate screening and other processing. When producing step-and-repeat jobs, the MediaSaver controls the space between items to minimize waste and prevent inadvertent overlapping of items.

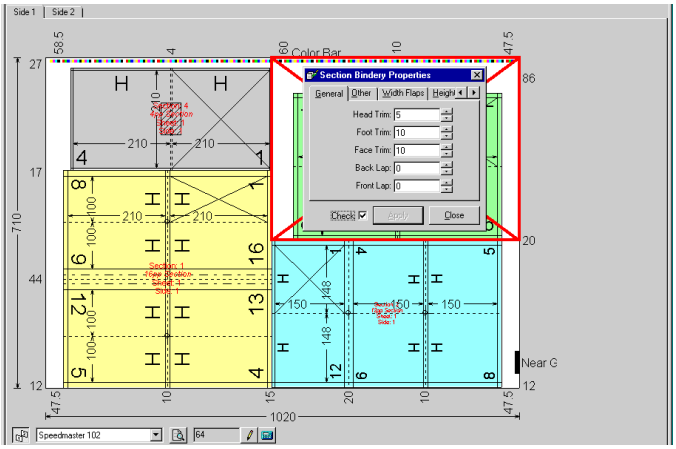
MediaSaver sells for between $7,000 and $12,500, depending on the input options it supports.

New staff. Shira announced the addition of Martin Breslow and Jim Smith to its management team. Breslow, formerly the director of CTP and digital ad technology with Applied Graphics Technologies, is Shira's VP of prepress technology. An active advocate of digital distribution of ads, he serves on the steering committees of the Digital Ad Lab and DDAP. He also served earlier as corporate prepress manager for Continental Web Press.

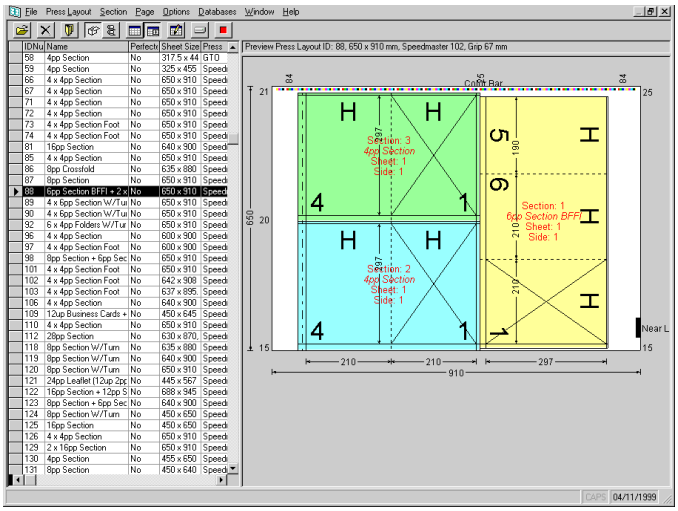
Smith, the director of sales for the Eastern Region, had been in a similar position with Contex Prepress Systems and director of reseller operations for Iris Graphics.

ScenicSoft adds planning tool

ScenicSoft, which earlier this year added the Imation line of workflow modules to its Preps imposition program, announced the addition of planning software through the acquisition of Holt Software of Australia. Holt's product, which had been called SuperImpose, has been renamed UpFront. It is a production planning tool aimed at integrating prepress, press and bindery activities through digital means. Its functions include producing diagrams of the job plan, creating imposition templates for use by Preps, and checking the plan against a production database to ensure that the plan is consistent with the capabilities of existing equipment in the pressroom.



Editing an UpFront Press Layout. To edit a Press Layout, UpFront provides an editing window with a view of the layout. (This is a complex ganged imposition being planned.) The user can edit the bindery properties of each section on a press sheet and compare every change to the bindery equipment database and the press specification database to ensure that the layout can be printed and bound.



UpFront Press Layout library. UpFront comes with a library of press layouts. The user can create new ones from scratch or edit existing ones to new specifications.

Holt, which was founded in 1995 and sold its first product a year later, says it has about 30 customers worldwide, including one in the U.S. Its founder, Rohan Holt, has joined ScenicSoft and is moving to the U.S. He developed the program after years of performing production planning manually. He says that the software turns hours of manual work into minutes on the computer.

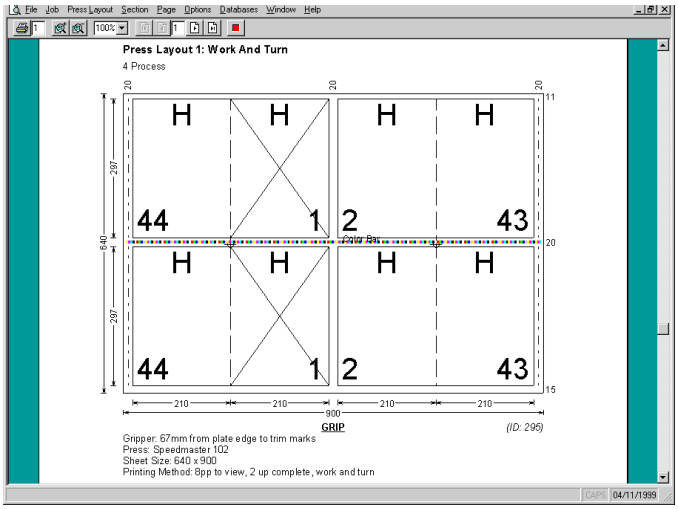
In operation. The objective of UpFront is to create for each job a template containing information needed in the production of the job—the press it will be printed on, the number of pages it contains, the margins, no-ink zones, etc. One way to build a template is to respond to questions from the program (*e.g.*, whether the job is intended for a sheet or a web press, how the job will be folded and bound, where there will be blank pages, etc.). The program uses the answers to the questions to create the template. If the program recognizes a pattern (*e.g.*, a numbering scheme) during the interactive question-and-answer process, it automatically inserts the remaining items.

As a template is being built, the program works against a database of information about the pressroom and related equipment. In offering multiple-choice answers to questions such as the press to be used, the program displays only the presses on which the template can be printed. If the operator attempts to include in the template an item that the existing equipment can't handle, the program issues a warning and doesn't allow the process to continue.

The program also helps the planning process by identifying color pages to aid in optimizing the placement of color within a publication.

Templates can be built on the fly, as a job is planned. It's possible to store templates and reuse them later. An existing plan can be edited to create a new one with different folios, colors, sheet sizes, work style, creep marks, page rotation, customer details, footnotes, diagram notes, etc. User-defined marks can be added.

Print Preview. UpFront produces scaled imposition documents with a print preview. This is part of a four-page cover's imposition document page (work and turn), displayed in the UpFront Job Builder Print Preview window.



After the plan is ready, the electronic template file is read into Preps for use in preparing the imposition file for use in imaging film or plate. Job impositions can be printed in a user-defined number of diagrams per page (1, 2, 4, 6 or 12), with perforations, die-cut areas, no-ink zones and notes.

ScenicSoft is developing interfaces to business systems to be able to access information such as the types and sizes of stocks, which then could be incorporated in the plan. The first one being developed is an interface to the Hagen system.

UpFront is priced at $10,000 per seat. It is available beginning Jan. 3, running under Windows. The program comes with a set of default data about binderies and press configurations, including several hundred standard templates. It supports four levels of security for user access to functions.

Other news. ScenicSoft also disclosed that it has been named to Washington State's "Fast 50" growth companies for the second year in a row. It has also been chosen as one of the top 500 fastest growing companies in the United States.

Among its products acquired from Imation, ScenicSoft said it had issued a free upgrade to TrapWise and will give it PostScript 3 support in January. ScenicSoft also said it had converted 700 users of PressWise, which has been discontinued, to Preps. The conversion plan was extended to the end of the year.

On-Press Imaging, Digital Presses

Most of the key suppliers of digital presses and on-press imaging systems appeared at GraphExpo. There were some interesting new announcements, such as Indigo's new personalization capabilities and a new distribution deal for T/R Systems. There also were some U.S. debuts of products announced earlier, such as the Heidelberg Digimaster monochrome printer to compete with the Xerox DocuTech.

Adast keeps plugging away

Adast, the Czech printing press manufacturer that licensed Presstek's Direct Imaging technology a few years ago, hasn't had much success in the market. But it is still in the game, with an installed base of 12 DI presses in North America and two in Europe. (For comparison, Heidelberg has sold more than a thousand DI machines.)

But Adast keeps plugging away, improving its press. The 746, a 19×26-inch model, is now entirely "leverless," meaning that the cylinder loading controls are now automated. Adast also points to improvements in Presstek's technology; the plates now can survive 100,000 impressions, and the life expectancy of the high-power laser diodes is higher. At the same time, the diode-to-diode uniformity has been improved.

Furthermore, Adast says that it made a marketing mistake—it failed to put any sales offices in North America—which it has now corrected. At Graph Expo, the company announced the creation of a North American subsidiary, Adast America Inc. *(address below)*. A parts warehouse and customer support center has been established in a suburb of Denver, CO, with a secondary center on the East Coast.

Adast America, 5790 Lamar St., Arvada, CO 80002; phone (303) 423-1200, fax (303) 423-1711.

Heidelberg: DI profits, Digimaster debut

Among the items promoted in the huge Heidelberg booth were the results of a profitability study of Quickmaster DI users. The study, conducted by CAP Ventures under contract with Heidelberg, concluded that Quickmaster DI users achieve higher profit margins than the industry average.

Heidelberg also officially launched its Digimaster 9110 monochrome printing system, which is expected to compete head to head with the Xerox DocuTech.

Survey says. . . . In the survey of 321 print service providers that own Quickmaster DI presses, CAP found that the average gross profits of the QMDI users was 42 percent, compared to the industry average of 26 percent, as established by Printing Industries of America (PIA). Asked if the DI press helped their businesses grow, 98 percent of the users responded affirmatively, with growth rates ranging from 5 percent to 200 percent and averaging 40 percent.

Survey respondents were chosen randomly, Heidelberg said. However, questions asking the users to define their businesses indicated that they represented "a cross-section of commercial printers, quick printers and prepress providers."

Besides the survey, CAP interviewed nine printing company executives.

The profitability percentages were obtained by asking respondents to bid on two typical short-run, quick-turnaround jobs. Survey participants were asked to supply their typical bids for different quantities on each job. They were:

The Digimaster 9110. Heidelberg debuted its latest acquisition: the Digimaster monochrome printer developed by Kodak Imaging Systems and sold to Heidelberg early this year.

- A four-color, single-sided sell sheet that contained two images: one color and one gray-scale. Here, profit as a percentage of sales was 40% in the range of 200 units, 41% in quantities of about 500, and 41% for 1,500.
- A four-color, two-sided brochure that had two color and two gray-scale images. In this example, profits were 43% in quantities of 500, 43% in quantities of 1,000, and 44% with a run of 2,000.

The interviews supported those data, indicating that profitability extends to jobs of only a few hundred sheets. "The typical run-length crossover point is 400–500 units," the CAP report noted, "but the most reliable estimates of actual break-even appear to be 300–325 11×17-inch 4/4 and 200–250 11×17-inch 4/0."

Digimaster 9110 in debut. Graph Expo also marked the formal launch of Heidelberg's first digital printer, the Digimaster 9110 Network Imaging System, the 110-page-per-minute printer obtained in the acquisition of Kodak Imaging Systems. There were no surprises regarding the product, since its capabilities had been fully disclosed earlier.

Heidelberg, which has taken over manufacturing and sales of the machine, is using it to augment its existing capabilities and find new market opportunities. Target customers include commercial printers, print-on-demand facilities, quick printers, in-plant facilities and prepress operations.

As reported previously, the 9110 monochrome printer includes an integrated scanner for analog input of documents and images and also accepts electronic files in PostScript, PDF, PCL and TIFF formats. It can be equipped with an inline finishing system to output finished reports, publications and promotional material. Heidelberg is promoting it for short-to-medium-run black-on-white work, and for personalization and versioning opportunities.

The base model can handle up to 4,000 letter-size sheets of 16- to 110-lb. stock. Fully configured, it can accommodate 8,000 letter-size or 6,000 ledger-size sheets. Tabs, inserts and other material can be loaded into the system and be automatically incorporated into the documents as they are produced.

Some of the printer's key features are:

- A 4.2-GB hard disk with 13,000 pages of documentation, complete with hyperlinks, to assist with system maintenance. Remote diagnostics and adjustments can be performed through Web interface.
- Resident sensors to detect if the wrong kind of stock has been loaded. An alert is displayed on the monitor to ensure that the error is corrected before time and materials are wasted.
- Automatic self-maintenance checks and recalibration.
- A Web interface to support remote proofing over the Internet.

Indigo speeds up variable-data printing

Indigo announced the availability of SNAP (Swift Native Accelerated Personalization), software designed to help reduce overall production time of variable-data print jobs on the Indigo TurboStream and other Indigo presses. SNAP is software that is installed on and runs on a Macintosh workstation and on the RIP inside the Indigo press.

The concept behind SNAP is to place the burden of image processing and data merging on the RIP inside the press itself. All of the components for a job, including all the images (in TIFF or JPEG format) and the text database, are placed on the press before printing begins. The data processing for the job, including the merging of variable and static data, is done on the press while the press is processing and printing that particular job.

Adam Blyweiss, Digital Prepress Specialist at Today's Graphics, a digital print shop in Philadelphia has used SNAP on the company's Indigo Turbostream press for more than six months. He explains how SNAP works, "We send a PostScript file to the press, then we send the images and database over." Blyweiss says the change in workflow has increased the prepress time on some jobs, but that additional prep time is insignificant compared to the dramatic reduction in overall production time. "Jobs that took 20, 45 minutes or even an hour to process now process in 15 seconds."

SNAP is the latest variable-data personalization tool that Indigo has made available to its customers. In late 1997, Indigo offered Yours Truly, an Xpress Xtension that made it possible for Indigo press users to build a master page with variable data elements in Xpress and then pass that page along to the press as a PostScript file. The variable data components of jobs created with this Xtension had to be passed to the press from a workstation on the network—a step now eliminated by SNAP.

When it announced the availability of SNAP this year, Indigo added two more Yours Truly-based tools. One is Yours Truly Designer, a Mac-only Xtension for creating designs with variable data elements, including variable text elements with any Xpress attribute. The other, Yours Truly Express for Windows, allows the user to add variable data elements to an EPS file.

SNAP is available for all Indigo TurboStream-based products as an optional upgrade and will also function on the Omnium WebStream presses and the Indigo/Datacard Cardpress.

T/R enhances MicroPress, signs Ricoh deal

T/R Systems featured version 5 of its MicroPress cluster printing system, which includes a long list of enhancements. One group of changes (collectively called the "MicroPress Power Architecture")

T/R's deals with Minolta, Ricoh and Hitachi are impressive because of the distribution outlets they provide and the output options they make available for MicroPress customers.

includes more powerful processing (there is now a server option for dual 500-MHz Pentium III processors, plus up to 1 GB of RAM and up to five hot-swappable disk drives), and the ability to partition RIP'ing tasks across multiple servers. A tool called "the Workbench" allows many document-manipulation functions to be done on an NT workstation, freeing the server for production and output processing.

T/R also announced its "e-Power Initiative," which allows the MicroPress to be managed from any Web browser. Functions such as job submission, document merging, checking job status, and insertion of job and copy separators can be controlled in this way.

Also new is an enhanced XML-based job ticket that will allow the MicroPress user to invoke standard processing parameters for specific customers or industries. There is also a tool for transferring data about jobs processed on the MicroPress into external billing and tracking systems.

T/R plans to offer software bundles called "PowerPacks" to address specific applications and vertical markets. The first of these is the Imaging PowerPack, which includes the ability to cut, paste and rotate pages or page elements. There are also "de-skew" and "de-speckle" functions. These tools work with T/R's post-RIP print-ready bitmap files.

In addition to these version 5 enhancements, T/R also announced support for the HP DesignJet 1000 wide-format printer. Up to 12 can be driven from a single cluster controller.

T/R and Minolta jointly announced a pair of new Minolta printers that will be available with Minolta's version of the MicroPress. These are the Di620PE (62 pages per minute, black-and-white) and the CF911PE (6 pages per minute, color). These machines are derived from existing Minolta copier-printers (the Di620 and the CF910). Up to eight machines (of either kind) can be driven by a single controller.

Deal with Ricoh. Just after the show, T/R signed an agreement with Ricoh under which it will develop interfaces to some of Ricoh's printers. Ricoh also will market, sell, service and support cluster printing systems configuring the MicroPress and Ricoh's devices. No specific machines have been identified, but T/R said the addition of the Ricoh line would bring many options to its customers. Different products will become available at different times, including some as early as the first quarter.

T/R is enthusiastic about the deal also because of the locations Ricoh's distribution channels cover.

Deal with Hitachi. The agreement with Ricoh is the second such one made by T/R this year. Last spring, it announced a similar arrangement with Hitachi. (Both are in addition to an earlier deal with Minolta, which is now selling MicroPress systems and providing color and monochrome printers to T/R.)

Hitachi launched the product at the Xplor show in November and has started to conduct limited installations. General availability is scheduled for early in the first quarter. Hitachi has announced initial support for its 24-, 52-, 62- and 70-ppm black-and-white printers—an impressive number of devices to support this early into the relationship.

In perspective. T/R's agreements with Minolta, Ricoh and Hitachi are impressive both because of the distribution outlets they provide and because of the number of output options becoming available for MicroPress customers. On the distribution issue, having agreements with multiple partners is important in areas where only one of its partners has representation means that customers in those areas will still be reachable.

The output benefits are also essential, since one of T/R's current objectives is to address more of its print-on-demand customers' challenges. Customers continually ask for more robust engines with capabilities such as finishing, nonstandard media support (*e.g.*, extra-heavy stock), greater speed and other items.

Xeikon targets packaging, shows VariScript

Xeikon, which had shown its new VariScript RIP for variable-data printing at Seybold San Francisco, focused on the packaging market at Graph Expo. We'll touch on both topics here, in addition to commenting on the company's strategy and a new printing substrate. We'll cover the Nipson product demonstrated at Xplor in *The Latest Word*.

In a press conference at Graph Expo, Xeikon outlined its expanding marketing posture, which now focuses on five areas *(see Vol. 28, No. 15, for more details on its business structure)*:

- *Commercial printing*, where it has sold more than 1,000 DCP/32D printers and a few hundred DCP/50D units. It also offers the Nipson 7000 Varypress in this same market.
- *Transaction (variable-data) printing* (invoices, periodic billing, policies and forms), where its Nipson line and variable-data printing are critical. This area is more active in Europe than in the U.S., Xeikon said.
- *Packaging printing*, where Xeikon has set up a new unit and anticipates high growth for the next several years.
- *Identification printing* (including labels and bar codes).
- *Special applications*, such as decoration (wallpaper and floor covering) and security printing (tickets, MICR, and lottery and games).

Xeikon reported that, in the first two quarters this year, it invested twice as much in R&D as it had in the first two quarters a year earlier and four times as much as in the first two quarters two years ago.

Packaging. As the packaging market moves to greater use of color, shorter runs, faster turnarounds and the need to change designs frequently, Xeikon is adapting its technology to the challenge. To address these requirements—and to provide versioning, proofing and customization—Xeikon showed the single-sided, large-format print engine that first appeared at Ipex a year ago as the DCP/50S.

There are now two models: the DCP/50SP for conventional packaging applications and the DCP/50SF for imaging flexible materials. Both feature 19.625-inch web width and infinitely variable cutoffs.

- *DCP/50SP.* The SP model comes with a web-feeding system capable of handling up to 18-point paperboard. It produces 630

At Xplor, Xeikon showed the first project for its DCP and Nipson printers: a Xeikon engine printing colored covers to be bound with pages from a high-speed Nipson printer.

full-color, 50×70cm sheets per hour and is suited for smaller folding cartons. Applications include pharmaceutical packaging, promotional materials, specialty foods, cosmetics, video sleeves, presentation folders and CD packages.

- *DCP/50SF.* The SF uses the same print engine, but it includes a fifth unit for white toner and can handle many commonly used flexible packaging materials, such as (B)OPP, PVC, PET and HDPE. It prints at speeds of up to 24 feet per minute for such applications as snack foods, sample-size packages and short-run applications on flexible films and label stock.

The benefits of the Xeikon approach compared with traditional printing have been stated many times previously, but Xeikon reiterated them at the show: minimizing the time and expense of the makeready process, eliminating film and plate costs, allowing last-minute changes to text or graphics at minimal cost, providing short turnarounds, and exploring new applications, such as test-marketing samples, versioning packages and proofing samples.

The DCP / 50SP, which was being shown for the first time in the U.S., is now in beta testing.

VariScript. Although it was nearly a year between the time Xeikon and Varis signed their cooperative agreement and the first public showing of the system at Seybold San Francisco, it is now ready. Xeikon demonstrated it accepting digital files, composing and RIP'ing variable pages on the fly at full press speed, with every element of text and graphics variable. In addition, it is possible to get a proof of any record or element to check it before the actual run takes place.

VariScript was demonstrated running direct-mail and financial services applications.

Card printing. At the Cartes '99 exhibition in Paris on Nov. 16, Xeikon demonstrated its new plastic card capability with a DCP / 32S integrated with a multifunction modular finishing system from Melzer. Finishing operations included lamination, diecutting, and the inclusion of magnetic stripes, signature panels, microchips and holograms. The Melzer system can handle a wide range of cards, including complex ones incorporating multiple layers and intelligent components. For quality control purposes, an inline inspection system can be incorporated in the finishing system.

The DCP / 32S prints roll-to-roll in five colors (CMYK plus an opaque white) onto standard coated PVC up to 250 microns thick at speeds of up to 14.7 meters per minute. Each roll accommodates two complete cards across its width of 307.6mm. At the Paris show, it was driven by Xeikon's eXpert front end, which switches instantly between different card designs and incorporates variable data to create personalized cards.

Xeikon views the card application as promising for the future because of the proliferation of plastic cards and the need for a card printer to handle short runs, meet tight deadlines and provide "versioned" or personalized cards for specific audiences or individuals.

Books on demand. At the Xplor show in Los Angeles on Nov. 1, Xeikon showed the first cooperative project involving its DCP and Nipson printers. A Xeikon engine was printing colored book covers to be perfect-bound with black-and-white pages printed on a high-speed Nipson printer. The two systems were run separately, with binding handled offline. But the demonstration gave an idea of what can be done with the two printer lines under the same roof.

Agfa enhances Personalizer X

As the uses of variable-data printing get more sophisticated, demand grows for additional features in software. Agfa has responded to these requirements in version 4 of Personalizer-X, released at Graph Expo. Personalizer-X is a Quark Xtension that lets the user turn a Quark document into a variable-data document for printing on the Agfa Chromapress.

At the top of the list of new features is Xpress 4 support. This means that the new features Quark added to Xpress in version 4 (curved baselines, clipping paths, etc.) are now supported in Personalizer-X.

Several features support more sophisticated processing based on the variable data. If / then / else constructions can be used to select the correct text or image to go with each record, and these conditional statements can be nested. Conditional statements can be created using menus, which minimizes the problems of mistyping complex strings of commands.

A related new feature, the "record filter," includes or omits whole records, based on fields in the data. A combination of up to three criteria can be established to select the appropriate records.

Both of these data-related features could be done with appropriate processing ahead of time in the database package. But if the customer has the database and doesn't want to be bothered with doing these things, Personalizer-X now provides basic tools so the printer can handle many simple record-selection and conditional-processing tasks.

The new version provides data-driven graphs, based on a link to Microsoft Excel. Excel provides an extensive selection of line, bar, pie and other chart types.

The old limitation of 256 characters for variable text has been lifted in this version. Now text can have Xpress tags inside, allowing full control of typography.

Productivity enhancements. A new step-and-repeat feature allows multiple variable-data images, in various arrangements, within a single physical page. Also new is support for user-defined keyboard shortcuts to relieve the burden of retyping often-used sequences of keystrokes. Similarly, Personalizer-X now supports scripting via AppleScript.

Another new item is a separate preflight process. The functionality was already present in the product, but it was integrated with the process of exporting the job for printing. Now, it can be run independently.

This coverage of Graph Expo and other fall shows was provided by George Alexander, Peter Dyson, Stephen Edwards, Molly Joss and Andy Tribute.