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# SEYBOLD

## Report on Publishing Systems

*Imprinta '97, Part II*

# Digital Presses, Scanners & Imagesetters Vie with CTP

THERE WAS a lot more at Imprinta than the CTP and dry film reported in our last issue. Digital presses, imagesetters and color proofers also showed advances at the exhibition. New digital presses from Xeikon, Indigo and Nipson were featured. The show also had an incredible assortment of variable-data printing systems, with new high-end entries from Barco, Indigo and Scitex and low-end products from Atlas and Visutech. The highlight for color proofing systems was advances in halftone proofers that use the actual processes that image the printing plates.

In spite of the focus on CTP and digital presses, film imagesetters remained vibrant, with three vendors introducing 40,000+ rpm spinners for internal-drum machines and capstan machines achieving higher-quality results. Meanwhile, digital processes have made it imperative to bring all output processes into a single main workflow and to streamline the effort, where several vendors are making progress.

On the input side, drum scanners and high-end CCD devices are fighting for market share. Five new CCD devices were announced either at Imprinta or immediately prior. Highlights included dot-for-dot scanning, *xy* scanning and vertical drum scanning. Two new high-end digital cameras also made their debut at the show.

Next issue we'll conclude our Imprinta coverage with large-format devices, composition, color management tools, newspaper systems and communication.

> Special thanks to three of our new European correspondents who contributed to this issue: Kurt Wolf, Menno Mooij and Laurel Brunner.

# RIPs, Imagesetters and Workflow

IN SPITE OF THE focus on computer-to-plate imaging and the advent of real capabilities in variable-data printing on digital presses, the bellwether of the imaging market—the film imagesetter—remains a source of vibrant activity. We noted a few developments in this field, most of which are continuations of earlier trends.

**Faster spinners for drums.** Where it once had been thought that 30,000 rpm was about as fast as a motor could spin as it deflected a laser beam along an imaging path, three vendors introduced imagesetters in the 40,000-rpm range, as shown in this chart.

| New Generation of High-Speed, Internal-Drum Imagers | | | | |
|---|---|---|---|---|
| Supplier and model | Spin motor speed, rpm | Speed in sq."/min. (1,270 dpi) | Maximum image area | Price not incl. RIP |
| Agfa Avantra 25XT | 45,000 | 886 | 17.7"×25" | $74,500 |
| Purup Eskofot Maestro/NP | 48,000 | 982 | 16"×26" | $77,600 |
| ScanView DotMate 7500Plus | 42,000 | 968 | 24"×29.5" | $107,000 |

**Higher quality for capstan machines.** While the drum machines are going faster, in the capstan field, the two largest suppliers to the OEM market—ECRM and Ultre—introduced new machines that focus more on quality and versatility than on speed:

• ECRM unveiled its Mako line, whose maximum speed of 21" per minute (at 1,000 dpi) is nothing to write home about, but whose resolution of 3,556 and its use of a variable spot are critical characteristics for quality work.

• Ultre's new 5400 comes in a single, 96-pica model, also with enhanced quality and with a nice film-loading feature for user convenience. It speed is about the same as that of the top-of-the-line Mako unit.

Both ECRM and Ultre have given flexibility to their products by enabling the same machine to support both wet and dry film.

| Capstan Imagesetters: Some of the Options | | | |
|---|---|---|---|
| | Maximum width | Speed in "/min. @ 1,000 dpi | Price incl. RIP |
| Purup-Eskofot Marvel | 12.2" | 21" | $20,000 |
| ECRM Mako 3600 | 14" | 10.5" | $32,000 |
| ECRM Mako 3650 | 14" | 21" | $38,500 |
| ECRM VR30 | 12.2" | 8.7" (1,200 dpi) | $21,500 |
| ECRM VR36 | 14" | 10.4" | $29,500 |
| Ultre 5400 | 16" | 25.4" | $38,000 |
| Ultre 3000 | 12" | 20.8" | $28,800 |
| Ultre 72E | 12" | 10.4" | $22,000 |
| Agfa AccuSet 1000 | 14" | 15" (1,200 dpi) | $39,600 |
| PrePress Panther | 13.3" | 24" | $25,000 |
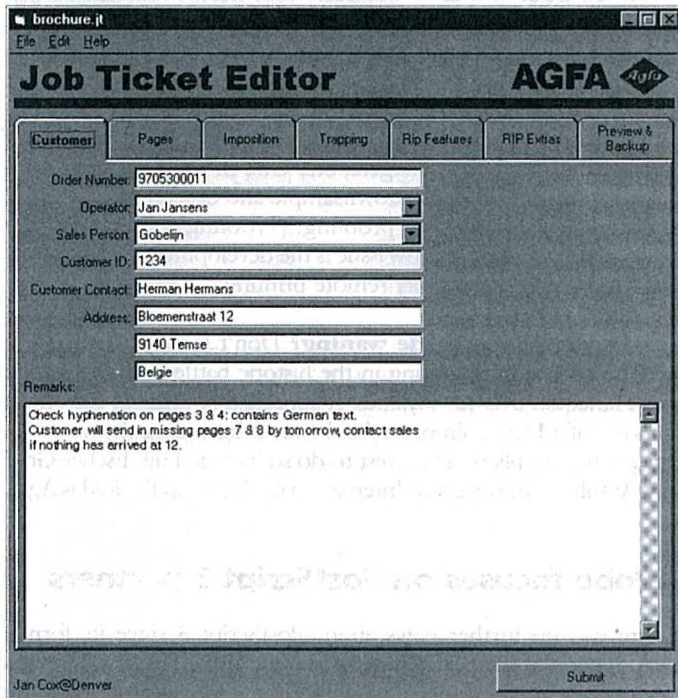


**Job ticket.** Agfa's Apogee system supports job tickets such as this one, displayed at Imprinta. It uses seven tabs across the top to divide the job information into topics—customer information, pages, imposition, trapping, RIP, etc. Note the large amount of space at the bottom for adding comments. Job tickets are part of Adobe's specification for PostScript 3.

Meanwhile, Purup-Eskofot has entered the capstan market with a product that could have a significant impact. The Marvel is the narrowest of the new capstan machines at 12.2", but it also is the lowest in price—and the price differential is far from small. At a price of $20,000, including a 5D Jaws RIP, it offers modern technology at an affordable price.

**Dry film.** As noted in our last issue, dry film appears ready for a real test. It has advanced well beyond the technology stage to be shown in real products. ("We could ship this machine to a customer," one of the companies told us, referring to the machine demonstrated in the booth.) Dry film was demonstrated in too many places to count, involving Imation, Scitex, ECRM, Ultre, Screen, Konica, Kodak, Heidelberg-Linotype-Hell, Polaroid, Gerber and Creo, with high-resolution film, and Agfa with a lower-resolution version aimed more at newspaper applications. (For full details, see our last issue.)

**RIPs feature workflow.** In the front-end portion of this mar-

**Taipan preview.** The preview of a file on the Taipan RIP can show multiple pages of a job at the same time or multiple views of the same page in different sizes and resolutions. A file can be previewed by color or as a composite, and the view can be enlarged to show halftone dots.



comes increasingly digital. It has become imperative that all phases of the output process be brought into one main workflow, including the basic functions of imposition, trapping, proofing and correction cycles. One of the issues here is whether PDF is an appropriate format for the entire process. While support is growing for PDF in this role—a PDF workflow was a key element in Agfa's booth—it is agreed that better tools are needed for working with PDF files.

In conjunction with incorporating all functions within the workflow, efforts are being made to streamline the process. A good example is to enable jobs to be RIP'ed only once and output as many times as are necessary on a variety of devices—proof printers, film and plate imagers, etc. One of the keys to this development is the ability to downsample and descreen files for use at different resolutions for proofing. (Proofing is covered later.)

Related to the workflow issue is the development of data transmission facilities to support remote printing.

**Harlequin-Adobe battle waning?** Don't look now, but there may be a truce in the offing in the historic battle between Adobe and Harlequin over RIP loyalties. It appears that offering customers a choice of a Harlequin or an Adobe RIP is becoming the norm for imagesetter suppliers. The latest to do so include Fuji, Escher-Grad and Autologic Information International. Not yet in the fold is Agfa.

## Adobe focuses on PostScript 3 partners

There was no further news about PostScript 3 since its formal introduction at the Seybold show in New York. That is, there was no announcement of public availability of the specification, although Agfa announced the release of its Taipan AX PostScript 3 RIP. That and other products are covered under their respective companies.

It was interesting to note around the show floor how many RIP suppliers are advertising their ability to handle PDF files.

## Agfa debuts Apogee and fast Avantra

Agfa had a big booth—so big that it was coded by color to help visitors find the areas for specific applications: commercial printing (CTP, proofing and PDF workflows), newspapers (CTP), flexo and packaging, desktop (including fonts), digital imaging (including color management), design (layout and digital photography) and services. We covered CTP products in our last issue, including the new Galileo platesetter for commercial markets and the Polaris 100 for newspaper production.

Elsewhere in the booth, the newest items were a Publishing Production System called Apogee, which Agfa is developing around the PDF file format; the high-speed Avantra 25XT internal-drum imagesetter aimed at the newspaper market; a new thrust in ink-jet printing, built around the Atlas drum-technology recorder and new imaging media; the T8000 high-resolution CCD scanner; and a dry-film imager developed cooperatively with Oyo Instruments, which was covered in our last issue. Those items will be covered in
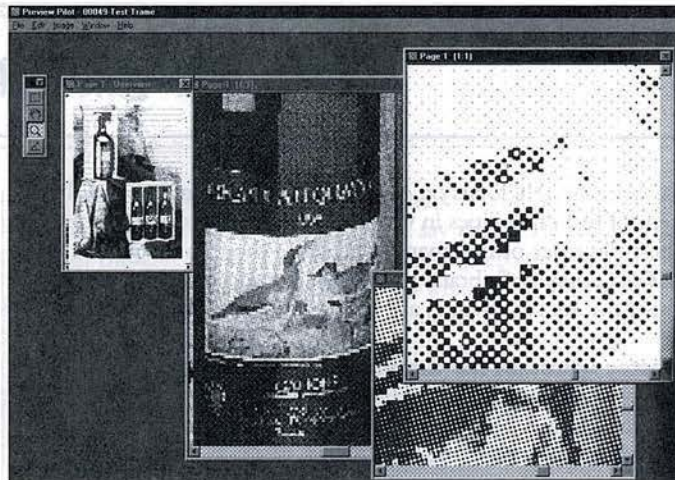
Agfa also reported that its Graphic Systems Business Group, which generates almost half of the revenues of the Agfa-Gevaert Group, showed a 4.4% increase in turnover in its first four months this year. For 1996, the increase was 33%, but the increase resulted primarily from the acquisition of the Hoechst plate business.

**Apogee.** Agfa formally unveiled an early view of how its future workflow will look. The view is based on the PDF file format and the Apogee Publishing Production System. Apogee includes three main software modules for controlling workflow: the Pilot Production Manager for managing the early stages of the production process; a PDF-compatible RIP for managing the functions that happen within the RIP; and the PrintDrive Output Manager for controlling the output process.

Agfa is basing its workflow strategy on PDF for several reasons, including its compactness, its object orientation, its device and page independence, its support for job tickets, its editability, its production dependability and predictability, and its applicability to serve as a digital master for producing documents for multiple media.

**Job-ticket approach.** The focus of the demonstration was on the job ticket, which provides a tab-style user interface to lead the operator through the various steps of the workflow (see illustration).

The job ticket, which includes seven tabs, starts with information about the customer, where Agfa provides a large area for typing in comments. Another tab handles the contents of a publication, where documents or pages can be dragged from one area on the screen to another to build a document.

Other tabs set up imposition, trapping (see below), RIP features (screening, resolution, color management, etc.), previewing (where the dot structure can be demonstrated by zooming the view) and system backup. To demonstrate imposition, Agfa used a version of the ScenicSoft Preps program within the PDF workflow. Agfa also uses IPT technology for its PDF-OPI function.

**Trapping.** Trapping is set up and controlled through a two-level user interface: one for general-purpose and one for advanced use.

**The fast get faster.** Agfa has again increased the speed of its Avantra 25. This time the new model is called the Avantra 25XT. From the outside, it looks the same as other Avantra 25 machines, but inside it has some key features aimed at newspaper markets, including more and lower resolutions and additional flexibility in its head and tail punching capabilities.

it acquired TrapWise, provides global and zonal parameters. Global parameters support independent values for the standard and black widths used to trap. The operator can override the global values. To change them, the operator accesses the PDF editor.

**Editing.** Agfa demonstrated Enfocus's PitStop as one of the first products enabling editing of PDF files, although in its current guise you wouldn't want to do more than minimal editing with it. For example, in editing text, if text is added to a line to cause it to extend beyond its original margin, no automatic adjustment is possible. The user has to insert returns manually to break the line at the appropriate location. This is certainly better than not being able to edit at all, but for extensive editing, it will pay to go back to the main application. Similarly, with early versions of PitStop (and other such products), there are database issues that haven't been addressed. Any changes made to the text on a PDF page are not reflected back in the database. As PDF evolves into a standard file format for sophisticated workflows—which appears likely—we expect to see significant improvements in editing capabilities.

**Apogee PrintDrive.** Among the features of the PrintDrive output manager are the ability to store rasterized files on disk in compressed form for reuse later; automatic purging of stored files at user-specified time intervals; automatic queuing, which allows files to be rasterized ahead of time and output later based on a time schedule or according to media type or width; the ability to take data from multiple RIPs, including any Level 2 or 3 Agfa RIP produced in the last five years; and support for HP DesignJet printers for proofing. When high-resolution files are output on a 300- or 600-dpi HP printer, they are descreened and subsampled to the DesignJet's resolution, rather than being rasterized again at the printer's resolution, which saves time.

**PDF, PostScript 3 and Alpha: the RIP front.** Agfa is transforming its RIP line as it places greater emphasis on PDF and PostScript 3. The products in the revised family will appear at different intervals as developments proceed. All are based on Adobe interpreter software and all have been developed in conjunction with Adobe.

- *The Apogee PDF RIP* will serve as a system RIP in PDF workflows. It rasterizes PDF as well as PostScript 3 and Level 2 files. Besides performing RIP functions in a PDF workflow, it supports the functionality of traditional RIPs—screen preview, remote client interfaces, buffering, etc. It runs on a DEC Alpha under NT.
- There are two Taipan RIPs running under NT and serving as stand-alone RIPs. Both support the same basic functionality, but there are some key differences. The high-end one, called the *Taipan AX*, will be available from the outset only as a PostScript 3 RIP and will be available only bundled with a 500-MHz DEC Alpha platform, running under NT. (Agfa claimed that the Taipan AX was the first PostScript 3 RIP to be released to the market. Initial shipments were scheduled to take place in 30–45 days.)
- The other Taipan RIP is the current version of the original one, now called *Taipan 2.0*, which also runs under NT, but it runs on

ware or as software only. Taipan 2.0 is a Level 2 RIP, but it should support PostScript 3 this fall, Agfa says.

The newest features for these RIPs include remote access to the RIP from Macs or PCs, enabling remote users to monitor RIP activity regarding job status and imagesetter settings, as well as to preview jobs using the new preview function. Also new is a Raster Data Buffer, which saves jobs in raster format on the RIP's disk and separates the RIP process from the imaging process, enabling a job to be rasterized in advance and output to film or plate later.

Agfa hasn't abandoned the Macintosh, which has been its best-selling RIP platform in recent years. It will be updated to PostScript 3.

**Avantra 25XT.** Already fast, the Avantra 25 internal-drum imagesetter now runs faster than ever with a 45,000-rpm spinner motor. As noted in the introduction to this section, the Avantra 25XT, as the faster model is called, is one of three new imagesetters with motors that spin faster than 40,000 rpm.

Agfa has done more than merely make a faster imager. It has tailored the machine to the newspaper market, where speed is critical and where Agfa's chief film-imaging device, the AccuSet, isn't as fast as many competitors.

With this in mind, Agfa is offering a lower resolution to maximize speed. New is 900 dpi, in addition to 1,270 and 2,540 dpi, which are among the most commonly used resolutions in newspaper work, although they aren't offered by Agfa's standard imagers. The 25XT also supports 1,200, 1,270, 1,800 and 2,400, but not 3,600, which is offered by the Avantra 25S for commercial customers. Agfa says the 25XT will produce more than 60 full-size flats per hour. To keep up with the fast imaging, the machine includes two supply cassettes. Also new is more flexible punching, key for newspaper work. It offers customizable head and tail punches.

**Wider AccuSet.** Without having to come up with a new machine, Agfa has widened its capstan-technology AccuSet imagesetter width to reach a new market: 14.5" format for B3-size jobs. The original model, which continues in the product line, images slightly less than 14". Two models support the new width: the AccuSet