

HP Teams with Partners to Participate in Specialty Markets

On January 16, 2001, TransAct Technologies Incorporated (Wallingford, CT) added blue and green spot color cartridges for its POSjet 1000 inkjet printers. Introduced in April 2000, the POSjet 1000 holds two 96-dpi C6602 cartridges from HP's Specialty Printing Systems group. Initially, black and red colors were available. TransAct says that the cartridges now hold 16% more ink, and sell for the same price. We called HP to learn about the C6602 cartridge and the program to provide inkjet technology to OEMs addressing specialty markets.

Find Strong Partners, and Disrupt

HP's four-year-old Specialty Printing Systems group offers three families of inkjet cartridges. Virtually the whole line of HP cartridges is available to OEMs, from the 1984-vintage 51605 cartridge that started it all, to the high-capacity separate-head C1806A/C1892A heads that HP puts in its DesignJet 2000 and 3000 large-format printers. (HP's Modular Ink Delivery System, which uses separate heads and ink supplies, is not among the Specialty Printing Systems' SKUs.) The company's approach to specialty markets is to make its print heads available to third parties who will integrate the print cartridges into product lines addressing the industries in question. Through partners, HP can participate in vertical markets without having to bear risky product development and product marketing expenses. In addition, HP can avoid potentially costly uphill market share battles. In fact, the presence of strong market participants is one of the principal attributes of an attractive vertical market. Said Ron Firooz, Business Manager for HP's Specialty Printing Systems group, "We examine end markets where there are clear players who have established value chains. They have marketing and they have distribution. It really makes no sense for us to get involved [with HP-branded products] because we generally don't add a lot of value there."

A second principal aspect that makes a specialty market attractive is the opportunity for inkjet technology to displace an existing technology. "We want to pick markets where inkjet can have a potential disrupt," said Firooz. HP has been focusing on three principal arenas:

- Industrial mail applications;
- Personal printing (fax and color fax, for now); and
- Commercial transaction printing (which includes point-of-sale receipt printers such as TransAct's, as well as a variety of transaction printers for use in kiosks, banks, retail store, or gaming).

New areas for HP include commercial CD printing (with partner Trace Affex, who has added an HP-based CD-ArtistIV printer to an Epson-based product line) and tag and label printing.

1984 Print Head Solves Today's Problem

The hope, of course, is that off-the-shelf items will be well-suited to specialty markets. That was not the case with the point-of-sale business, though. None of HP's off-the-shelf cartridges could meet the transaction printing industry's requirement for low operating cost. In addition, the point-of-sale industry needed to print durable receipts with quick-drying ink. In April 2000, HP introduced the C6602 cartridge, with a water-resistant, fast-drying ink formulation. "We decided to invest in a new cartridge," Firooz said. "But it is a highly leveraged cartridge." For instance, the nozzles are the same as ones used in the venerable 51605 cartridge, first seen in HP's ThinkJet printer in 1984.

The state-of-the-printing-art, prior to HP's entry (by way of TransAct and Addmaster), was impact printing. "Impact has been there forever," said Ron Firooz. Although low operating cost and high reliability are important to all users, retailers using point-of-sale systems are especially sensitive. In most retail establishments, if the printer stops, business stops. Impact printers have been popular because of low operating costs. "Impact printers have really taken the cost out of printing," said Firooz. "The market is extremely price-sensitive because there is a tremendous amount of printing done—in the neighborhood of 50 to 60 million transactions per year." The C6602 was designed to sell for about \$10 per cartridge, with a capacity of 6 million characters. HP's cost performance target was to be able to print a million characters for \$2, which is the cost of printing with impact, we were told. As one might expect, HP has a long list of impact printing shortfalls. "Impact has serious reliability problems, and user interaction with the printers is much more cumbersome." Firooz also explained that, in addition, as impact ribbons reach the end of useful life, the prints fade.

Firooz explained that after products with HP's C6602 cartridge were introduced a year ago, impact printer vendors responded with lower prices. Such a battle is a tough one to win with HP. The company pumped 16% more ink into the cartridge, increasing yield to 7 million characters, and left the price the same. (We have trivialized the task by saying HP merely pumped more ink in.)

Benefit: Customer Retention

In addition to favorable economics, inkjet offers a compelling benefit that impact and thermal printers would have difficulty delivering. "The beauty of inkjet is that, with the addition of a spot color cartridge, you can now add an additional color," Firooz said. Firooz observed that industry-wide retail sales actually shrunk last year instead of growing, putting extra emphasis on customer retention. In addition to documenting the purchase, receipts today carry coupons and advertising. Receipts also reinforce the discounts participants in loyalty programs have earned with their purchases. "The receipt is being used for communication with customers," Firooz explained. "When these communications are printed with impact or thermal, nobody notices. A line of spot color

on a black document is 63% more likely to get noticed.” (Firooz said the data is from the nonprofit Pantone Color Institute: www.colorinstitute.pantone.com.)

SPS Supports Trace Affex

Even though the case of the CD-Artist IV printer looks like an HP 970, Trace Affex developed its own firmware to control both the printer mechanism and the robotics for loading CDs. Frank Nunes, Trace Affex’s Vice President of Sales and Marketing, said, “We went with HP because we wanted to get more engineering support.” Trace Affex will depend on the Specialty Printing Systems group more in the future, since the company plans to incorporate HP’s print heads into a printer they will design and build from the ground up. “SPS flew three engineers from San Diego to San Jose to spend the day with our engineers, working out problems. And they’ve done it more than once.”

Nunes told us that the largest market for CD printers is CD-duplication service bureaus. The second-largest customer set is software developers. “Then we have a broad range of areas: government, academic, engineering, film editing, audio, music studios, prepress, space technology. All these companies generate gobs of data that need to be burned on CDs and distributed.” Trace Affex sells through VARs and catalogs. The company has promoted through direct mail, but has had much more success generating leads with its own web page (www.affex.com) and opt-in e-mail programs.

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