

Lyra Imaging Symposium Examines a Changing Industry

Highlights

- *A few familiar themes emerged as the refrain at this year's Symposium, including the continuing advance of color, multifunction, and photo-specialty devices.*
- *Speakers at this year's event represented a broad cross section of firms inside and outside the industry, including Cal/EPA, Cartridge World North America, Cross Research, Dell, Domtar, HP, Kodak, Office Depot, PrintFleet, Software Imaging, and Xerox.*
- *Spirited discussion panels allowed attendees to quiz the experts on the future of photo printing and XPS, while panels on supplies and financial performance retained their popular appeal.*

Lyra's annual Imaging Symposium, held January 23–25, explored a broad range of topics that attracted the event's highest turnout in several years. Approximately 200 speakers, panelists, and attendees descended on Rancho Mirage, CA, for a few days of presentations, discussions, and networking. Two full days were needed to cover the event's seven main segments: the Consumer, Small-Office/Home-Office (SOHO), and Small and Medium-Sized Business (SMB) Segment; Digital Imaging Market Watch; Corporate and Commercial Printing; Spotlight on Supplies; Digital Imaging and the Environment; and Retailing Supplies: The Digital Imaging Storefront.

The official theme of the 2006 Lyra Imaging Symposium was "Shifting Strategies to Maximize Profits," and change was at the heart of many presentations delivered by Lyra analysts and executives from Dell, HP, Kodak, Office Depot, and Xerox. Speakers explored topics as diverse as photo printing, Microsoft's XML Paper Specification (XPS), and environmental responsibility. As usual, the Symposium included a number of panel discussions. This year, the event's customary financial panel was divided into two segments, one focused on hardware and one focused on supplies. There were also panels

on consumer digital photo printing, XPS, and the state of the supplies market from both the OEM and the aftermarket perspective.

Ann Priede, managing editor of *The Hard Copy Observer*, opened the Symposium with a review of 2005, including a look at the latest revenue projections and a list of the top 10 events from the past year. Lyra estimates that worldwide revenue for the hard copy industry totaled approximately \$11 billion in 2005, an 8 percent increase over 2004. Declining average sales prices offset hardware shipment growth in a number of market segments, but strong sales of color devices, multifunction ink jet and laser products, and photo-specialty ink jet printers delivered revenue growth for hard copy vendors.

With this revenue picture as a backdrop, Priede then discussed how the most significant events of 2005 played into the overall printing and imaging market. Not surprisingly, many of the year's major trends were related to the growing popularity of color, multifunction, and photo-specialty devices. Number one on the list was HP's introduction of its scalable printing technology (SPT), and number two and three were the introduction of the \$399 color laser printer and the shaky financial performance of many hard copy industry vendors. HP's leadership change and restructuring and the rash of activity in MFP markets, including the ink jet, desktop color laser, and convenience color copier segments, rounded out the list of the past year's top five events.

With revenue opportunities in printing and imaging hardware shrinking, the media and marking segments continue to provide hard copy vendors with another avenue for revenue growth. Again, color played an important role in the growth of marking revenue, with desktop ink jet cartridges and color laser cartridges accounting for a substantial portion of the 8 percent worldwide revenue increase from 2004 to 2005. Worldwide revenue from sales of media increased 5.5 percent year-over-year, led by strong sales of plain paper and desktop ink jet specialty media.

Tim Peters, vice president and general manager of imaging and printing at Dell, gave this year's Symposium keynote address. His review of Dell's direct business model under-

scored the Symposium's theme by emphasizing how Dell's unique go-to-market strategy has allowed the firm to quickly grow its market share in the short time that it has been selling Dell-branded printing and imaging products. While Dell's printing and imaging business is finding overall profitability to be elusive, Peters emphasized that the business is still in the growth stage and the firm is focused on increasing its installed base.

Nowhere is the need to shift strategies to maximize profits more evident than in the struggles of Kodak, which, despite its iconic status in traditional photography, is struggling to survive in a digital world. Nancy Carr, director of strategic brand alliances and vice president of digital and film imaging systems at Eastman Kodak, began her presentation with a very compelling video demonstrating the future of "connected imaging," which she heralded as "chapter two" of the digital imaging revolution. Supplemented by additional discussion of the changing ways in which consumers interact with their digital images, the video was an extended version of Kodak's television commercials that show a group of children wandering through a virtual showcase of digital photos. The underlying meaning of the video and Carr's presentation is that people are increasingly connecting their digital cameras and other mobile imaging devices, with the end result an unfettered worldwide network of capturing, viewing, sharing, and printing digital images.

Jim Firestone, president of Xerox North America, focused on the enterprise shift from infrastructure to value, noting, "We are at an inflection point where the customer focus on IT is shifting from little *i*, big *T* to big *I*, little *t*." In other words, technology is important, but it is not enough. Firestone stressed that vendors must adapt to the ongoing shifts in enterprise environments, including the move from products to services, from paper-based to digital workflow, and from black-and-white to color output.

Collaboration was a strong recurring theme as presenters and panelists talked about the importance of partnerships, both with other vendors and with customers. Dell's Peters established this theme with his emphasis on

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Dell's direct-sales model that enables intimate and ongoing customer relationships. At the same time, Peters stressed Dell's ability to partner with a variety of technology providers to deliver the best product for a specific customer market. Kodak's Carr stressed the importance of collaboration and partnerships in her presentation and urged imaging vendors to adopt "consistent worldwide industry standards" that will improve the user experience for customers.

Jim Firestone summarized the importance of partnerships best with his "partner or perish" imperative. Building on his discussion of providing value to enterprise customers, he emphasized that Xerox is growing its value propositions through partnerships with other companies that can supply world-class capabilities. Firestone added that his firm is broadening the scope of its relationships to provide best-of-breed solutions across every aspect of its business, including technology, workflow, and services; research and manufacturing; distribution and administration; and marketing and OEM strategies.

Focus on Financials

The financial health of the industry was on the mind of many attendees, as Lexmark and Xerox announced their fourth-quarter results while the Symposium was in session (see stories on page 8 and 10, respectively). Anticipating this need, Lyra offered a number of opportunities for speakers, panelists, and attendees to discuss the state of the hard copy industry at the event. On Tuesday, Shannon Cross, principal of Cross Research, presented her view of Lexmark's financial situation. Summarizing 2005 as "a tough year" for Lexmark, Cross highlighted a number of challenges facing the firm, including a decline in earnings and share price, lower branded market share, struggles in key market segments, and pressure from its Dell relationship. She emphasized that lagging technology and pricing pressures from a number of fronts will hinder Lexmark's recovery efforts and force the firm to make some tough decisions regarding the shape of its future.

Tuesday was also the day for the first "Wall Street Watch" panel that focused on the financial performance of hardware vendors in the hard copy industry. With the participation of six Wall Street analysts, the panel fielded questions from moderator Larry

Jamieson, director of Lyra's *Hard Copy Industry Advisory Service*, and from the audience. Discussions focused on several key players in the hard copy industry, such as Dell, HP, Lexmark, and Xerox, and opinions were fairly consistent about the strengths and weaknesses of these firms. Moreover, one common theme emerged: companies that innovate are doing well, and companies that do not innovate are struggling.

On Wednesday, Wall Street turned its attention to supplies vendors, both OEM manufacturers and third-party companies. Here, too, panelists provided a fairly consistent set of opinions about the overall health of the supplies market and the financial viability of individual suppliers. As with the hardware side of the industry, innovation was mentioned as a key factor in achieving and maintaining success, and the panel advised OEMs and third-party firms alike to invest in new technology and continuously evaluate and adapt their business plans. (*There is more about the Symposium's coverage of the supplies industry in our review of the "Spotlight on Supplies" segment.*)

Consumer/SOHO/SMB Segment

While Kodak's Carr appealed to attendees' emotions with her poignant video about connected imaging, Jamieson's approach to the consumer/SOHO/SMB hard copy market was strictly business. He told attendees, "If you really want to cry, let's talk about profitability." After providing some sobering numbers about hardware revenue (flat in most segments), Jamieson further quieted the audience with his "portrait of the razor-and-blades strategy" that showed little to no profitability across the life cycle of ink jet and low-end monochrome laser printers.

Although this phenomenon is a familiar one to those in the industry, seeing it spelled out in black-and-white was definitely disquieting. Ending on a more positive note, Jamieson offered attendees some direction on where to seek profitability but cautioned that even growth markets have their challenges. For example, home photo printing is threatened by other photo-printing methods that are available to consumers.

Charles LeCompte, president of Lyra Research, continued the photo-printing discussion in an informative presentation that also set the stage for a panel discussion on

the same topic. LeCompte pondered the future of photo printing and contrasted the simple days of yesterday's traditional photo-printing experience with today's complex digital one. According to LeCompte, consumers are faced with an overwhelming number of choices when it comes to capturing, viewing, sharing, and printing photos, which inevitably complicates the process and more often than not inhibits a higher level of interaction with digital images.

LeCompte also discussed the outlook for 4 x 6-inch photos, enlargements, and printed specialty items that now include underwear and ties. While not predicting the total demise of the 4 x 6-inch photo, LeCompte projected that today's standard-size photo will become an endangered species. (Interestingly, it was Kodak's Carr who declared, "For me, 4 x 6 is so over.") LeCompte posited that consumers will adopt other ways to casually view, organize, and store photos, while enlargements will continue to be used for display purposes.

As a follow-on to his presentation, LeCompte moderated a photo-printing panel comprised of representatives from Canon, HP, MOTO Franchise Corporation, Pentax, PhotoWorks, and Shutterfly. Representing all types of digital photo-printing providers, the panelists engaged in a lively discussion of several key issues for the photo-printing market, including pricing trends for 4 x 6-inch photos; the market implications of camera phones; and factors that influence whether digital photos are printed at home, at a retail location, at a minilab, or via an online service. Specialty items were also a topic of discussion, with several panelists especially keen on the market opportunity for photo books, given their ability to replace traditional photo albums as a way to view and store photos.

Digital Imaging Market Watch

One of the more intriguing sections of the Symposium included discussions of emerging markets by Mohan Garde, vice president of emerging markets and OEM for Imaging and Printing Supplies at HP, and Jiqiang Rong, director of primary research at Lyra Research. Garde focused on where today's global hot spots are located, how emerging markets are different from developed markets, and why it is important to provide unique solutions for these areas.

OEM and Aftermarket Share of the Ink Jet Supplies Market: China versus the United States

Types of Ink Jet Supplies Used	China (n = 588)	United States (n = 1,194)
Cartridges Only		
OEM	77%	81%
Aftermarket	23%	19%
Cartridges and Refill Kits		
OEM	68%	76%
Aftermarket	32%	24%
Cartridges and Refill Kits (counted as three)		
OEM	55%	68%
Aftermarket	45%	32%

Source: Lyra Research, Inc.,
2004 China Home Printing Survey and 2002 U.S. Home Printing Survey

Refills drive the aftermarket share of the ink jet supplies market in China to almost 50 percent

According to Garde, emerging markets account for 65 percent of the worldwide population, but the needs of customers in emerging markets differ from the needs of customers in developed markets. Customers have unique cultural and regional characteristics, and ideas about affordability; requirements for languages, environment, and infrastructure; and levels of market access will vary from country to country. As a result, companies must develop alternative business models and solutions in order to succeed.

Focusing on China, Rong discussed the opportunities for hard copy vendors in this enormous and growing market and the challenges presented by a fierce aftermarket industry. According to Rong, brand loyalty will play a major role in subsequent printer purchases, giving the top four vendors (HP, Epson, Canon, and Lenovo) an advantage in capturing additional market share. At the same time, Rong indicated that newcomers Dell and BenQ will provide some stiff competition for the more established vendors.

Rong's discussion of the role that Chinese ink cartridge manufacturers play in the Chinese printer market revealed some interesting facts and set the stage for later discussions about the effect of Chinese cartridge makers on the global market. With a number of the 2006 Lyra Imaging Symposium's sessions devoted to supplies, one cannot overstate how critical this portion of the hard copy industry is to hardware and supplies vendors alike. As one might expect, a higher

percentage of consumers use aftermarket ink jet cartridges in China than in the United States. In addition, Rong revealed that 60 percent of all aftermarket supplies were manufactured in China in 2004.

The last portion of the "Digital Imaging Market Watch" segment was devoted to Microsoft's XPS (*Observer*, 7/05 and 8/05). Tony Harris, chief technology officer of Software Imaging, provided an engaging overview of this topic before moderating a lively discussion panel that was comprised of representatives from Adobe and Microsoft, along with a number of Microsoft development partners including Global Graphics, Monotype Imaging, Quality Logic, and Zoran. Recognizing the potentially volatile nature of this topic, Harris quickly diffused the situation, both with his bag of defensive gear (a hard hat and a bat) and with his very thorough and balanced presentation.

While there was some difference of opinion about where XPS will succeed and how quickly it will be adopted, many panelists commented on the industry's excitement about XPS. No doubt this excitement is due to the promise of an easier and richer printing experience in the Windows environment. Vicki Milton, technical product planner for Windows digital documents in Microsoft's Platform and Solutions group, was the first to admit that the current Windows printing experience is not all that it should be. However, she also asserted that Microsoft architected XPS to go into any market and

that the value of XPS goes beyond its benefits to the printing process.

Other panelists agreed that XPS is more than just a printing system, claiming that it will give software developers a platform to enhance a customer's total document workflow. The jury is still out on XPS's effect on PCL, PostScript, and PDF. For now, panelists agreed that all these languages will continue to coexist because they each have strengths for specific applications. While no one is ready to admit that XPS will replace another page-description language or document workflow, there is no doubt that it will be a factor in the printing and imaging world going forward.

(Coinciding with the 2006 Lyra Imaging Symposium, several companies made announcements about their activities in the XPS arena, including Global Graphics, Peerless, and Software Imaging. More information about these announcements is contained in the sidebar on page 15.)

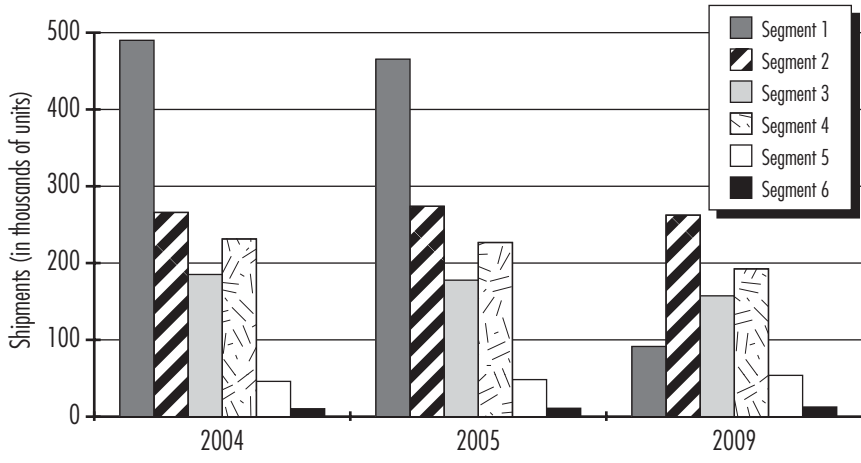
Corporate and Commercial Printing

As previously mentioned, Jim Firestone's keynote address for the corporate and commercial printing section of the Imaging Symposium discussed three shifts in the enterprise market: the move from products to services, from paper-based to digital workflow, and from black-and-white to color output. The ensuing presentation from Steve Reynolds, senior analyst at Lyra Research, echoed that theme and provided additional insight into these market trends.

Starting with the shift from monochrome to color devices, Reynolds presented data showing that all three segments of the color copier market showed year-over-year growth. In the letter-sized color laser MFP market, vendors introduced low-end and midrange models based on existing printer platforms. Copier vendors expanded their offerings in the tabloid-sized convenience color copier market, with color print speeds topping out at 45 ppm. As a result, vendors shipped nearly 200,000 convenience color copiers in 2005. The full-time office color market was also active last year, with vendors targeting new products at higher-volume applications, while the production color market saw new product introductions from HP, Kodak, and Xerox.

Although shipments of color devices increased, unit shipments of monochrome

North American Monochrome Digital Copier Shipments by Segment, 2004, 2005, 2009



Source: Lyra Research, Inc.,
Hard Copy Industry Advisory Service, Second-Half 2005 Forecast

Segment 1 to disappear, Segments 3 and 4 are hardest hit by convenience color currently

copiers declined sharply in most segments. Laser-based desktop MFPs pressured Segments 1 and 2, while convenience color copiers with monochrome speeds in the 30–60 ppm range increased their presence in Segments 3 and 4. Segments 5 and 6 were the least affected by color copiers and saw steady year-over-year growth.

Supporting Firestone's claim that enterprise environments are shifting from products to services and from paper-based to digital workflows, Reynolds highlighted the growing trend of copier vendors using software as a differentiator. The majority of copier vendors have introduced some type of development platform that allows third-party companies to integrate new software programs that expand copiers' basic functionality. Application development is moving very slowly, but copier manufacturers appear dedicated to this approach. In addition, Reynolds noted that eCopy and NSI have expanded the number of relationships they have with digital copier vendors, providing additional functionality and bridges to document-management systems that transform the copier into an integral part of a company's document workflow.

Device management is another area of interest for enterprises, and while several hard copy vendors offer this type of service, com-

panies such as PrintFleet are capitalizing on customer interest in this area with a range of software products for dealers and distributors in the imaging industry. Norman McConkey, president of PrintFleet, discussed his firm's offerings and how they help dealers and distributors provide device-management solutions for customers. With access to a huge amount of device-usage data, PrintFleet and its channel partners can help companies deploy their devices more effectively and make the dealer or distributor a more integral part of a company's deployment strategy.

Spotlight on Supplies

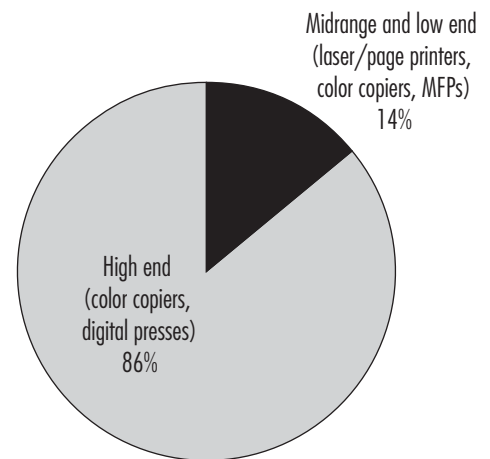
The supplies section of the 2006 Lyra Imaging Symposium opened with a presentation by Rodger Reis, a research analyst at Lyra Research, who discussed revenue opportunities in the North American cut-sheet market. Reis reviewed the significant events of the past year, including a change in the benchmark for commodity paper brightness and a new value chain

for the cut-sheet industry. In addition, he discussed the opportunities in various color laser segments and provided an interesting look at the volume-driven nature of the cut-sheet market.

Reis's presentation reinforced Steve Reynolds' assertion that the production color market is "all about the pages." Reis showed that 86 percent of North American color laser cut-sheet paper revenue comes from the high end of the market, and the remaining 14 percent comes from the midrange and low end of the market. In this analysis, the high-end segment includes color copiers and digital presses, and the midrange and low-end segment includes laser-based page printers, color copiers, and color MFPs.

Grey Held, director of Lyra's *Hard Copy Supplies Advisory Service*, continued the focus on supplies with an overview of the laser toner market and details about chemical toner and the supplies aftermarket. Echoing other presenters' forecasts of growth for shipments of color devices and supplies, Held said that color devices will account for 17 percent of the installed base of laser printers in 2009

Color Laser Cut-Sheet Paper Revenue in North America, 2005



Total: \$1.2 billion

Source: Lyra Research, Inc.,
Hard Copy Supplies Advisory Service, Second-Half 2005 Forecast

Monthly print volumes, high-impact color, and premium paper grades drive revenue in the color laser cut-sheet market

Announcements Underscore XPS Spotlight at Lyra Symposium

Microsoft's XML Paper Specification (XPS) was the focus of quite a bit of attention at the 2006 Lyra Imaging Symposium (*see story on page 11*), and several companies made announcements regarding new XPS solutions that take advantage of the hard copy industry's interest in this topic. Peerless Systems announced a new high-performance Windows Vista-compatible workflow solution, and Global Graphics and Software Imaging announced cross compatibility for their respective XPS RIP and XPS printer-driver product ranges.

The PeerlessXPS embedded document-workflow solution is a suite of modular products that will support Microsoft's XPS digital document platform by providing a high-performance XPS interpreter designed specifically for the limited processor and memory resources available on embedded platforms. In addition, it features scan-to-XPS functionality for integrating MFPs into Microsoft XPS-based workflows and a hardware-acceleration module to optimize the performance of the unique graphics features available in XPS.

Greg Wong, product marketing director at Peerless, says that while his firm was not the first to market with an XPS solution, waiting has its advantages. He maintains that there is more information available now about "how things are shaking out" in terms of development tools, which allows Peerless to determine the best place to add value. According to Wong, PeerlessXPS is differentiated in three areas. First, Peerless designed its solution to be embedded with a smaller footprint and smaller code size. Second, PeerlessXPS al-

lows for cost-effective hardware acceleration by separating XPS into hardware calls. Third, Peerless's solution has a larger scope of operation that will enable support for security and handshaking as those features become more important in XPS workflow.

Peerless says that PeerlessXPS builds on its legacy of technology innovation for printer and MFP manufacturers and supports the use of Peerless's patented common display-list architecture to support hardware acceleration for rendering, color conversion, opacity, transformations, and gradients. According to Peerless, this technology will be especially valuable to printer and MFP manufacturers as the rich language constructs of the XPS format increase the processing requirements of printing a page. In addition, the use of hardware acceleration and parallel processing will allow printer and MFP manufacturers to reduce costs and increase system performance. Support for XPS scan and print functionality will transform MFPs into XPS-based document workflow hubs.

Peerless claims that PeerlessXPS delivers key technologies that will enable printer and MFP manufacturers to quickly develop full-featured office products to coincide with the launch of Microsoft Vista. The PeerlessXPS interpreter is scheduled for shipment later this year, and Wong emphasizes that this XPS announcement is the first of many that Peerless will make throughout the coming year. Although he declined to provide details about future announcements, Wong hints that Peerless is already working on a new generation of its QuickPrint chip that will contain an XPS component.

According to a joint press release issued by Global Graphics and Software Imaging, the two firms designed their initiative to deliver high-quality output and performance and reduce time to market for independent hardware vendors. The two firms are partnering to offer a host-based native XPS rasterization capability within an XPSDrv printer driver. Both companies say that this combined approach will provide manufacturers of desktop ink jet and laser devices with a complete solution when Windows Vista becomes available.

The chief technology officers of Global Graphics and Software Imaging participated in an XPS industry panel at the Lyra Imaging Symposium, and the two companies demonstrated their joint solution at the event. The demonstration showed a native XPS print path driving an eight-color photo-specialty ink jet printer. The print path included an XPS printer-driver implementation with XPS filter and driver technology from Software Imaging and an XPS RIP from Global Graphics.

Global Graphics has provided Microsoft with consultancy and proof-of-concept development services for XPS for almost three years. The company developed a prototype XPS RIP that it first demonstrated at WinHEC in April 2005 (*Observer*, 7/05). Software Imaging has worked closely with Microsoft on its Windows printing technology since signing an agreement with the software giant in November 2003. The firm created a prototype XPS filter pipeline that was also demonstrated at WinHEC in April 2005 (*Observer*, 7/05).²

compared with 6 percent in 2004. In addition, he showed that the percent of color laser printers that use chemical toner has grown steadily over the past seven years, with 70 percent of the installed base using chemical toner in 2005.

Of course, a growing installed base attracts attention from aftermarket suppliers, and not just for HP devices. Held said that as the total installed base of color machines grows, the aftermarket is looking at engines from other vendors, such as Fuji Xerox. Ac-

cording to Held, chemical toner will provide OEM vendors with an edge in the near-term. To maintain share over the long-term, OEMs are focusing on developing strong color toner brands to diminish the effects of the supplies aftermarket. HP's ColorSphere is the latest such introduction, joining Epson's AcuBrite, Konica Minolta's Simitri, and Xerox's EA color toner brands.

Held also presented an overview of Lyra's *Forecast 360*, an innovative *Hard Copy Supplies Advisory Service* forecasting model that

allows Lyra analysts to project the long-term effect of any number of market dynamics. Using inputs from a variety of Lyra sources, the *Forecast 360* model includes a series of checks and balances that allow Lyra to piece together a realistic and accurate view of the supplies market.

A look at the battle for color in the office rounded out the "Spotlight on Supplies" segment of the Symposium. Priede's comparison of business ink jet and color laser printers analyzed the relative merits of these devices

based on customer requirements and illustrated the role of consumables in this market segment. According to Priede, the HP Officejet Pro K550 and the Ricoh Aficio G500 may cause some businesses to reexamine the viability of ink jet devices in the office, but the continuing advancements of color laser printers make it difficult to declare an outright winner in this contest.

Digital Imaging and the Environment

This year's Symposium included several presentations about the environmental impact of the hard copy industry and the steps that vendors can take to be more environmentally responsible. The first presentation was given by Lewis Fix, director of business development for corporate markets and the EarthChoice brand at Domtar. Fix emphasized that consumers have become more environmentally conscious and that a company's social commitment is an important part of many consumers' purchase-decision process.

A company's commitment to environmental responsibility (or lack thereof) is an increasingly public issue. Fix cited several examples of companies that have taken a positive stance on this issue, as well as a few examples of companies that have received negative publicity for their seeming indifference to the environmental impact of their printing policies. Fix also provided information about sales of Domtar's Earthcote media that supports an increased level of environmental awareness. He says that sales of Earthcote media accounted for over 25 percent of Domtar's sales in 2005, up from just over 10 percent of the firm's sales in 2004. Fix expects that contribution to increase to over 60 percent in 2006.

Complementing Fix's presentation on the environmental aspects of the paper industry, Karl Palmer, chief of regulatory and program development for the California Environmental Protection Agency's Department of Toxic Substances Control, discussed the modern-day issue of e-waste. According to the U.S. Environmental Protection Agency, more than 4.3 million tons of appliances and consumer electronics were discarded in 1999, and that number only increases every year. Palmer says that governments, industry vendors, and inter-governmental organizations are working together to address the e-waste problem.

Who is ultimately responsible for the proper disposal of e-waste? According to Palmer, there is not one right answer to this question, so different programs are being created to ensure that recycling costs are not a barrier. In some cases, the consumer pays, either at the time of disposal or at the time of purchase. Another option is an extended producer responsibility (EPR) concept that puts the onus on the manufacturer. The European Union has already implemented a number of directives, such as WEEE and RoHS, that are being studied by the United States at the national and state government levels.

One key component to environmental responsibility is the recycling of ink and toner cartridges, and this topic was one of several discussed by "The Supplies Aisle" panel, which was moderated by Charles Brewer, managing editor of *The Hard Copy Supplies Journal*. Comprised of executives from Cartridge World, Clarity Imaging Technologies, HP, Joy James Group, and LaserCycle/InkCycle, the panel engaged in an animated discussion of many topics facing the supplies market, including the advent of ink jet refill shops, ongoing litigation, branding, and the availability of empties.

With such a diverse panel, unanimous agreement on these issues was difficult to obtain. However, branding was seen as an important issue for OEMs and aftermarket companies alike. While OEMs such as HP are branding their supplies to reinforce the message that OEM supplies produce the best quality, aftermarket companies are also moving to establish their brands in the supplies market—much like the house brands of national grocery and drugstore chains.

Retailing Supplies

Supplies were also a part of the Symposium's closing segment. Burt Yarkin, CEO of Cartridge World North America, discussed his company's growth and the reasons why he believes that retail refill companies will continue to expand. During the past eight years, Cartridge World has grown from two stores in Australia to over 1,100 stores worldwide, including 350 in the United States.

Yarkin attributed this high growth rate to the customer experience that Cartridge World provides. Of course, retail refill shops provide a good value, with prices for ink and laser cartridges up to 50 percent lower in

Cartridge World's case. In addition, Yarkin maintained that his firm's franchisees provide a one-stop shop for printing needs at convenient locations, and Cartridge World has knowledgeable staff and provides a 100 percent guarantee on its products. Bolstered by its success to date, Cartridge World North America plans to add 300 more stores in the United States in 2006, and Yarkin asserted that the firm's goal is to be the neighborhood brand for ink and laser cartridges, much like the Starbucks and Subway brands in the coffee and sandwich markets.

Linda Boykin, divisional merchandising manager at Office Depot, discussed the importance of driving ink and toner sales through the retail channel and highlighted Office Depot's efforts to use complementary technology to drive product performance. Boykin also shared her thoughts on the decision tree that customers must navigate to decide what product to buy—printer, copier, scanner, fax, or some combination. Although her recital of the myriad of decisions that customers must make before making a final purchase decision was humorous, it also served as a fitting reminder to the Symposium audience that despite all of the discussion about technical specifications and market segments, customers ultimately buy a product that meets their needs.

As customer needs evolve with the changing global business climate, vendors must develop innovative products, services, and business plans that will allow them to keep pace. It is not enough to throw spaghetti at the wall and see what sticks (as LeCompte eloquently expressed during his presentation on photo printing). Companies must constantly research market directions and reevaluate their technology roadmaps and business plans. The 2006 Lyra Imaging Symposium provided a look at today's printing and imaging marketplace and foreshadowed some key trends to follow in the future. We will continue to follow these developments in 2006 and hope that you will join us as the next year unfolds. *LC*

If you were not able to attend the 2006 Lyra Imaging Symposium, a binder that includes all of the presentation materials plus a bonus CD that contains electronic versions of the Symposium presentations is available for \$750. Call 617-454-2612 for details.