Hewlett Packard's Advances in Digital Commercial Print at Drupa 2008

Eric G. Hanson; Hewlett-Packard Laboratories; Palo Alto, California/USA

Abstract

Hewlett Packard demonstrated the world's broadest portfolio of digital color printing products in its exhibit at Drupa 2008, the graphic arts industry's preeminent tradeshow. These HP digital printing products and technologies are designed to enable graphic arts customers to build their competitive advantage and successfully pursue profitable growth opportunities.

HP Indigo Digital Presses

Three new HP Indigo digital presses were introduced which have substantially faster printing speed than previous models, offering markedly higher economic break-even points compared to analog printing. These three new models represent the most significant HP Indigo product launch since Indigo first sparked the digital color revolution 15 years ago.

The HP Indigo 7000 Digital Press (Figure 1) prints 120 high-quality, four-color, A4-size pages per minute. Optimized for high volume production, it can typically generate higher revenue and profitability than both small-format offset presses and any other digital sheet-fed press available today. The HP Indigo 7000 offers low total cost of ownership for customers exceeding the 1-million-page-per-month level, significantly increasing the break-even point against offset printing.

***Figure 1**. HP Indigo 7000 Digital Press*

The HP Indigo WS6000 (Figure 2) and W7200 presses are highly productive web-fed digital presses. The WS6000 model offers twice the productivity of the successful HP Indigo press WS4500 and is targeted at labels and packaging converters with significant volumes of medium- and short-run jobs. A commercial variant of the press enables the production of "long" applications with image length up to 38.6" including book covers and jackets. The W7200 press is ideal for high-quality dedicated publishing, direct mail and transactional/ transpromotional offerings. It is expected to be available in the second half of 2009.

***Figure 2**. HP Indigo WS6000 Digital Press*

The HP Indigo press 5500, the company's best-selling digital press, has been enhanced with options allowing greater productivity, including an additional feeder, an in-line connection to the HP Indigo UV Coater and a kit for enabling printing on thicker media.

In addition, HP Indigo Print Care was introduced, which can enable customers to achieve remarkable gains in uptime and virtually continuous printing. This offering provides proactive diagnostic and print-quality assistance tools, backed by live HP service center support, to help ensure quick and accurate detection and resolution of printing problems. Currently available on the new HP Indigo 7000, this package also will be offered with other HP Indigo presses and HP large-format printers in the future.

HP Inkjet Web Press

The HP Inkjet Web Press (Figure 3), a digital printing platform built on HP's proven Scalable Printing Technology (SPT), enables the transformation of business processes in the direct mail, transactional and transpromotional printing, book publishing, and newspaper industries. Through its unprecedented combination of print width, productivity, color quality and economics, the HP Inkjet Web Press helps graphic arts businesses increase responsiveness, creates new revenue opportunities by printing full-color pages with 100 percent variable content, and streamlines operations by reducing labor, inventory and spoilage.

***Figure 3**. HP Inkjet Web Press*

The HP Inkjet Web Press features scalable web width – up to 30 inches (762-mm) – to enable efficient production of a full range of flexible imposition options, such as 12- and 16-page book signatures, full-broadsheet newspaper formats and multiple-up documents. With a maximum speed of 400 feet (122 m) per minute and an addressable printing resolution of 1,200 x 600 dpi (dots per inch), the HP Inkjet Web Press delivers image quality and durability on any low-cost, uncoated paper using a bonding agent and features a writing system designed for reliable pixel printing. Both standard, uncoated media as well as a range of coated media are supported. The HP Inkjet Web Press offers attractive capital acquisition and operating costs, including the ability to purchase consumables as needed without click charges.

HP Latex Printing Technology

The 104-inch HP Designjet L65500 Printer (Figure 4) is the first of a new category of large-format signage printers with HP Latex Inks and HP Wide Scan Printing Technology. Print service providers can expand their offerings with this single, versatile printer that can produce a variety of outdoor and indoor applications – from point-of-purchase displays, transit signage, wall murals and exhibition graphics to vehicle graphics and fleet marking – while delivering quality and durability at high print speeds.

***Figure 4**. HP Designjet L65500 Printer*

Prints produced with HP Latex Inks are odorless and emit extremely low levels of volatile organic compounds. No special ventilation is required to meet occupational exposure limits, and there are no requirements for air discharge permits, facilitating an improved printing environment. HP Latex Inks are not classified as hazardous waste and are non-flammable and non-combustible. The inks also do not produce ozone emissions during printing, contain no hazardous air pollutants or sensitizers and comply with the industry-leading certification, Nordic Swan.

HP SmartStream Digital Workflow Portfolio

The HP SmartStream Digital Workflow Portfolio is designed to meet the needs of a broad range of market segments and applications and to provide workflow management from job creation to fulfillment. Portfolio components include the newly introduced HP SmartStream Director, a complete workflow solution powered by Press-sense; a full range of print servers; HP SmartStream Designer personalization software, which is now available for both HP Scitex and HP Indigo systems; and the HP SmartStream Color Manager Kit for HP Scitex equipment.

Conclusions

As a result of its customers' success, HP solutions are among the most widely used in their respective markets worldwide, including high-volume digital production printing, digital label printing, large-format commercial and industrial printing, large-format technical printing, and mail addressing. At present, HP Indigo presses worldwide print greater than 10 billion pages annually. The output of HP large-format printers was 550 million square meters worldwide in 2007. Following the acquisitions of ColorSpan and NUR Macroprinters, HP is also the world's leading provider of UV-curable large-format printing.

At Drupa 2008, HP introduced technology advances spanning offset- and photo-quality liquid electrophotographic printing, high-speed inkjet production, and large-format printing. The new products incorporating these technology advances support HP's Print 2.0 strategy to capture more digital pages from the analog print market and enable printing customers to take advantage of new market segments and business opportunities. These advances are designed to further extend HP's leadership and to offer enhanced performance and competitiveness to HP's commercial print customers.

Author Biography

Eric Hanson is the Director of the Commercial Print Engine Laboratory of Hewlett Packard Laboratories, in Palo Alto, California, where he has managed research investigating advanced digital printing since 1984. He is currently the Immediate Past President of IS&T, the Society for Imaging Science and Technology. He received a Ph.D. in physics in 1976 from the University of California at Berkeley and has been awarded 18 US patents.