Convergence Comes Alive at PRINTING United
With technologies from every facet of the printing industry, the opportunities were endless.

With nearly 30,000 registrants and more than 680 exhibitors filling the Kay Bailey Hutchison Convention Center in Dallas, PRINTING United, built on the platform of the SGIA Expos, is officially the largest printing show in North America. More importantly, it’s the first event to bring to life the phenomenon of convergence — the shifting industry dynamic as digital technologies change how, and for whom, print service providers (PSPs) do business.

With 724,000 gross square feet, SGIA President and CEO Ford Bowers said PRINTING United 2019 was 12% larger than the final SGIA Expo last year. He expects the next PRINTING United, in Atlanta October 21 - 23, 2020, to occupy more than 1 million square feet.

“The success of the first PRINTING United reinforced our perception that the industry was clamoring for more collaboration,” said NAPCO Media President Dave Leskusky.

Walking from one end of the show floor to the other, you could learn about direct-to-object (DTO) and direct-to-garment (DTG) printers; screen printing equipment; advances in wide-format graphics, textiles, and dye sublimation; and offset printing, production inkjet and toner presses.

Seeing so many types of printing at one site reminded attendees that analog and digital printing can be combined to print all types and volumes of documents, books, signs, displays, garments, awards, textiles, packaging, labels and promotional products.

It’s impossible to describe all of the hundreds of product releases in this brief article, so this report focuses on a few that illustrate how PRINTING United served — and went beyond — the segments traditionally addressed by SGIA Expos.

Direct-to-Garment Printers
Kornit showed its new Avalanche Poly Pro system, which uses NeoPoly POLYESTER PRINTING MASTERED BRILLIANT PRINTS FOR SPORTS AND ATHLEISURE APPAREL
• Eliminates dye migration
• Precise color-matching
• Print even the shortest runs quickly and profitably

Learn more by visiting Kornit.com/AM/PolyPro

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pigment ink technology to print directly on polyester T-shirts and other garments.

OmniPrint International displayed its Cheetah industrial DTG printer with Würk print management software that gives business owners a cohesive overview of work in progress.

Along with Lawson and the M&R Companies, OmniPrint displayed screen/digital hybrid systems that combine the customization possibilities of DTG with the cost-effective high productivity of screen printing. [For an in-depth look at these systems, see “Screen and Inkjet Join Forces in Hybrid Systems” on page 29.]

**Screen Printing**

The M&R Companies showed their Digital Squeegee system, which screen prints an underbase to support a digitally printed image. This screen/digital combination enables screen print shops to add full-color images to a wide array of fabrics, including synthetic and performance blends.

The Maestro MS-102X uses UV-LED screen printing inks to print on paper, board, foil and plastic films for electronics, membrane switches, display panels and touch screens. The Maestro MS-102X screen press can be used to produce POP signs, folders, leaflets, business cards, loyalty cards, magazines, book covers, packaging, promotional items, labels and greeting cards, as well as automotive, appliance and plastic card applications.

Sakurai, a leader in sheet-fed screen printing technology, showed the ScreenFoil LQM 105 in-line hot foil stamper. Designed for use with any size or vintage Sakurai screen press, the ScreenFoil LQM 105 can apply fine line, 3D coverage foil to design output on the Sakurai Screen Press. At PRINTING United, the LQM 105 press was demonstrated with the ultra-precise Sakurai Maestro MS-102X screen press.

**Dye Sublimation Printing**

Roland’s Texart RT-640M uses the same Texart SBL3 inks to print directly on coated polyester fabric rolls for soft signage or cut-and-sew apparel or to transfer paper for creating sublimated apparel, décor, rigid signage and hard goods.

Mimaki’s Tx300P-1800 MkII inkjet printer can switch between dye sublimation inks and textile pigment inks. Dye sublimation inks are used with polyesters for soft signage, fashion and sports apparel. Textile pigment ink is mainly used to print fabrics made from cellulose fiber (cotton, hemp, rayon, etc.). These fabrics are typically used in interior fabric and fashion apparel.

Epson America introduced its first desktop dye sublimation printer — the 24-inch SureColor® F570, which can be used for promotional products and apparel decoration, including personalized awards, mugs, mousepads and garment embellishments. Epson also unveiled two 64-inch dye sublimation printers for the roll-to-roll textile, home décor, promotional product and soft signage markets. The SureColor F9470H gives businesses the option of printing with yellow and pink fluorescent inks.

**Direct-to-Shape Printers**

Marabu North America introduced the M Revo, a semi-automated printer that can decorate cylindrical glass, plastic, powder-coated and stainless-steel objects at print speeds of up to 90 parts per hour.

The six-color Helix® Hi-Fi cylindrical printer from InkCups can print photorealistic images on glass drinkware, wine glasses, pint glasses, stainless steel tumblers and glass candle holders.

**Offset Printing and Prepress**

An RMGT 9 Series offset press on the show floor demonstrated how commercial printing businesses could bring greater profit to what is still the largest portion of their annual revenue: offset print. The RMGT 9 five-color press has a built-in LED-UV coating system, fully automated plate-changing systems, and Insta.Color makeready automation.
At the show, the RMGT press printed 16-page signatures that were UV-cured and quickly converted into 20-page booklets with the use of an Itoh eRC Robocut paper cutter and a Standard Horizon StitchLiner Mark saddle-binding device.

Agfa launched SPIR@L, a patented screening technology that replaces traditional solid halftone dots used in commercial printing with a more efficient spiral shape that conserves ink and boosts image clarity.

Production Printing

On-site consultants in the Konica Minolta, Ricoh, Agfa, Fujifilm, HP, Canon and Xerox booths were available to answer questions about the many different production inkjet and toner presses that can be used in conjunction with wide-format roll-to-roll and flatbed printers.

A display in the Xerox booth showed groups of three similar-looking print samples side by side and encouraged visitors to identify which sample had been printed on an offset press and which ones were printed on inkjet and toner presses. The display dispelled any doubts that digital printing technologies haven’t yet matched offset printing in terms of sellable print quality.

During a live broadcast from PRINTING United to a worldwide audience, Konica Minolta announced its new AccurioPress C14000, a high-volume toner printer that can print 140 A4 pages per minute (ppm). The company also demonstrated its AccurioLabel 230 short-run label press and the PCKG-675i digital packaging printer.

Fujifilm showed its award-winning JPress 750S cut-sheet inkjet press that can handle 23-by-29.5-inch sheets (for printing six letter-size pages on a sheet) and output 3,600 sheets per hour for jobs that have either variable or static data.

SCREEN displayed the Truepress Jet520 HD+ high-definition inkjet web press that uses standard offset-coated stocks for applications such as high-end direct mail, books, packaging and cut-sheet labels.
The Heidelberg Versafire EP toner-based press can print up 13-by-49-inch sheets, including 24 point stock and a variety of synthetic materials. Running at speeds of up to 135 letter pages per minute, it is recommended for short-run and variable commercial printing, packaging and some types of labels.

Wide-Format Printers

Epson introduced its new 64-inch SureColor® solvent printers with bulk ink systems to reduce ink costs per milliliter. Mimaki rolled out their JV300 Plus eco-solvent printer and CJV300 Plus printer/cutter with new features for productivity increases, cost-savings and sustainability.

Roland showed their TrueVIS VG2 printer/cutters with the TR2 eco-solvent inks that have earned print durability warranty certifications including the 3M MCS Warranty and Avery Dennison’s ICS Performance Guarantee.

Durst’s new P5 350 is a hybrid wide-format printer that can print on both roll and rigid media. With a unique multi-roll option, users can load rolls during printing to reduce setup times and increase efficiency.

The Océ Colorado 1650 printer uses a more flexible formulation of the Canon UVgel 460 inks that provide excellent image stability, even when folded, bent or wrapped. The Océ FLXfinish technology on the 1650 enables either a beautiful glossy finish or luxurious matte finish, regardless of media type.

Automation

Many visitors to PRINTING United sought out automation software that would enable them to add production capacity without hiring additional staff. Agfa’s Apogee automated workflow can handle everything from offset and digital production printing to many types of wide-format graphics printers and flatbed cutters. It can tie into Agfa’s cloud-based web storefronts as well as Agfa’s new PrintSphere quality control system and InkTune ink-reduction program.

EFI makes Fiery digital front ends (DFE) for dozens of production inkjet and toner presses as well as wide-format and grand-format inkjet printers. At PRINTING United, EFI introduced a major upgrade to the Fiery platform. The Fiery FS400 Pro platform includes the Fiery JobExpert — an in-RIP technology to dynamically analyze incoming PDF files and process jobs for superior image and color quality while reducing production time. The Fiery Spot Pro feature offers brand color matching with higher precision from design to print.

EFI’s IQ™ cloud-based software platform enables PSPs to track and monitor printer utilization as well as ink and substrate usage, and the ColorGuard IQ product standardizes the verification process to ensure consistent, accurate color on Fiery Driven™ digital printers at different job sites.

The Durst Software Ecosystem solution includes Durst Workflow Print production software, Durst Analytics monitoring tool, and Durst Smart Shop for integrating e-commerce with the LiftERP print manufacturing software.

Eileen Fritsch has covered the evolution of large-format digital printing since 1996, when she was a founding editor of Big Picture magazine. As a freelance contributor to the SGIA Journal, she has written about ongoing changes in the workflow technologies and markets for large-format graphics, including textiles and packaging.