



ScreenPro™ technology helps to cut processing time by 50% on the Mark Andy Digital Series HD - at the same time improving quality and enabling fully variable (every label is different) continuous printing at high speed.

THE CHALLENGE

When leading US printer manufacturer Mark Andy wanted to enhance the performance of its digital hybrid press, the Digital Series HD, it looked to Global Graphics Software for a solution.

Used to print pressure sensitive (PS) labels with variable data print (VDP) features, the Mark Andy Digital Series HD combines the advantages of digital workflows and digital printing with the capabilities of fast-change flexography technologies, including inline decoration and converting, all in a single pass.

The press prints at very high speed, however this posed a problem: As the press can print thousands of labels per minute, and each label can be different and at variable places on the web, it becomes more difficult to maintain a queue of

KEY FACTS

- The Mark Andy Digital Series press is a single pass UV inkjet
- Prints at high speed (240 linear feet/minute, 74 meters/minute)
- Supports 4 to 6 digital color formats in a hybrid digital and flexo press
- Offers unlimited color variable data options at full speed (every page is different)
- Uses digital inkjet print heads supporting multiple drop sizes

VDP jobs. As the Digital Series press was being developed, Mark Andy quickly realized that a highly capable RIP, hardware and software suite were required to process VDP jobs sufficiently fast to avoid press shut downs due to a lack of RIPped VDP work loaded on the digital press job queue.



Fully variable printing: The Digital Series HD can print thousands of labels per minute, and each label can be different and at variable places on the web.

Ray Dickinson, vice president for Mark Andy, comments:

“ A fast, digital press printing speed is of no value if the press is forced to sit idle and non-productive, waiting for work to be RIPped and sent to the digital press for printing. ”

THE SOLUTION

Mark Andy enlisted the help of Global Graphics Software's Technical Services team and, using their BreakThrough service, began to work on overcoming several performance barriers apparent when printing pressure sensitive labels at high speeds and high volumes with VDP features. Namely:

- VDP workflows and RIPs for PS labels only supported print speeds ranging from 90 fpm to 100 fpm for full color VDP PS labels
- Some jobs were represented with every label different i.e. fully variable, rather than traditional VDP printing
- VDP text color capabilities did not meet customer requirements
- Variable imaging at high speed with high image acuity was limited



Joe Calmese, chief business officer and executive vice president for Mark Andy, presents the Digital Series HD at Labelexpo 2018

Peter Rathje, senior manager of digital press solutions for Mark Andy, comments:

“ For a workflow to be viable, it has to process and send full color, fully variable work at a rate that supports the press printing nearly continuously at high speed to produce hundreds of thousands of linear feet or meters weekly. ”

The Technical Services team developed a version of Global Graphics Software's award-winning ScreenPro technology to drive the Mark Andy Digital Series HD directly, ScreenPro Direct.

An ultra-high-speed multi-level screening engine, ScreenPro Direct is an online component that drives the press directly and screens as it prints. It maximizes image print quality for high-speed production inkjet printing, with no loss in performance even with additional print bars to support extended gamut colors. With ScreenPro Direct there is no limit to the number of VDP elements on one imposition, meaning every page is different.

THE RESULT

Integrating ScreenPro into the Digital Series HD has reduced process and RIP times by as much as 50% and has yielded mission-critical results for high speed, high quality, and full color VDP printing. With ScreenPro, Mark Andy now enjoys:

- Seamless integration via a simplified process
- Streaming VDP to support full color variable printing at speeds up to 240 ft/m
- Unlimited color variable data options 240 ft/m (4 to 6 color formats)
- Unlimited number of VDP elements on one imposition (fully variable)
- A stable solution to meet customers' application and color format requirements
- Custom screening to maximize image print quality for high-speed production inkjet printing

Ray Dickinson comments:

“ The ScreenPro technology built in partnership with Global Graphics is a key development to provide streaming full color VDP options to meet the print speed requirements of today's 'next-generation' UV inkjet production presses. We are now able to seamlessly integrate high-speed streaming variable data into the existing ProWORX digital front end. ”



The Mark Andy Digital Series HD

ABOUT MARK ANDY

Mark Andy is a pioneer of the graphic arts and printing industry with more than 70 years of expertise. As the world's leading manufacturer of narrow- and mid-web printing and finishing equipment, Mark Andy supplies leading global brands with a range of Mark Andy and Presstek printing presses, Rotoflex finishing solutions, as well as a complete line of Mark Andy Print Products consumables and pressroom supplies.



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