

IWCO Direct Maximizes  
Productivity By Partnering  
With Canon Solutions  
America And Videk

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## IWCO DIRECT UTILIZES VIDEK DOCUVISION PRIME TO MAXIMIZE PRODUCTIVITY ON THEIR OCÉ COLORSTREAM 3900 COLOR INKJET PRESSES

IWCO Direct is a vertically-integrated direct marketing solutions provider that drives response across all channels with a focus on relevant paper-based and digital direct marketing campaigns. One of the largest direct marketing companies in the U.S., they are a leader in providing unique marketing solutions to their customers. As direct marketing has evolved, IWCO Direct responded by embracing new technologies and finding innovative ways to utilize them in expanding opportunities for its customers.

Over the past several years, IWCO Direct has capitalized on the trend toward continuous feed inkjet, enjoying organic growth in their core markets while rapidly expanding into new markets. With the acquisition of several Océ ColorStream® 3900 digital inkjet presses from Canon Solutions America, they deliver approximately 3.7 billion pieces of direct mail per year, producing color, personalized documents driving 1:1 marketing programs for their financial services, insurance, cable and automotive verticals. The Océ ColorStream 3900s have enabled IWCO Direct to design dynamic, highly-targeted creatives for their clients that better leverage customer data and drive higher response rates. By supporting a single-stream workflow, the Océ ColorStream 3900 presses also further drive postal optimization programs resulting in lower postage cost per piece.

As a long-time offset printer, IWCO Direct sets high standards for image quality and color consistency on the materials it produces. IWCO Direct counts on their Océ ColorStream 3000 series presses to meet their clients' expectations for both quality and production timelines. Quality has multiple components, including: color matching and consistency across devices, and jet outages, which leave voids in the output. The more volume IWCO Direct added to the Océ ColorStream 3900s, the greater the need to further automate the quality process, so IWCO Direct turned to Canon Solutions America and Videk, Inc. for their expertise.

Canon Solutions and Videk, Inc. partnered together to create an integrated end-to-end solution that further automated IWCO Direct's workflows. Videk is well known for their print vision systems. They offer a range of products that validate the data being printed on each page of a run. Their systems can confirm front-to-back matching, MICR line registration, validating the total number of checks in a job and their value, and other similar data-based operations. Videk cameras can be installed inside of Océ ColorStream 3000 series presses, which helps keep the overall footprint of the press to a minimum.

Working closely with IWCO Direct, Videk was able to identify key quality checks that needed to be performed and created the DocuVision Prime automated print quality monitoring system. DocuVision Prime looks for the "Prime Page," a high-resolution quality inspection pattern inserted into the workflow and printed by the

ColorStream 3900 on the fly. The camera systems read the page to validate the printed output is still within the specified parameters and to alert the operator when the press needs attention.

The vision system reads every page on each side of the web and continuously looks for two 2D data matrixes at the outer corners of each Prime Page to trigger inspections. The data matrix contains specific information about the Prime Page which is determined after its creation. The use of multiple barcodes is to prevent a scenario in which a corrupt barcode results in a failed inspection cycle.

The image below shows a developer reviewing a DocuVision Prime test page.



*Developer Reviewing a Prime Page*

DocuVision Prime meets IWCO Direct's quality and performance requirements in these five areas:

**Color Registration:** DocuVision Prime monitors Color-to-Color registration (C2C), using a pattern of five square blocks in a vertical pattern (K, C, M, Y, K). The blocks and the spacing between them are identical in size. The camera system matches the colors on the page to the expected colors and also verifies their location on the page. A separate pattern for operator use allows for visual inspection as well.

**Jet Outs:** DocuVision Prime monitors any jet out conditions by printing four full-width color bars (one for each primary color) across the top of the test page. Jets that repeatedly show up as inoperative are flagged for the operator.

**Brand Color Monitoring:** A key concern for brand managers is the consistency of their corporate colors across all documents in a job. DocuVision Prime supports validating specific colors both on the test page and on each page of the job. While Canon inkjet presses are known to have minimal drift, the DocuVision Prime validation is used to ensure color consistency to a standard and across devices. If the printed color is off more than the specified amount from the desired color, the operator can be notified and the press stopped so that corrective action can be taken.

**Head Alignment:** the Prime Page prints four 1" X 1" blocks (one for each primary color) of ink positioned vertically on the four print head boundary lines. These blocks help identify when a print head is not properly aligned with the other heads. An error of only a couple of dots will result in blurred images in incorrect colors.

**Visual Monitoring:** The quality monitoring pattern contains several visual cues to aid the operator. Using DocuVision Prime, the operator can pause the image on the Videk operator console, zoom in, and scroll around the page to visually confirm the press is ready to go.

The Océ ColorStream 3000 series presses are workhorses designed to run 24x7. Dave Johannes, senior vice president of operations for IWCO Direct, estimates that using the efficiencies created by the DocuVision Prime system on their Océ ColorStream 3900s has improved each press's performance 12-15% over manual interventions. The vision system is also more sensitive to jet outs and color alignment issues than an operator can be and alerts the operator to an issue as soon as a problem crops up. This results in improved press performance and reduced waste from spoiled output.

With DocuVision Prime, IWCO Direct is now able to assure its customers that output quality will be maintained throughout a run and across presses in a way that their competitors cannot. The result is high quality output on the inkjet presses similar to what they have had for years on the offset press side of the facility, all while supporting maximum printer performance.

## MADISON ADVISORS OPINION

For any print operation with multiple color presses, maintaining color consistency across those presses is a critical factor in both maintaining a client's branding and also in allowing output from several presses to be combined into a single package without having multiple shades of a specific color. The Videk DocuVision Prime system allows a printing company to quickly and consistently calibrate their presses to a common standard. Madison Advisors sees this as an increasingly important factor as the use of automated technologies replaces the "black art" of color matching in the offset world. The use of a camera system reduces the amount of color knowledge a press operator requires to produce high quality output from a solution like the Océ ColorStream 3900.

The speed of presses such as the Océ ColorStream 3000 series, the JetStream® series, and the upcoming ImageStream™ solutions tend to result in a roll-to-roll production environment. While roll-to-roll environments simplify the production process, any condition resulting in inadequate output quality, such as a jet out condition, means that a significant amount of paper may have run through the press before an operator notices the problem. Madison Advisors sees vision solutions like DocuVision Prime as necessary for ensuring quality, maximizing productivity, and minimizing waste. The overall savings in paper and press time to rerun a job will likely offset the cost of the camera system. Madison Advisors recommends all printing companies include a vision system as a key component of their inkjet press acquisition plans.

## ABOUT MADISON ADVISORS

Madison Advisors exists to advance the print and electronic communications objectives of Fortune 1000 companies. Madison Advisors specializes in offering context-specific guidance for a range of content delivery strategies, particularly those addressing enterprise output technologies and customer communications.

Madison Advisors offers services and expertise primarily through short-term, high impact consulting services. With no-nonsense, quick engagements (measurable in days or weeks, not months), Madison Advisors directly helps our clients achieve very hard and specific return on investment (ROI) related to their print and electronic communications initiatives.

Madison Advisors' analysts are dedicated to technology and market research that is delivered through short-term project engagements as well as articles, publications, and presentations. We specialize in customer communication technologies including enterprise output management, content management, customer relationship management, e-billing, and infrastructure technology.

For more information about Madison Advisors, visit our web site: [www.Madison-Advisors.com](http://www.Madison-Advisors.com).

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