Digital printing of full-color MICR documents at your fingertips
A brilliant way to print checks

Check printing with confidence
Oce JetStream color inkjet printers support a full range of important check printing security features and meet criteria set forth by the industry’s leading standards organizations. One such organization is the American National Standards Institute (ANSI), a private organization that oversees the development of standards for products, services, process, systems, and personnel in the United States. In addition, Océ is a member of the Check Payment Systems Association (CPSA), an association of North American check producers that sets standards for check document security and publishes security feature requirements.

In addition to ANSI and CPSA specifications, Océ JetStream check security features meet or exceed business check, laser check and transaction check requirements. As a result, checks produced on Océ JetStream digital printers are as safe as those issued by banks.

CPSA security features
Because Océ is a CPSA member and Océ JetStream equipment qualifies for CPSA certification, Océ JetStream customers also qualify for CPSA certification. This certification indicates to all parties accepting a check that additional security features have been incorporated in the design of a check, the production process or the materials used.

As a CPSA member, Océ helps customers print and sell output that meets all recognized security standards with confidence. Customers are assured that banks will accept the security features integrated into Océ JetStream-produced checks without extensive testing procedures. Océ JetStream systems support these CPSA security features:

- Micro-printing of signature lines or check borders using a small font that appears as a solid line when a check is photocopied or scanned
- “Copy Void” pantograph that appears on the front of a check when photocopied
- A padlock icon on the check amount box indicating the presence of at least three security features
- Faint “Original Document” security screen on the back of the check that drops out easily and doesn’t copy or scan well
- Security features warning box that appears on the back of a check, denoting the security features present in the check document
- Location of account number beneath the fractional bank routing number, indicating that if the MICR line is altered/doesn’t match the fractional number, the check is no good
Security beyond CPSA
Given the serious nature of producing negotiable documents, Océ JetStream check security goes beyond CPSA requirements. In addition to CPSA security features, checks produced on Océ JetStream printers can include:

• Very light yellow invisible ink that is only visible under UV light for use in producing logos or artificial watermarks
• Variable data micro-printing or variable data that matches account numbers, much like the security codes printed on the back of credit cards
• Variable micro-printing to match account numbers
• Uneven “laid lines” that flow throughout the check document and fill in when a check is copied or scanned
• Color that changes from light to dark, top to bottom, or side to side throughout a check

American National Standards Institute security
Océ JetStream check security features comply with the ANSI check production specification X9B. This standard specifies the font size, location, and signal strength of the MICR line. Océ JetStream MICR lines meet or exceed ANSI specifications in all areas.

Océ JetStream check printing applications
With highly secure check-printing capabilities, Océ JetStream color inkjet presses are ideally suited for a wide range of check-printing applications. These include:

• Single-pass check creation for checkbooks or sheets
• Convenience, balance transfer, promotional and refund checks
• Statement and EOB checks printed dynamically, on demand to eliminate the need for preprinted check stock and reduce the risk of handling security stock
Streamlining the MICR workflow from start to finish

MICR workflow
In a typical Océ JetStream MICR check-printing workflow, AFP/IPDS files are received by Océ PRISMAproduction™ Server software, which performs the critical role of merging the AFP/IPDS variable data files and PostScript or PDF check stock background files into a single data file. The Océ JetStream SRA-MP controller accepts the data, RIPs the file and applies color management control. Next, the file goes to the print engine, which prints sheets in black & white, full-process color or both, along with security features like micro-printing, void pantographs, and artificial watermarks. In order to use conventional finishing equipment, a slack-web interface moves the printed web through a web buffer and on to a perforator, which perforates the checks and a cutter/stacker, which cuts, slits, merges and stacks the checks.

1. Print operator receives AFP/IPDS input files  
2. Océ PRISMAproduction software prepares files  
3. SRA-MP controller accepts data and sends to Océ JetStream engine  
4. Océ JetStream print engine jets the images onto pages  
5. The MICR ink is applied  
6. The printed web passes through a web buffer to a perforator  
7. The perforated checks are slit, merged, and stacked.

Océ PRISMAproduction Server
Océ PRISMAproduction Server software is a high-performance output management system that streamlines the check production process, enabling better control and efficiency. As an order comes in, the operator can deliver it from any input source to the Océ PRISMAproduction server, which retrieves the digital files, prepares them for printing and queues the job for processing. Océ PRISMAproduction Server software creates a unified platform for high-speed printing on Océ and non-Océ printers. The software, ideal for mid- to very high-volume applications, includes fully-integrated pre-flight and color make-ready tools to streamline complex color workflows.
The Océ JetStream series

A revolution in drop-on-demand color inkjet printing

The Océ JetStream MICR series
A revolution in high-speed color inkjet MICR printing
the Océ JetStream MICR platform is the first high-speed color inkjet system of its kind to integrate MICR ink right into a full-process digital engine, enabling print operations to support high-volume color inkjet and MICR applications on a single platform.

Combining an unbeatable speed and quality ratio with a low total cost of ownership, Océ JetStream technology uses a high-speed paper path to produce CMYK full-color output at a speed approaching 500 feet per minute with 600 dpi resolution. The system’s variable drop sizes support multi-level printing for faithful reproduction of very fine lines, photographs and halftones.

The groundbreaking Océ JetStream MICR system expands on the basic four-color process, which uses four inkjet print heads. The MICR systems add a fifth row of print heads to the system’s base engine. The result is an extremely elegant implementation of high-speed inkjet color with a MICR printing capability, available on several models of the Océ JetStream family.

The fifth inkjet head uses the same Océ DigiDot drop-on-demand technology used by the other four inkjet heads. This ensures state-of-the-art MICR ink formulation without affecting the rest of the printing process.

Benefits of integrated MICR printing
As a result, you can seamlessly print checks along with full-color documents with complete reliability, security and error recovery. What’s more, you can reduce costs by minimizing overall equipment maintenance and streamlining vendor support and other requirements. The integrated MICR capability also simplifies application design and implementation, resulting in savings from shorter development cycles and faster turnaround. From an environmental standpoint, the system uses less power and occupies a smaller footprint than solutions that combine multiple systems to support both full color and MICR output.

Powered by Océ DigiDot technology
Powered by revolutionary Océ DigiDot technology, Océ JetStream systems combine excellent quality with production speed. An innovation that delivers superior quality at lightning speed, Océ DigiDot technology uses the industry’s fastest piezoelectric, drop-on-demand inkjet print heads to jet droplets of ink only where they’re needed. Thanks to these very small drop sizes, Océ JetStream printers can produce higher quality images, smoother halftones and stunning color output with less ink and less waste.

Océ DigiDot technology also results in a lower drying temperature, which consumes less energy and reduces paper distortion. The ability to vary dot size enables multi-level printing of photographs and halftones that require richer gray scales, contour-free gradients and better reproduction of fine details.

Brilliant color in every speed
Designed to meet every customer requirement for speed, quality and throughput, the groundbreaking series includes eight models—the mid-volume Océ JetStream 500 and 1000 systems, the Océ JetStream 750, 1100, 1500, and 2200 systems, and the 30-inch-wide Océ JetStream 2800 and JetStream 3300 systems.

Smooth integration into any environment with Océ PRISMA software
By teaming Océ JetStream printers with Océ PRISMA® workflow software and its connectivity to other proven front-end products, the Océ JetStream platform can perform seamlessly in any environment—without changing the existing workflow.
**Océ: a leader in the MICR printing market**

Innovating new business models and collaborating with customers is a cornerstone of the Océ business philosophy. Strength in high-volume print manufacturing, expertise in data-intensive applications, and a customer-first culture position Océ to help transactional print operations add value to statements with variable data and full color at production speed.

Flawless MICR output is essential to production operations that print transactional, insurance, direct mail, TransPromo documents and other applications involving check images. Océ has been a leader in delivering MICR solutions on both continuous feed and cutsheet products for years. Today, Océ offers versatile MICR solutions in a wide range of speeds and capabilities.

In response to the needs of direct mailers, commercial print providers and service bureaus, Océ has applied this expertise to directly integrate MICR capabilities into the landmark Océ JetStream platform, enabling printing of MICR documents with brilliant color at stunning speed.

**Océ Innovator of the Year award**

Océ won the sought-after Xplor Innovator of the Year award for the development of the Océ JetStream MICR series, which integrates MICR printing into the print engine. The award recognizes companies, organizations and individuals who develop original concepts that advance the state of the art for the entire industry.

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**Océ JetStream Series**

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<tr>
<th></th>
<th>Océ JetStream 1500</th>
<th>Océ JetStream 2200</th>
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<tbody>
<tr>
<td><strong>InkJet</strong></td>
<td>Océ DigiDot drop-on-demand inkjet technology</td>
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<tr>
<td><strong>Ink</strong></td>
<td>Water-based dye, InkSafe™ technology</td>
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<tr>
<td><strong>Pigment ink option</strong></td>
<td>Water based pigment, InkSafe technology</td>
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<tr>
<td><strong>Print resolution</strong></td>
<td>600 x 600 dpi</td>
<td>600 x 600 dpi</td>
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<tr>
<td><strong>Print speed letter per minute</strong></td>
<td>1428</td>
<td>2148</td>
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<tr>
<td><strong>Max image width duplex</strong></td>
<td>20.4” x 54”</td>
<td>20.4” x 54”</td>
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<tr>
<td><strong>Paper weight</strong></td>
<td>36-200 g/m² (17 lb to 40 lb bond)</td>
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*Other models will be available in the future.*
Océ: a leader in sustainable products, practices and processes

As organizations seek out business partners with a proven record of environmental responsibility, Océ is proud to be one of the few companies for whom sustainability has been a defining principle from the very start. From the founding of the company in 1877, Océ has established a tradition of environmental stewardship that continues to raise the bar. In 1927, Océ invented the eco-friendly ammonia-free diazo copying process for technical documents. In 1958, Océ launched a new production process that reduced the use of solvents by 80 percent. In 1975, we received Europe’s first award for research in environmental protection.

Océ products have met the criteria of the United Nations Global Compact since 2002. In 2006, Océ received FedEx Kinko’s Best in Sustainability/Environmental performance award at the company’s annual supplier summit. We are one of the first companies to be RoHS compliant. We are an ENERGY STAR partner. And most recently, the company was recognized as an environmental leader in printing and document management through its selection as a Climate Action industry partner. Climate Action is an international communications platform that informs a worldwide network of businesses, United Nations, government and non-governmental organizations in promoting actions to limit human-induced climate change to ecologically sustainable levels.

In addition, many Océ products have received Germany’s Blue Angel award, given to products that meet a high standard of performance for efficient energy consumption, use of recycled paper and recyclable materials and that meet strict emissions regulations. Increasingly, sustainability is about how a company does business. Océ has employed sustainable practices for 130 years, and continues to build on that commitment every day.

About Océ
Océ is a leading international provider of digital document management technology and services. The company’s solutions are based on Océ’s advanced software applications that deliver documents and data over internal networks and the Internet to printing devices and archives – locally and around the world. Supporting the workflow solutions are Océ digital printers and scanners, considered the most reliable and productive in the world. Océ also offers a wide range of display graphics, consulting and outsourcing solutions.

Océ employs around 22,000 people, with 2009 revenues of approximately $3.7 billion, operates in around 100 countries and maintains research and manufacturing centers in the Netherlands, the United States, Canada, Germany, France, Belgium, the Czech Republic, Romania and Singapore.

Océ North America is headquartered in Trumbull, CT with additional business units in Chicago, IL; New York City; Boca Raton, FL; Salt Lake City, UT and Vancouver, BC. North American revenues represents approximately half of Océ’s worldwide business and employment is approximately 10,000. For more information about Océ, visit www.oceusa.com. Outside the U.S., consult http://global.oce.com.

Océ North America

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