JDF offers new power for the Graphic Arts Industry

The future is now: JDF delivers new productivity. New investment choices

This white paper outlines the current business challenges facing the print-for-pay and graphic arts industries, and how the new Job Definition Format standard (JDF) delivers new levels of efficiency and productivity. This is achieved as JDF provides a standard set of pre-defined data connections between systems and workflow steps associated with the creation, pre-press, production, finishing and distribution of electronic and printed documents. The JDF standard bridges systems and products from multiple vendors, leading to efficient production, faster job turnarounds and greater choice for future investments. As a result, the JDF standard provides an entirely new—and substantially more efficient—world of printing.

Afterwards, we provide a general overview of our current JDF-extended solutions for the Graphic Arts Industry. These include: Océ PRISMAproduction® 3.10, the industry-leading, high/ultra high volume output management system; and Océ PRISMAweb® 2.5, a powerful, PDF-based e-business solution.

1 Why JDF? Because it’s the future of printing

Over the years, market developments have created significant challenges for the Graphic Arts Industry, including the need for shorter print runs and faster job turnarounds, ways to compete more effectively amidst increasing price pressure, and a general shift away from traditional retail business to more complex Business to Business (B2B) models. Further, research has shown that 57% of service providers find operational efficiency to be an additional challenge, while more than 67% of print-for-pay companies feel that they need to market their services more effectively.1

In comparison, other industries that have faced price pressure, a need to increase operational efficiency, and to improve their marketing have responded by fundamentally changing how they do things. This includes successfully introducing and implementing Supply Chain Management (SCM) and Computer Integrated Manufacturing into their processes.2 The result in these industries has been the implementation of higher levels of automation and a more integrated workflow.

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1 The NAPL 2002-03 State of the industry report. ‘Challenges to growth. For print providers with less than 3 million revenue’.
However, in the printing world, these kinds of technological developments have not become the industry standard—with hardware and software vendors integrating their systems on a case-by-case basis. One core reason why the printing world lagged behind was that there was no recognised standard to seamlessly transfer data between software and hardware products from different models and manufacturers.

But all of this is now changing, thanks to the Job Definition Format (JDF). This standard is being specifically designed to help the professional printing industry achieve new levels of efficiency. JDF is being developed and managed by CIP4 (International Co-operation for Integration of Processes in Prepress, Press and Postpress). One of the purposes of this international standards body—located in Switzerland and operating worldwide—is to encourage computer-based integration of all processes involved in the Graphic Arts Industry. As a full member of CIP4, Océ is actively contributing to the growth of this standard. The CIP4 organisation currently consists of close to 300 members, including Adobe, Agfa, Creo, EFI, Heidelberger Druckmaschinen, Hewlett Packard, IBM, MAN Roland, Océ, Ricoh, Seybold, and Xerox.

2 The benefits of JDF

In a Graphic Arts Industry context, the benefits of JDF are significant for both traditional offset and digital printers. For the former, JDF will clearly have the largest impact, as their processes haven’t significantly changed since the 1950s, and workflow automation today is almost non-existent. In this sphere, service providers can secure a wide variety of benefits from digitising document creation, pre-press, proofing, production and binding, as well as the ability to process variable data printing and data-driven graphics.

At the same time, digital printers are already familiar with digital benefits—and both groups can look forward to the new levels of efficiency and productivity that JDF will provide. Before the JDF specification came into being, digital front-end systems were usually developed with proprietary job tickets and message handlers. However, manufacturers varied on their approaches, and some output management systems like Océ PRISMA production and integrated workflow solutions such as Océ PRISMAweb already provide a fully automated workflow with integrated pre-press tools and can be connected with a wide variety of digital production systems. In essence, these kinds of systems previously adopted the customer-focused idea of JDF; the expanding adoption of the standard itself now will open up systems to even more efficiency, productivity and customer choice.

The new JDF standard provides standardised job tickets for automated usage by a wider variety of multi-vendor equipment. As a result, businesses can (a) automate their workflows from step to step—and within each step—of the production process regardless of the product manufacturer; (b) increase the speed at which jobs can be produced; (c) reduce reworking costs; and (d) enable businesses to differentiate their services and capabilities and therefore improve their marketing potential. In short, JDF is important because it brings the benefits of ‘Supply Chain Management’ and ‘Computer Integrated Manufacturing’ to the Graphic Arts Industry.

The JDF challenge for our industry

So as you can see, we think that JDF can make Graphic Arts Industry processes smarter, faster, more competitive—and more profitable—for customer benefit. The challenge in today’s printing industry is to combine two objectives—to provide JDF support and address the various complexities that exist in achieving this goal, and to integrate JDF objectives throughout a rock-solid workflow and print management system.

3 JDF-extended Océ PRISMA solutions

As of January 2006, Océ offers two JDF-extended Océ PRISMA solutions for the Graphic Arts Industry. These include: Océ PRISMAProduction 3.10, the industry-leading, high/ultra high volume output management system; and Océ PRISMAweb 2.5, a powerful, PDF-based e-business solution. Océ is committed to JDF and will incorporate JDF into more Océ products this year and over the next years.

As is, Océ PRISMA solutions for Graphic Arts environments are industry-leading, Linux-based workflow and print management systems for digital printing & publishing. These solutions support PostScript, PDF, PPML, TIFF and PCL print streams on high/ultra high-volume Océ VarioPrint® and Océ VarioStream® printing systems, as well as printers manufactured by other leading vendors. In addition, these solutions are designed to highly automate workflows, print just-in-time and for rapid order turnaround—resulting in high efficiency levels and profitable short runs.

About the job ticket

The JDF-/JMF-based job ticket uses an industry-standard format (XML), and it defines how the components that execute the job throughout the

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3 In addition, Océ offers a JDF-extended Océ PRISMA satellite®, our mid volume output management system for the office and transaction environments.
4 A key component of JDF, the Job Messaging Format (JMF) is a standard based on Internet protocols that enables communication among multi-vendor hardware and software.
About the interface
The JDF-enabled Océ PRISMA production software features a JDF interface that enables JDF/JMF processing defined by conformance levels 1 & 2. This standardised interface is used by third-party systems to perform tasks like RIPping and printing within Océ PRISMA production, track the execution of a task and provide information like job status notification, accounting data and system feedback.5

Benefits of the JDF extension
A JDF-extended Océ PRISMA-controlled workflow provides particularly strong, added-value benefits, such as—

- An extremely versatile and comprehensive format, which carries a print job through the design and production workflow steps
- Standardised communication (e.g., job status) between systems and products from different vendors via Internet protocols
- Standardised job ticketing requirements among multiple vendor systems and products
- Facilitation of the execution of every aspect of any print job, from creation through to delivery
- Higher productivity and more efficient multi-vendor interoperability

The technical innovations of JDF-extended Océ PRISMA solutions also provide a wider range of customer-oriented benefits. These include—

- Highly automated workflows in the production process regardless of the product manufacturer
- Workflow unification for print sites with Océ and non-Océ printers
- Print just-in-time, rapidly turn around orders and make short runs profitable
- Improves workflow efficiency and increases the speed at which jobs can be produced
- Reduces reworking costs
- Better facilitates customers’ needs and processes, by providing them with seamless access to better information about costs and job status
- With differentiated services and capabilities, businesses can improve their marketing potential

Océ is committed to JDF
At Océ, we are firmly committed to JDF. Back in January 2004, Océ formally announced that the organisation would be incorporating the JDF format into new product designs, including the extensive Océ PRISMA workflow management software family. Being able to integrate new technological standards is one of Océ PRISMA’s strengths, offering investment protection—and JDF’s ability to link applications throughout the workflow matches perfectly with the Océ PRISMA philosophy.

4 JDF is the future. And the future is now
As the Graphic Arts Industry faces its business challenges, the benefits of JDF promise substantial changes for the graphics world. This is why we’ve embraced JDF and made sizeable investments into developing new, JDF-extended, Océ PRISMA solutions. This is also why Océ has invested considerable resources into supporting this standard, because customer benefit is what counts.

JDF is the future—and the future is now.

About Océ
The Océ group markets an extensive portfolio of superior products and services for professional document management. Océ helps businesses and organisations all over the world manage and exchange information effectively. Solutions from Océ comprise printers, scanners, copiers and software as well as the related imaging supplies. Océ also provides after-sale service, plus consulting services for designing the solutions and integrating them into our customers’ infrastructure. In 2004 the Océ group achieved sales revenues of 2.65 billion Euro. The group employs around 21,500 people world-wide. Océ products are marketed in some 80 countries, and the group operates its own companies in 30. For further information, visit www.oce.com.

5 The JDF extension of Océ PRISMA solutions is based on a CIP4 Work Group specification for digital printing: the JDF Interoperability Conformance Specification (ICS) for Digital Printing
Documenting Success

Océ, a leading provider of digital document management technology and services, works closely with customers to improve organizational productivity through better management of documents. Océ workflow solutions build on advanced software applications that deliver documents and data over internal networks and the Internet to printing devices and archives locally and globally. Océ innovative, customizable solutions combine Océ PRISMA™ workflow software and Océ production-class digital printers, copiers, and scanners—engineered for rock solid reliability, application versatility, and cost-effective performance. Océ backs its document solutions with expert professional services, more than 125 years of experience and award-winning Océ Single Solutions Support, which provides a unified point of service for Océ and non-Océ devices. Océ also offers a wide range of display graphics, consulting, and outsourcing solutions.

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