Maybe it's time: Making print simple™

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A recognized Printing and Prepress Industry leader for over 20 years, Janice has proven executive management, marketing, sales and technology experience in the tough world of ecommerce, prepress, print and new media. She is currently Executive Director of Network PDF and VP of Business Development with Objective Advantage; bringing together solutions to integrate the Graphic Arts Enterprise supply chain and drive automation and innovation in the industry. She provides strategic and tactical marketing for business development and implementation using accredited industry standards as the platform.

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Keywords: *digital workflow, JDF, ftp, XMP, metadata, print industry*

Abstract Information Technology is transforming our economy and society. Customers want and need three basic things as systems and technology change. This infrastructure begins to allow an entire digital workflow process to create a true manufacturing process with real time information. This process can connect with customer service for planning and into prepress. Automating print production functions with job definition format-enabled systems allows additional productivity through the reduction of labor-intensive processes.

Journal of Digital Asset Management (2006) 2, 293–295. doi:10.1057/palgrave.dam.3650049

Information technology (IT) is transforming our economy and society. Since 1995, IT has played a critical role in doubling the rate of US productivity. As much as 26 per cent of productivity improvement since 1995 may be directly related to good information systems, and even more may be indirectly related to the actions people take to improve performance.

The IT industry has over the last half century built the systems that run virtually every important industry and public institution and in the process we have transformed our national economy.

Large enterprise companies and governments around the world are rapidly trying to integrate business systems across diverse industries, functions and business processes as we struggle to accept the global connection of the 21st century.

We continue to see the value of IT with the ability for global networking and integration to provide services customers want and require for our businesses to compete and be of value in the creative economy.

We need things faster and efficient but still capable of maintaining the quality expected and provide the results we require to differentiate our product or service with creative marketing of our ideas.

We are in a global marketplace and we need value for our investment and a better understanding of how to apply technology to present more creative and efficient solutions for our customers and partners.

We need a new approach and at the broadest level the need for a true system to manage and connect assets with the creative process supporting open standards that everyone can connect into their own systems. Companies need to understand and integrate their own “Lego” solution to provide services and connectivity between systems that solve business challenges for their customers and their specific business.

We are fortunate that the graphic arts industry saw the need for standards and looked at the xml foundation of the web and made the

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decision that xml could be the “Rosetta stone” to provide the connectivity and platform for the future of publishing and communicating information. This has been the catalyst that moved the various graphic art groups down the path of defining what they need to define with xml as a specific part of the business process.

Across the industry we see constant change as companies adapt to a new way of doing business not only in print and publishing but most industries as technology provides the way to be more competitive and provide the services customers need to make things simple in our internet society and fast-paced lives.

We have embraced digital technology and digital content so completely that merely keeping up with the changes in everything from creating and producing to distributing and delivering content has become the challenge.

Let us look at how business has changed in the past several years and the ability access to information provides as a business opportunity once companies began to see the “just in time” and real time capabilities that information could provide for their business.

Businesses in the past had limited knowledge of customer’s needs and the location of inventory and decisions were made on data that could be days, weeks or even months old.

As companies across industries began to understand the power of information they began to see huge economic gains, as they understood how to use information to increase their bottom line and differentiate their business. They understood whom they had as customers and what that customer needed so they could better plan their product or service.

Customers want and need three basic things as systems and technology change:

- improved quality;
- reduced cost;
- enhanced convenience.

We have paper-based processes that are isolated and disconnected with our current way of doing business. We set up these original processes before we had the ability or idea to think of connecting between systems with intelligent information and automation.

There are several acronyms to understand that provide the open architecture and platform for connectivity.

Launched by Adobe Systems, XMP is a standardized, open technology to define and embed data about a content file — known as metadata — into the file itself, facilitating distributed information sharing and greater control over workflow, automation, rights and reuse. Adobe took two critical steps to help popularize XMP: it released the specification as open source and supported this standardized metadata handling within its own products.

But to fully realize the promise of XMP, there must be industry-wide coordination between and among those who adopt technology and those who develop technology-based tools and systems to extend the specification in ways that will help both.

There can be tremendous efficiency by understanding the interdependence of each department to create a comprehensive workflow plan that goes beyond the technology and begins to provide value to each person and part of the supply chain process.

The first step is to understand an efficient production workflow is based on the foundation of a network platform and the interaction of the “xml” metadata to support these standards and applications to provide services on top of that network infrastructure.

Collaborating with colleagues to cross boundaries, identify patterns and connect ideas can require new ways of working with each other. The democratization of design has altered the competitive logic of businesses. Companies traditionally have competed on price or quality, or some combination of the two. Globalization and technology continue to impact the way we work and live and imagine our world. This change empowers the individual and has fueled tremendous growth of software and hardware innovations that spans the entire fulfillment process of the print and graphic arts industry.

The growth of these innovations, from the creative desktop to the print and fulfillment process, has shown the need for “creative discipline” to help bring process and order to this complex craft.

As the creative options continue to expand, so does the need for simplifying and standardizing the critical information elements

that each process in the supply chain requires. The ultimate goal is the seamless and transparent connection of all the elements in the print process.

The JDF (job definition format) xml standard was designed to act as the conduit for linking the disparate points of the print process together. With JDF transparently embedded into each print process, creators of content can move closer to being assured that what they have created is what will be fulfilled. In addition, managers of the content and print process can begin to experience the benefits of a greatly reduced need for proofing and validation with an increase in efficiency of the entire process.

This JDF File format provides the job information that has been written and communicated in many different ways into an automated process. This infrastructure begins to allow an entire digital workflow process to create a true manufacturing process with real time information.

JMF (job messaging format) is the xml standard that works with the JDF process to provide the two-way communication between systems and applications for the intelligent information “highway” to optimize communication and connect systems to provide the “creative discipline” that provides value to both sides of the process.

The data in a JDF file travel from the job submission and prepress process into the MIS or business system of the print provider and can also integrate with the business system of the enterprise or creative organization. This process can connect with customer service for planning and into prepress. This can automate tasks such as makeready to include ink key settings, sheet setting, etc to manage getting the press “up to color” quickly. The prepress and pressroom can benefit from JDF, all the way into the finishing and bindery with intelligent information to “set-up” equipment such as folders and saddle stitchers.

Automating print production functions with JDF-enabled systems allows additional productivity through the reduction of labor-intensive processes. For example, as schedules are

optimized based on the real time flow of information, the time and staff required to perform material handling can be minimized.

Efficiency in workflow requires the understanding and approach to map out what you do today and how you would like to interact by working with the possibilities that industry standards can provide. The first step is to analyze the elements within your workflow.

These consist of the basics to understand and analyze across your organization and supply chain of customers and partners:

- communication;
- file transfer;
- job submission with file organization and standardization to include versioning and archival;
- preflight to make sure the file meets the specifications or requirements for production quality;
- layout and photo editing;
- proofing.

Effective communication should exist between all of the phases of production for maximum efficiency and convenience to the consumer who needs to create and manage the content.

The goal is to achieve the investments in technology and human capital to achieve the highest level of productivity both for the customer as well as the production and fulfillment process.

Change is difficult for many people to accept and a project champion can be a valuable asset as you and your company begins the journey to automation and the understanding of these xml standards and how they can provide the foundation for creative discipline and automation.

Innovation for the sake of innovation is an abject waste of capital, but innovation for the sake of ongoing cost. Avoidance is an imperative! Each company must conduct an analysis of their respective workflows and business model to determine if the implementation of improved automation is, at that time, simply innovation, or innovation to save capital as they move forward.