

# FreeFlow Variable Information Workflow

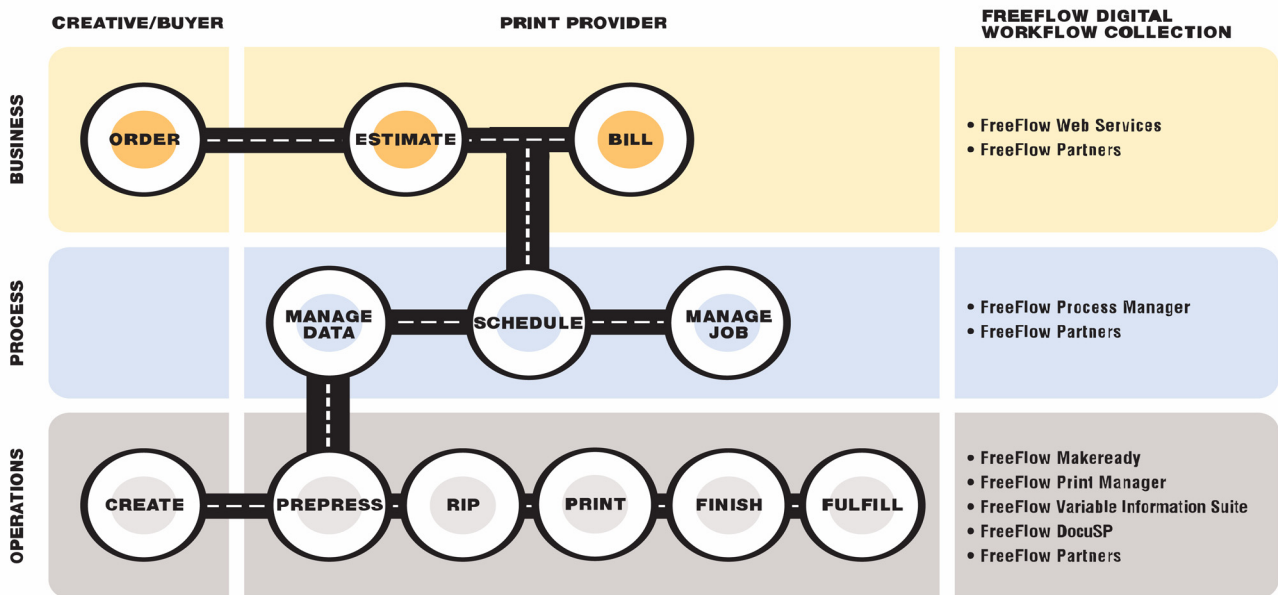
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## Abstract

Variable information (VI) printing comes in many forms, ranging from black-and-white transactional printing, intended to simply relay statement and account information, to full-color personalized communications used to promote or sell a product or a service, or to solidify and enhance customer relationships. One common component of all VI applications is the use of data to bestow relevance or add value for the recipient.

Variable data printing can be a highly effective communications tool for businesses, and a strategic service offering for printers searching for renewed relevance in an increasingly wired world. Few other applications are as illustrative of the new demands placed on print providers to deliver highly targeted and relevant communications in ever shortening time frames. VI applications can be demanding, and call upon a full range of resources, and careful coordination between the printer, designer, and client.



Xerox approaches VI printing within the context of FreeFlow, a multi-tiered framework for assembling end-to-end workflows from highly modular hardware and software components. The four cornerstones of FreeFlow are standards, modular Xerox products and solutions which share common platforms and components, optimized partner products, and value-added business resource tools and services. Xerox's goal is to embed its nearly thirty years of experience in developing and supporting VI printing into the a workflow architecture that customers could utilize across a full range of printing requirements.

Integration and flexibility within FreeFlow is achieved through standards-based modular hardware and software components which can be mixed and matched and reused for a variety of applications. **VIPP** is Xerox's core strategic offering for VI printing. It is based on Adobe PostScript and enables high-performance VI printing on any PostScript device. VIPP separates the portions of a VI job which are unique to each page from elements which can be repeated or reused throughout the job. Separating unformatted variable data components from formatted elements drastically reduces file sizes and greatly speeds up the rasterization process. Xerox provides a VIP SDK to developers and partners who offer

a variety of interactive tools for generating VIPP coding. FreeFlow partners such as Atlas Software BV, Datalogics, Document Sciences, Elixir, Exstream, Group1, Press Sense, Lytrod, Meadows Publishing Solutions, Pageflex, and XMPie all offer products that emit VIPP. Xerox also partnered with Adobe Systems in developing the VIPP Thin Printer, which outputs standard PDF.

While Xerox believes VIPP is a versatile, stable, high-performance VI solution it recognizes some customers may need to support other output languages. Creo **VPS** (Variable Print Specification) is supported on Creo RIPs that drive Xerox production color devices, including the DocuColor family and iGen3. **PPML** (Personalized Print Markup Language) is an open source XML application for VI printing supported by the full range of Xerox production equipment.

The print controller plays a central role in VI printing. Xerox color equipment can be driven by high-performance controllers from Creo and EFI, or by Xerox's own DocuSP controller. Print providers who currently offer VI services, or may be considering adding variable data printing may be considering an upgrade from monochrome to full color, or from cut-sheet to continuous-feed monochrome equipment. The DocuSP, or Common Controller, shares the same hardware platform and software architecture across all Xerox production equipment, making migrations and upgrades much more feasible by protecting investments in operator training and application development.

VI applications demand a great deal of cooperation among a variety of players, including advertising and

design professionals, database managers, business line managers, and marketing executives. VI solutions configured with FreeFlow support **JDF** (Job Definition Format), which makes it easier for VI project participants to interface with the production process.

Xerox is currently working with more than 100 business partners. Twenty-five partners now offer 31 products which are officially optimized for FreeFlow. Their products use Xerox SDKs and have a passed a certification process, ensuring the products are fully integrated into FreeFlow and make full utilization of production devices. FreeFlow services include VI workflow assessment, systems integration, application programming support, and business development.

Xerox has taken a definitive step forward in laying out and executing a workflow strategy for VI printing that not only serves their business, but the businesses of their customers as well. The FreeFlow framework delivers flexibility for customers to assemble solutions that tap into the long heritage of Xerox expertise in transactional printing, full-color production printing, paper handling, and finishing. It provides one common set of tools that providers can integrate into their existing production environment, and equally important, into the environments of their customers.

*Excerpted from the Freeflow Variable Information Workflow White Paper, available from [www.xerox.com/freeflow/](http://www.xerox.com/freeflow/).*