

# Digital Publishing **SOLUTIONS**

DIGITAL DOCUMENT SOLUTIONS FOR BUSINESS

MAY/JUNE 2003

## The Automated DOCUMENT FACTORY

**REDUCE** Overhead, **IMPROVE** Quality, and  
**MINIMIZE** Inventories in Print-to-Mail Operations

**BEST PRACTICES**  
MARKET DEMAND  
FOR ON DEMAND  
BOOK PRINTING

**DOCUMENT STRATEGIES**  
USING VARIABLE DATA  
TO COMMUNICATE

**SHOWTIME**  
ON DEMAND AND  
AIIM 2003 RECAP



# The Latest On

FINDING GOLD  
IN A LIGHTS OUT  
OPERATION

# ADF

## Implementations

**Print-for-pay and corporate inplants** are realizing that they can make hay while the sun doesn't shine with an effective Automated Document Factory (ADF) implementation. While staffers are sleeping, these shops are printing thousands of documents: collating, folding, and inserting them into envelopes, and sending them to a shrinkwrapping station before delivering them to the post office to mail or, in some cases, to a computer server to email to customers. ▼ Those who are still running multiple manned shifts and still can't find profits may be falling into a trap that is all too common. The question for these operations is this: Are you 100 percent confident that you printed and mailed everything you were supposed to?

BY CHERYL D. CULLEN

For an automated system to work, it requires more than filling up the digital presses with eight hours worth of paper,” says Scott Bannor, national sales manager, PrintSoft Americas, Inc., Barrington, Ill., which provides document composition tools that users to send personalized messages via mail, email, fax, Internet, XML, and SMS.

### What’s in a Name?

Although the Gartner Group, the leading provider of technology and business research and advisory services, was first to coin the term “Automated Document Factory,” vendors selling all or part of an ADF have developed their own name for the process. Whatever its name, ADF typically refers to a “large scale, integrated mail, messaging, and document management process through a closed-loop messaging process that involves both digital and document creation, production, distribution, receipt, and updating of enterprise systems,” says Karl Schumacher, vice president of global strategy, Pitney Bowes, Document Messaging Technology.

Xerox Corporation uses the term, Automated Production Workflow, which encompasses everything having to do with the management of a print job from acquisition through payment receipt. “Some vendors only focus on the print-

Some vendors only focus on the printing operation, but Xerox believes the focus on increased efficiency must be applied in all aspects of the entity’s value chain.

—Greg Jones, Xerox Corporation’s Production Systems Group, vice president, marketing of the Monochrome Solutions Business Unit

ing operation, but Xerox believes the focus on increased efficiency must be applied in all aspects of the entity’s value chain. This is accomplished by integrating key information such as page counts, processing time, finishing processes, paper stocks, etc. across the enterprise,” says Greg Jones, Xerox Corporation’s



### Active Data Services, Inc.,

Durham, NC, reports it has taken the Automated Document Factory one step further, developing what it calls “the next generation intergrated Document Facility.” The company’s Active Data Integrated Document Facility ingests any content, stores all types of data and information in the Active Data Vault, and then produces millions of personalized business communications that can be distributed both in print or electronically for multiple clients simultaneously.



Production Systems Group, vice president, marketing of the Monochrome Solutions Business Unit, Stamford, Conn.

At the heart of Xerox's system is the DocuSP and DigiPath platforms integrated with Xerox digital printers, such as DocuTech, DocuPrint, DocuColor, and continuous feed products. These platforms provide commonality across the 27 Xerox production engines. Finishing partners such as Bourg and Plockmatic and various hardware and software partners such as Creo, EFI, Adobe, and Avanti complete the tools a user would implement to make up this system, enabling Automated Production Workflow.

Active Data Services, Inc. in Durham, NC says it has taken the ADF one step further, developing what it calls the next generation Integrated Document Facility.

"The Automated Document Factory prints millions of the same bill and or statement in an assembly line," says Jeff Cohen, vice president marketing, business development and creative services, Active Data Services, Inc. "Active Data's Integrated Document Facility produces more than 200 million personalized print and electronic communications such as bills, invoices, transactional documents, financial statements, trade confirms, policy renewals, explanation of benefits, newsletters, enrollment kits, and direct mail across multiple channels of distribution with reliability and accuracy."

Pitney Bowes isn't as picky about the name as other companies and it does offer both the hardware and software users need to get started. "Pitney Bowes is the only company to present a truly integrated solution, which includes the hardware, software, and services to engineer the flow of communications throughout the enterprise. Our solution offers business the bottom-line results they are seeking," says Schumacher, citing everything from Pitney Bowes' ability to decrease labor and optimize assets, increase application flexibility, lower maintenance cost, increase uptime, and of course, realize postal discounts.

## Nowhere is Tracking a Document More Important than at the Post Office

Some people may say that "intelligent mail" is an oxymoron, but that is exactly what is the centerpiece of a venture at the United States Postal Service (USPS), which aims to not only improve and assure the ultimate delivery of mail, but also to provide companies with a way to tie backend data to a dynamic, re-engineered, Web-based, front-end customer interface.

Working together, the USPS and vendors like Pitney Bowes are enabling companies to reengineer their flow of communications by capturing customer interaction data from the document creation process, rendering it both on the document and in control files that synchronize with the feeds from physical flow data, and then providing the information via browser-based reporting systems to key business processes.

As a result, Intelligent Mail can deliver significant benefits to the enterprise by linking the document output process with finance and treasury operations, call center functions, security tracking, and marketing campaign management.

"Intelligent mail uses data-rich, machine-readable markers to give each mailing piece a unique, trackable fingerprint," says Karl Schumacher, vice president, global strategy Pitney Bowes Document Messaging Technologies. "The encoded information can be communicated remotely to the postal carrier and to other interested parties. And since the data can be easily incorporated into reporting, accounting, and planning systems, Intelligent Mail makes the USPS mail channel safer, more assured, and more data-rich than ever been before.

"Companies can leverage Intelligent Mail by utilizing two tracking devices per document," he continued. "One is a piece ID number linked either to an account or individual, and the other is a channel tracking symbology, such as a Planet barcode. This tandem of data allows the mailer to track the document through the entire create, produce, distribute, response cycle. The aggregated data includes information on the customer name/account, the status of the mail piece within the document factory, and details of its movement via the USPS CONFIRM database for both outgoing and incoming delivery."

Pitney Bowes has taken this capability one step further by developing a way to feed the data back into the enterprise via a Track and Trace technology. This technology provides a means to verify mail piece integrity, track on the piece-level, obtain proof of mailing and acceptance processing, aid in fraud detection and collection efforts, facilitate image archiving, integrate with customer call centers and self-help resources, and provide early detection of undeliverable mail as well as proactive delivery notification.

"Some industry observers believe that the thirst for data and details related to customer interaction is so great that spending on Customer Relationship Management initiatives will increase ten to 15 percent this year," says Schumacher. "Indeed, nearly half of more than 100 firms surveyed by Forrester Research report they plan to spend more than \$750,000 this year on marketing automation applications.

"Yet," he adds, "despite these investments, it is becoming clear that improved processes and strategies, rather than just new software tools alone, are the key to better call center performance. And that integrating the essential data from the print/mail finishing operation into the call center function may offer the best opportunity to unlock the value of these continuing investments and initiatives in marketing automation."



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Other companies, like PrintSoft Americas, specialize in one aspect of an overall ADF. In its case, PrintSoft provides document composition software for the front end of the process.

### Is an ADF for You?

The pat answer to who should implement an ADF is any company that generates data, content, and information that needs to be personalized and communicated with target audiences in various formats. Put the dictionary aside and a more concise criterion for deciding if an ADF is for you is to measure the value of your documents.

“You could say that the ideal customer is the person who prints half a million pieces and up, but if those pieces are junk mail with only a .46 percent response rate, you don’t need to track that stuff,” says Bannor. “You only need to start tracking direct mail when the value of the

document justifies it. There’s no threshold as far as the number of pieces printed, but the threshold is in the value of document,” he adds. “If printing 20 documents a year, it is probably not worth putting in an ADF, but on the other hand if you’re printing documents worth \$25,000 to \$30,000, each document is really critical to your operation, you’d definitely want some kind of tracking capability. Even if you’re printing relatively few documents, but they are very targeted, very focused mail pieces, you would absolutely want to know they were sent and you’d want to be able to track them.”

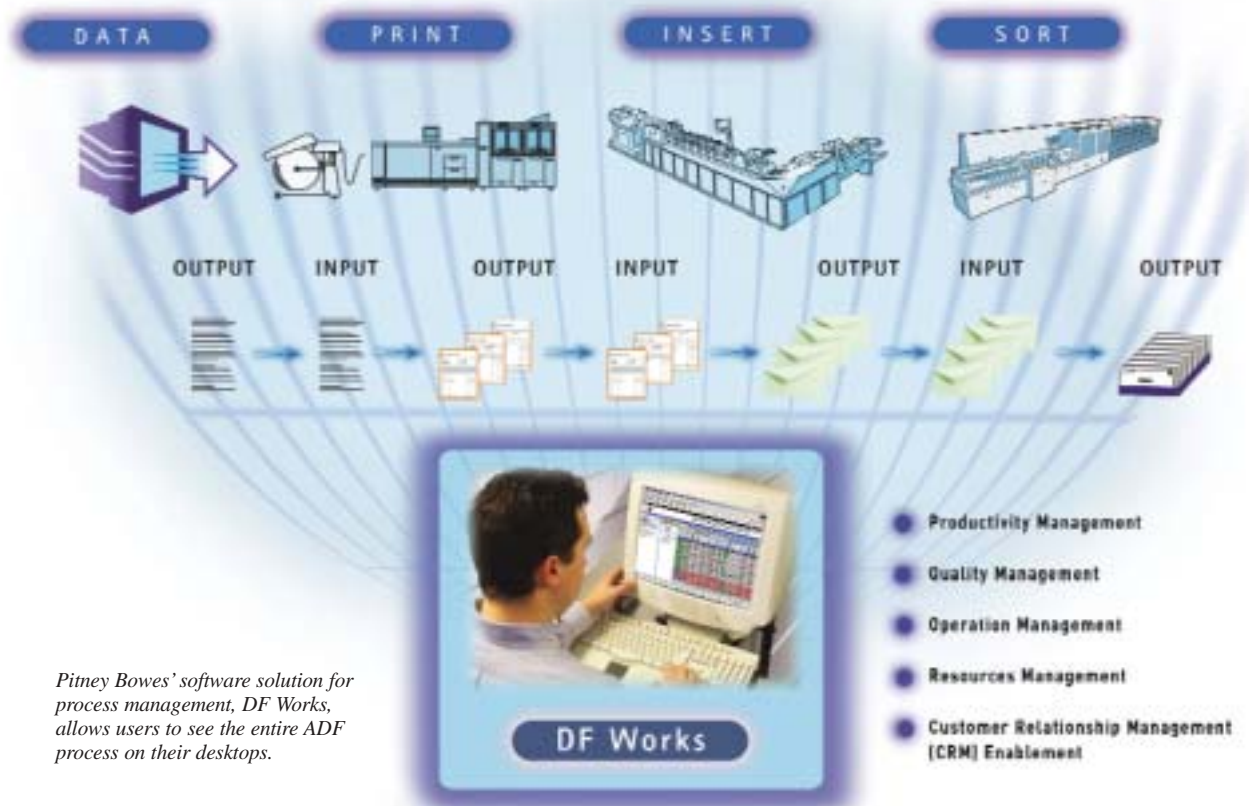
Reducing costs is the major motivator for implementing an ADF, according to David D. Day, director, solution sales, Sefas Innovation, Inc., Woburn, Mass. The company’s Open Print suite of software is an ADF management system that provides document solutions via modules designed around the ADF principles.

“Document production costs are estimated within a range of six to 15 percent of corporate revenue. In many cases the cost of postage alone is greater than the entire IT budget. Employee costs are escalating as are equipment leases. Customers are demanding tighter controls, especially in the health care and insurance industries with HIPAA (Health Insurance Portability and Accountability Act of 1996) requirements coming on line. Service Levels Agreements are becoming tighter so automated controls, tracking, and reporting are required.”

### The Most Critical Piece of an ADF

“The most critical part of ADF is the document,” says Bannor without hesitation. “It isn’t the printer, the host, the finishing system, or the bar code reader. If you don’t build intelligent documents, everything else you do in implementing an

**Data is collected from all document output processes and made available to each user aligned with critical needs of the organization and the customer.**



*Pitney Bowes' software solution for process management, DF Works, allows users to see the entire ADF process on their desktops.*



## Q&A: IS AN ADF FOR YOU?

*Xerox Corporation provides companies with a checklist to gauge if they are candidates for Automated Production Workflow:*

- ➔ Are you employing some type of shop management or billing software?
- ➔ Are you already serving the print-on-demand marketplace?
- ➔ Are you using or starting to use digital production printing?
- ➔ Do you have extensive prepress and finishing requirements?
- ➔ Do you want or have to become more competitive to survive?

"These candidates all realize they need to improve more than the way they print, finish, etc.," says Greg Jones, Xerox Corporation's Production Systems Group, vice president, marketing of the Monochrome Solutions Business Unit, Stamford, Conn., of the checklist.

Companies that answer yes to the questions "are ready to move the process to a new level of productivity for the whole organization."

ADF strategy is worthless. If you can't identify every page of every job and understand some of the content of that page, nothing will work.

"Whatever it might be," he adds, "the document has an effect on the relationship the company has with its customers. That document may be the only tangible proof that the company that sends the document is doing something for them."

Schumacher agrees, adding, "Having the ability of tracking the document is most important—where it is in the process from when it leaves the building to when it reaches the customer and then comes back. It is important to look at the entire process rather than just getting the document out the door. Ninety-nine percent of all people are only concerned about getting it out the door."

"You want to know that you actually did print what you thought you printed and maybe more important, not only do you know that you printed what you thought you printed, but you didn't miss a page or duplicate a page," Bannor says. "People say, 'We don't need that. We have ironclad manual quality control.' That's an oxymoron. Companies like that only realize they don't have a zero defect operation when something really big goes wrong, like printing duplicate payroll checks."

However, an ADF is "not limited to simply an integrity check to verify the piece was mailed, a true ADF monitors and maintains all configuration details for the customers, jobs, composition, printers, and inserters providing the flexibility to meet or exceed predetermined service level agreements while maximizing human and machine capabilities," adds Day.

### Perception Versus Reality

Surprisingly, one of the biggest misconceptions about ADFs may be the degree of automation. "Very few ADFs are completely automated from beginning straight through to the end," says Schumacher. "We've asked companies, 'What percentage of your process needs to be automated before you can consider yourself an ADF?' The answer is probably being about 45 percent."

Otherwise, Schumacher says the other myth surrounding ADFs is harder to overcome. Too many companies see ADFs as just a mail room. "There is a lack of recognition that the true ADF can provide companies with that critical contact to make their monthly appointment with their customer base meaningful," he says. "A majority of businesses tend to recognize transactional mail—in both print and digital—as a necessary expense. Instead, it must be viewed as a strategic marketing tool comprised of customer-rich information that is leveraged to make intelligent decisions that impact revenue. When companies dare to be innovators they can transform their customer communications and business processes by deploying ADF solutions, such as document creation and production tools that can gain a competitive advantage

through increased customer satisfaction and lower operational expenses.”

Bannor agrees. “Print-for-pay mailers know they are making money off of printing,” he says. “On the corporate side, printing is something that goes on down in the basement. It is an expense and they struggle to understand how strategically important it is. Since the challenge is to get recipients to open your mail, why wouldn’t you want to use a document that you know they are going to open, like asking boat owners if they want to

add their boat to their insurance policies when you send them their automobile premium notices. Now you’ve changed a transactional document to 50 percent document and 50 percent marketing. How do you make that happen. You have to include guys in the basement and in I.T. That’s where it is going to happen.”

“I think most people think it’s a single system/product that a person buys and brings into a shop to make it more efficient,” says Jones. “Some would say that the Xerox Automated Book Factory is an

example. It is a solution the feeds roll paper in and outputs perfect bound, trimmed books. While this makes the production of short-run books a reality, we view it as only one of a series of tools that are improving an enterprise’s ability to compete more effectively in the print on demand environment. A more complex Automated Production Workflow with Book Factory could send production data and usage information over the Web into enterprise production, inventory, and billing systems.”

## Who's Who in the Automated Document Factories Arena

Manufacturer Name	Product Name(s)	Markets Served
<b>Active Data Services</b> <a href="http://www.activedataservices.com">www.activedataservices.com</a>	Active Data Healthcare Suite Active Data Financial Services Suite Active Data Government Suite Active Data Enterprise Suite Active Data Scan2Web Active Data Vault Active Data e-Presentation & Payment Active Data Research Active Data Market	Healthcare, Pharmaceutical, Education Brokerage, Credit Union, Insurance, Mortgage Federal, State, County, City, Town Manufacturers, Retail, Software All verticals All verticals All verticals All verticals All verticals
<b>Pitney Bowes</b> <a href="http://www.pb.com">www.pb.com</a>	APS (ultimate high speed inserter for advancing productivity) DF Works (software solution for process management) StreamWeaver (print stream manipulation software) D3 (electronic presentment and payment software ) FlowMaster (high-speed flexible inserter for letters and flats mail) FX Series (high-speed intelligent inserter system for letters and flats) Olympus II MT (sorter) Direct Connect (inserter control system) PostbackOffice (track and trace)	
<b>PrintSoft</b> <a href="http://www.printsoftamericas.com">www.printsoftamericas.com</a>	PReS, NEWLEAF prePReS, Professional Services	All
<b>Sefas Innovation, Inc</b> <a href="http://www.sefas.com">www.sefas.com</a>	Open Print	Financial, Government, Healthcare, Utilities Service Bureau
<b>Xerox Corporation</b> <a href="http://www.xerox.com">www.xerox.com</a>	Equipment throughout document cycle, including prepress, products, front end devices, workflow equipment, digital presses, and postpress products	Data Center/Service Bureau, InPlant/CRD, QuickPrint and Commercial Print—virtually every industry and SIC code



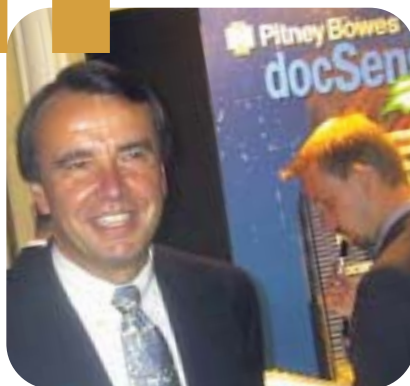
“Many users simply monitor the print and inserters via a barcode reader or camera,” says Day. “Since they record all the pieces, they consider it an ADF. While this method provides reports on the action of the devices, they do not provide any load balancing, utilization of consolidated reporting. There is no flexibility to meet changes in demand without starting back at the source data. Without taking all aspects of the business processes into account, many companies build an ADF that only addresses a few of the aspects of the process.”

### Ensuring a Return on Investment

Return on Investment (ROI) is “user dependent,” says Schumacher. “Some customers may start with one or more of Pitney Bowes hardware or software solutions. From there, we help customers define their requirements so we can deliver develop an ADF solution that meets their specific business needs.”

“While ROI can be achieved in as little as a few months for a point solution, substantial ROI can be achieved with a renew and refresh of the complete document infrastructure,” says Day. “Customers have implemented Sefas solutions themselves, with help from our professional services and as a complete turnkey system. The ROI can be seen in a less than a year in most cases. There have been reported ROI in much less when the ADF enhances the SLA and load balancing.”

“The idea is to drive costs down, raise revenues, and remain relevant to your organization,” adds Jones. “We drive costs down by taking steps out of the process. Those costs can include training costs or labor costs. We offer a toolbox of products and services that are integrated across our product portfolio. An example is Xerox DocuSP, which can export real time production data to your existing management system over the Web. It monitors inline finishing systems for quality assurance of the output and it also combines color and monochrome output into a single finished job.



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*—Karl Schumacher, vice president of global strategy, Pitney Bowes, Document Messaging Technology*

“The average initial investment varies widely. The most difficult step is your first one. It often means replacing an existing analog printing device with a commonly architected digital one. A simple next step is to connect your DocuSP printer to your shop management system, for example. If you are already in the digital world, moving into new Web services or new applications like personalized printing is the next step. You can do this by using tools like Xerox’s one-to-one communication solutions or DigiPath for Web viewing and job submission.”

In some cases, there is no upfront cost. “Prospects have no upfront investment in the Active Data ASP business model and pay based on volume or usage. Therefore prospects will have specific needs that will have the Intergrated Document Facility begin work, which then grows using all the features and functionality within the solution suites,” explains Cohen. “The ASP model is a pay as you

go scenario, so the most upfront monies is for the application setup which on average is \$10,000. Depending on the application, return can be as soon as 30 days, and usually 120 days.”

### The Bottom Line

“The industry now offers several commercial choices when looking at ADF solutions, but many remain closed, proprietary systems that are difficult to implement and scale. This is evidenced by growing number of internal operations that continue to build these systems internally due to functional or architectural gaps in commercial solutions,” says Kemal Carr, principal analyst, Madison Advisors, Colleyville, TX, a company that tracks, analyzes, and evaluates various industry solutions. “The most successful implementations have leveraged multi-vendor offerings representing best-of-breed solutions with compatible technologies, rather than a single point solution.” ■



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