Post-Composition: magic bullet for the new ADF?

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Post Composition tools are becoming strategic to organizations

The ability to modify existing print streams and document applications “post-composition” is not a particularly new concept, but it is one that has gained increased importance and popularity.

The ability to enhance and make changes to enduring documents like statements, notifications and customer correspondence in the post-composition phase of production has become ever more strategically important. Specific drivers, like the imminent USPS conversion to Intelligent Mail Barcodes (IMB) and the popular adoption of “trans-promo” documents, have fueled revitalized interest in post-composition tools, while the need to optimize production with factory-like tracking and efficiency has brought document processing to new attention and strategic consideration.

While post-composition tools with various and evolving capabilities have been on the market for several years, most are not fully deployed; application has typically been limited to rather constrained functionality or used to solve an isolated problem – swapping a barcode or adjusting an address block. The complexity of the tools and the resources needed to take advantage of the full benefits available made efforts simply more involved than most organizations were willing to tackle.

But companies are now taking a broader look at post-composition tools like Open Print Remake™ – not only as vehicle to facilitate pragmatic modifications like IMB conversion, but also as a way to unleash new options to optimize the overall performance and production of their mission-critical documents. Companies find that by using Remake™ they can improve efficiency, achieve cost reductions, and bring their document environment to the next level of Information Age performance in ways that were simply not possible in the past.

In this newsletter, we will explore how post-composition tools, like Open Print Remake™, are now seen as strategic for many initiatives and process improvement efforts. Here are a few to consider:

**IMB Conversion** – Conversion to the new USPS Intelligent Mail Barcodes will be required in 2009 and is one clear example of how Sefas Remake™ can be a valuable and viable alternative to extensive and costly reprogramming.

**Trans-Promo** – The industry is buzzing about “trans-promo” as a way to improve the relevance and effectiveness of customer statements. Remake™ gives companies the ability to create and execute common trans-promo applications rapidly, and without the need to redesign the document.

**Efficiency and Costs** – Advancements in digital color printers and automated mail inserters give companies the ability to optimize production with factory-like efficiency. Remake™ unleashes these improvements and modifications with an increased level of post-composition capability and flexibility.

**Foundation for an ADF** – Realizing the objective of an “Automated Document Factory” is no longer reserved only for organizations with a high level of funding, resources and determination. Companies of all types and sizes can leverage the post-composition capabilities of Remake™ is a foundation for an ADF.

**Open Print Remake™ – An Essential Component of your document production chain**

Many of our large customers, financial institutions and services bureaus have achieved a variety of efficiencies and savings using Remake™ and regard the post-composition capabilities they have gained as a key element of their document production chain. Their most critical applications go through our system and any time they
want to make a change they have a singular point of control. They can change and enhance everything they produce without having to modify each and every application.

We hope you find this newsletter to be an informative and useful resource as you explore how the post-composition capabilities of Open Print Remake™ can help bring about important capabilities and improvements for your organization.

Jean-Philippe Sarraut  
CEO, Sefas Innovation
Part 2 – Evolution of Post Composition Tools

It used to be just heavy programming and scripting

Most post-composition tools on the market are programming-intensive; you have to be a programmer to leverage the capabilities and you have to do a lot of coding to affect a change to an application. As a result, many customers initially turned away from early post-composition solutions due to the high level of skills and resources required. Other organizations found limited success because they could not reuse their application to process different types of jobs because their application was so dependent to the incoming data stream.

Leading the way with an easy to use GUI as early as 2002

In 2002, Sefas began to take post-composition functionality to a higher level in terms of ease-of-use. We were the first company to introduce a graphical user interface (GUI) designed to easily perform the most complex types of document changes with limited use of scripting.

Making important changes and enhancements using the Remake™ GUI is simple. You view the document, draw boxes to define the specific areas you want to work with, and then apply modifications that are independent of the original data streams. Since Remake™ is an object oriented tool, you can easily access and define the elements you need – page number, address block, barcode, account number, etc – and then create a variety of new conditions. Remake™ allows you to transform the enhanced documents into any common output format regardless of the initial data stream format.

Remake™ makes post-composition changes easy.

Here are just a few of the many possibilities:

- Colorize your documents
- Add marketing messages
- Add Onserts to eliminate physical inserts
- Add charts and graphics
- Reposition data or address block
- Add IMB Barcode
- Replace OMR mark with 1D or 2D Barcodes
- Convert from simplex to duplex
- Transform data stream to individual PDF documents

The ease-of-use with Remake™ is unmatched, and when combined with the ability to reuse common objects across all applications the tool provides you with a level of capability that was previously very difficult with other tools.

Remake™ Makes Post-Composition Changes Easy

A three step process

Step 1: Input data-streams are converted to VPF

Step 2: The VPF data-streams are enhanced

Step 3: Documents are rendered in the desired output format

Source: Sefas
The importance of data stream independence

A number of industry standard data streams are at work in organizations today. The host of protocols — including AFP, Xerox LCDS and Metacode, PCL, PS, PDF and others — represent an alphabet soup of platforms from which to choose. Each has distinct characteristics and benefits for different types of applications. Data stream diversity has been a perennial stumbling block to document enhancement efforts since most of the tools on the market are not data stream independent and therefore prohibited meaningful progress for anything other than isolated applications.

Remake™ provides a bridge across all applications by converting all the input data streams into the Sefas proprietary Virtual Page Format (VPF)™ regardless of input file type. This way, companies engage a single application that will work with all the various flavors of input they must manage. Data stream independence is important when enhancements involve many different applications across the enterprise. Consider, for example, the need to remove old OMR marks and replace them with a 2D barcode. This is a fairly common production upgrade, but working with multiple input files in multiple data formats can be time consuming and require specialized expertise and programming. With Remake™, you can write a single application that will work with all the various input files, perform the 2D barcode replacement, and output the job into a common output for printing and electronic delivery. Data stream independence makes a Remake™ application reusable for many applications.

The importance of data location independence

Many companies live with the fear that if they change their document application, and data moves slightly, their post-composition modules will no longer function correctly. After all, with most post-composition tools if the locations of an element like an address block, account number or tracking code varies by only a fraction of an inch the chances of something going wrong greatly increase. As a result, companies resist the use of post-composition tools and make costly changes to the application to avoid putting production at risk.

A Remake™ application can be designed to work independently of the location of the data. The product looks for certain information in pre-defined areas on a page in either fixed or floatable positions. The defined areas can be created much larger than the actual information to be mined in order to accommodate variations or future changes. The result: The exact location of an address block or an account number can change slightly from one page to another, or from one source application to another, without causing the Remake™ application to fail. This makes your application more robust and less sensitive to any variation.

The new version of Remake™ features greater ease of use — coming close to composition tools

At GraphExpo in Chicago during October 2008, Sefas is unveiling its latest version of Remake™ due for release in early 2009. This new version brings post-composition to a new level of ease of use by allowing users to make applications changes in no time. Sefas has worked diligently to bring key composition and post-composition capabilities together within Remake™ by leveraging many of the robust features found in MiddleOffice™, the Sefas document composition platform. Like MiddleOffice™, Remake™ is now a web-based tool that encourages true document collaboration by enabling users to access the tool in real time from any workstation connected to the Internet without installing any software on their workstation.

Core to the new version of Remake™ is the use of a central repository that allows developers to store, manage, and re-use existing building blocks across applications. This encourages and enforces the use of standards, cuts development time, and facilitates the maintenance of applications. Corporate designers define standard templates used company wide, for example, while marketing professionals define strategic branding and marketing messages, and business users design documents using the dynamically changing elements.
Since the tool is an object-orientated environment, and objects are reusable, Remake™ allows companies to create an object under centralized control – a barcode for example – and have that element available and deployed for all applications across the enterprise. At the same time, document designers and stakeholders have widely dispersed and easy accessibility to collaborate, modify and implement document changes and enhancements without the risk of causing difficulty with “locked down” production elements such as barcodes or address blocks.

This new version of Remake™ allows companies to better manage their enhancement objects, define document presentation standards, and dramatically reduce development time.

**Enterprise class architecture**

Now that companies use post-composition as a core component of their document production workflow, any tool or solution must meet the most demanding architectural requirements in terms of platforms, scalability and security. Thanks to its commitment to enterprise-class products, the design environment can run on any server and utilizes a JDBC compliant database. Security is provided by LDAP access. The production engines are available on all the most common platforms. These include Z/OS or Z/Linux on mainframes, and virtually any flavor of Unix including AIX, Sun Solaris, HP-UX and Linux as well as Windows. From the scalability point of view, Remake™ was designed to handle the highest volumes in the industry and take advantage of horizontal and vertical scaling methods to process in excess of 50,000 pages per minute.

Our largest customers rely on Remake™ to process all their mission critical documents produced in their print and mail operations. As a result, IT directors and decision-makers are becoming more and more involved with the systems and processes involved with document production. After all, documents are a key component to doing business, and developing factors like IMB, trans-promo and ADF-like optimization are driving a higher level of involvement and focus on document systems.

Document production is now considered a critical function that must be monitored and optimized or the company will be exposed to increased expense and risk.

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**Part 3 – Remake™ as the solution to implement IMB**

**Solving the IMB challenge**

Conversion to the upcoming USPS Intelligent Mail Barcode is one clear example of how a post-composition tool like Open Print Remake™ can be valuable. The new IMB will soon be required for organizations in order to retain eligibility for high volume mailing discounts. Companies without a migration strategy risk serious financial impact; postal discounts can mean millions of dollars saved in mailing expense and organizations that fall behind may pay a high price.

Implementing IMB across multiple applications can be a complex endeavor. The scope of the effort literally touches all applications across the enterprise. Regardless of whether they come from a legacy application or another document composition environment, each individual application requires modification. As a result, without a post-composition tool, the task of implementing IMB requires extensive reprogramming and may likely encompass many different jobs and thousands of lines of code. Multiply this complexity across all the various lines of business and applications, and the cost, effort and expertise needed to implement IMB is very high indeed.

Companies find that implementing IMB is best done in the post-composition phase. For example, Remake™ can easily remove older Postnet barcodes from your legacy documents and replace them with the new IMB. In one conversion effort completes the migration to the new USPS standard and ensures optimal postal discounts across all the documents. Since the jobs are centralized via one point of conversion there is no need to reprogram all applications – Remake™ automatically makes the necessary changes.

Source: Sefas
The opportunities beyond IMB

While IMB conversion may seem somewhat compulsory, it is also an excellent opportunity to enhance and optimize your document production environment. First is the opportunity to “normalize” your output in ways that can save money and build systemic efficiency. For example, with Remake™, an address block is a standard object that is tied across all the documents and platforms. This ensures a standardized placement for all your applications. Another opportunity is tracking; Remake™ can implement an integrity barcode – 1D, 2D or even use the IMB – to establish a unique document tracking number and allow your operations to monitor the location and status of each document being processed. With Open Print Delivery™ you can also interface with address preparation software (CASS, PAVE, NCOA) to cleanse mailing addresses and reduce the impact of undeliverable mail.

Companies that take advantage of the opportunity to optimize their existing print streams can find further automated mail processing improvement via “house-holding” – the act of delivering different documents intended for the same household in a common envelope. House-holding allows you to dramatically reduce mailing costs because you are mailing a fewer number of mail pieces to the same address. When you consider that the cost of each finished mail piece is about 50 cents (postage, paper, envelopes, etc), house-holding can have a huge impact on the bottom line.

Electronic comingling is another opportunity to bring about additional savings and efficiencies, plus leverage investments in printing technology. Job merging, often used in combination with a postal presort package (PAVE), greatly enhances efficiency by comingling once disparate production jobs together according to the sequences and batches that will make best use of your production equipment. Rather than singular printing and mailing runs, jobs from different applications and customer segments are merged and sorted to facilitate the best and most efficient production. High speed, digital color printers are maximized in terms of their flexibility and speed. Automated inserters and sorters are leveraged for maximum processing efficiency and to reach higher Zip Code concentrations. Addresses are cleansed and updated to ensure the most accurate processing. Through it all, Remake™ makes sure that the inserter marks and integrity barcodes are properly generated for each output run regardless of the sort scheme.

Source: Sefas
Part 4 – Remake™ as the solution for Trans-Promo

The challenges of trans-promo

“Trans-promo” is an approach that mixes transactional printing with digital color output and variable marketing data with the aim to improve the relevance and effectiveness of bills, account summaries and customer statements. Until recently, companies typically approached trans-promo efforts at the document composition phase, electing to build new applications from the ground up. While there are advantages to this from-scratch approach, the problem is that the process can take forever to complete. For whatever reason – lack of tools, lack of resources, lack of personnel and skills – designing trans-promo documents at the document composition stage can often be a prohibitively long and laborious process. By the time all the pieces are in alignment, months, or even years, can pass before the effort is complete.

Remake™ is a tool that allows you to create and deploy trans-promo documents more easily across all your various enterprise applications since it was engineered to create and execute common trans-promo applications rapidly, and without the need to redesign the document or reprogram the source code. In our experience, even our customers with existing and robust composition tools see the value of Remake™, often as the first tool they reach for to make important changes while acknowledging that their long term objectives point to eventual large scale deployment via a formal document composition tool like Open Print MiddleOffice™.

Effectively managing the many different types of messages, facilitating which messages will be sent to which recipients, and tracking ongoing promotional activities requires a sophisticated and intelligent linkage within the printing and mailing process that is often lacking. Companies can overcome this gap by using Remake™ to interface directly with campaign management tools. For instance, Remake™ can check a table, follow the business rules associated with each message, manage the white space, and automatically implement trans-promotional messages accordingly. The system helps keep track of ongoing campaign efforts across all the applications as each document is processed.

Key product features

Remake™ has a number of key product features that are tailored to support trans-promo documents. Whether you need to revitalize your documents by adding color or customized marketing messages, or you need to solve address quality and document integrity issues, Remake™ enables you to rapidly implement changes that will improve the effectiveness of your documents.

Replace company logo – Remake™ can easily replace logos or images, change a letterhead, or add a wide range of full color graphics and elements. Specific business rules can be applied to any page or component of a page. Since Remake™ allows you to create a color image for web presentment you can also...
leverage your existing print streams for online delivery.

Add color – Research is clear: Color documents get more attention. Remake™ helps you build the marketing value of your legacy documents by colorizing monochrome production jobs without the need for reprogramming. Now you can truly eliminate your pre-printed forms and special stock while taking advantage of the flexibility of digital color output.

Manage white space – White space is an often overlooked aspect that can provide a number of opportunities for improvement. An over abundance of white space can result in increased page counts and heavier mail pieces. On the other hand, using available white space for customized trans-promo messages can help with cross-selling and customer satisfaction. Remake™ enables thoughtful strategies regarding the use of white space that can often result in undiscovered savings and advantages.

Access external tables – Remake™ can easily add targeted marketing messages to your existing transactional documents by accessing external campaign management tables. Remake™ will determine how much white space is available on the page then access external files that store the customized messages and business rules that determine which message(s) should be included in which document.

“Onserts” – Remake™ can reduce the expense and labor associated with traditional mailing inserts by virtue of on-statement inserts, or “Onserts.” The system will calculate how many more pages can be added to reach the next postal weight, and fill the available envelope space with Onserts, coupons, and offers of different sizes and types based on business rules.

Track messages – Once you insert custom messages and Onserts, Remake™ will create a database file that tracks which messages have been sent, to which recipient, and when. With the ability to track what has been sent companies not only maximize their promotional efforts but they also significantly reduce the number of errors and redundancy in the process overall.

Leverage color printer capabilities – The cost of full color digital printing equipment has become more and more affordable, and color is now a must-have for modern trans-promo documents. But moving from monochrome to color with legacy print streams can be costly and time consuming. Companies are often slow to make the most of their new hardware investments as a result. Remake™ easily repurposes your legacy applications with color to take advantage of the latest printing technology.
As we have seen, post-composition is often the best, if not the only, place in the document production chain to effectively implement these kinds of trans-promo focused improvements. Remake™ helps you revitalize your documents by adding targeted content, digital color and customized Onserts. The result is that each document is significantly more relevant and compelling to each of your customers. The process is centralized, so Remake™ affects modifications and enhancements to all the required applications regardless of the system or format where they originated. Remake™ allows you to make improvements easily and rapidly by putting you in post-composition control.

Source: Sefas

Part 5 – Improving operational efficiency

Many companies miss important cost-cutting opportunities because printing and mailing operations often function in an isolated fashion. The prevailing focus is often limited to getting documents out of print queue or moved off of the loading dock. This “over-the-wall” approach does not encourage operational efficiency and collaboration. Mailing systems managers typically have no control over print data streams, and information systems administrators have little empathy for the intricacies of automated mailing. Remake™ is a tool that can help overcome these obstacles by providing effective and realistic system improvements that bridge the functional gap. Here are just a few examples:

**Concatenate small jobs** – Small jobs cause printers to start and stop, dramatically reduces the throughput on mail inserters, and complicates the mail piece tracking process. Remake™ allows you to group multiple jobs into a single stream for greater processing efficiency. Banner pages of existing jobs can be kept or eliminated, and a new banner page for the entire set can be created. Integrity marks and intelligent insertion files can be generated and added to the entire set.

**Split large jobs** – Splitting large jobs allows operations to better balance the workload between printers and inserters and maximize their overall production throughput. Remake™ can split jobs using a variety of criteria; you can segment print jobs by the number of pages, the number of documents, or any combination of parameters with confidence and flexibility. The system will make sure that the inserter marks and integrity barcodes are properly generated for each output run regardless of the sort scheme.

**Simplex to duplex** – Many companies still print high volume applications in simplex. Moving from simplex to duplex, or double-sided, printing will lower page counts, cut paper and envelope costs, shorten printing and insertion run times, and achieve dramatic postage savings. Remake™ easily converts simplex documents to duplex without the need for original application reprogramming. Pre-printed boilerplate can be inserted anywhere in the document, pages can be re-numbered, and all the insertion control marks can be updated automatically.

**Relocate address block to use common envelope** – Remake™ can reposition an address block from anywhere on a document and ensure that it is positioned in a consistent and standard location. This allows you to reduce the number of envelopes and forms you purchase, store and manage. Companies trim overhead costs by eliminating unnecessary inventory and by taking advantage of higher volume discounts, and increase operational efficiency by standardizing and automating the print/mail process.

Move from cut-sheet to continuous feed – Volume growth and advancements in high speed printers have prompted many organizations to move from cut-sheet printing to a continuous or “roll-feed” printing environment. Remake™ makes the transition easy without the need to reprogram legacy applications or redesign the application using a document composition tool. As a result, companies save money on paper and more quickly leverage their investments in new hardware and technology.

Source: Sefas
Part 6 – Remake™ as a key ADF component

State-of-the-art document processing takes form in the notion of an “Automated Document Factory.” For most organizations, however, factory-like efficiency and piece-level tracking is elusive; true automation has generally been achieved only by those organizations with a significantly high level of funding, expertise and commitment. Remake™ changes all that by providing a centralized and flexible post-composition tool that is easy to use and cost effective to own. Remake™ in combination with Open Print Delivery™ and producer™ allows you to easily implement features such as piece level tracking, house holding, job sorting and merging, and a variety of print/mail production enhancements that would otherwise require hours of recoding and specialized programming expertise. Companies look to Remake™ as an essential tool to drive an ADF, optimize production and build higher levels of efficiency.

Document integrity – Despite all of the tools and systems available today, many companies continue to struggle with document integrity. And with increasingly strict regulations regarding sensitive information, and mounting pressure from privacy advocates and customers alike, companies need “zero-defect” document

Success story

Citizens Financial Group recently relied on Remake™ as a key component of efforts to consolidate all of its printing and mailing activities in a facility located in Riverside, RI. The center, which is equipped with the latest IBM continuous printers and Kern inserters, produces more than 95 million statements and over 300 million images per year. Citizens realized that consolidating the print and mail production to a single production center and updating the printer and inserter hardware in the mailroom would require that their entire document production process be re-engineered. Duplex conversion, statement integrity and address quality were on the short list of immediate needs, while multi-channel delivery and ADF efficiencies were long-term goals.

In the end, Citizens Financial Group selected Remake™ to enable a variety of post-composition modifications and enhancements, and the results have been impressive. Duplex conversion has resulted in $2.1 million per year in savings to the bank in postage alone. In parallel, there was a 25% - 30% decrease in paper utilization. Overall, Citizens has seen over $3 million per year in readily identifiable savings using Remake™.

Source: Sefas

“...We realized that as part of our efforts to improve the business process, we needed to move into the new age of print and mail. We needed to implement techniques for ADF (Automated Document Factory) to reduce costs, improve statement integrity, and address quality. We also wanted a way to get a quick hit on postal cost reductions.”

Citizens Bank
integrity. Remake™ boosts integrity by adding intelligent barcodes, for example, that uniquely identifies every document. This allows companies to readily locate and track every piece, and guarantee that every document has been produced and delivered correctly.

**Document tracking** – Document tracking is essential for any ADF, but fully integrated tracking has been elusive and complex due to the various suppliers and isolated systems found in large scale printing and mailing operations. The conversion to the mandatory USPS Intelligent Mail Barcode, however, provides a great opportunity to overcome this barrier. Remake™ can include tracking fields within an IMB that will locate documents where ever they exist within your ADF and beyond through the postal system. Remake™ can also simply assign a unique document tracking number to each document and add it in the integrity barcode. This will enable the operator to simply scan the barcode to find, view and reprint any document produced.

Creation of intelligent data files – Remake™ was designed to extract fields from legacy print streams and calculate variables to create intelligent insertion files. The system supports all the formats from all the inserter vendors such as HAL, MRDF and KIC. At the end of an insertion run, the data file is updated and any reprints are automatically requested.

**Automated reprints** – Reprints are a costly and time-consuming task for most print and mail operations. The process often requires multiple levels of support to re-process the original documents. By enabling the automation of the entire reprint process, Remake™ provides tremendous operational savings with minimal human intervention.

**The importance of data streams normalization**

With a growing number of applications creating documents and different types of data-streams to process, it becomes increasingly important to be able to apply common function such as: adding an integrity barcode, correct the address, house-hold documents to all the documents and optimize these various data-streams by merging, sorting and splitting them into right-sized output streams.

All these function are enabled by converting all the data-streams into a common, normalized, and page independent format that can be manipulated and optimized. The Sefas Open Print product suite uses the Sefas proprietary Virtual Page Format (VPF)™ that is at the heart of the product suite. All the jobs processed by either MiddleOffice™ and FrontOffice™, the document composition tools, and by Remake™ are converted to VPF and can therefore be enhanced and optimized.

Remake™ puts a truly Automated Document Factory within reach by providing a level of process optimization that was previously very difficult and expensive to achieve.

Companies more quickly and completely realize the benefits of their improvement efforts as a result. The ease-of-use and flexibility provided by Remake™ help companies make the best use of their printing and mailing infrastructure and unleash capabilities and enhancements that produce significant efficiencies and savings.

Source: Sefas
Cost Cutting in Production Print and Mail Operations

Production print and mail operations have significant postage, paper and labor costs. Productivity improvements are the quickest and lowest-cost methods that operations managers have for generating near-term yet long-lasting cost savings.

Key Findings

• Productivity improvements reduce production print and mail labor costs by 10% to 15%.
• Many cost-saving productivity improvements require little or no capital spending.
• Indirect labor productivity improvements are just as important and valuable as direct labor cost reductions.

Recommendations

• Implement immediate and actionable productivity improvements spanning the complete workflow from warehouse to mailing.
• Involve production staff in finding and implementing productivity improvement opportunities so cost reductions will remain in place for the long term.

ANALYSIS

Productivity improvements directly reduce production print and mail labor costs. The job mix and volumes vary, but the opportunity to cut costs immediately is present in every production print and mail operation. More importantly, these initiatives are under the direct control of operations management, which can implement them with little or no capital investment. Although labor is a smaller component of a mailing’s overall cost than postage, implementing process changes are instantaneous when compared with the time required to reduce the amount paid to the post office. Paper and envelope savings can take months to implement, given the need for prior approvals from marketing and procurement, as well as depleting the existing inventory.

While prudent hardware and software investments will lower costs, productivity improvements do not necessarily require capital investments. Production print and mail operations managers will find the following $200,000 in process improvements can be swiftly implemented and result in significant savings at low or no cost. Every operation’s cost structure is different, so the actual savings may vary (see Note 1 for cost assumptions). The savings estimates refer to direct and indirect labor only, and do not account for quality improvement benefits:

• Inside delivery of supplies – With appropriate security considerations in mind, truck drivers can deliver the materials directly to the warehouse or your print room instead of leaving the items on the dock. The time saved by your warehouse personnel can be put to uses that are more productive.
  • Potential annualized savings – $7,500 (0.5%)
  • One-time cost to implement – None (may require negotiations with suppliers)

• Raw material deliveries three times per week – Infrequent deliveries are only efficient for the supplier and trucker, not the print and mail operation. Frequent, albeit smaller, deliveries result in fewer stock outages (particularly if defective materials were received) and lost productivity.
  • Potential annualized savings – $4,400 (0.3%)
  • One-time cost to implement – None (may require negotiations with suppliers)

• Relocation of roll stock storage from warehouse to print area – Why put 50-inch rolls of paper into the warehouse and then move them again? Upon delivery, line up the inventory directly in front of the printers that will use the stock. Not only does this eliminate a move your warehouse staff have to make, but when printer operators finish a roll or have to take one off because of a defect, they do not have to wait for new paper to be delivered.
  • Potential annualized savings – $14,100 (0.9%)
  • One-time cost to implement – None (if current facility design allows) or low (if equipment must be moved or a wall knocked down)

• Begin printer shift on Sunday night – Most applications batch data after the business day has ended, typically becoming available to print
### NOTE 1  Cost Assumptions

The following assumptions were used for calculating cost savings:
- There are 30 staff personnel.
- Wages and benefits amount to $25 per hour (approximately $50,000 annually per employee).
- Overhead (building, utilities, burden from corporate departments, and so on) is not included.
- Raw materials are received from the three different suppliers (paper, envelopes and marketing inserts) twice per month and warehoused in a separate part of the facility.
- There are three traditional shifts per day beginning at 7:00 a.m. Monday and running through 7:00 a.m. Saturday.
- 200 jobs run each day for five days per week.
- 52 weeks less 10 paid holidays are available for production.
- Of the 200 jobs, 50 run on two continuous printers and 150 on two sheetfed printers.
- Of the 200 jobs, 50 run on one flat-mail inserter and 150 on three folded-mail inserters (50 are half-fold and 100 are trifold mailings).
- Each machine has an operator assigned to it every shift; each shift has quality assurance and one warehouse worker (10 people per shift).
- Equipment manufacturer provides maintenance with technicians and basic parts on-site.
- Each job is analyzed by postal software and optimally sorted for that job alone.
- Mail is sent to the post office twice daily.

In the early morning hours, starting the printer shift on Sunday night enables operators to have enough work produced before the inserter operators begin their day that the inserters can begin immediate production. The earlier start also provides more time to recover from printer problems.

- Potential annualized savings – $18,800 (1.3%)
- One-time cost to implement – None

Begin warehouse shift one hour early – The key to smooth, continuous printer and inserter operation is to have sufficient materials at every workstation all the time. Warehouse people who start the day an hour earlier than the other operators on their shift do ensure the needed materials are in place for an immediate, productive startup.

- Potential annualized savings – $18,800 (1.3%)
- One-time cost to implement – None

Begin each shift 10 minutes before the prior one ends – Little cross-shift communication can occur when operators meet at the door, one on the way in and one on the way out. Starting a shift 10 minutes “early” enables a conversation to occur about how the current job is running, what jobs are coming up, whether maintenance or other support is needed, and so forth. This schedule means one or more breaks must be extended to keep the same number of hours per shift.

- Potential annualized savings – $14,100 (0.9%)
- One-time cost to implement – None

Cover printers and inserters during operator breaks – Many companies do this when a big job is running or a delivery deadline is in jeopardy. However, regularly keeping as many printers and inserters operating as possible minimizes the need for additional equipment purchases while reducing the need for operator overtime.

- Potential annualized savings – $50,000 (3.3%)
- One-time cost to implement – None

Schedule printers and inserters based on materials – Too often, frankly, operators choose the jobs they like to run and not the ones that make the most sense from a productivity perspective. Set up production schedules based on the materials needed to run on the prior and subsequent jobs to minimize printer or inserter changeover times.

- Potential annualized savings – $12,500 (0.8%)
• One-time cost to implement – None

• Replenish low-volume items in the warehouse – Warehouse personnel that carry one or two boxes of material out to the floor are wasting significant amounts of time. Use rolling carts to hold the low-volume items that do not warrant putting a pallet on the production floor. One cart can be replenished in the warehouse and delivered to the printer or inserter, and the depleted cart already at the machine can be rolled back to be efficiently refilled.
  • Potential annualized savings – $16,900 (1.1%)
  • One-time cost to implement – None or very low (if carts must be purchased)

• Implement “machine status” lights – Certain printers already come with this feature, which is basically a pole above the machine with green, yellow and red lights. When all is well, the green light is lit; when the machine is paused, yellow is lit; when the operator needs assistance, red lights up. This feature enables service technicians and managers to look across the production area and see the status of each machine and whether any need immediate assistance. If your facility is large enough, enhance the concept by transmitting a wireless signal to the technicians whenever red is lit. Regardless of the approach, the result is quicker response time, less machine downtime and improved productivity.
  • Potential annualized savings – $6,600 (0.4%)
  • One-time cost to implement – Low (cost of purchasing and wiring lights)

• Increase number and type of parts stored on-site – Neither you nor your suppliers benefit when machines are down waiting for parts to be delivered. Regularly review the parts stored on-site and determine the appropriate quantities based on both past usage and the effect aging has on the equipment to add more units or items. The potential labor savings are minimal compared with the cost of missed delivery deadlines and overtime pay resulting from machine shutdowns while waiting for parts to be delivered.
  • Potential annualized savings – $3,100 (0.2%)
  • One-time cost to implement – None (may require coordination with suppliers)

• Adhere to preventive maintenance (PM) schedules – Many operations view “PMs” as a necessary evil, when in fact they are a necessary benefit. Set up a PM schedule and adhere to it. The schedule must take into account anticipated workloads, such as quarterly reports, that not only will shift the time when the PM takes place but also dictate the equipment be ready to run virtually nonstop during the peak periods. Adhering to a PM schedule is easier said than done for many companies. If yours is one of them, consider scheduling the work during nonoperational hours, including weekends. The technicians may not like the hours, but the uninterrupted time will make them more efficient.
  • Potential annualized savings – $21,900 (1.5%)
  • One-time cost to implement – None (may require negotiations with suppliers)

• Supervisor, service and quality assurance offices on the production floor – Too often managers’, maintenance personnel’s and quality assurance staff’s offices are off the production floor, on the sidelines if you will. But every one of these people needs to be on the floor with the operators, facilitating work and ensuring the output meets or exceeds your expectations. The time lost while your operators look for the support personnel they need to troubleshoot a problem or answer a question reduces your operation’s productivity.
  • Potential annualized savings – $10,900 (0.7%)
  • One-time cost to implement – Low (requires relocating offices and possible change of plant layout)

These productivity improvements may be the tip of the iceberg for your operation, or you may have already implemented a few. Regardless, immediate productivity improvements are within your span of control and, when the staff is involved from the beginning and throughout a continuous improvement process, will result in significant, immediate cost reductions. Regardless of your operation’s situation, make the time within the next month to sit down with your operators to begin a process of continually evaluating, testing, implementing and documenting cost-saving productivity improvements.

Gartner RAS Core Research Note G00155374, Pete Basiliere, 3 March 2008
About Sefas...

Sefas Innovation is a world leader in document production technology. The company is headquartered in Paris, France, with operations in the U.S. and the U.K. Sefas has been a leader in the European market since 1993 and has created expert enterprise solutions with unparalleled levels of flexibility and performance. Many of the largest financial companies and Fortune 500 leaders rely on our technology to produce complex, high-volume and mission critical transactional documents.

About our technology...

Our Open Print product suite is based on a three-tier client-server architecture that is easy to deploy throughout your enterprise and scale to accommodate very high production volumes. Our technology accommodates a comprehensive variety of platforms, including Windows, z/OS and UNIX.

We were the first document production vendor to run in an IBM grid clustering environment. Our design environment is built around a central repository that allows any document stakeholder to share resources in real-time, regardless of location. We separate data from design, and design from output. This provides the flexibility to use any type and number of data files in the design process and to render documents in any possible output format. Sefas leads the document industry in performance, flexibility and scalability.

Whether your documents are printed on paper or sent electronically, Sefas delivers.