

# CGX PUBLISHING SOLUTIONS



Document Management in the  
World of Same-Day SLAs, 100%  
Audit and 100% Variability

Government-backed home retention programs have changed the way banks look at the loan modification process—and how they handle data. What was once a manual process has been transformed into a highly-regulated and fully-automated program. Increasingly, these programs are being outsourced to third party service providers for print and distribution. The service bureaus that take on fulfillment responsibilities must have the ability to rapidly ingest, process, produce and distribute loan modification packages at peak efficiency—and with strict integrity—to meet demanding SLAs and compliance regulations. In this case study, learn how CGX Publishing Solutions met the data challenge with Automated Document Factory (ADF) technology to re-invent the process and ship 75,000 loan modification packages per day while meeting stringent privacy and production requirements.

## Customer Background

CGX Publishing Solutions is a business development group of Consolidated Graphics (CGX), one of North America's leading general commercial printing companies. Focused exclusively on providing variable data solutions for print and digital communications, CGX Publishing Solutions leverages the 70+ CGX printing companies strategically located across 27 states, one Canadian Province, the Czech Republic, Brazil, UK and Japan. With this unrivaled footprint utilizing 213 digital sheet-fed and web presses, CGX Publishing Solutions manages the printing and distribution of local, regional, and national material with ease.

## The Challenge

As enterprises increasingly outsource critical communication print and distribution functions to third party service providers, service bureaus like CGX Publishing Solutions are poised to capitalise on these growth opportunities. These organisations require a partner to print and distribute complex transactional documents, statements, letters, and related customer information, as well as to deliver a host of services from electronic archive to online presentment. To satisfy the needs of these corporate customers, service bureaus must have the ability to rapidly ingest, process, produce, and distribute incoming jobs at peak efficiency—and with strict integrity—to meet demanding SLAs and compliance regulations.

---

*Frederic envisioned an environment where they could maximise efficiency and minimise manual labour by improving throughput and increasing automation.*

---

In 2009, CGX Publishing, through its subsidiary Frederic Printing, located in Denver Colorado, encountered one such opportunity. Frederic secured a new customer—a service provider to the mortgage and banking industry: Urban Lending Solutions. Urban needed a service provider with expandable manufacturing capacity capable of producing and shipping 20,000 to 75,000 mortgage loan modification packages each day, while adhering to 24 hour SLAs and 100% document audits. These packages ranged from 2 to 36 pages each, and required both inbound and outbound FedEx labels, along with an auditable manifest that reported the FedEx tracking numbers.

Taking on Urban's print and mail fulfillment needs presented Frederic with several challenges:

- **Long file load times:** Rather than sending one large print stream that contained all of the day's loan modification packages, each day Urban supplied Frederic with thousands of individual PDF files—one for each document. These PDF files contained embedded images and resources, were large in file size, and not optimised for printing. As a service provider, Frederic was not granted access to the source data from which these files were generated, so they were unable to make modifications that would enable a more efficient print stream. They needed to accept the files as-is, which resulted in longer load times and impacted Frederic's ability to meet SLAs.

Steve Wilson, Vice President of Digital Sales for CGX Publishing,

reflects, "We had to be able to ingest the PDFs, combine them into one print file, and then drop the printable files onto the print queues of our rollfed presses. Data is released at midnight and we have to be on press by 12:30AM. If we do not have the throughput through the front end of the system, we're waiting an hour to two hours before we are printing on press. Our challenge is we only have 24 hours before the next FedEx pickup to be able to meet the SLAs. If we lose those two hours at the beginning, we miss the SLAs"

- **Manually-intensive production job:** In addition to the printing concerns, the files contained no operational control marks to guide insertion of the documents into the FedEx envelopes. As a result, these jobs could not run on automated inserting equipment, forcing thousands of packages to be stuffed by hand each day—a significant time investment.
- **Absolute integrity:** The manual processing did not stop at insertion. In order to meet Urban's integrity requirements, Frederic needed to show that 100% of the loan packages that were received had been fulfilled. They created a manual audit trail that consisted of scanning the document, printing a FedEx label, and attaching the FedEx tracking numbers to the account number to create a manifest for the jobs. Not only was this process labor intensive, it opened Frederic up to possibility for human error which, when performing work for heavily-regulated industries like banking, is unacceptable.

## The Vision

Frederic envisioned an environment where they could maximise efficiency and minimise manual labour by improving throughput and increasing automation.

- **Ensure the documents could be printed on high speed colour inkjet printers:** Frederic needed a solution that would allow them to quickly combine the individual PDF files and optimise the file resources to run on their printers.
- **Maximise production to ensure SLAs are met:** Frederic sought to minimise setup time so they could start printing as soon as possible and ensure the print was ready to ship via FedEx in time to meet stringent SLAs.
- **Reduce labour:** Frederic realised that they could significantly decrease manual labour by moving to an automated insertion process.
- **Ensure customer data integrity:** Frederic saw opportunity to ensure document level integrity across the complete document lifecycle—from data reception through processing, printing,



insertion, and distribution from multiple facilities—with an automated closed-loop process that included reprint of damaged documents.

## Choosing The Best Partner

Frederic considered several vendors to solve their challenges and fulfill their vision, but most were unable to meet Frederic's most basic requirement: the ability to ingest a PDF. "There weren't a lot [of options] out there," said Wilson. "First of all, we had to use a PDF workflow and we couldn't alter the PDF. So that eliminated different types of document creation engines and any solution that required us to build the document on our side."

The decision came down to Sefas and one other vendor. Ultimately, Frederic selected Sefas because of its integrated software suite and its ability to rapidly ingest and process the PDF files so that Frederic could quickly get the files to press. According to Wilson, "We found that Sefas was the best technology, with the fastest throughput from ingest to print ready files at the press queue."

---

*Ultimately, Frederic selected Sefas because of its integrated software suite and its ability to rapidly ingest and process the PDF files so that Frederic could quickly get the files to press.*

---

## The Solution

Frederic implemented Sefas Designer and Producer. These Sefas solutions offer a single architecture that enables centralised control and end-to-end visibility over the document creation, production, and fulfillment processes. The key to this environment is the Virtual Page Format (VPF), which offers a normalised file format for creating, modifying, and enhancing applications. VPF works by decoupling document design from data architecture, and output choice from composition. Because all input is normalised into the standard Virtual Page Format, Sefas solutions accept any input stream, convert to VPF, and provide an intuitive graphical user interface for enhancing documents and optimising them for any output format—print or electronic.

With Designer Re-engineering, existing documents are normalised into VPF and can be enhanced to add or replace content such as text, logos, and production control marks—without the need for reprogramming the source applications. Re-engineering also gives the ability to ingest and transform "like-processed" jobs and combine them into a single output stream.

Producer Production Management is a production control and Automated Document Factory (ADF) solution that automates the document production lifecycle. Producer meticulously tracks each document and displays real-time status throughout the production process to ensure both service level commitments and compliance requirements are met. With the ability to automate production workflows, manual intervention is minimised, if not eliminated.

With Designer and Producer in place, Frederic was able to meet their challenges head-on by:

- **Concatenating individual documents into one large job:** By using Designer Re-engineering and Producer Production Management, Frederic could merge thousands of individual PDF files they received from Urban into large, efficient print runs. Wilson explains, "We changed from serial or document-to-document processing to more of a parallel multiple-thread processing system. This allowed us to push many more documents through the system than we could in the past."
- **Adding intelligent barcodes:** To support both automated inserting and enhanced integrity tracking, Frederic used Designer Post Re-engineering to add intelligent 2D barcodes to the documents. Said Wilson, "We put cameras on the inserters to read the 2D barcodes so we can track it at both a document and a page level. So not only do we track the fact that we inserted the document, we also use it as a security audit to make sure the page sequence is correct and confirm all of the pages belong together."

## Overhauling the Supply Chain: Changes Upstream Deliver Further Gains

While Frederic worked with Sefas to streamline their production processes, their client, Urban Lending Solutions, partnered with Sefas to increase control over the document composition process. Using the Sefas Designer Composition module, Urban redesigned their loan modification packages, improving the quality of their PDF output. Because these new PDFs were built properly, Frederic was able to minimize processing times and achieve unprecedented throughput capabilities. Wilson explains, "Urban's transition from using a 3rd party to create their PDFs to feeding us PDFs that have been generated in the Sefas environment has caused our throughput to be light speed ahead of where it was before."

- **Integrating into FedEx:** Because Frederic was no longer scanning documents, they needed to devise a new way to print FedEx labels for each package. They began printing both outbound and inbound FedEx labels in conjunction with the loan modification packages, using Producer to connect directly with a FedEx file server to attach the tracking numbers to each individual account number and create a manifest for the shipment.

## The Results

As a result of implementing these solutions, Frederic realised both enhanced production efficiency and overall cost savings on labour. Explains Wilson, "There were a lot of cost savings. With the installation of the ADF, the ability to run vision cameras on the inserters, and our ability to better manage files going to the press, we were able to eliminate manual processes while improving our throughput. The overall labour savings were significant."

- **Reduced manual labour:** With the 2D barcodes in place, Frederic no longer needed to hand-stuff thousands of envelopes or manually scan the documents as part of their audit trail. Says Wilson, "We've eliminated all of the human touches—from when the document comes in the front door, all the way through to when it gets inserted into the FedEx envelopes."
- **Faster processing times:** The ability to combine the individual PDF input files into one large print stream greatly reduced processing time, allowing Frederic to get the jobs to presses faster and improving their ability to meet SLAs. Says Wilson, "We went from having to produce 100 to 500 documents per day, to 1,000...and now our SLA is 75,000 packages from midnight to the next day. It's to the point where we're starting to push same-day orders, so we're working on two to four hour turnaround times."
- **Optimised production volumes:** Frederic's new throughput capabilities have enabled them to scale and connect with sister

companies within their organisation to distribute workload based on volume, ensuring they meet SLAs. Explains Wilson, "We had to get to about 1,500 images per minute to keep both presses going. Working with Sefas, we are now at 5,000 images per minute. This obviously allows us to fill both presses; but more importantly, that throughput allows us to offload onto multiple plant locations—which is key to meeting our SLAs with our customer. With Producer, we're able to load balance across multiple plants on the fly, based on how many jobs are coming in that day."

In addition to tangible benefits, Wilson found that implementing the Sefas solutions made a significant cultural impact within Frederic. He explains, "Culturally, it's a huge shift for our organisation, as far as understanding what we're capable of producing. Two years ago, if you were to ask us whether we could do what we do today, we'd probably shake our heads. Now, the jobs that we get in and out, the speed at which we do it, the teams that are involved in it, and the expectation of zero security breach—that has dramatically changed the culture of the groups that are handling this type of product. And that opens us up to other opportunities—new markets, where we can go in and propose services, systems, and processes, and know very well we can do what those clients are looking for."

## A Strategic Partnership

Wilson believes that Sefas was the right choice in helping Frederic and CGX Publishing Solutions accomplish their vision and achieve their goals. He concludes, "As we go after new opportunities and new business, bringing expertise to the table with partners like Sefas really works for us. It's been a really successful relationship. We would recommend Sefas to anyone who has a need for high volume throughput, an ADF, security compliance, or audit trail."

## About Sefas

Sefas Innovation is a world leader in document production technology. The company is headquartered in Paris, France, with operations in the U.K, U.S. and Spain. Sefas solutions offer unparalleled levels of flexibility and performance. Many of the largest financial institutions and FTSE 100 leaders rely on Sefas Enterprise ADF technology to produce complex, high-volume and mission critical transactional documents.

For more information about our products and services, please visit [www.sefas.com](http://www.sefas.com).

### Contact:

Whitefriars - Lewins Mead -  
Bristol - BS1 2NT - UK  
t. +44 (0)117 906 9920  
e. [contactuk@sefas.com](mailto:contactuk@sefas.com)

### Office Locations:

Paris, FR +1 33 (0) 1 49 69 52 00  
Boston, US +1 781 425 5060