

*Inaugural Edition, October 2019*

# WORKFLOW AUTOMATION REPORT



Insights from industry innovators





## Content

### **2 : Word from Wim**

*Wim Fransen, Enfocus*

### **3 : Opportunity costs for automation**

*Ryan McAbee, Keypoint Intelligence*

### **9 : Update the features in your imposition workflow**

*Andrea Mahoney, Tribay Enterprises*

### **13 : HONBLUE**

*Integrating multiple divisions into one workflow*

*Erica Aitken, Rods and Cones*

### **19 : MIS: The brains of automation**

*Ted Vahey, All Systems Integration*

### **25 : Proven recipe for business growth**

*Imposition and finishing automation*

*Ultimate TechnoGraphics*

### **31 : Stop piling up PDFs in your prepress department**



## **Word from Wim**

At Enfocus, the success of our customers is paramount. We provide the software to build winning print services. But even more so, we strive to give our customers the resources they need to make their businesses perform better. Enfocus wants to see service providers, users and developers that not only stay ahead of the curve but create it.

The Enfocus Workflow Automation Report gathers insights from industry innovators that work together to guarantee the success of the entire printing industry. We hope you'll be inspired by this collection of articles to explore solutions that will help you to automate your way to a better workflow.

Print service providers are looking to product vendors to create an experience through interfaces that enable integration to their specific environments. I believe the solution lies in the partnerships of companies that work together, weaving technologies into an integrated, elegant, best-of-breed solution. As technology entrepreneurs we take this very seriously. Each of us has unique expertise, which should be combined to make sure every customer need is met.

Software solutions are what we sell, but fostering an innovative community is our goal. Collaboration and partnerships are central to our efforts to grow a community that can engage any workflow or integration challenge with confidence. Our customers lead the industry. Our customers lead us. We are here to take them where they need to go.

Please enjoy the inaugural edition of the Enfocus Workflow Automation Report.

– *Wim Fransen, Managing Director, Enfocus*

# OPPORTUNITY COSTS FOR AUTOMATION

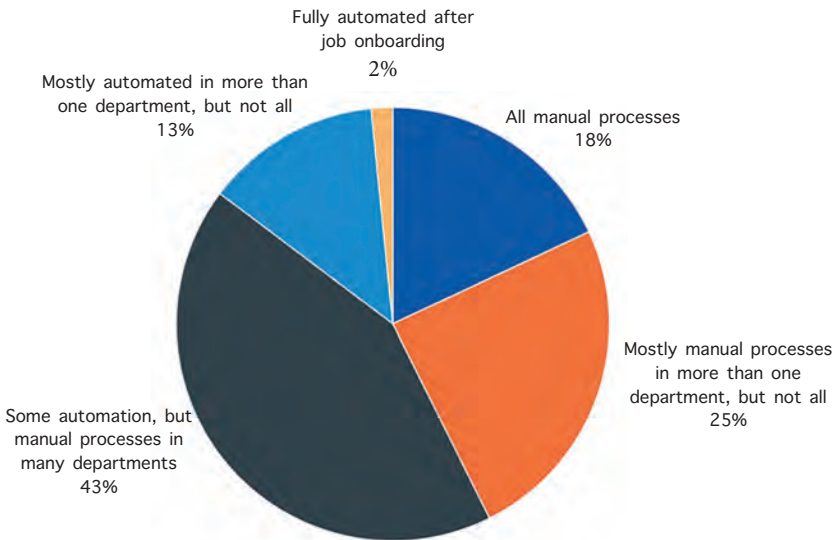


We make a lot of choices every day. Our brain can reflexively make personal choices like whether to go to the movies or the soccer match. In those situations, we can quickly evaluate the “opportunity cost” or joy from watching a movie or sporting event and vice versa. But our brains are not as adept at weighing the opportunity costs when there are many variables, or the timing is long or too far out.

That is a key reason why print service providers (PSPs) struggle with workflow automation— we can’t see what we are missing (the opportunity cost) by not automating. It is no surprise then that Keypoint Intelligence – InfoTrends latest North American Software Investment Outlook research

found that 43% of PSPs had completely or mostly manual processes spanning more than one department. The lack of automation is keeping PSPs from attracting more customers, gaining pricing flexibility to remain competitive, and future-proofing their businesses through continued investments.

## 2019 Print workflow automation levels in North America



## The Automation money machine

In 2019, the same InfoTrends study evaluated labor costs for twelve common workflow steps, from artwork design to correcting customer files. This research revealed who performed these tasks, how much the employee cost (hourly labor rate), time required for each task, along with the average number of print jobs per month. When all the results were tallied, we found that the average North American print shop could save up to \$800,000 USD a year for all twelve tasks.

12 Common Workflow Tasks
Artwork/design
Document scanning/capture
File retrieval and job on-boarding
Preflighting
File correction for content
File correction for artwork/color
Imposition
Electronic proofing
Hard copy proofing
Data preparation
Document design for VDP
Programming logic for VDP

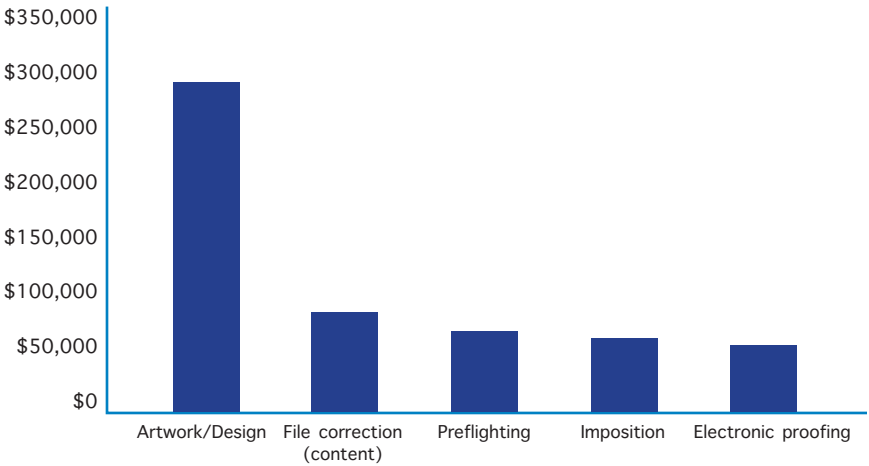
These figures also assumed a reasonable rate of automation with none being at 100%, such as the ability to automatically preflight 91% of jobs.

The results show that automation can significantly impact the time and labor costs associated with print production; that time and money saved can be put to better uses.

## Attract more customers

The savings from automation can be funneled back into attracting more customers through improving the customer's experience, along with expanding the number of services and products. The 2019 study found that 53% of business owners would reinvest savings from automation into expanding capabilities, while 48% looked to improve the customer experience.

## Top cost savings of five workflow tasks



Source: European Production Software Investment Outlook. InfoTrends 2019

The customer experience can create stickiness, through always-available online ordering to quick electronic approval of files to speed up turnaround times. It is about improving the ways customers can order and interact with your company. Expanding the number of products and services can be equally important to capture more of the customer's spend. For example, 50% of North American PSPs in 2018 had added wide format printing capabilities to their product mix. Each new product expansion, especially those requiring new equipment, needs a thorough implementation plan. Otherwise, the level of production automation is likely to drop.

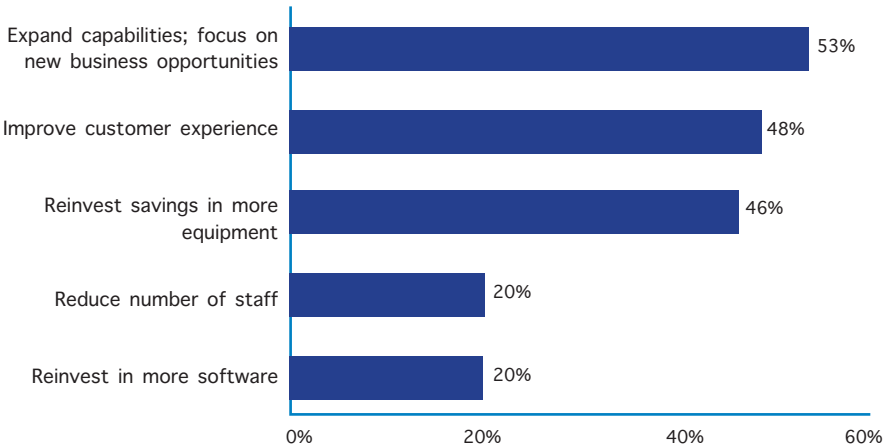
## Gain pricing flexibility

Automation also creates efficiencies which remove touchpoints from the entire print production process. Each improvement leads to reducing operational time, less cost, and higher throughput. All these improvements increase compet-



## Automation savings used to expanded capabilities and enhanced customer experience

Q31: If you were to save time, cost or money by investing in workflow automation, what would you do with the gains?



N = 122 respondents. Source: NA Software Investment Outlook, KPI-InfoTrends 2019

itiveness in the market by allowing you to take on more work that may be more complex in nature. It also creates more flexibility in pricing jobs for customers since you will have a lower cost basis to cover while still maintaining the same profitability levels.

## Future proof your business

Finally, and perhaps most importantly, the money unlocked from lowering your labor costs can be used to set your business up for future success. Most of the potential comes from reinvesting in the tools to do the job (equipment and software) and, more importantly, the biggest differentiator— your staff. Regardless of the amount of automation, its adoption and continued execution is dependent upon staff members who can leverage its potential.

## Start small, go fast

There are many common objections from PSPs who have not implemented or increased their levels of automation, from lack of expertise to the level of implementation difficulty. However, the most common objection is the perceived costs, especially when it is viewed as end-to-end workflow automation. Instead, think of the opportunity costs (what you cannot do in the business) from not increasing your automation in print production.

It is best to start small by automating three specific tasks in areas that provide a quick return on investment and can be implemented within a few months. Automating preflighting, imposition, or proofing/approval tasks, where the software cost and time to implement are low compared to the other common tasks, are good areas to start your automation journey. Now go fast! Implement, improve, and iterate; each point of automation improves your bottom line and your ability to compete.



### About the author

Ryan McAbee is the Director of Production Workflow Consulting Service for Keypoint Intelligence – a leading consulting and research firm for the printing industry. He works directly with print service providers to improve their operations through workflow audits, based on Workflow Journey Mapping and the 5 Stages of Smart Print Manufacturing.

[ryan.mcabee@keypointintelligence.com](mailto:ryan.mcabee@keypointintelligence.com).

# UPDATE THE FEATURES IN YOUR IMPOSITION WORKFLOW

Automating Imposition & Ganging is easily accomplished by Switch, Pitstop Server and one of many imposition programs. These can be run with the Switch Configurator module or as a Switch app. Because Switch can control both the Imposition software and Pitstop Server, Switch can have them work together to achieve dynamic layouts and match the specifications for today's smart finishing machines.

Currently many shops already have thousands of templates created in manual programs. The thought of replacing a manual system and recreating all those templates makes many shy away from changing to an automated system. Fortunately, xml/jdf driven imposition software templates can be created using the Switch Scripting Module. A single

## What you'll need

The Switch Configurator Module contains everything you need to automate Imposition and Ganging with any of these products: Callas PDF Toolbox, Dynagram InpO2, HP Smartstream, Quite Hot Imposing, Tilia Phoenix/Griffin, Ultimate Impostrip

javascript can take one xml template and turn it into many combinations of layouts. Switch can then rename the templates and the naming convention is a very important step. You can name your templates so that Switch can find them over and over again and use the Metadata to point to the template name.

If we submit information like stock, sheet size, number up, margins, gutters. Switch can pass this metadata along to Pitstop Server using the Pitstop Server Variable Set. In this variable set Switch can do simple math to return values, use counters, create rules and string together values for a barcode.

Our first example (Fig.1) shows how Switch running Pitstop Server can provide booklet PDF files with dynamic barcodes for an IBIS Smart Binder. Switch passes information to an imposition program to create the layout. Next, it populates a Pitstop Server Variable Data Set which Pitstop uses to place barcodes on each page. These barcodes are set to the IBIS Smart Binder specification based on the number of spreads in the imposed pdf and the type of binding (staple, glue or none).

Example 2 handles a die cutting workflow. Quite Hot Imposing running in Switch is used in this case and the xml templates were created by a Switch workflow. Starting with a 5 x 5 layout the script creates identical templates for 5x4, 5x3, 4x 4, 4x3...

First a single die layout is stepped using scheme for the job. Next Pitstop

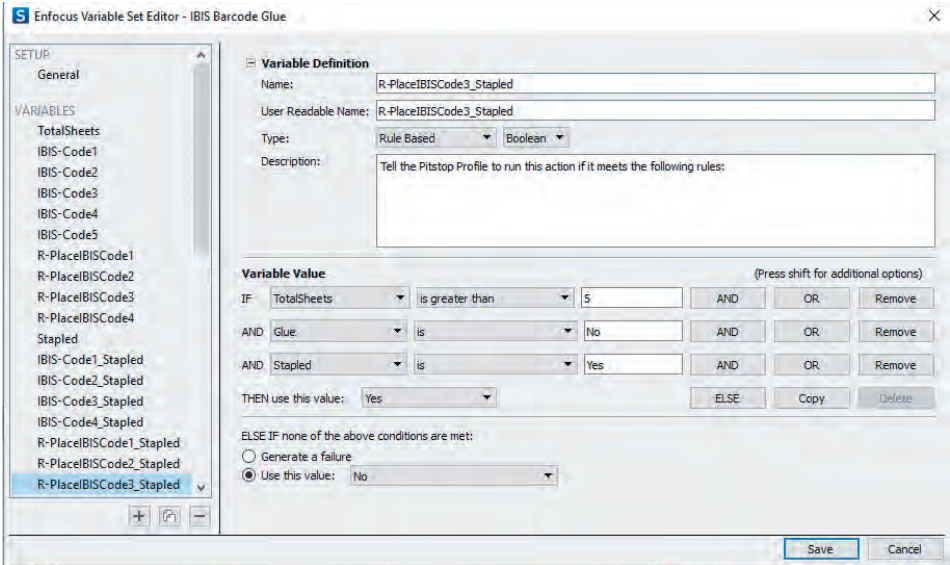


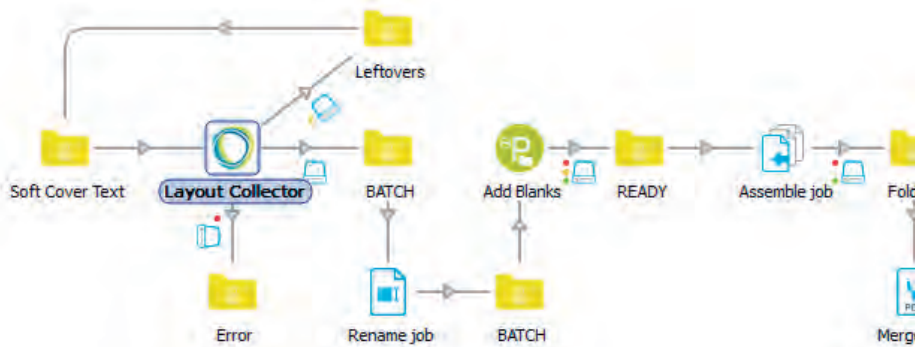
Figure 1.

Server sets up things like gripper and side guide allowance, barcodes, job slugs and any other job information. The stepped sheet is imposed again, this time Quite Hot imposes the layout again to fit as many on the sheet as possible with marks or a key line to cut out the layouts for finishing.

Example 3 (Fig.2) is the Bookstacker. A Switch script that works like the Assembler tool in Switch but has an added Waste factor. The script uses the standard javascript methods employed by Switch. It searches a folder of text PDF files and matches them by page count. The data going into the script defines the number up on the sheet and the max number of pages that could be wasted.

The script tries to create a 4 up layout every minute. The files are passed to Pitstop Server to add blanks to the short page count items. You can then merge the files or pass the folder to an imposition program running in Switch. Switch will tell you what layout to choose.

By putting your imposition software in Switch and using Pitstop Server to lend a



Properties	
Property	Value
<b>Name</b>	Layout Collector
<b>Description</b>	
<b>Script package</b>	C:/Users/andre/AppData/Roaming/Enfocus/Switch
<b>RetryMinutes</b>	1
<b>Number Up</b>	4
<b>Waste</b>	100

Figure 2.

hand you end up with a workflow that can create dynamic barcodes, dynamic sheet sizes and layouts based on finishing data. The point is that you don't have to have everything inside of a single template. The imposition program can do the basic layout and marks. Let Pitstop Server add the slugs, color bars, barcodes and other specialty items. It also has the power to control the sheet size and position

To duplicate these examples you will need the following Switch Modules: Core, Configurator, Metadata, Scripting. Pitstop Server and one of the supported Imposition Programs are also required.



### Andrea Mahoney, Founder, Tribay Enterprises

Andrea Mahoney is an CIS graduate with a prepress background. In 2005, she founded Tribay Enterprise, a workflow integration company. She specializes in automating workflows for print, bindery and fulfillment along with integration for online systems, equipment and MIS.

# HONBLUE

*Integrating multiple divisions into one workflow*

HONBLUE was established in 1967 by Larry Heim Sr., an architect from Palo Alto CA, to provide printing services for the Architectural/Engineering/Construction (AEC) firms. Today, with over 140 employees, they are the predominant leader in Hawaii, not only for AEC printing, but also for commercial, digital and large-format printing.

Matt Heim, son of founder Larry Heim Sr., brought many innovative and forward-thinking technologies to address unmet needs in Hawaii. Installation of the Indigo E-Print 1000, the print industry's first digital press, and the first large-format digital printer are good examples of how HONBLUE anticipated the needs of Hawaii's creative community.

## HONBLUE

HONBLUE is the go-to company for the AEC community, providing printing, document reproduction, scanning services for archiving, and large format printing for presentation graphics. Over the last thirty years, the company has evolved its print services to serve advertising agencies, graphic design firms, and the travel industry which is so prominent in Hawaii's economy. They use HP Page-Wide XL8000s, OCE Large Format scanners, and Canon printers. They also have two additional storefront shops, one downtown that shares space with Brue Bar (another HONBLUE holding), and one in Lahaina Maui.

In addition to the coffee business, HONBLUE acquired three other companies which are all under the same roof except for the two storefront locations. One provides traditional offset printing while the second offers large format printing. And the third is a web-to-print small format and digital printing company. IT services all of the companies and there is some staff overlap and shared technology. Everyone pitches in for the larger orders.

We assume that Matt's business model has to do with his life and business on the island. Producing print products cost-effectively in the one of the most expensive cities in the US is difficult. And it's not only the high cost of doing business, but also the expense of bringing materials such as paper and ink to a remote island in the middle of the Pacific Ocean.

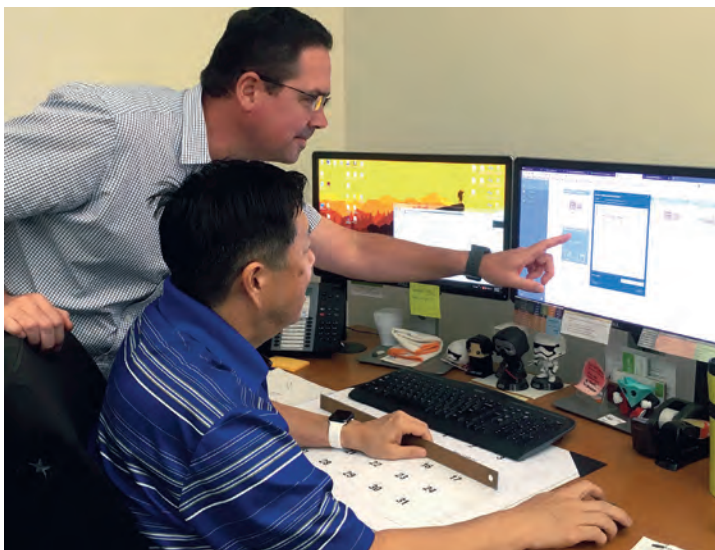
While there is intense pressure from less expensive online competitors, the value proposition is having the right mix of modern machinery, software and people to create a model of "high tech / high touch" that is successful in Hawaii.

Quickly, Matt and his team realized that, with four print divisions operating mostly separately, repetitive actions, repeated errors, time-consuming tasks are quadrupled, a huge time drain and a logistic nightmare. In addition, the expectation that orders must be delivered very quickly, and the very low unemployment rate, motivated them to explore automation solutions.

## Switch and PitStop Pro

Jaison VanDenover, Online Operations Director, spearheaded the move to automate HONBLUE's workflows. Combined with the help of their vendor, Rods



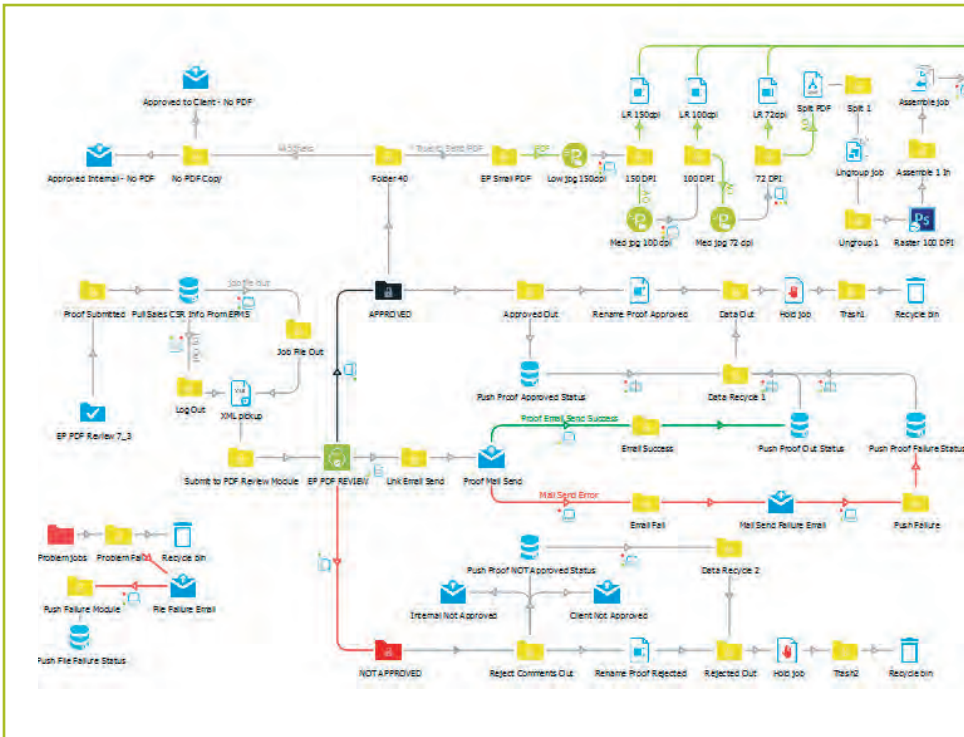


*Jaison VanDenhover, left, works with a colleague on their Switch job planning web interface.*

and Cones, he and Matt set out to define a vision for the future, where the work would go through faster, a client's file corrected in no time and workflows would eventually overlap. As Matt Heim says, "The best thing Switch does is SOLVE PROBLEMS. Every day we are presented with issues on how to take the "mess" that clients give us and produce a good product efficiently. We can now customize a solution for a particular client giving us better integrity and velocity on the work."

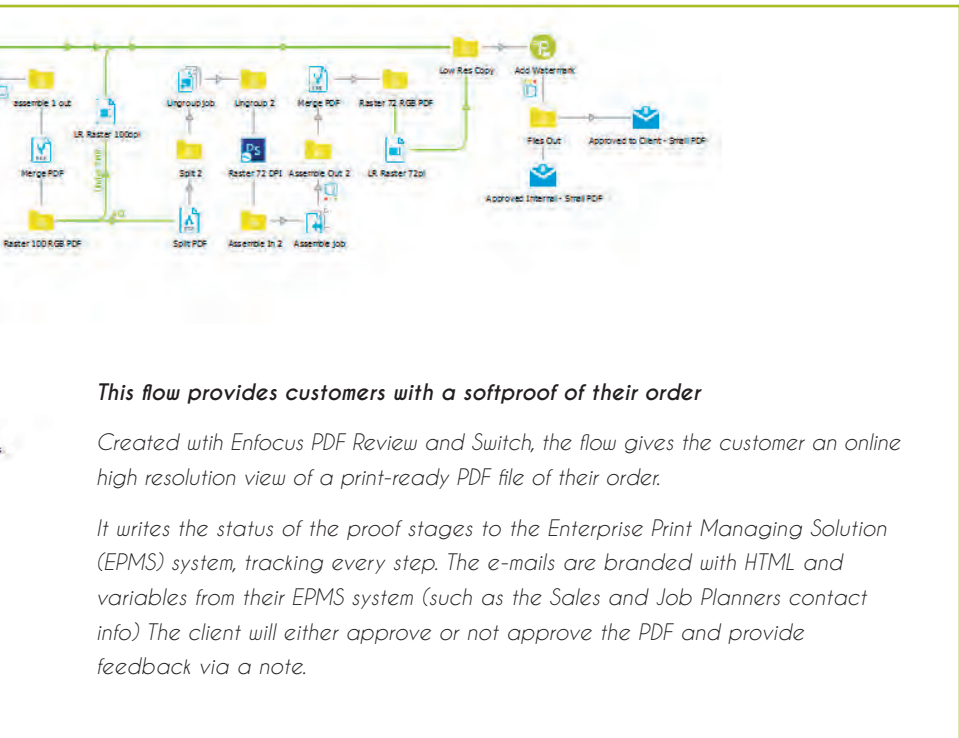
The first flow Jaison created was a preflighting tool consisting of PDF standardization for 4-color with bleed. The same flow was duplicated and modified to each division's preflight needs.

They are keeping preflight flows mostly consistent between departments with differences just for final output. Some of their repeat projects came with special needs and they created custom flows for them. They also created flows to handle some tedious prepress functions typical of large format, like adding



hems and pole pockets. Also for large format, they created a flow that downsized the images of a project so as to compile a visual presentation of the completed installation. Switch is useful for moving files at certain times on the network and also for backing up their HP Indigo digital press and server settings.

They are extraordinarily independent, learning everything they can on their own, relying occasionally on support from Son Do (Rods and Cones) and from the Enfocus team. They know that their current flows are being utilized by staff and are saving considerable time. Equally important is that the flows help their teams get used to the idea of automation. While some employees mistakenly worry that their jobs are in jeopardy, Matt and Jaison rely on automation to free up time to focus on the really hard work and to give everyone the tools to



***This flow provides customers with a softproof of their order***

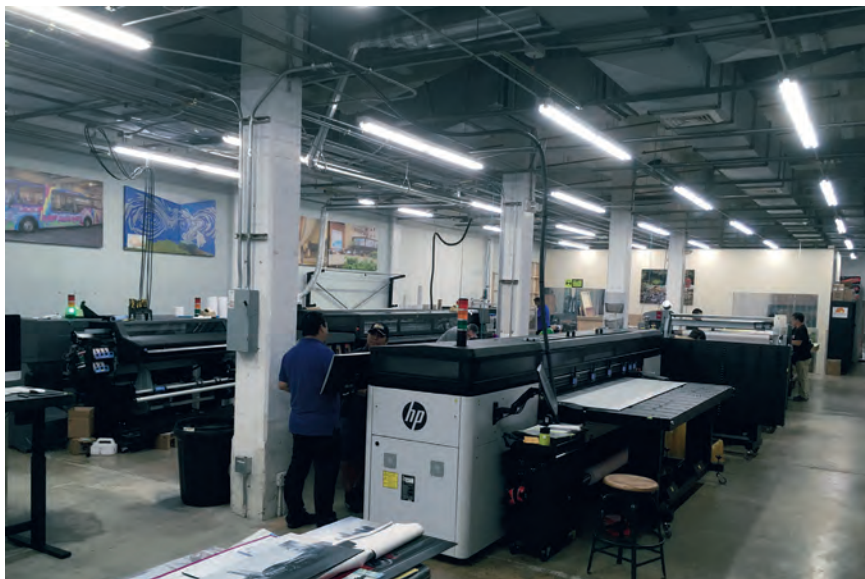
*Created with Enfocus PDF Review and Switch, the flow gives the customer an online high resolution view of a print-ready PDF file of their order.*

*It writes the status of the proof stages to the Enterprise Print Managing Solution (EPMS) system, tracking every step. The e-mails are branded with HTML and variables from their EPMS system (such as the Sales and Job Planners contact info) The client will either approve or not approve the PDF and provide feedback via a note.*

meet production deadlines and requirements.

They are always adding, modifying and adapting current or new flows to meet each department’s needs. In collaboration with their web developer, they have already identified uses for Switch outside of the production environment to assist with the marketing department’s needs as well as with their infrastructure’s goal to communicate between application platforms.

As for a vision that further consolidates some of these workflows to serve all departments at once, they are planning to use Switch to replace their current file upload technology. As Jaison explains “Each division has their own upload website which runs on the same technology, same network, same server. We want to



*The production floor of the Large Format division.*

use Switch to integrate into our HONBLUE website the capacity to receive the files and route them to the correct department, perform a preflight and standardization to the files, then give an instant response to the client that the files are either OK or changes are needed. We also want to incorporate immediate online proofing for the files that are successively submitted through the departments' preflight steps.”

Although already significantly contributing to efficient production times, they are just starting, and intend to rely on Switch to solidly meet every challenge of an ever growing company.



### **Erica Aitken, President, Rods and Cones.**

Rods and Cones is based in Santa Cruz California. We provide workflow services including color management, automation, press/design coordination and verification, for the graphic and printing industries. We serve brand owners and their creative teams, production and premedia, and printers.

[www.rodsandcones.com](http://www.rodsandcones.com) (831) 421 0131 [info@rodsandcones.com](mailto:info@rodsandcones.com)

# MIS: THE BRAINS OF AUTOMATION

Workflow automation can be simple “one trick ponies” such as a workflow that creates a PDF, then preflights it. These sort of automation workflows can be very useful for automating common tasks operators do every day. However, what most production professionals want for automation requires job intelligence and, in many companies, that intelligence resides in a Management Information System (MIS). Popular MIS solutions out there include systems like Accura, EPMS, Monarch, PACE, Presswise, Print Smith, Tharstern, and many more.

## How MIS makes automation intelligent

First let’s understand how MIS job information can be used in automation. Most print service

providers use an MIS to track customers, their jobs, quotes and final job time and materials. When fully implemented, almost every job function will interact with the MIS in some way to do their job.

However, if you've ever been involved with setting up a new MIS system, you'll know this can be a very difficult and often painful task that can take months to complete. For an MIS to work to its fullest, it needs massive amounts of information from a customer database, to the costs of materials, equipment profiles and more. The more information that's in the system, the more useful the MIS becomes throughout the entire company.

An MIS can organize all your data, and even automate many information-based processes such as quoting, billing, manage production schedules, and even materials management. But what it can't do is prepare a job file for print or other forms of distribution. This is where automation solutions such as Enfocus Switch come in.

Within Switch data such as the job number, job specifications, or intended output device can be used to customize the workflow on-the-fly. For example, simply knowing the file should be two pages, 8.5x11 inches, and will require bleeds by extracting the job specifications from the MIS system would allow Switch to customize the settings in preflight to ensure the file meets those specific specifications.

The possibilities are almost endless when automation includes integration with a mature MIS. In a more complete solution, the automation would start with the customer and their request for quote. From there, the automation solution would ensure everything is coordinated between the customer, internal users, jobs and job files.

### Where and how do you start?

Getting started with automation, especially when the automation workflow is to be integrated with a MIS can be overwhelming. Where do you start? Can you integrate with your MIS system? What problem do you want to solve and how will you solve it? What data do you need? What automation platform do you need? Will employees use the system once it's done? Will the solution be cost effective?

As you can see from the questions above, there are lots of questions to ask and it can be very overwhelming. However, it's not impossible and there is lots of help out there to ensure you'll be successful.



So, where do you start? Here are four key tasks to get started.

1. Identify and understand the problem to automate
2. Ensure the solution is feasible
3. Build a team
4. Commit to the project and automation

It all begins with knowing and understanding what you want to automate. Maybe you want to improve your job quoting process or job on-boarding process? Maybe you have a specific product offering that is error prone or time consuming for operators? Maybe you don't really know, but know that employees always seem to be scrambling or there's a general feeling of always being late?

The key to identifying what you want to automate is to make sure you've identified the root problem. In other words, what is really the issue to be solved? Maybe customer service representatives (CSRs) are always scrambling looking for files or the wrong files are being sent to prepress only to get bounced back? However, maybe in that scenario the root problem is not the CSRs workflow, but the

way customers are sending in their files and files are being missed right from the beginning?

So, as you can see in that example, if you don't identify the root cause, you're probably going to automate the wrong process and the net result would have been more process added and the root problem would have still existed.

The other part of identifying the problem is then to make sure you can express the problem in a quantifiable or verifiable manner. Why? You want to be able to measure the results of the solution. In our customer file submission example, one way to express that is to say "we want 60% or more of our incoming job files to automatically be associated with a job number and the correct CSR notified when the file is submitted". As you can see in that example, it's quantifiable and verifiable.

So now you know the problem you want to solve, but is it technically feasible to automate? Can you extract data from your MIS? Can you enter data back into the MIS? Does the workflow automation have the means to manipulate files the way you need?

These can be almost impossible questions to answer unless you have technical resources on-site. Even if you do, they may not have a clear picture of automation solutions available like Enfocus Switch, or other enhancements to Switch out there like our own solutions, Virtual Prepress™, SignOff, or File Bridge.

Given the importance of this and the wide variety of workflows and requirements, it's vital that the automation solution you select, have a good network of integration and development experts available so you can be matched to the right planning and technical help if needed.

To ensure short term and long-term success, build an automation team. On that team select an internal project manager that will be the point person to help coordinate system requirements and company needs. They will conduct implementation coordination and be the internal advocate that will help others learn and work with the workflow system. Also, on that team may be an internal technical resource. They would help with any system needs such as server access, account access, as well as work on the integration with other systems like the MIS or other existing print systems.



Another critical part of the team should be a knowledgeable integrator who is familiar with the workflow automation solution you're selecting, and has experience working issues and systems similar to your own. Even though you may have highly qualified internal technical resources, a good integrator is going to be there to help, and share their experience which will help insure the system is set up in the most efficient manner, and save time in implementation. Plus, it's important to think of the future and your long-term needs of the system and will that integrator be able to support you down the road as systems change and update?

Lastly, commit. Starting at the top of any sized company and working your way through the ranks, there needs to be a commitment to automation and continual process improvement. Without this commitment, it's possible the system would flounder and fail because if employees don't see the commitment by management, they will have trouble committing to the project as well.

## Conclusion

When implemented correctly, MIS intelligence integrated with an automation solution will transform your business in a positive way. As with any integration project, or automation solution, commitment, planning and having the right technical resources are key to success. It's important you have a clearly defined problem to solve and a way to measure success when the system goes live.



**All Systems Integration (ASI)** is an integration and development company for the professional graphic arts and printing industry. With over 100 workflow automation clients, and over 30 years' experience in graphic arts print production, ASI offers workflow

planning services and systems integration with a large variety of MIS, and other print production solutions. In addition, ASI has developed automation solutions for overall print production (Virtual Prepress™), file review and approval (SignOff™), easy and intelligent file delivery (File Bridge™), and more. Visit [www.allsystems.com](http://www.allsystems.com) for more information on the services and solutions offered by ASI. You can find more information about Virtual Prepress™ here [www.virtualprepress.com](http://www.virtualprepress.com)

# AUTOMATION CHECKLIST

Use this handy shopping list to help you identify which items you will need to help you continue along your automation journey. Turn it into talking points when you speak to solution providers. Make sure you get everything you need to automate better.

- Web to Print
- MIS
- File Onboarding
- Preflighting
- Online Proofing
- Connectivity
- Integration
- Communication
- Job Routing
- Status Reporting
- Job Sorting and Ganging
- Imposition
- Delivery to Output
- Finishing
- Shipping

**Proven recipe for business growth:**

# **IMPOSITION AND FINISHING AUTOMATION**

The first thing taught in Operations Management classes is how to avoid the points of congestion commonly called bottlenecks. These elements absolutely need to be solved as they have a major role in determining the throughput of the whole supply chain. To illustrate it, picture a workflow built to accomplish many tasks: pre-flighting, color management, batching, imposition, managing print, and perhaps finishing or binding. Now, imagine that the imposition requires many checks by the operator. When a significant flow of jobs comes in from an upstream store-front or FTP, all steps work but then, jobs start cumulating and create a bottleneck at the imposition due to manual checking of various adjustments. Perhaps this bottleneck increases further at the bindery due to further manual checking because of job variables. This is when you raise a red flag.

How do you avoid these points of congestion? How do you increase throughput in this production chain?

## Eliminate bottlenecks with automation

The printing industry has undeniably transformed over the past years. The new print manufacturing workflow must be made more flexible, thus reshaping the way print service providers implement prepress work in relation to their manufacturing processes. The increased volume of short-runs and personalized orders pushed many traditional offset printers to invest in digital presses. Although these presses bring major advantages, they need to be fed with print-ready PDFs at the same rate as they print in order to exploit their full potential. There is no longer room for bottlenecks.

The prepress department has also been affected by the ‘Digital Revolution’. Indeed, it takes more time to impose 50 orders of 100 pages than one order of 5000 pages. Manual imposition in Adobe InDesign or other similar programs is not enough anymore. Printers who insist on doing prepress the way they used to now realize that prepress is the starting point that affects their whole workflow. Like a hiker who sets the pace in leading a group on a trail, prepress is leading the print production and sets the pace for printing and finishing. Imposition, printing and finishing speed must be the same, and with digital presses printing 100 m/minute, it is only achievable with upstream and downstream automation. This means automation in pre and post press (fig.1).

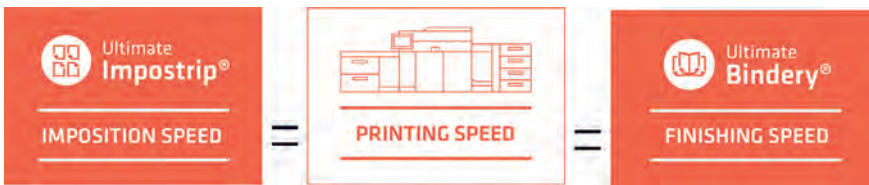


Figure 1

## Imposition automation with Ultimate Impostrip®

Well-known in the industry, Ultimate Impostrip® is the first digital imposition solution in the market, launched in 1989. Designed with productivity in mind, it optimizes every aspect of the prepress imposition workflow with tools that are easy-to-use yet extremely versatile.

Our imposition software proposes adapted ways to deliver the flexibility and

versatility needed for a profitable production environment requiring automatic numbering logic built from device preferences and variable impressions for best optimization. Providers can streamline multiple size gang runs independently of the respective content and size as it no longer needs to batch similar jobs together, when taking advantage of dynamic variable frame size logic. Our customers can put complex finishing lines in place knowing all their imposition requirements are already built into the Ultimate Impostrip® engine.

Connectivity is key to achieve a high-speed printing environment. Ultimate Impostrip® can be easily integrated into any prepress workflow.

Easy. The user's Web2Print software simply sends a job ticket to Ultimate Impostrip® which will automatically read it, generate the imposition and send the imposed file to any RIP.

Simple. The job ticket automatically triggers the imposition. Ultimate Impostrip® remembers the structure of the upstream ticketing system. Every time a customer sends an order, it will automatically be imposed by Ultimate Impostrip® with the proper quantity and specifications using Hot Folder Automation.

Intelligent. With the new Imposition Agent, introduced with Ultimate Impostrip® 2019, the user only needs to setup one Hot Folder by product type (ex: business cards). Ultimate Impostrip® will then analyze all the templates for that product and select the best optimal layout to maximize the coverage on the sheet. This AI-driven feature tremendously helps to generate the best imposition possible. It's like having an intelligent virtual employee at your service.

The user can configure the Hot Folder with dynamic marks and barcodes using Marks Profiles. Ultimate Impostrip® will automatically retrieve the content information from the XML ticket, create the marks and barcodes with the embedded content information and place them at the exact position related to the gutter, page or sheet as specified in the Marks Profile. Very useful to track the orders on the production floor, barcodes and marks can also be used for finishing (Fig2).

## Finishing automation using Ultimate Bindery®

Ultimate Bindery® is a standalone solution designed to fill the gap between pre-press and finishing. It is a JDF automation solution out-of-the-box. No programming

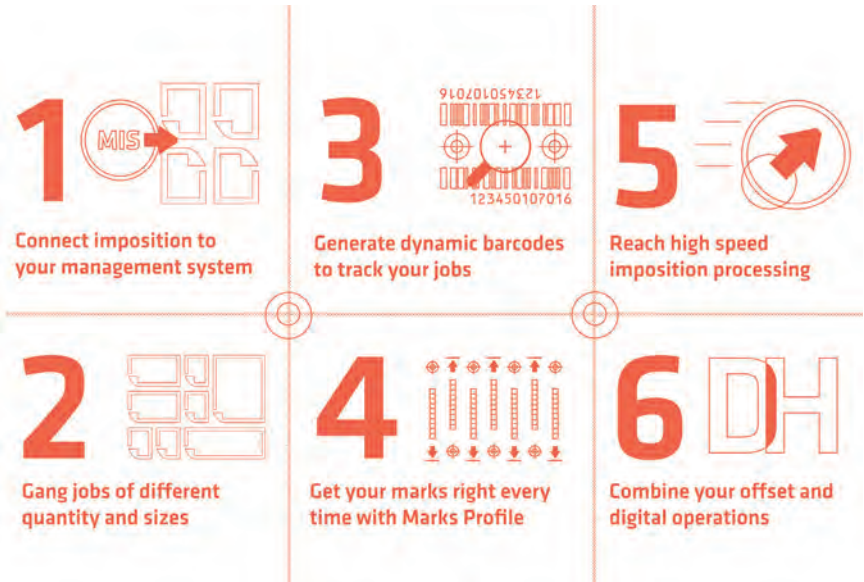


Figure 2

needed. Ultimate Bindery® software reshapes the industry at a time where commercial and book printers are facing challenges in the bindery department over short runs. We undertake this challenge and propose a solution to traditional bindery work to address the paradigm of variable length and size publications and multi-component binding projects on any type of finishing system. The Ultimate Bindery® pioneer contribution is to resolve this challenge with simplicity and a high level of intra-machine operability and connectivity.

Ultimate Bindery® takes the JDF imposed job generated by Ultimate Imposstrip® and completes it with all the necessary parameters needed to automatically set up the finishing equipment such as perfect binder, saddle-stitcher, cutter, slitter-creaser, 3-knife cutter, etc. The user doesn't need to manually set-up every job and every piece of finishing equipment anymore, which is a major time and resources saver. Imagine: As soon as a job is printed, it is finished and ready to be shipped. No stacks of paper laying around on the ground, waiting to be finished. Ultimate Bindery® sends the parameters to finish each of the printed jobs, one after another so both printing and finishing equipment work at their fullest capacities.

Ultimate Bindery® is a hub of knowledge of over 20 different finishing devices



Figure 3

from different manufacturers. It operates as a central location to validate that each job is built respecting the capabilities and constraints of the selected finishing equipment, before even printing it. These validations prevent errors and reduce waste since an alert is sent to the user for them to rectify the situation. It eliminates the need for trial runs thus reducing printed paper waste thanks to the proofing capability of its engine (Fig3).

## End-to-End workflow automation

Ultimate Impostrip® and Ultimate Bindery® are the Ultimate software solutions that integrates seamlessly with Enfocus Switch. With our Switch configurator, our professional imposition and digital finishing automation solutions are the unique cogs that each digital printing production environment can add to get the perfect balance for efficient and profitable operation. The benefits are abundant.

MORE	LESS
Jobs out of the door every day	Overtime
Money for business operations	Specialized employees
Customer satisfaction for on-time deliveries	Re-runs of jobs
Repeated business due to a reliable and trustworthy service	Waste of paper and inks

Imposition + Finishing Automation = The recipe to grow a business. By choosing Ultimate Imposstrip® and Ultimate Bindery®, you become competitive in your market, automatically!



**Ultimate**  
TechnoGraphics

## About Ultimate TechnoGraphics

Automation drives results in printing. This is the foundation of all our software development and today, Print Service Providers worldwide benefit from increased productivity in a digital and hybrid environment.

Today, Ultimate is a leader in imposition and finishing automation software solutions. The company has a rich history of providing and integrating imposition technologies into hardware and software workflow solutions for print industry leaders.



# **STOP PILING UP PDFs IN YOUR PREPRESS DEPARTMENT**

Prepress is vital to any print shop. Files arrive in unimaginable states and customers expect them to print perfectly. Skilled prepress teams throughout the industry spend most of their days “just making it happen.” They inspect, advise, correct, prepare and impose all day long. Every job a print shop receives should pass through their ever-mindful process. Well, probably not.



Saddling prepress with touching every job, no matter the complexity, and asking them to deal with the associated paperwork is counterproductive. They get bogged down in the minutia. They get frustrated with a repetitive, boring job. They get burned out from sprinting through jobs just to keep the presses busy. In a digital commercial shop, it's not unrealistic for one prepress operator to have to work on 75 jobs a day.

Preflight and basic file preparation can be automated early in a print shop's journey to get past a manual operations model. Placing PitStop Pro on workstations will reduce preflight minutes into seconds. Add to that some Action Lists for one-click PDF file fixes reduces a job's time at prepress even further. In one time-study, a single prepress operator went from completing 15 jobs in a shift to 60.

But wait, there's more to be done. PitStop Preflight Profiles and Action Lists can be run from Enfocus Switch. So, jobs that are considered to be "slam dunks" are very easily able to skip prepress altogether. Building a Switch flow to retrieve jobs, inspect them against a job ticket, make fixes and send a report is a relatively basic mechanism to build. Imagine if prepress didn't have to touch a file unless there was a problem. In reality, why should they have to work on jobs that actually are press-ready PDFs?

There are tools to pre-preflight PDF files that customer service and sales can use to give customers a "right now" evaluation of their jobs. Connect ALL removes ALL of the back and forth with prepress that point of contact staff has to go through. "Can you stop what you're doing and check this?" Integrating a solution like Connect ALL with Switch and the PDF Review Module will keep a lot of the prepress work out of prepress.

C'mon, what will prepress do then? Automation will not take their jobs. It will make their jobs easier and more efficient. Most of all, it will free up time for them to work on difficult and elaborate jobs that tend to suffer attention deficit when prepress staff is getting the, "can you stop what you're doing and check this?" question. More available time in prepress means better customer services, options to offer diversified services, and more opportunity to provide winning print services to your clients.



**Canon**  
SEE IMPOSSIBLE

This report was printed on a  
Canon imagePRESS C10000 VP  
by Canon USA Inc.

We would like to thank everyone who contributed to the inaugural edition of the Enfocus Workflow Automation Report. The design and layout were accomplished by Erica Aitken of Rods & Cones.

The views and opinions of the individual contributors to this publication are not explicitly or necessarily that of Enfocus.

