Significans AUTOMATION

6 PILLARS OF

WORKFLOW AUTOMATION

A guide to smarter, more streamlined workflows

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6 PILLARS Of Workflow Automation

Workflow automation has created a technology wedge between successful adopters and those reluctant or unable to change. By driving efficiencies throughout the production workflow, automation compresses processing times, saves labor costs, reduces errors, and improves print quality. It offers printers the edge needed to thrive amidst the barrage of business challenges in this post-pandemic marketplace.

But despite the proven returns that workflow automation continues to deliver, many organizations are still hesitant to commit, fearing that the process is too overwhelming to manage, particularly at the onset.

Significans Automation has been alleviating these fears by delivering next-generation automation solutions to printing and packaging companies throughout the Americas.

To help future adopters, Andrew Oswood, Workflow Specialist at Significans Automation, conceived of this six-pillar framework. Developed by Oswood and refined by the rest of the workflow team at Significans Automation, this guide is based on the real-world experiences of these hands-on specialists and developers who work directly with customers on the front lines to identify opportunities and implement game-changing innovation and automation throughout their organizations.

If you would like to discuss automation further, please follow the contact info at the end of this document.

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PILLAR 1 Creating a Culture of Automation

Having completed countless automation solutions for a myriad of graphic communications customers, Significans Automation has seen first-hand how important culture is to the successful adoption of an automated workflow. The organizations most likely to succeed are those with an existing culture of continuous improvement and change management.

Even at the earliest stage of file submission, a company may exhibit signs that its culture is detrimental to successful automation adoption. For example, if files are accepted "as-is," regardless of the format or state of readiness they arrive in, valuable time is wasted repeatedly performing manual fixes rather than looking for ways to actually improve the process of receiving files.

This continuous improvement mindset must be driven from the top and permeates throughout the organization. Owners and senior leaders need to wholeheartedly embrace automation, and communicate the benefits to all employees. Staff need to understand that automating manual, repetitive tasks not only reduces inefficiencies in the workflow but also creates opportunities for growth.

Naturally, there will be objections from individuals who are too lazy to change or those who claim that their daily workload is too heavy to take on additional tasks or responsibilities. This is dangerous thinking not only in business but in life as a whole, as those who believe they're too busy to improve will forever be stuck in their old ways. Others may fear that cooperating with the automation effort will make their roles obsolete.

This is natural, but these fears can be easily dispelled as the steps below will explain.

Opportunities for Growth

Ensuring Senior Leadership Buy-in

Senior leaders must understand the benefits of automation technology and support its adoption within the organization. They set the example for everyone, so their engagement and commitment to the process are crucial.

Promoting the Benefits of Automation

Staff must equally understand and appreciate that the future depends on the organization's ability to change and continuously improve. They are the ones who know the intricacies of day-to-day procedures and they hold the keys to implementation success.

Training and Engaging Employees

All employees who will be affected by automation must receive adequate training and understand how it will impact their work. Everyone must feel part of the process in order for things to succeed, so staff should be encouraged to come up with ideas and suggest solutions whenever possible.

Communicate that automation is not a magical process that will instantly fix every problem in the workflow. A good approach is to apply the 80/20 rule, having trainees spend most of their time focusing on simple day-to-day improvements that impact the majority of jobs. Once these are in place, then focus on the edge cases or trickier outlier jobs which typically make up the remaining 20 percent of the workload and require more creative solutions.

Demystifying the Process

Human beings inherently fear change. Explain that robots are not coming to take people's jobs, but that automation will allow the company to produce more work with the same amount of staff. Employees may even start holding knowledge to themselves or making things sound more complicated than they really are in order to avoid additional responsibilities.

So stress that the aim is to save time and increase throughput by using computers for straightforward, repetitive tasks that can be easily automated, like modifying page boxes or converting low-resolution images. Staff will instead be deployed to manage complex tasks and perform creative work that requires a human touch.

PILLAR 2 Standardizing Processes

Consistent and standardized processes are essential for ensuring the success of an automation exercise.

Companies may not even recognize potential areas of improvement until they take the time to map and document their existing processes.

A thorough internal audit will provide incredible insight into the inner workings of an organization and can uncover areas for standardization and improvement that may not have even been on the radar at the onset. The steps required for process standardization are listed below.

Mapping The Processes

Organizations must have a clear understanding of their current print production processes in order to effectively implement automation technology. Once they have clearly defined their processes from the time a job comes in, they will be able to identify steps that can be automated, areas of redundancy, or other processes that can be improved and automated.

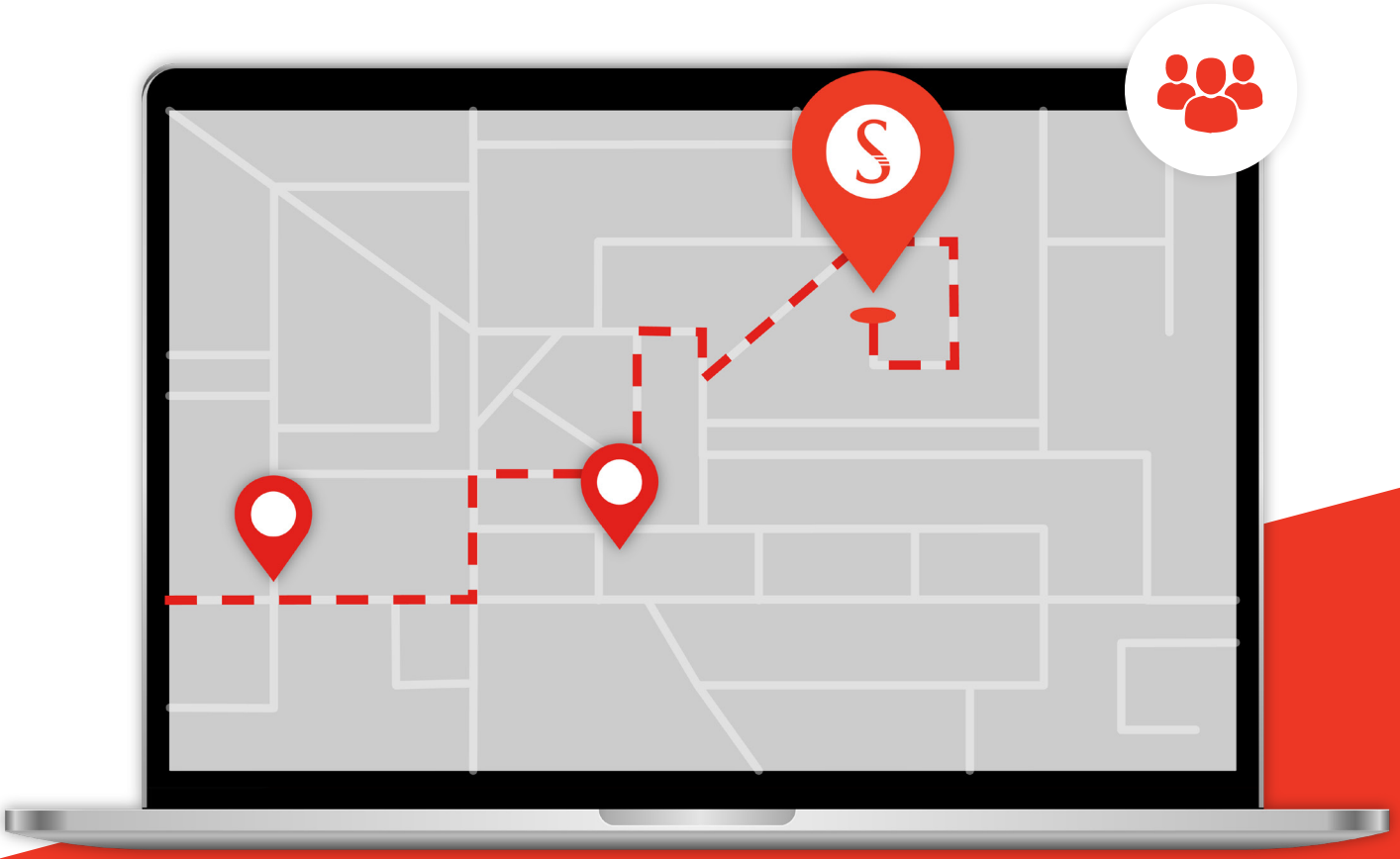
Documenting Processes

Detailed process documentation is critical for ensuring that everyone involved in the production process is on the same page. Part of this documentation may include the creation of a decision tree or other production traffic flow chart. The goal is to identify any areas where a computer can ”decide” or take an action that an individual is currently doing manually.

Mapping is all about visualizing the flow of work and is usually illustrated as a type of flowchart or other diagram that goes from task to task, while process documentation is more about responsibilities and expectations from one task to another. Think of mapping as the 50,000-foot view and the documentation is the more detailed 100-foot view.

Creating Standard Operating Procedures (SOPs)

SOPs are essential for establishing consistent processes and ensuring that they are followed consistently. Once the processes are mapped and areas of opportunity are identified, creating new, more efficient and automated procedures will become apparent and set the stage for future success.



PILLAR 3 Ensuring Integrity of Input Data

Decrease Errors

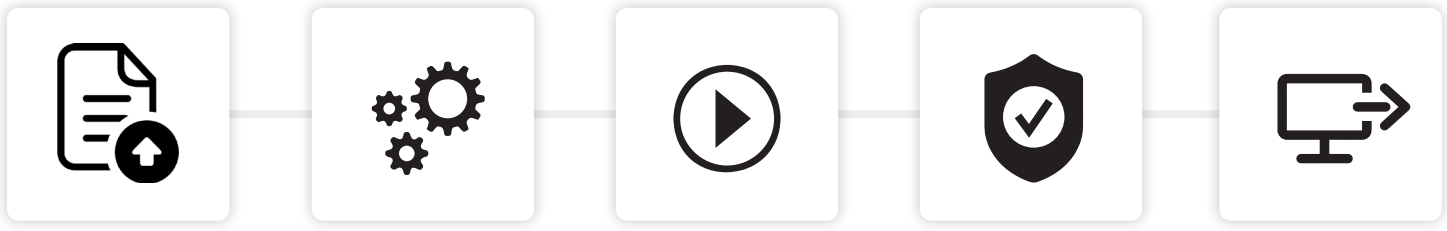
Accurate and complete data is essential for ensuring the quality and consistency of print materials. Integrating multiple disparate systems can cause conflicts, especially if data is siloed. For example, an ordering system might refer to a card stock as 14 “pt” but a stock database might refer to it as 14 “point.” Humans can easily recognize that ‘pt’ and ‘point’ refer to the same thing, so having one point of reference or ‘source of truth’ for an automated system to recognize is essential to a smooth, automated workflow. If things don’t match up, errors will inevitably occur. Actions that can be taken to ensure accurate and complete data include the following.

Data Management and Validation

Organizations must have a strategy in place for managing and validating input data, including product data, customer data, and production data. Good data is the building block that enables workflows to automatically take specific actions, like directing emails or files to specific locations without manual interference. So the more standardized and accurate the data is, the smoother the whole process will run.

Understanding Types of Data Critical to Print Production

Organizations must understand the types of data that are critical to print production and ensure that they are accurate and complete, as discussed in the following two pillars.



PILLAR 4 Generating Quality Production Files

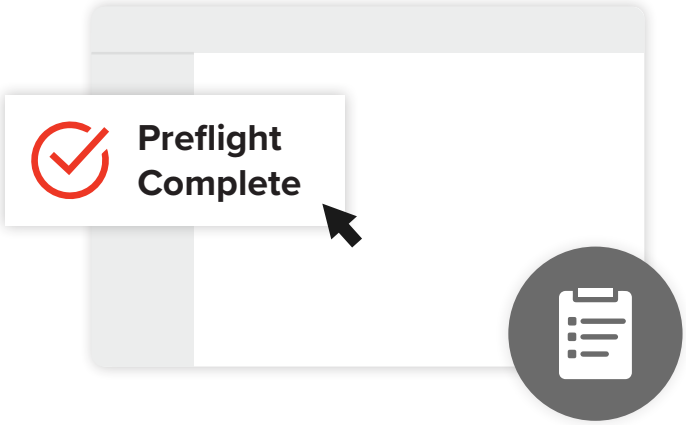
High-quality production files are essential to any graphic production environment. The ultimate goal of any automation exercise is to ensure production files move through the organization quickly, efficiently, and without error. Great production files are possible through proper preparation and diligent validation.

Preparing Files Effectively

Organizations must have a process in place for preparing high-quality production files, including file validation and quality control. Automated processes can be used to assist in such things as adding production lines, remapping colors, and adding or removing pages.

Validating Files

Organizations must validate the quality of production files to ensure that they meet the required standards. Preflighting files to confirm the files match the job requirements in your ticketing system is an example of file validation that will pay off by delivering fewer errors and faster production throughput.



PILLAR 5 Delivery of the Produced Files

Timely and accurate delivery of produced files is essential for ensuring customer satisfaction and the success of automation technology. Organizations must have a process for delivering files to the production equipment. Imposition automation is the initial phase of file delivery. Additionally, sending JDF instruction data to an output or finishing device will help the accuracy and speed up the process.

Everything starts up front, so with a smooth process, files will get delivered to output devices faster and with more consistency. Any errors that happen on press or on other equipment can be extremely costly. But if the files were generated with good data, and properly validated, delivery will be seamless.

PILLAR 6 Providing Feedback on the Process

Workflow automation is never 100 percent complete; it is an ever-changing journey, where new ideas help shape future improvement. Challenge everyone to be part of coming up with new solutions for your workflow and you will be surprised by how quickly things can improve. And don't get hung up solely focusing on major overhauls because automation can be a game won through small victories.

Even seemingly tiny improvements that save as little as 30 seconds per file can translate into major savings over the course of a day and compound in the longer term.

And remember that updated equipment and new software can unlock new potential for automation, so always think about automation as an ongoing endeavor. Keep in mind the adage that a day without learning something is a day lost.

Steps for Ensuring Process Feedback

1. Meet regularly and always be open to feedback whether it's positive or negative
2. Once the first iteration of your automation project is complete, it's important to discuss what worked well and what didn't
3. See if there's an opportunity to expand the functionality or take on a new automation project
4. It can be tremendously rewarding to watch employees who were at first reluctant to engage with automation now relying on it and excited to explore the limits of what else can be improved.

CONCLUSION

These six pillars of production workflow automation form an essential foundation for ensuring the success of automation technology in the print production industry. Organizations that adopt a culture of continuous improvement and are diligent in their approach to file integrity and process efficiency will be best positioned to take advantage of the benefits of automation technology and thrive within an ever-challenging marketplace.

Action Plan

1. Assess the current state of automation adoption within the organization.

2. Develop a plan for establishing a culture of automation adoption, including employee training, change management, and senior leadership buy-in.

3. Map and document current print production processes and establish standard operating procedures (SOPs).

4. Develop a strategy for managing and validating input data, including product data, customer data, and production data.

5. Establish a process for preparing high-quality production files, including file validation and quality control.

6. Implement a system for capturing and using feedback to drive process improvement, including root cause analysis, process audits, and key performance indicator (KPI) tracking.

7. Develop a strategy for delivering produced files, including delivery methods, file format, and file security.

8. Continuously monitor and improve processes, using data analysis and feedback to drive continuous improvement.

9. Feedback: Put a system into place for capturing and using feedback to drive process improvement, including root cause analysis, process audits, and key performance indicator (KPI) tracking.

AUTHOR & CONTRIBUTORS

Author

Andrew Oswood is a highly skilled Workflow Specialist with years of experience in the industry and a passion for innovation and problem-solving. He is a specialist in developing efficient and effective workflow solutions for companies of all sizes, utilizing his technical knowledge and innovative ideas. Andrew is committed to finding the best solutions for his clients and continually strives to optimize workflows to achieve maximum results.

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About Significans Automation

(www.significans.com)

Significans Automation Inc. specializes in delivering next-generation automation to the Printing and Packaging industry. The company offers programming and expertise in custom workflow development, communication and project management, color management, prepress training, and end-to-end business integration. The company is driven by the conviction that customized automation is the only path forward.

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