In-Plant Printer Edition

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Ricoh Software & Services | Ecosystem eBook Series

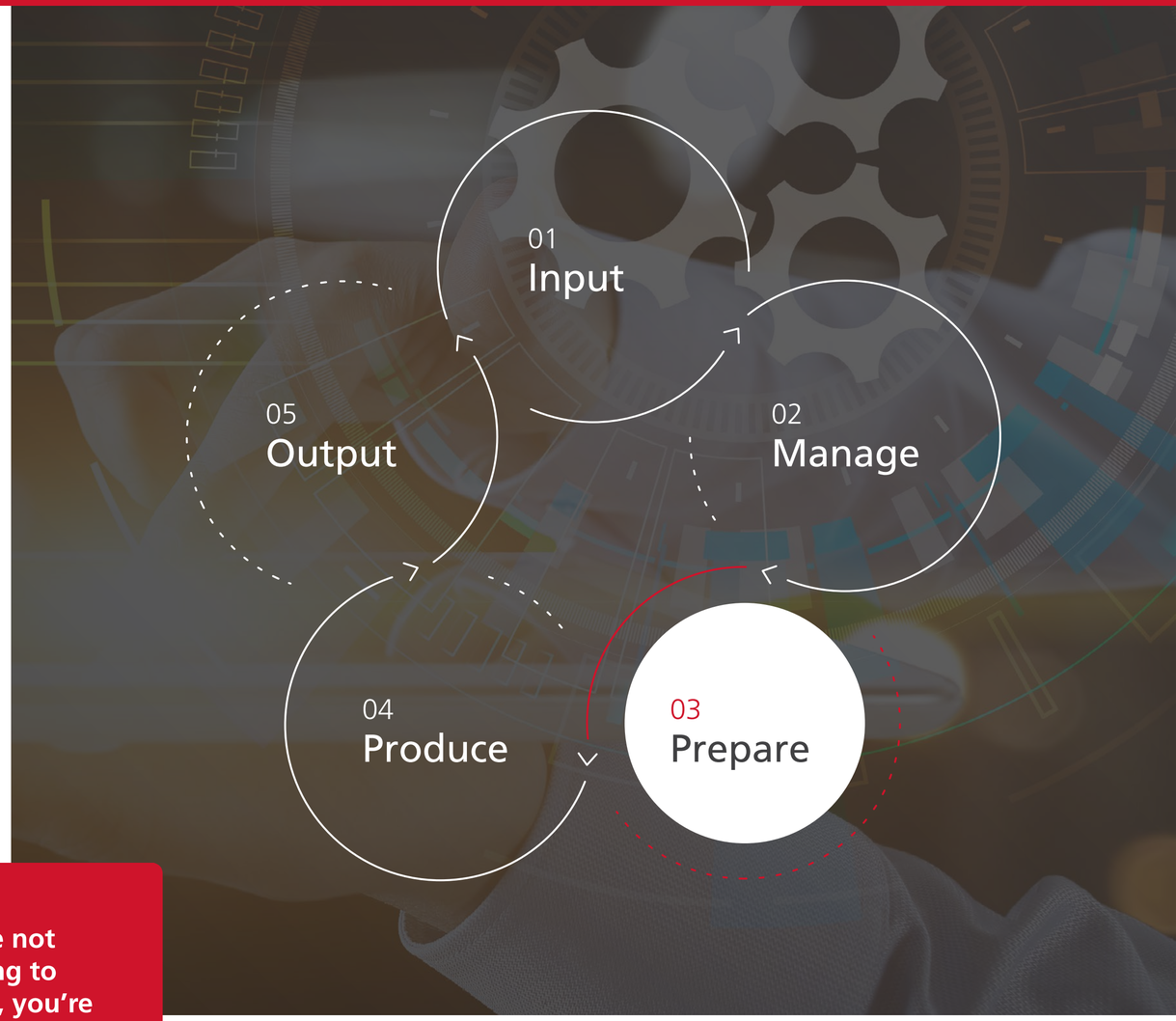
Prepare: Get Competitive About Production Performance

Get Competitive About Production Performance

Just like runners who participate in many types of races, from relays to sprints, dashes to marathons, printers will manage many jobs through their production to get them to the finish line as quickly and as efficiently as possible. Yet, the preparation needed for each is different, and the obstacles may vary. The prepared runner can perform on autopilot by anticipating the hurdles and other obstacles with the right equipment and understanding the landscape.

The essence of preparation is understanding the job requirements and the metrics that determine successful production and delivery. For example, thousands of copies of static forms require preparation different from tens of thousands of targeted or personalized content pieces driven by data. Finishing requirements also inform the preparation and workflow path each print application will take.

With so many potential variables per job, preparation is the key to delivering quality goods that meet customer intent while protecting your profitability.



If you're not preparing to succeed, you're preparing to fail.

Benjamin Franklin

Preparing Your Print Jobs

Document and Job Assembly

- **Manage all job elements from retrieval to compilation**
- **Handling variable data barcodes and custom assets**
- **Postal optimization**

Preparation and Proofing

- **Automation of key processes**
- **Implementing job and industry specifications**
- **Checks and balances**

Walk the Workflow

- **Anticipate common job and file requirements prior to burning through resources and absorbing preventable errors**

Preperformance

Thought of as a sequence of tasks and actions that participants engage in systematically before execution, preperformance sets up a likelihood for success.

Start with what you have to offer, so you know what you're working with. For instance, some in-plants offer design and composition services where they may be responsible for creating the production files, maintaining versions, and maintaining photo and graphic assets used in their projects. Other in-plants accept a specific set of print file formats compatible with their production workflow. In either case, preparation doesn't end when the file is generated.

The production file needs additional preparation to move smoothly into the production process, where the essential functions such as preflighting, color management, imposition, and batching take over. Different tools may perform these functions, but the best practice is to create an automated, unified flow where jobs can move unimpeded through the plant.

The goal should be to standardize with a toolbox of solutions and services that integrate efficiently together, providing a solid base for a smooth production process.

Pro tip: This is where inbound filenames should be standardized and put into a specific file hierarchy on the server or asset management system.

Protect your profitability. Get Your Files Right.

7 Steps to Creating Your Print Production Map

1. **File retrieval.** Depending on the number of methods orders can be placed and if design services are offered at the in-plant, the associated files are likely to arrive from multiple sources. Online portals and web-to-print (W2P) solutions can push the file uploaded by the customer into the workflow management software for further processing. Most other methods require staff to retrieve and move the file to a central file server. At this point, it is important that filenames are standardized and put into a specific file hierarchy on the server for easy retrieval and to minimize errors.

2. **File conversions or data stream transforms.** Most In-Plants do not restrict customers to a specific file type but generally focus on one file format for print output, such as PDF, AFP, IPDS, or PCL. Alternatively, files can be supplied in native formats such as Adobe InDesign or Microsoft Publisher. These files must be converted, often to PDF, before the next workflow steps. The same is true for transaction-based applications where the data format may differ from what the workflow or digital front end (DFE) of the printer can accept. Understanding what formats your facility accepts and subsequently how to handle them within your workflow will ensure file integrity and an efficient production process.

3. **Preflighting and file optimization.** All files should be inspected to catch any structural or other elements that could impact printing. Most workflow management systems offer preflight capabilities to check for common issues like font embedding, color space conversions such as RGB to CMYK, and low-resolution images. Some potential issues can be corrected automatically, while the exceptions will need to be processed manually and perhaps returned to the customer to correct, which adds time and resources to the process. A related process is file optimization, where structural elements of the file are streamlined or removed that are not required to achieve quality print output. The optimization process, such as removing XObjects and subsetting fonts in a PDF file, often reduces the file size and improves RIP performance at the DFE.

4. **Color conversion and management.** Since artwork files are often supplied by customers and created in various design tools, the color may need to be converted and managed. Color conversion from an index color or RGB to CMYK can typically be automated as part of the preflight process but may require manual intervention. More commonly, color management solutions are applied to convert the reference and embedded ICC color profile to a target suitable for the intended print device. Based on the goals of the in-plant, device link ICC profiles may also be used later in the workflow to map the input color space to the color space of the output device, as is typical with the G7 specification. Sound complex? It can be. Achieving printed products of the highest quality, color accuracy, and consistency doesn't happen by accident. Having the right tools and training around how to deliver goods that match customer intent should be a part of your production mapping plan.

5. **Proofing and approval.** Part of the workflow process is to gain the customer's approval that the processed file matches their original intent and expectations. Proofing can happen at various stages within the overall workflow, can be electronic or hard copy, and can be used to approve content or color. W2P and workflow management solutions typically have electronic proofing and approval methods for customers to sign off on the content. These solutions automate and accelerate the approval cycle with the customer and provide a better experience than sending files through e-mail. While less common in in-plant facilities, some work may be considered color-critical and require a hard copy contract proof that accurately represents the final print output. Regardless of the type, this preparation point needs attention in your workflow map to minimize customer delays that can cause further production bottlenecks.

6. **Ganging/Batching.** Combining multiple jobs into a single print run can increase the shop efficiency and potentially save material costs. Rules are created in the batching software to set the parameters for how and when to combine jobs based on materials, colors, size, and SLAs/due dates. Batching is often the precursor to the imposition step, and they often work in cooperation.

7. **Imposition.** One of the last actions in preparing print jobs is imposition. Although files can be imposed in design applications like Adobe InDesign or composition tools, a dedicated software solution is preferred vs an ad hoc or fractured process. Templates with standard page orientations and folding patterns can be created and reused as part of an automated workflow for all common job types.

Increasingly, imposition software uses built-in intelligence to suggest the best combination of productivity and cost based on your current equipment mix and capabilities, speeding up this preparation step while also increasing print accuracy.

There is a high cost to being UnPREPARED. Make sure you walk your workflow and understand your output, so you can perfect your files for production.

What Does Your PREPARE Workflow Really Look Like?

Make sure you're clear about the following specifications:

- Do you understand the kind of a job it is and its overall requirements such as barcodes, mailing, postal optimization, volume, timing?
- How are the jobs retrieved and prepared?
- How is variable data handled?
- Is there an approval process?
- How do you check the file accuracy?
- When will the job be ready for production?

PREPARING an Efficient Workflow

Prepare
File submission, campaign management & collaboration

- File retrieval and prepress management
- Imposition
- Makeready file creation
- Variable data management
- Color consistency and management
- Preflighting and file optimization
- Document and job assembly
- Ganging and nesting
- Data stream transforms
- Proofing and approvals
- Postal optimization / barcodes
- Analytics

The Cost of Being UnPREPARED

Prepare
File submission, campaign management & collaboration

- Repetitive steps and costly errors
- Diminished file accuracy
- File adjustments and remakes
- Missed job and file elements
- Brand erosion
- Reduced file integrity, weak output quality
- Inefficient process management
- Lack of job batching, decreased production efficiency
- Inability for print workflows or DFEs to accept files
- Delays to press
- Execution errors, costly mailing
- Poor business decision making

ROI: PREPARE Use Case

Without a robust PREPARE System

- **Challenges in document assembly for monthly print statements and promotional pieces/inserts**
- **Human touchpoints resulting in content and fulfillment errors**
- **Lack of templates due to disparate systems**
- **Minimal visibility in job set up and processing**
- **No checks and balances system to identify errors prior to production**
- **Not making the best use of available media: imposition, tracking, barcodes, ganging calculations**

With a robust PREPARE System: Pre-set templates, approval notification and alerts, postal optimization, and barcode capabilities

- Streamlined processes through automation and a reduction in disparate systems
- Implementation of templates to automate common tasks
- Expanded visibility of each job for the entire production team to view job-critical data
- Custom printing, optimization of postal discounts and mailing

$300K Annual Cost Savings
for a national mortgage company

BE PREPARED: The Checklist

Getting the file right is beyond the right font, image and resolution.

To protect your profitability, ensure you have the processes, templates, and checks and balances in place for an error-free job.

- **File format**
- **Preflighting and file optimization**
- **Color conversion and management**
- **Print ready file assembly**
- **Proofing and approval**
- **Ganging / batching print runs**
- **Imposition**
- **Postal optimization / barcodes**
- **Job tracking**
- **Document assembly**

The Bottom Line

Runners must know the race that is to be run, just like printers need to know the path that work will take from onboarding to delivery. Not all jobs will take the same path, some jobs will be outliers, but many will use the same seven core preparation steps. The key to a successful workflow is to minimize the number of paths and processing steps required for most of the work.

Start with an assessment to uncover paths with loops and bottlenecks hidden beneath the job tickets, then create a dynamic and documented map of the preparation and processing tasks, which will free staff to handle the exceptions, speed up the approval process and reduce touchpoints and delays.

Protect your profitability. Get your files right.

If you're ready to start preparing your In-Plant operations to ensure peak production performance, contact us for more information and how a workflow assessment may help determine your workflow needs.

Get The Next eBook: Produce

About Ricoh

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Headquartered in Tokyo, Ricoh Group operates in approximately 200 countries and regions. In the financial year ended March 2019, Ricoh Group had worldwide sales of 2,013 billion yen (approx. 18.1 billion USD).

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