



In-plant
Printer Edition

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Ricoh Software & Services | Ecosystem eBook Series



Output: Post-Performance Improvements

Post-Performance Improvements

Congratulations! You've crossed the finish line. At the end of the race, the runner knows how they did and, just as importantly, the time taken to finish the race. The completion time becomes the benchmark to compare past races and prepare for future ones:

Was the most recent experience better or worse than the previous runs?

What contributed to the difference? Perhaps it is the new training regime (equivalent to processes in print production)? Maybe the time was slower due to inclement weather (like printing equipment downtime)?

The point is to mark and use the information available while it is still fresh and assess whether any of the factors that impacted the result were controllable versus uncontrollable, predictable versus random, or due to internal or external causes.

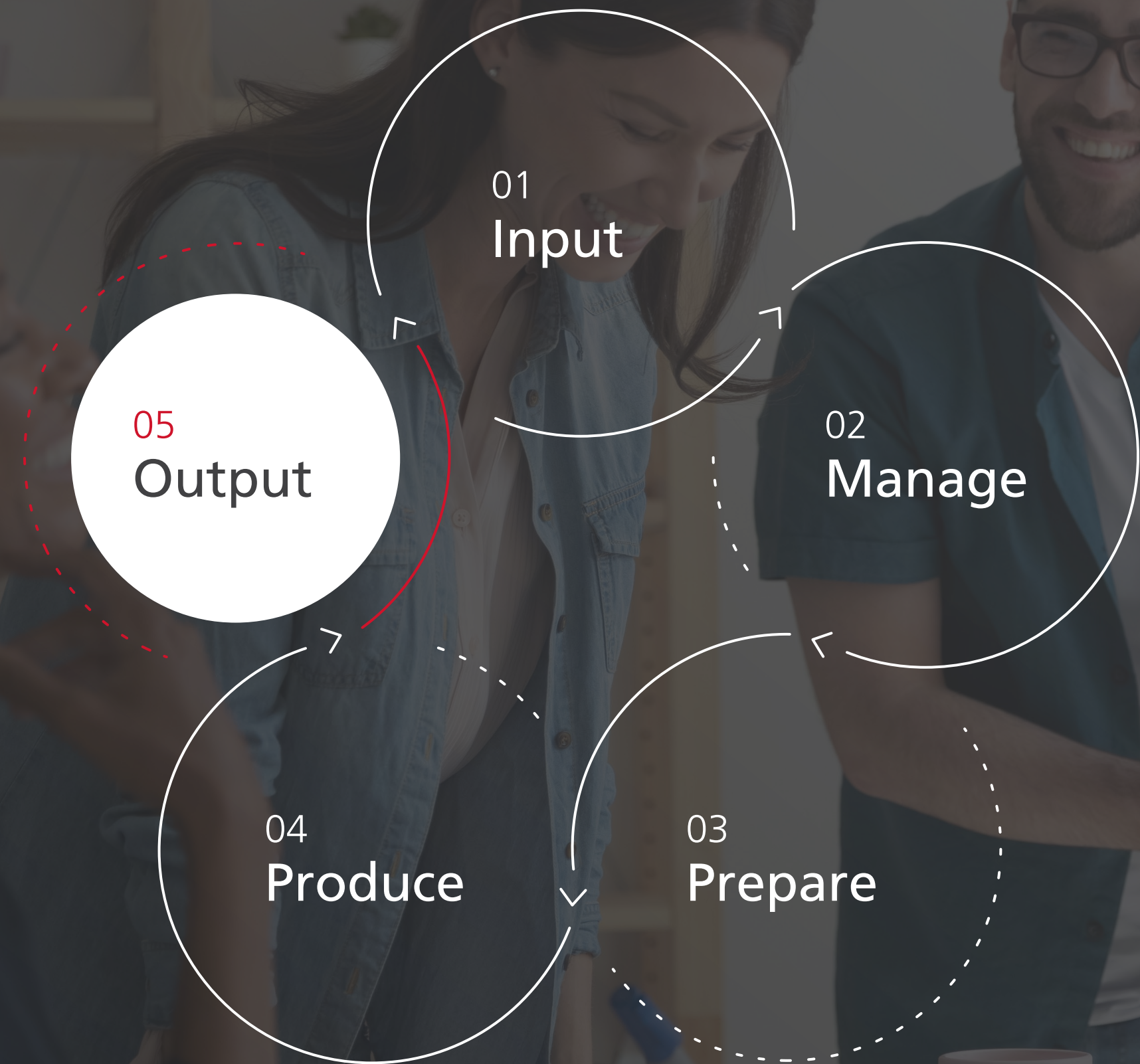
In-plant printers move onto the next job in the queue as quickly as possible without giving much thought to the ones just completed. As a result, continuous improvement becomes aspirational without any follow-through. Once the job is finished and delivered, critical next steps for success are easy to overlook or pass over if thorough processes, accountability, and oversight are not in place.

Learn avidly. Question repeatedly what you have learned. Analyze it carefully. Then put what you have learned into practice, intelligently.

Edward Cocker



Pro tip: As a best practice, implement a quick, straightforward 5-step checklist after completing every print job.



The 5-Step Checklist for Completed Jobs

Step 1: Service Level Agreement (SLA) Performance

Meeting or exceeding delivery dates, often specified in SLAs, is one of the most critical production metrics. Delivering work at or ahead of schedule ensures a happy customer and avoids any contractual penalties that might be part of the service agreement. SLA performance can be tracked per job but is also a helpful metric measured daily, weekly, and monthly for all work completed. An average-to-high SLA ratio means print production is humming along, whereas the inverse means production issues related to staffing, capacity, equipment uptime, or similar disruption points.

Step 2: Time outliers

Many discrete processes and cost centers, from prepress to finishing are required for any print job. One botched process can be the difference between timely and late delivery, not to mention potential cost overruns. Review the shop floor data, ideally collected using a print management information system (MIS), to identify departments or specific processes that took longer than expected.

Be sure to answer the following questions:

- **How did delays compare to past averages?**
- **Does the delay appear to be a one-time event, or is there a systemic pattern?**
- **Does your print operation have the ability to do real-time performance tracking?**

Systemic delays require investigation to locate and correct the root cause. Spot the time outliers using an estimate versus actual report from the print MIS, specific MIS queries, or business intelligence dashboards fed by shop floor data.

Step 3: Utilization benchmarks

In recent years, maximizing in-plant resources has been critical as the volatility in orders, print volumes, and staffing has increased. Wider acceptance of virtual work arrangements have shifted some print from office to at-home, but higher print volumes still belong in the in-plant production center. The order and onboarding workflows required adjustment for online ordering, file uploads, and soft proofing and approvals. The responsibilities of the operation may have also changed to include additional print applications or adjacent services like creative design. To be productive, regardless of where they work, staff not dedicated to running equipment need the right tools whether they are at home or in the office. The key is for the in-plant to be flexible as the organizational needs evolve to the new reality of work while keeping aware of options to improve labor and equipment utilization. This is the path to a nimble in-plant ready to take on more varied work.

Measure equipment utilization using uptime or the time the equipment is available for production. Another typical performance measurement is Overall Equipment Effectiveness (OEE), which measures production efficiency. In this case, the quality measurement refers to the defect rate instead of print image quality. OEE compares the actual time, speed, and quality of printed products versus the theoretical maximum available based on the production conditions. An OEE score of 100% indicates that the in-plant produces defect-free print as fast as possible and that your systems have 100% uptime. Research in the manufacturing industries shows that improving any of these production elements results in more efficiency.

Capturing the data required for these metrics is best done using a print MIS solution or a data analytics tool with customizable visual dashboards.



Pro Tip: Spot the time outliers using an estimate versus actual report from the print MIS, specific queries, or business intelligence dashboards fed by shop floor data. It will save you time and money.

Step 4: Cost outliers

There are four basic operating models for in-plant operations: fully funded, partially funded with chargebacks, cost recovery, and revenue-generating. Cost control is essential to all operational models. Increased operating costs can negatively impact the line of business requestors, the enterprise, and the in-plant.

In-plant Operating Model	Organizational Impact
Fully funded	Enterprise
Partially funded with chargebacks	Line of business
Full cost recovery	Enterprise and line of business
Revenue generating	In-plant (profitability)

Take a deeper dive to understand if the cost increase was due to materials, labor, equipment, or an inefficient process. Using reports or dashboards based on shop floor data, identify areas where costs exceeded the estimated and budgeted amounts. If the cost overruns were due to a customer alteration or request, how the cost would be passed on to the invoice or chargeback to the requestor’s department needs to be determined and approved.

Step 5: Accounting reconciliation

After identifying any cost adjustments, it is vital to create the chargebacks or invoices for the work depending on your operating model. The chargebacks should include any user-requested changes, including simple edits requested after proofing or a complete reprint. Chargebacks and invoicing should happen immediately upon job delivery with regular, ideally monthly, reconciliation to ensure all jobs have been billed. For larger enterprises, integration with the corporate enterprise resource planning (ERP) or accounting system streamlines approvals and budget transfers and improves accuracy.



ROI: OUTPUT Use Case

Without a robust OUTPUT System

- Chargeback report required multiple information sources, completed after the job with no estimate versus actual data
- Multiple Excel spreadsheets – jobs, job details, and work-in-process details – from multiple sources
- Difficult to respond to customer questions about job shipments, changes in cost from previous orders
- Re-keying information from one system to the next was time consuming and prone to errors
- Variability from one employee entering job information led to inconsistent processes (i.e., change paper stocks)
- Lack of inventory management system resulted in space issues and spoilage

With a robust OUTPUT System:

RICOH ProcessDirector™, Avanti® Slingshot Print MIS, RICOH Supervisor™ and Professional Services

- Front-end planning process on job costs allows automated chargeback report, and estimate vs. actual data
- Improved management of planned work to ensure meeting SLAs
- Shipping integration into the MIS makes it easier and faster to look up details based on job number
- Consistency in job templates allows more automation downstream with less variability
- Accurate inventory estimates streamline job planning and scheduling
- Better visibility on available resources (equipment, people, and materials)
- Improved device utilization via web-based dashboard analytics



SAVINGS:

Reduced Chargeback Reporting Time by 70%

ROI: OUTPUT Use Case

Without a robust OUTPUT System

- Lots of manual paperwork, including triplicate forms to prepare, direct and track jobs
- Creation of budgetary report for headquarters, which was very time-consuming due to data in multiple locations
- Labor intensive, error prone job creation process using spreadsheets
- No visibility of what was printed, jobs in process, or jobs shipped
- Lack of visibility on productivity

With a robust OUTPUT System:

RICOH ProcessDirector, Avanti Slingshot Print MIS and Professional Services

- Automated job onboarding including job ticketing, reducing errors
- Simplified process to login to jobs for tracking and updates
- Combining RICOH ProcessDirector and Avanti Slingshot automated collection of machine data (ex. runtime, materials)
- Reduced storage space required with the discontinuation on triplicate forms
- Visibility of who worked on specific jobs and for how much time allows productivity analysis and problem solving
- Single system of record enables financial reporting, business analysis and improved forecasting



SAVINGS:

Repurposed Two Full-Time Headcount

(Customer Service Reps/Schedulers)

Closing the Loop with Profitable OUTPUT

Output

Closing the loop – fulfillment and reporting - profitably

Centralized device control

Job splitting and batching

Financial reporting

Document re-engineering

Smart shop floor data collection

Print stream engineering

Shipping and fulfillment tracking

Customer communication management

Billing and receivables

System of record

Production/warehouse management

Analytics

The Cost of a Disconnected OUTPUT

Output

Closing the loop – fulfillment and reporting - profitably

Mismanaged assets, costly errors

Tracking and delivery inaccuracies

Inability to track estimates to actuals profitability

Operational corrections

Lack of real-time data for course correction

Lack of operational visibility and efficiency

Lack of cash controls and cash flow

SLA failure and customer dissatisfaction

Cash flow inaccuracies

Disparate or incomplete job and financial data

Execution errors, costly mailing/shipping

Poor business decision making



The Bottom Line

When the print job is complete and delivered, there are a few critical last steps to check off, both to ensure customer satisfaction and ensure any issues are corrected.

Verify that the job was delivered on time, ran efficiently through the shop floor without bottlenecks or delay, and that it is accounted for financially. If you consider these 5 steps as the mandatory checklist, other jobs that follow can quickly and more efficiently add to your bottom line.

If you're ready to optimize your production output, [contact us](#) for more information on how a workflow assessment may help determine your workflow needs.

About Ricoh

Ricoh is empowering digital workplaces using innovative technologies and services enabling individuals to work smarter. For more than 80 years, Ricoh has been driving innovation and is a leading provider of document management solutions, IT services, communication services, commercial and industrial printing, digital cameras, and industrial systems.

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).

For further information visit www.ricohsoftware.com

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