

Operational Efficiency Report: Label Printing Workflow

Scenario: Impact of Label Program Rollout on Manager Workflow Efficiency

This report analyzes the time and workflow efficiency improvements gained by replacing the current manual label printing process with the newly developed **Barcode Label Printing Program (v0.1.0)**.

In a typical pre-service period, a venue manager may be interrupted to print up to **10 different labels at separate times**. Each request includes navigating a remote system, locating the file, and executing the print job – often while balancing critical prep duties.

Assumptions

- Venue uses a company-issued laptop (quad-core, 8 GB RAM) on school Wi-Fi/LAN
- Each print request is for a **25-label batch**
- **Manual process (navigation to spool): ~1 minute 30 seconds per job**
- **New program (scan to spool): ~10 seconds per job**
- **Print speed (both methods): ~1.75 seconds per label**

Scenario Comparison – 10 Print Jobs of 25 Labels Each

Phase	Manual Process	New Program (v0.1.0)
Navigation to spool	10 jobs × 1:30 = ~15:00 min	10 jobs × 0:10 = ~1:40 min
Print duration (25 labels)	25 × 1.75 sec × 10 = ~7:17 min	same: ~7:17 min
Total Time (10 jobs)	~22:17 minutes	~8:57 minutes

Time Saved

- ~13 minutes 20 seconds saved per 10-job session
 - **Efficiency gain: ~59.8% faster overall**
 - **Interruptions avoided: 10 manager workflow breaks removed**
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Operational Benefits

- Manager time reclaimed for oversight and prep
 - Staff self-service reduces bottlenecks and delays
 - Spool-to-print pipeline is consistently faster and more predictable
 - Local fallback logic ensures system is resilient even without network
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Conclusion

By replacing manual label retrieval with a scan-driven print workflow, the Barcode Label Printing Program cuts the label task by over half, saving more than **13 minutes per 10-job session**. It removes friction during high-pressure service periods, boosts autonomy across the team, and is fully scalable across venues and shift types.