



ROI: Manual Label Printing vs. Print Automation




THE PROJECT:

Print **25 customer label jobs**, every work day for **one month**.

	TIME		
	Manual Printing	Print Automation	Result
	33.3 Hours	1.25 Hours	32.15 Hours Saved (per month)

	OPERATOR COSTS		
	Manual Printing	Print Automation	Result
	\$1,169/mo.	\$44/mo.	\$1,125/mo. Saved

	HUMAN ERROR POTENTIAL		
	Manual Printing	Print Automation	Result
	High Error Rate	Almost No Errors	Less Rework, Less Wasted Product

TAKEAWAYS:

- Reduced downtime due to software and printer operator errors
- Less label waste by not having to constantly switch out labels in each printer
- Less reprinting of labels
- Less rework before shipping
- Fewer customer returns due to incorrect labeling
- **Greater productivity, reduced costs**

How We Came Up with the Numbers



	Manual Printing	Full Print Automation
Time per job cycle	4 minutes	9 seconds
All 25 jobs	1 hour, 40 minutes	3 minutes, 40 seconds
Running the 25 jobs every day, five days per week for a month	33 hours, 20 minutes	1 hour, 15 minutes
Operator cost at an hourly rate of \$35	\$1,169	\$44

Manual Printing	
The operator reads from work orders that list the necessary label files, label stock and print quantities. There is one label printer on site, preloaded with the first set of labels.	
STEP	DESCRIPTION
1	In label software, select File Open.
2	Navigate to folder where label file is saved and open file.
3	Select the proper printer driver.
4	Provided there are no edits, select Print, enter a quantity and send job to printer.
5	Wait for labels to print.
6	Remove labels from printer and change label stock for second label.
7-12	Close label file and repeat all the above for label #2.
13-18	Repeat for label #3.
19-24	Repeat for label #4.
25-30	Repeat for label #5.
31-726	Repeat ALL the above for jobs 2 through 25.

Full Print Automation	
With print automation, labels were saved with quantity and printer information as one job – and assigned a bar code. The bar codes are printed on the work orders. There are 5 label printers on site, preloaded with labels.	
STEP	DESCRIPTION
1	Scan the bar code.
2	Entire job prints to 5 printers simultaneously.
3	Gather labels from the five printers.
4-75	Repeat the above steps for jobs 2 through 25.

With manual printing, an operator has the potential to open and print the wrong file, mis-enter the quantity or another print variable, select the wrong printer, etc. The wrong labels can be affixed to a job, which may go to the customer and create major delays, rework and potential loss of business.

With full print automation, the operator simply scans a bar code. All decision making is handled by the technology, virtually eliminating the potential for human error. Simple prompts can be added for additional customization.

We printed a sample of 10 each of five labels both manually and then using full automation. The labels were created in advance and saved. We multiplied the results by 25 to simulate multiple customer jobs.