

An **Avery Dennison** White Paper



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Mobile Printing
How a 100 Store Chain Can Save \$1 Million

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Products and Services

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Introduction

Pricing and barcoding functions consume a large portion of available resources in the retail environment. Time spent performing pricing tasks is time *not* spent helping customers, driving sales and improving the customer's shopping experience.

Batch Process vs. Mobile, On-Demand Printing Process

Examples of process flows

Challenges of Back-Room/Batch Printing

6 challenges

Benefits of Mobile Printing

6 benefits

Mobile Printing Methods by Application

Handy grid

Savings Calculations

Labor savings resulting from implementation of a mobile solution can be estimated.

Conclusion

Taking the printer to the product Improves efficiency and drives cost out of retail in-store processes. In addition, it improves accuracy and leads to improved customer satisfaction. Finally, associates are performing their tasks on the selling floor where they are accessible, improving the customer's shopping experience and enhancing customer retention.

Mobile Printing – How a 100 Store Chain Can Save \$1 Million

Introduction:

Pricing and barcoding functions consume a large portion of available resources in the retail environment. Time spent performing pricing tasks is time not spent helping customers, driving sales and improving the customer's shopping experience.

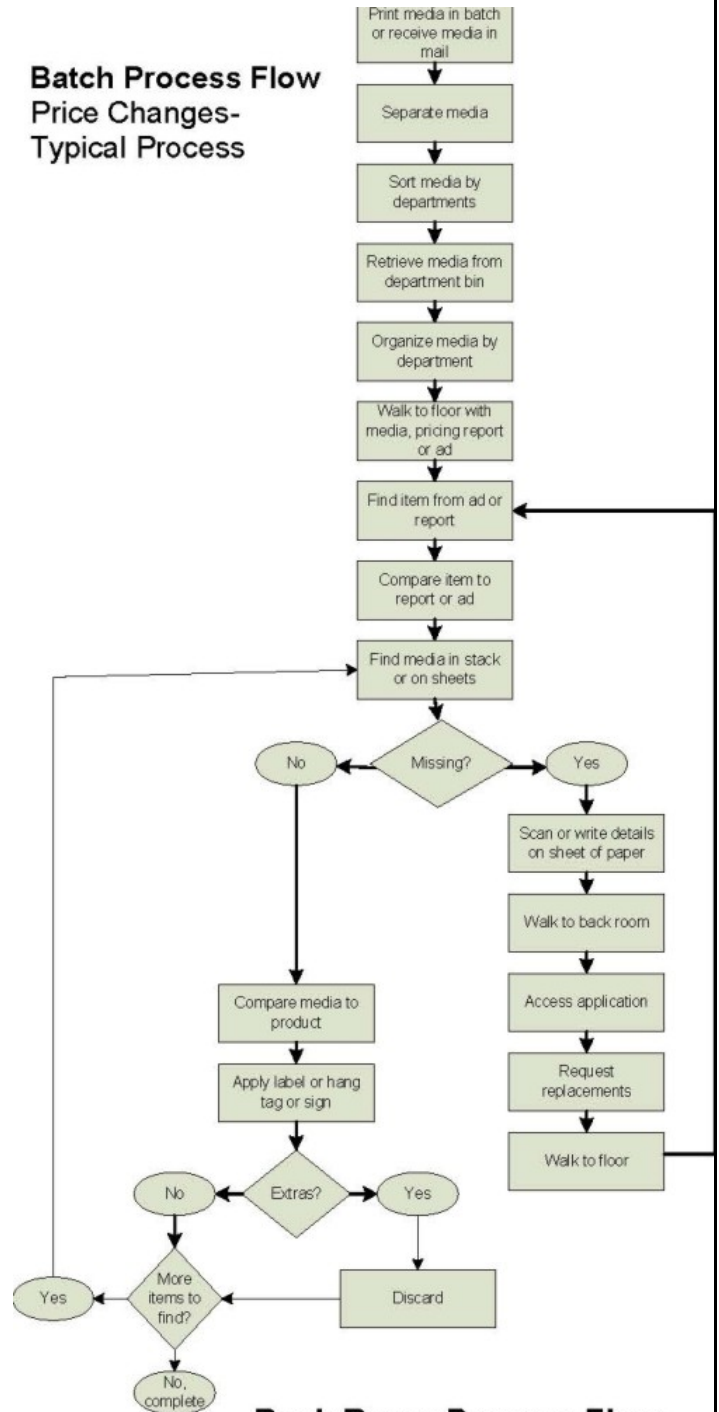
The pricing method utilized relates directly to the time required to perform the task. Many methods involve printing labels, tags and signs in the back room or off site, and later matching the media to the product. Alternative to those methods is mobile printing, or taking the printer to the product—printing the labels, tags or signs one at a time, at the product, when they are needed.

The advantages of mobile printing translate directly to improved efficiency and reduced labor costs. The level of savings depends on the method of portable printing solution utilized.

Converting to an on-demand mobile printing method for labels, tags and signs produces hard benefits and a remarkable ROI

Batch Process vs. Mobile, On-Demand Printing Process:

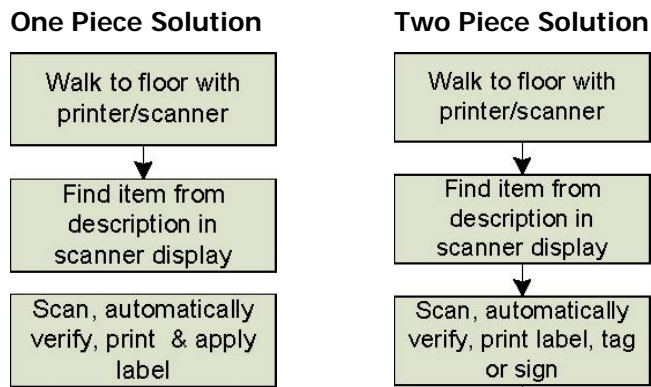
Batch Process Flow Price Changes- Typical Process



Back Room Process Flow

- 17 Process Steps – typical process
- 30% waste on average
 - Out of product / don't carry product
 - Printed on wrong format
 - Wrong size printed
 - Too many printed

Mobile, On-Demand Process Flow Price Changes – Typical Process



Mobile Printing/Batch Process Flow

- 3 to 4 process steps, depending on hardware utilized
- 0 waste
- 0 missing
- 0 printed incorrectly

Challenges of Back Room / Batch Printing

One file for all locations

Data files for batch or off site printing are typically created centrally at the corporate office and forwarded to the stores or print shop. The files contain detail for all items scheduled for price changes or markdowns, and not just items specific to each store. Since all stores do not carry the same merchandise, extra labels, tags and signs are printed.

Data files contain errors

Additionally, since the data provided is not store-specific, some of the media printed at the stores or print shop is wrong, in the wrong quantity or missing.

Labels / tags / signs printed in a sequence different than the store layout

After the media is printed or received, prep work is required to separate, sort and distribute media to department personnel. Additional prep work is required to sort the media to match the order in which the products are displayed on the selling floor.

Find correct item

Manual matching is one of the most time-consuming and error-generating elements of a pricing process in a batch environment. Many items are touched and compared before the correct item is matched. Even if a data collector is used for verification, juggling the scanner, list and media can cause an associate to lose her place and mark the wrong product. Additionally, if an item is located from a list, the media must be found in the stack of laser sheets or pile of signs and verified again.

Media missing

An associate doesn't realize that media is missing until she attempts to price an item. At that time, she must make a note of the item details or scan and "send" an order for replacement labels, tags or signs to the back room printer. Replacement media printed off site by a third party print shop can take days or even weeks to receive.

Waste

Because the process to replace missing media is so time consuming, most retailers intentionally print extras

initially. The extras are discarded at the end of the process. An average waste factor is 30+% in retail.

Benefits of Mobile Printing:

Improved Efficiency

Taking the printer to the product eliminates process steps, chances for matching errors, walks, handling media, producing replacements, and multiple handling of the same product.

Labor Savings

Efficiency gains as a result of printing “at the product” translate directly to reductions in labor cost. Process time is significantly reduced regardless of the mobile method utilized. All preliminary organizing and sorting of media is eliminated, as well as ordering and printing replacements.

Improved Customer Satisfaction

Correct prices are placed on products faster avoiding customer confusion and embarrassment at the point of sale.

Improved Pricing Accuracy

Verification is performed automatically by the application with an on-demand printing solution, thus avoiding human error. The application automatically confirms that the correct item has been located, and the correct price automatically prints on the media.

Increased Sales

Improved customer satisfaction ensures retention and promotes

positive word of mouth. Sales and profit increases will follow as pricing integrity is improved and maintained and customer confidence solidifies.

Utilization RF network

An in-store RF network provides real-time data when used in conjunction with a data collector. When a price change file is accessed, for example, an automatic item validation occurs when an item is scanned. Real time accessibility to pricing information on the selling floor enables a retailer to easily implement a mobile printing solution and more comprehensively utilize their RF network.

Benefits common to all mobile processes include:

- Automatic item verification – eliminates manual matching
- Eliminates walks to print replacements or order from third party
- Improves pricing accuracy
 - o Pricing completed faster
 - o Label, tag or sign prints automatically eliminating guesswork & errors
- Improves productivity - product is marked first time “touched”
- More efficient – labels print as needed eliminating sheets of labels and piles of signs to organize and sort
- Eliminates waste and extras

Mobile Methods by Application

Method	Applications	Best Solution	Mobile (typical) process seconds per item	Benefits
Adhesive label applied directly to product	Markdowns, markups, price changes, item marking, price checks (correcting incorrect prices on the spot)	One piece solution	Scan, print & apply label 3 seconds	-Fast (3 seconds to scan, print and apply label) -One motion process - no tucking or laying down tools -Accurate - no looking away from product - application automatically verifies and prints label
Adhesive label applied to shelf	Shelf labeling, promotional labeling, inventory control labeling	Two piece solution	Scan, lay down scanner, remove label, apply, pick up scanner 9 seconds	-Efficient - scan existing shelf label, print replacement on the spot -Accurate - eliminates errors -Labels print one at a time - eliminates searching through laser sheets
Tag for item marking	Re-ticketing, item marking	One piece solution or two piece solution	Scan, print, attach tag 10 seconds	-Returned items re-marked and returned to stock faster -Missing tags replaced on the spot not removed from selling floor to be re-ticketed
Large signs placed in holders	Ad set	Laser printer on mobile cart	Print -6 seconds Hang - 10 seconds	-Improves pricing accuracy -sign printed on the spot -Eliminates verification process after signs set -Eliminates waste
Multiple size signs placed in holders	Ad set	Laser printer / thermal printer combination on mobile cart	Scan/print laser - 6 seconds Scan/print thermal -4 seconds Hang - 10 seconds	-Correct size sign prints one at a time eliminating waste -Eliminates sorting, organizing piles of signs
Item marking	Receiving	One piece solution	Scan, print and apply label 3 seconds	-One step process - scan to collect data, print and apply item label -Eliminates double touches of product -Efficient - items scanned in receiving not taken to POS
Capturing transfer detail	Store-to-store transfers	One piece solution	Scan items, print content label 2 seconds per item	-Eliminate hand-written forms - data captured and content label printed automatically when items scanned - Enables receiving store to "scan product in" -Ensures accurate inventory records

Savings Calculation

Labor savings resulting from implementation of a mobile solution can be estimated by completing the Excel spreadsheet below. The completed example (Example 1) demonstrates the savings potential of a one-piece print-and-apply solution measured against a red pen manual method for markdowns. Labor savings for the 100-store chain in this example is \$1M.

Example 1 – Completed Example

	30	Current method - seconds to complete markdown, per item,
-	3	One piece print and apply method - seconds to complete per item
=	27	Seconds saved per item
x	2,700	Number of items marked per week
=	72,900	Seconds saved per week
/	60	Seconds per minute
=	1,215	Minutes saved per week
/	60	Minutes per hour
=	20.3	Hours saved per week, per store
x	52	Weeks
=	1,053	Hours saved per year, per store
x	100	# stores
=	105,300.00	Total hours saved
x	\$ 10.00	Average wage
=	\$ 1,053,000	Annual labor savings

To estimate labor savings, fill in the values in the salmon colored boxes and calculate as indicated. Per-item times for mobile printing solutions can be found on the Mobile Methods Application chart.

		Seconds per item, current process
-		Seconds per item, mobile solution
=		Seconds saved per item
x		Number of items marked per week
=		Seconds saved per week
/		Seconds per minute
=		Minutes saved per week
/		Minutes per hour
=		Hours saved per week, per store
x		Weeks
=		Hours saved per year, per store
x		# stores
=		Total hours saved
x		Average wage
=		Annual labor savings

Conclusion

Taking the printer to the product improves efficiency and drives cost out of retail in-store processes. In addition, it improves accuracy and leads to improved customer satisfaction. Finally, associates are performing their tasks on the selling floor where they are accessible to customers, improving the customer's shopping experience and enhancing customer retention.

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