

# Improving Mission-Critical Documents.

Saves millions and streamlines manufacturing processes.



# Maximising uptime. Reducing costs.



This global automotive manufacturer company wanted to find a better way to produce Monroney labels and assembly line documents.

## Background

Global manufacturing companies rely on a variety of documents to get their products to market. And the complex work processes that produce these documents have a wide-ranging impact on quality, cost, customer satisfaction and Time To Market speed. They also play an increasingly important role in transformative initiatives designed to support flexible production, mass customisation and just-in-time manufacturing.

## The Challenge

For example, take the **Monroney labels** that give consumers detailed product and safety information about automotive vehicles. Manufacturers are required by law to produce these labels for every new automobile sold in the U.S. As a result, these unique documents are mission critical. And problems with their production can slow down the assembly line or increase the risk of fines for regulatory noncompliance.

Many manufacturers today also rely on sophisticated production systems that send detailed instructions to assembly line workers to facilitate just-in-time manufacturing. If the printing of these documents is interrupted for any reason, the assembly line grinds to a halt. And companies can lose more than \$20,000 for every minute of delay.

A few years ago, a major automotive manufacturer decided to improve the way it produced both of these documents. In the beginning, the goal was to find a better way to produce Monroney labels, because the company's outdated label printing technology was very expensive to maintain.

Since the label production process had a major impact on its business, the company had exacting specifications for a new solution. The printing technology had to produce high-quality output on label stock. It also had to interface seamlessly with the company's proprietary data streams and deliver best-in-class uptime in a demanding, high-volume production environment. Cost reduction was an additional goal.

In a separate initiative, the company wanted to transform its **broadcast printing process** for assembly instruction documents. At the time, the company relied on costly, inflexible impact printers installed at workstations right on the line. Due to the limitations of the technology, some branding and formatting information had to be pre-printed on the documents. And the design and layout could only be changed with sophisticated programming.

In addition, the continuous feed paper stock had to be manually separated or "burst" after printing before the documents could be used by assembly line workers. All of these steps added time and cost to the process. In fact, the company calculated that the manual "document bursting" step alone added more than \$2 million each year to its labour costs.

To find a better way to produce these mission-critical documents, the global manufacturer turned to the document management experts from Xerox.

## The Solution

We worked closely with our clients to engineer process improvements for both of the documents.

To produce the Monroney labels in manufacturing plants and Ports of Entry throughout North America, we took the following steps. We made sure that our laser printing technology was certified by the client for data stream compatibility and label printing. Then we put our solution to the test by producing 5,000 labels under real-world conditions.

Based on the flawless results of this pilot, the company rolled out 70 Xerox® laser printers to more than 25 North American assembly plants and port of entry locations.

We also recommended a series of process improvements that reduced operational costs. Previously, the company purchased pre-printed inventories of label stocks for each of its automotive brands in the U.S. and Canada. This meant the company had to maintain inventories of 22 different pre-printed colour labels and manually stock a variety of labels for each printer.

We helped the company switch to a single, economical label stock and rely on the dynamic image formatting capabilities of our technology. As a result, the company could print borders, branding and all of the required Monroney information in a single pass without having to manage a complex, pre-printed paper stock inventory.

Thanks to the design flexibility of our technology, the client was also able to easily incorporate additional information on safety and customer options without increasing the size or cost of the labels.

In a separate initiative, we worked with the client to replace impact printers used in the broadcast printing process for assembly documents with state-of-the-art Xerox® monochrome laser printers. We also customised the firmware in the printers to minimise the risk of data loss and related production delays.

Following a successful pilot project in a key operational facility, we worked with plant-based IT managers throughout North America to assess their specific needs and show them the advantages of a broadcast printing solution based on our printing technology. Over time, we installed more than 400 Xerox® laser printers in nearly 20 manufacturing plants in the U.S. and Canada.

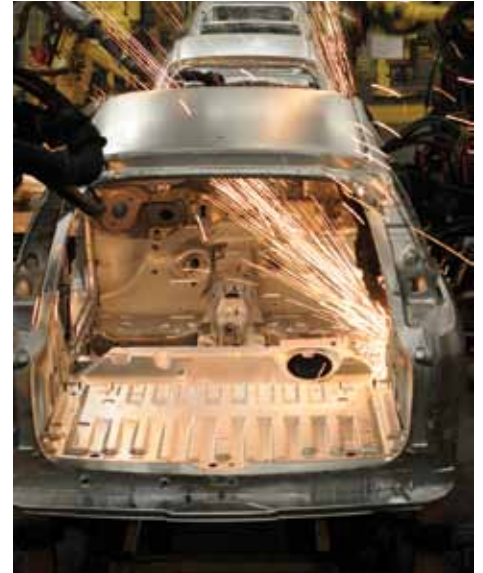
## The Results

Our solution dramatically improved uptime. In fact, our client has printed more than 45 million Monroney labels over the past decade without losing a single minute of manufacturing time due to a label production problem.

Since the initial rollout, we have completely upgraded the label printing infrastructure with the latest laser printing technology on two separate occasions. As a result, our solution has been in continuous operation in our client's manufacturing plants for almost 10 years.

The new broadcast solution helped the company save more than \$2 million in labour costs and more than \$1 million on the total cost of print production, including equipment, service, supplies and paper stocks.

Our recommendations on process improvements also simplified inventory management and eliminated the need to manually supply each printer with multiple pre-printed stocks, since all of the required product, safety and branding information can be quickly printed by our technology.



Our client has printed more than 45 million Monroney labels over the past decade without losing a single minute of manufacturing time due to a label production problem.

The new broadcast solution helped the company save more than \$2 million in labour costs and more than \$1 million on the total cost of print production.

# Facilitating just-in-time manufacturing.

The solution we engineered for the company's assembly documents enhanced its broadcast printing capabilities and brought new efficiencies to a key, document-driven business process. These improvements helped our client:

- Eliminate the need for costly pre-printed paper stocks
- Replace labour-intensive, continuous feed paper stocks with cut sheet paper
- Simplify the re-design of broadcast documents by eliminating the need for sophisticated hard coding of mainframe print jobs
- Improve the quality and effectiveness of assembly documents by adding images, 2-D bar codes, greyscale and other visual enhancements
- Better utilisation of paper stock through efficient duplex printing rather than simplex printing on costly, oversized paper stocks
- Eliminate the need to manually "burst" documents from tractor-fed paper
- Conserve valuable production space by reducing the footprint required for inline broadcast printing technology

The combined benefits of our solution helped our client save more than \$1 million dollars in the first year alone.

Both of these projects helped our client reduce costs, operate more efficiently and facilitate just-in-time manufacturing, all of which are top priorities in the highly competitive automotive manufacturing industry.

## Case Study Snapshot

### The Challenge

- Reliance on outdated technology for the production of two mission-critical documents
- Streamline work processes and eliminate unnecessary manual steps
- Limited design and formatting capabilities
- Excessive costs for printing stocks, inventory, service and support
- The need for maximum uptime in a high-volume production environment

### The Solution

- State-of-the-art Xerox® laser printers certified to meet demanding client requirements
- Customised firmware for Monroney label printing to prevent data loss and production downtime

- Standardised label and paper stocks, including plain paper
- Optimised document processes to eliminate unnecessary steps
- Pilot projects in real-world operating environments prior to rollout

### The Results

- \$2 million annual savings in labour, over \$1 million savings in overall print production
- More efficient work processes
- Data-synchronised printing to support flexible manufacturing
- Simplified inventory management
- More on-demand design flexibility
- Maximum uptime to support just-in-time production

**About Xerox Services.** Xerox Corporation is a world leader in business process, information technology and document outsourcing services. Our unique combination of industry expertise and global delivery capabilities helps you reduce costs, streamline operational processes and grow revenue while clearing the way for you to focus on what you do best: your real business.

**For more information on how we help leading manufacturers, visit [www.xerox.co.uk/services](http://www.xerox.co.uk/services).**

