



Welcome to G3 Original

# Radio Frequency Identification (RFID) Technology Helps Create “Google Maps” Style Visibility for the Factory

The stakes have never been higher for U.S. manufacturing

As nations worldwide grapple with disruptions in supply chains, fluctuating trade dynamics and evolving geopolitical tensions, the role of Smart Manufacturing has transcended its technological roots to become a linchpin for national resilience and strategic autonomy. As a response to the prevailing circumstances, many corporations are opting to reshore their manufacturing operations. Concurrently, the U.S. is experiencing a worker shortage, further complicating the challenges at hand. The emerging Generation Z workforce is made up of tech-savvy individuals who are anticipating intuitive tech-enabled environments. Generation Z is accustomed to utilizing apps like “Google Maps” which helps them navigate their day, and “Find My iPhone” which helps them quickly locate misplaced items.

Recently, G3 Boats, a Missouri-based manufacturer of recreational watercraft, determined that it required “Google Maps” style visibility into its production process. Seeking real-time insight into each boat’s progression through production and prompt alerts for bottlenecks and stalled orders, G3 Boats turned to Zebra and Xemelgo, a Zebra Premier ISV Partner, for a solution.

## The Challenge: Manual Processes Limit Visibility and Decrease Efficiency

G3 Boats is a division of Yamaha Motors that manufactures thousands of boats that are sold through a network of dealers located across North America. It features several industry-leading product lines and offers an extensive variety of models options and customizations that demand careful tracking from production through delivery. This meticulous process ensures every boat is expertly crafted to match the customer’s specifications and is promptly delivered to the designated dealer.

### SUMMARY



**Customer**  
G3 Boats



**Partner**  
Xemelgo

**Industry**  
Manufacturing

**Challenge**  
Manual processes limit visibility and decrease efficiency. Eliminate manual processes and provide better visibility into the manufacturing and distribution of boats.

- Benefits/Outcomes**
- Improved visibility into the manufacturing process
  - Greater productivity and efficiency
  - Enhanced access to data

- Solution**
- FX9600
  - SLS D820 dock door portals (FX9600)
  - SLS D800 dock door portals (FX9600)
  - FX7500
  - ZT411R
  - MC3330xR
  - MC3390xR

For years, G3 Boats has tracked boats through manufacturing and distribution through a series of manual procedures. While the system was generally reliable, a significant investment of resources, time and effort was required to collect a limited amount of data, making it difficult to optimize workflows.

As G3 Boats Project Manager Larry Price explained, “There were times when there was no way for someone to learn the status of a boat other than to walk through the production line, paint shop or yard until they found the boat and saw it for themselves.”

### **The Solution: Using RFID to Create “Google Maps” Style Visibility for the Factory**

After reaching out to the Smart Manufacturing solution experts at Xemelgo, G3 Boats decided that it could swiftly solve visibility challenges with an automated data collection system. To meet this objective, Xemelgo proposed a solution that uses the automation capabilities of RFID technology to capture and integrate production data into Xemelgo’s comprehensive Work Order Management and Automated Inventory Management systems.

Now, instead of barcode scanning or manually updating systems to track orders through production, G3 Boats uses a range of Zebra RFID printers and readers to automatically capture data encoded on passive RFID tags at every step of production. This information is then rendered on a map of their facility, where everyone can see the production health of each department.

Delving further, Xemelgo’s CEO, Rich Rogers, emphasized that, “Today there is a tremendous burden being placed on factory floor workers to manually update business systems. In the case of G3 Boats, they have welders and other team members that wear heavy gear. Legacy software solutions require team members to jump through hoops to scan barcode labels or manually key-in information. Our Xemelgo system allows the workers to focus on their jobs, while the Zebra sensors update G3’s business systems on their behalf.”

### **The Outcome: Improved Visibility and Greater Productivity**

Following a successful proof-of-concept validating the efficacy of Zebra’s RFID technology, G3 Boats transitioned to a full-scale implementation, rolling out the solution across its dual factories. This involved the seamless integration of Xemelgo’s software with Zebra’s RFID technology and G3 Boats existing business systems. The final solution enabled “Google Maps” style visibility to every work order flowing through G3’s production process.

“Zebra offers a wide assortment of RFID readers, including mounted readers, handheld readers, and dock door portals. It is nice to see the Xemelgo team wrap our hardware portfolio with their turnkey software to enable their solutions for manufacturers.”

**Brent Brown, General Manager of Advanced Location Technologies at Zebra**





Plant 2 Finish Panorama

Now, instead of waiting for time-consuming manual processes to produce a limited amount of information, Xemelgo's RFID-powered solution automates data collection and provides real-time visibility into every hull and assembly throughout production, storage and distribution. If a boat gets stalled in one department or winds up somewhere other than where it needs to be, updates and alerts make it easy to identify and fix the problem.

"Instead of having to ask a dozen different people to figure out the status of an order, we can just check the dashboard and see exactly where the boat is in real time," said Price. "If an order is beginning to run behind schedule, we get an immediate alert notifying us of the issue."

In addition to decreasing the manual data entry workload, the enhanced data and visibility improve coordination between inventory and production, allowing for efficient just-in-time inventory management. The system delivers benefits throughout the operation, all the way up to improving the sequencing of finished boats as they are loaded on trailers for sequential delivery to multiple dealers.

The switch to RFID also aligns with G3 Boats' corporate culture. As Marc Castillo, General Manager at G3 Boats explains, "One of our core principles is respect for our people, and automating manual processes is one way we can achieve our goal of making their jobs more enjoyable. The Xemelgo solution has minimized the burden on our workers while also providing greater visibility into our operation."

"Zebra offers a wide assortment of RFID readers, including mounted readers, handheld readers and dock door portals," said Brent Brown, General Manager of Advanced Location Technologies at Zebra. "It is nice to see the Xemelgo team wrap our hardware portfolio with their turnkey software to enable their solutions for manufacturers."

Connect with the experts at Xemelgo to discover how Xemelgo and Zebra can deliver an RFID-powered solution for your factory, providing real-time visibility into every facet of your operation.

To learn more visit [zebra.com](https://zebra.com)



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