



Real-Time Sawmill Throughput and Rare Wood Inventory Automation

*Case Study:
IBC International Bar
Coding
Deploys Long Range
Log Tag Scanning
Solution for a
California Sawmill*

Executive Summary

A West-coast based manufacturer specializing in premium redwood products needed greater visibility into its sawmill operations and inventory. Processing rare and high-value logs, the company required a reliable method to identify every incoming log, accurately measure production throughput, and eliminate manual inventory updates without interrupting mill operations. The manufacturer partnered with [IBC International Bar Coding Systems & Consulting](#) to implement an automated [fixed-mount scanning solution](#) that identified every tagged log immediately before it entered the primary saw. Using IBC's twin-head scanning technology and real-time production software, the system captured throughput data, automatically updated inventory, and assigned each processed log to a daily production batch.

The result was a digital production platform that improved inventory accuracy, provided live operational visibility, and established complete traceability from raw hardwood inventory through primary processing.

The Challenge

The manufacturer processes oversized redwoods, making every log a valuable raw material. Manual inventory updates and production tracking made it difficult to accurately determine mill throughput, monitor inventory consumption, and associate finished production with individual log inventories. The system also needed to identify logs moving at production speed without requiring operators to stop or reposition material.



The Solution

IBC designed and implemented a high-performance automated scanning system engineered specifically for lumber manufacturing environments. The solution included:

- Individual identification of every incoming redwood log via IBC twin-head fixed-mount scanning system positioned at the saw infeed
- Long-range scanning capability reading tagged logs from **6 inches to 20 feet** away while travelling perpendicular to the scanning station
- Real-time Human Machine Interface (HMI) installed inside the saw control shack
- Centralized database capturing production throughput and inventory activity

The HMI dashboard provided operators with live production statistics, allowing supervisors to monitor mill throughput throughout the day without relying on manual reporting.

Results & Benefits

The implementation provided immediate operational improvements across production and inventory management. Key benefits included:

- Automated identification of every log entering production
- Enhanced production reporting and operational visibility
- Elimination of manual production tracking and Improved inventory accuracy
- Daily batch and lot assignment supporting downstream traceability
- Scalable architecture capable of supporting future analytics and manufacturing optimization



IBC's automated twin-head scanning solution transformed manual sawmill tracking into a real-time digital production system, providing continuous throughput visibility while automatically maintaining accurate inventory and batch traceability.

Conclusion

By partnering with IBC International Bar Coding, this California redwood manufacturer successfully modernized its production monitoring and inventory management processes without disrupting mill operations. This project demonstrates how digital transformation can provide manufacturers with immediate visibility into production performance while strengthening inventory control and traceability.



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