



ERROR PROOF®
MANUFACTURING EXECUTION SYSTEMS
IDENTIFY TRACK MANAGE

SOFTWARE

CONSULTING

IMPLEMENTATION

HARDWARE

Error Proof® Software Solutions



Freedom Technologies is the leading provider of advanced solutions that eliminate human error on the shop floor at manufacturing and distribution companies. Freedom Technologies' Error Proof® and EP Bridge® business solutions are designed from the ground up to fit your business today, and have the adaptability to change with your business over time. A broad portfolio of applications with industry-specific functionality gives you unprecedented flexibility to optimize business operations and compete more effectively.

Freedom Technologies provides complete solutions for companies — from automotive to consumer goods to manufacturing. Organizations in the public and private sector use Freedom Technologies' Error Proof® and EP Bridge® solutions to build stronger, more profitable and competitive businesses.

Freedom Technologies was founded in 1991 and is headquartered in Brighton, MI with additional offices in Traverse City, MI, Grand Rapids and San Diego.

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What is Error Proof®?

Error Proof® provides manufactures with a configurable software application for monitoring, managing and controlling production line operations, ensuring the accuracy of the manufacturing and shipping procedures.

The standard Error Proof® application includes a rich set of label printing, production tracking and automated data capture functionality as well as a robust set of verification and validation functions that can be used to perform component part verifications, capture testing data, track part component genealogies (serial and lot traceability tied to each part), produce serialized part labels or direct part markings, interface with the programmable logic controllers (PLC's), count to container verification and Earn-a-Label™ for shipping.

Error Proof® eliminates human error on the shop floor. This solves the problem of today's companies that must re-engineer their plant and warehouse to streamline workflows, reduce labor, increase inventory turns, lower inventory levels, maximize data accuracy and timeliness and conform to customer quality mandates. Error Proof® validates all your plants' processes using automatic data collection devices such as PLC's, scales, direct parts marking systems and vision systems.

How Can Error Proof® Help You?

By eliminating human error on the shop floor, Error Proof® prevents, detects and stops defects from reaching your customers.

Error Proof® streamlines the data collection requirements that your ERP/MRP system requires, providing timely, complete and accurate data for your shop floor users.

Improve supplier quality ratings, to attain Six Sigma initiatives, minimize scrap and rework, due to increased control over manufacturing, lower warranty costs by having immediate traceability of shipped product and compliance with government mandates (TREAD Act) by implementing the Error Proof® solution at your facility.



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Surpass Customer Expectations with Error Proof®

Manufacturers in the supply chain today face unprecedented pressures: cost reduction demands from customers, intense competition from offshore competitors and zero-defect quality expectations from customers. Customers in the supply chain expect nothing less than 100% quality in parts placed in containers, labeled correctly and delivered just-in-time. On top of this, new government mandates are forcing manufacturers to maintain complete recall traceability systems for their products and OEM customers are placing the burden of warranty costs suppliers. In short, the cost of quality nonconformance is increasing. Poorly performing suppliers are more likely to lose business to other suppliers. Customers in the supply chain are now charging incurred costs for nonconforming shipments back to their suppliers. Furthermore, nonconforming suppliers can now face 100% of the sorting requirements from their customers after just one "quality incident," until they prove to their customers that they have improved quality conformance. How can the manufacturing community change its practices to conform to supply chain customers' standards? This is a key challenge faced today by all suppliers. There is a solution to the problem, the Freedom Technologies' Error Proof® system.

Shop Floor Data Collection

Error Proof® enables automatic data collection for ERP integration that supports your operations by enabling manufacturing execution processes as well as providing bar code middleware functionality.

The Error Proof® client/server architecture allows the application server to reside at the plant, so that Error Proof® can function even when the ERP server is unavailable. Error Proof® also validates data locally for maximum performance.

Freedom Technologies' Error Proof® system is also highly flexible in its ease of configuration and modification. Its logic is script-based throughout and is stored in an SQL Server database. Processes can be made on-site without recompiling or redeploying the software.



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The following four shop floor functions are areas that require high degrees of human touch and elevated risks for creating errors. Error Proof[®] is designed to seamlessly integrate with your shipping, labeling, production and quality processes.

Shipping

Error Proof[®] ensures that parts are shipped correctly and the quantity of parts placed in each container is correct. Properly labeled (Earn-a-Label[™]) containers ensure that placement on the correct truck with the correct paperwork (Earn-a-Shipper[™]). Error Proof[®] verifies that the correct compliance label is being placed on each container as required by the customer.

Labeling

Error Proof[®] provides functionality to serialize all production parts. It supports most direct part marking methodologies such as labeling, dot peen, laser etching, ink jet, and many others. Each serial label is typically scanned to produce a container label (Earn-a-Label[™]) with genealogy retention. This assures only correct parts are being packaged and eliminates scrap and foreign parts from finding their way into shipping containers.

Error Proof[®] also contains a sophisticated WIP label to track work-in-process. The WIP label can be produced at the part or at the container level, thus providing a tracking mechanism throughout the production process. This label is unique in that it combines the bill and router with the label to be used for additional error proofing processes.

Error Proof[®] has the capability to serialize all incoming shipments of components during the receiving process via scanning or the incoming ASN process. To automate inspection, Error Proof[®] has an automated "Skip Lot" receiving inspection process, that tells the operator when to inspect the part, what parts to inspect, how to inspect the parts and records the history of the inspection process.

Production

Production error proofing validates the manufacturing process contained in the routing and product structure, including any bill of material component, correct container, attributes and features of products, and it retains validated production information.

Quality

Error Proof[®] provides complete genealogy tracking from components utilized to process/characteristics retention. When utilizing direct parts marking or part serialization, this information can be retained to the part level. Testing, measurement data, production date, time stamp, machine and employee information can also be easily retained with Error Proof[®].