Customer: IONEX Research Corporation
Lafayette, Colorado, USA

Industry: Manufacturing

Needs Expressed:
- End-to-end inventory control using bar- and QR codes
- Assembly traceability
- Paperless process
- Access to manufacturing data and documentation in real time, from anywhere

Benefits Realized:
- Ability to track all data associated with an item using bar- and QR codes
- Assembly build traceability
- Inspections and audits directly from the shop floor
- Ability to access and complete documentation anywhere
- Easy to use mobile interface
- Ability to set up system specific to IONEX needs

Customer Situation
IONEX uses a large amount of components from multiple vendors and also collects tremendous amount of data at each step of the manufacturing process. It was also challenging to keep information up-to-date and communicate between departments.

Background
IONEX already used MISys Manufacturing for inventory management, but the tasks of manually tracking items and manually updating the database became quite daunting. The company found difficulty in maintaining up to date and accurate information and saw an opportunity to improve efficiency in company operations. IONEX was looking for ways to reduce the physical paperwork that accompanies all of its projects, time spent to complete it and track it down.

Important Details Prior To Implementation of QR Inventory
IONEX products are manufactured under rigorous quality assurance procedures. Company quality assurance program is compliant with NRC Criteria 10CFR-50, Appendix B; ANSI N45.2; MIL01-45208A; and ASME NQA-1. IONEX is a registered holder of the ASME "U" and "R" stamps. For IONEX customers, the quality of our products is directly associated with traceability that was lacking.

The manufacturing process begins upstream with project data that is fed directly from the engineering department, through procurement, and processed by a material control group. This includes identifying and tracking raw materials and purchased components as well as documenting product acceptance, authorizing releases, invoice preparation, and organization/staging of the inventory.

IONEX Research Corporation designs and manufactures high-performance process filtration and treatment equipment. These systems have been used to protect the environment and personnel from the harmful effects of some of the world's most hazardous chemicals and contaminants.
Implementation

“Overall, the setup of QR Inventory was very simple and straightforward. IONEX was able to configure most of the basis for its system and primary concepts within the trial period. Then as IONEX became more familiar with the system and began to realize more of its own needs, it was very easy to adjust and embellish the system to grow and follow the path of the company. IONEX would encourage other prospective companies to fully explore the details and relationships of each of the QR Inventory features and data categories and how they interact with each other. IONEX uses the functionality of QR Inventory for categorizing various types of information far beyond just physical inventory and location. Material identification, location & staging, statuses, build progress/history, manufacturing order processing, designating responsibilities and generating to do lists, and quality program integration are some of the other uses IONEX found for QR Inventory in addition to tracking deliveries and depleted material. On a deeper level, IONEX would recommend carefully constructing transaction types and flow paths and utilizing them diligently; taking advantage of transactions is beneficial because the Transaction Reports are always available to document the data. They can easily be exported to CSV files for use in MS Excel or listed in MS Access reports, both of which are powerful tools for IONEX.”

Solution in Action

“The mobile apps are vital to connecting our shop floor personnel to the same database as our desktop users. The Kits & Assemblies module is a great way for us to view the entire contents of specific equipment. The ability to "drill-down" through all the way to the raw materials and components helps maintain the traceability needs of our projects. The reporting tools are also a great help for tracking transactions, responsibilities and assignments, and completing valuable documentation. IONEX anticipates using this information for identifying historical trends, making projections, and realizing even more optimization strategies. Most record keeping tasks are now completed quickly and "live" as they happen. The need for physical paperwork is eliminated and everyone in the company has access to the data.”
Results

“QR Inventory enables us to label items with an applicable heat number, serial number, or lot number which is incorporated into a unique QR code image for the item. IONEX uses these QR codes not only for managing inventory, but also for "building" the equipment electronically in real time as the physical products are fabricated. With the Assemblies & Kits module, IONEX performs transactions on the shop floor to automatically deplete the required material quantities while simultaneously assigning the appropriate heat, lot, or serial numbers to completed parts and assemblies. The result constructs a detailed build history of the equipment so that any piece of any assembly may be traced back to the original material. This capability is critical in helping IONEX meet strict customer and regulatory requirements.”

“In addition, the data collected by QR Inventory provides a live look at the statuses of everything in production. QR Inventory and QR Mobile Data allow us to gather information and view reports at every step of the way, which has greatly improved communication between departments.

The flexibility of the software platform enables us to set up the system in a way that is unique to the company. IONEX uses QR Mobile Data to complete weld maps, inspections, tests, and other shop traveler data. It also integrates and interconnects with other software we use, such as Microsoft Office and MISys Manufacturing.”

Discover Inventory Management That Just Works.

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