

INDUSTRIAL MANUFACTURING – REAL-TIME RFID ASSET TRACKING

CASE STUDY

ABOUT THE COMPANY

A leading global industrial manufacturer implemented RFID technology to track the movement and status of material between warehouse and manufacturing locations.

This global industrial leader and supplier wanted to track rail carts as they moved between read points and present tracking data to users in a real-time manner. Peak Technologies implemented a custom database and custom front-end application to meet this specific need to facilitate the RFID tracking project along with RFID hardware and tags.

BUSINESS CHALLENGE

A leading global industrial transportation equipment manufacturer needed to track rail cart movements in real-time.

The customer wanted to implement RFID technology in its facility to track the movement and status of up to 450 kit carts that move material between warehouse and manufacturing locations. The goal was to track these carts as they moved between read points and present the tracking data to users in a real-time manner.

The customer sought out a single vendor to provide an all-inclusive solution with all necessary hardware (RFID readers and RFID tags), software and professional services necessary for installation, configuration, training and initial support of all components of the solution.

**INDUSTRY:**

Manufacturing – Industrial Products

BUSINESS CHALLENGE:

Implementing a Complete RFID Solution for Cart Data Tracking

ERP SYSTEM:

SAP

FEATURED PRODUCTS:

- RFID fixed readers
 - Zebra FX7500 RFID readers
 - Zebra RFID-enabled mobile computers
- Software
 - ClearStream RFID (by PTS)
 - Custom front end application and MS-SQL database
- Frick RFID tags mounted on metal

FEATURED PEAK SERVICES:

- RFID Discovery services
- Systems design, custom programming, database design, installation and training
- RFID read performance testing, training and configuration
- Hardware configuration

THE SOLUTION

Peak provided an RFID proof-of-concept (POC) consisting of several stages and components. The POC included a combination of hardware (up to 11 RFID fixed readers), motion sensors, software (Clearstream and custom), RFID tags and professional services.

RFID Discovery services were conducted to ensure the technology would operate in the desired manner within the prescribed environment.

Process and systems design services were performed, including both hardware and software, to ensure the intended use case/process is feasible and would meet customer requirements.

This resulted in an agreement for all hardware, software, RFID tags and services required for the targeted solution.

THE RESULT

The solution records the movement of carts and their status in real-time through up to 11 read points into a custom MS-SQL database. The read capture is performed by Clearstream software. The custom front-end application/database written by Peak provides real-time visibility and status updates, including a dashboard view of activity that is

updated at user-defined time intervals. The custom front end application provides configurable dwell time settings and allows supervisors to view/track the amount of time any given cart (and its related order) has spent in its area and whether the cart has been moved out of its expected work flow sequence via a dashboard.

The customer received a complete solution from a single vendor that provided real-time visibility to the movement of kit carts and their respective orders within the manufacturing and assembly environment. The solution will form the basis of a more robust platform over time to include more readers and data entry points throughout facilities to increase tracking detail.



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