RFID JOURNAL LIVE!

SEPTEMBER 26 - 28, 2021
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RFID in Warehouse & Inventory Management Basics

Pedro M. Reyes, PhD

Associate professor of operations & supply chain management

An introduction to the RFID/IoT in Warehouse and Inventory Management Track

In this session, the goal is to gain an introduction on how to benefit from deploying radio frequency identification within your warehouse by managing your inventory and coordinating you supply chain….

Baylor University

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*Supply chain management **coordinates** suppliers, factories, warehouses, distribution centers, and retail outlets **to produce** and **distribute** items to the right customers, at the right time, and at the right price to minimize costs while satisfying a certain level of service.*

Specific Decisions

Supply chain management addresses fundamental issues of controlling the planning, sourcing, making, and delivering of manufactured goods.

The supply chain encompasses demand planning, sourcing and procurement, production scheduling, order processing, inventory management, transportation, warehousing, and customer service.

Design flow

Strategy

Competitive Priorities

Performance (KPIs)

- Two very broad strategies
  - Responsiveness
  - Efficiency

Warehouse and Inventory Management

- The role of inventory
- Materials management

The Role of Inventory

Inventory is a "necessary evil" (Why?)

Fundamental questions

- What type of inventory?
- How much is needed?
- When is it needed?
- Where is it needed?

Inventory types

- Maintenance, repair, and operating supplies (MRO)
- Raw, WIP, FG

Independent versus dependent

Materials Management

- The logistics for answering the fundamental inventory management questions
  - **A time-phased schedule**
- Whole purpose is to support the purchase of materials and the transformation of raw materials and component parts into finished goods (SKU) that are produced and sold to customers
- Two main objectives
  - Minimizing related costs
  - Achieving a desired customer service level

So where does RFID fit?

- Automation
- Informational
- Transformational

Performance Improvements

- Operational **Efficiency**

- Decision-making **Effectiveness**

Track Schedule Agenda

Time	Topic	Speaker
12:15 pm – 1:00 pm	Linking RFID to Inventory Management Best Practice	Pedro Reyes
1:45 pm – 2:30 pm	Targeting the Correct RFID Technology for the Right Project	Kevin Berisso
2:30 pm – 3:15 pm	Designing Your RFID Solution	Kevin Berisso
3:15 pm – 4:00 pm	Building Your RFID Business Case	Pedro Reyes

Kevin Berisso, PhD

- Director, AutoID Lab
- University of Memphis
- Assistant Professor in the Department of Engineering Technology and is the Director of the Automatic Identification Laboratory. His areas of interest include robotics and industrial automation, in addition to bar codes and RFID. Kevin is the current chair of the AIM Internet of Things committee

Pedro M. Reyes, PhD

associate professor of operations and supply chain management. Currently in his 18th year at Baylor University, Pedro teaches the global supply chain management and applied supply chain analytics courses and has been actively researching RFID applications in the supply chain for improving global supply chain operations

Linking RFID to Inventory Management Best Practice

RFID has finally reached a level of maturity at which a critical number of end users are benefiting from the technology at the warehouse level. This session will discuss practical examples of how these companies are using RFID to benefit from real-time visibility into their operations, and to improve their supply chain and inventory-management performance.

Targeting the Correct RFID Technology for the Right Project

This session will present proven methods used to discover profitable challenges that can be addressed with RFID, and specific tools for selecting the proper technology for your specific project. Wisely selecting the correct RFID candidate projects and the proper technology will help your organization minimize its investment, while improving supply chain efficiency more quickly.

Designing Your RFID Solution

RFID is not just about tags and readers. It's a multi-layer system comprising different hardware and software technologies, integrated with your existing enterprise's back-end systems and connected to communication networks. Many scenarios can be envisioned to address an RFID initiative, each of which will have an impact on the solution's design, as well as its benefits—thus suggesting a trade-off analysis. This session will help you understand how to leverage RFID's ability to automatically identify objects, enable real-time inventory tracking and facilitate the tracking and tracing of products and related information throughout the supply chain—and how to design a solution accordingly.

Building Your RFID Business Case

RFID can provide several advantages over existing automated-identification technologies in terms of supply chain and inventory management. In order to build a realistic business case and justify your investment, both qualitatively and quantifiably, you will need to accurately evaluate RFID's marginal impact and benefits over existing technologies. This session will help you understand how to measure the technology's impact on your supply chain process performance, by using specific key performance indicators. In addition, the presenters will explain how to document an RFID business case within your four walls, and throughout your supply chain.

THANK YOU