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Final Copy of Case Study

LOCATION:
Dublin, CA, US

ORGANIZATION:
Matrix Systems & Solutions Inc.

YEAR:
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ORGANIZATION URL:
<http://www.matrix-ssi.com/>

STATUS:
Laureate

PROJECT NAME:
Warehouse Manufacturing System (WMS) and Packaging Execution System (PES)

CATEGORY:
Safety & Security

PROJECT OVERVIEW

"Recalls can be catastrophic," Matrix Systems & Solutions tells its customers and prospects. As an example, it cites the case of a very large producer of ground beef that shipped product found to be contaminated. The FDA ordered a recall. Unable to specifically trace the tainted product, the FDA widened the recall so substantially that within six days, the company was out of business. By contrast, food, beverage, cosmetics, pharmaceutical and other leading consumables companies including Pepperidge Farm, Pepsi, Corning, Cabot Creamery, Morning Fresh Farms, and Sorrento Lactalis recognized the importance of being able to accurately package, label and track their products from production through distribution in real time. They all rely on Matrix Systems & Solutions Packaging Execution and Warehouse Management Systems. Organizations in the consumables space face a number of the same business and regulatory challenges. They need to automate their packaging processes and to ensure that they can trace their products in various size lots, from pallet to cartons to individual units, in real time. They need these abilities so they respond quickly and specifically in the event of product recalls and also to be in compliance with the Bioterrorism Act of 2002, which calls specifically for 'lot traceability'. Lot traceability is a mission-critical requirement for food, beverage, cosmetics and pharmaceutical manufacturers, not just because of the potential catastrophic business consequences of recalls and the requirements of the Bioterrorism Act, but also because many producers' customers demand it as a prerequisite for doing business with them. For example, if product packages are not properly labeled and coded with best buy dates and/or serial numbers, many end customers cannot scan them into their receiving and inventory systems, and therefore, will not accept delivery. These issues and challenges have grown more important and complicated over the past few decades as manufacturing facilities have gotten much larger as more raw materials are imported from sources around the globe and as finished products are increasingly distributed to customers around the world. For manufacturers to stay in business, they must automate manufacturing and



distribution processes and assure their customers that they can track and trace raw materials through shipped products. From the manufacturers' perspectives, not only must they have these capabilities, but they must be able to implement these capabilities in a cost-effective, reliable manner. Matrix Systems & Solutions helps manufacturing clients effectively and affordably address the three key challenges they face: Packaging production automation, Customer and government mandates, and inventory control. The Warehouse Manufacturing System (WMS) was designed to handle serialization, outbound finished goods, PO/raw materials receiving and work in process – to track finished goods from the moment they're created, into the warehouse and throughout the warehouse to the customer. The Packaging Execution System (PES) was designed to handle the complex requirements of shop floor data management and automation, including the creation of the detailed data required to label and track finished goods.

SOCIETAL BENEFITS

Consumable manufacturing facilities have gotten much larger as more raw materials are imported from sources around the globe. To protect consumers and ensure government compliance, manufacturers must leverage technology to automate manufacturing and distribution processes and assure their customers that they can track and trace raw materials through shipped products.

PROJECT BENEFIT EXAMPLE

Cabot Creamery, a \$750 million dairy cooperative in Vermont, selected Matrix's Packaging Execution System (PES) module to create the detailed data required for tracking finished goods in its Red Prairie WMS system. The Matrix solution also enabled Cabot to simultaneously feed costing data into its DSI costing software in real-time. The system also tightly tracks lot codes, weights, and scrap. The system's user-friendly interface allows system operators to be trained in only a few hours. According to Cabot's CIO, Ralph Viscomi, "Matrix totally revolutionized the way we do business. Before Matrix PES, we never had a software solution that enforced policies and procedures but was still flexible enough to handle the unique requirements that come up on a daily basis." Morning Fresh Farms is another Matrix success. The company is a large independent egg processor located near Denver, Colorado that needed to improve and automate its lot traceability and warehouse functions. Detailed lot tracking was not only a necessity for compliance with the Bioterrorism Act, but was also a mandate of a potentially large client. Adding to the challenge Morning Fresh Farms faced was the fact that it had to migrate from a completely manual paper-based WMS to a fully automated one within a two-week window. The company turned to Matrix, engaging the company to install its WMS to address its business challenges. Matrix succeeded in implementing its WMS within the two-week window and in doing so, enabled Morning Fresh Farms to demonstrate lot traceability compliance while also increasing its warehouse efficiency, real-time inventory visibility and improving reporting. Morning Fresh Farms was also able to win a major new client whose business was contingent on Morning Fresh Farms having these capabilities.

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes