CASE STUDY

Nissan

Client Overview

Nissan North America, a leading manufacturer of automobiles, markets seven vehicle lines through 1,000 dealers in the continental U.S. Based in Gardena, California, the company owns and operates ten parts distribution centers (PDCs) that distribute parts to dealerships throughout the U.S.

The Challenge

Nissan managed its PDC operations using an internally developed management system that controlled the sortation and shipping functions. The legacy system was highly paper-based and provided warehouse personnel with no real-time information, visibility, direction, or control. In addition, the system had no receiving functionality, directed workflow functionality, or real-time inventory/location control. Labor productivity, space utilization, and inventory accuracy were well below the level of acceptance of Nissan and its customers.

Nissan needed a Warehouse Management System (WMS) that would provide real-time information, improve throughput, decrease operating costs, and leverage the organization's information systems. Nissan asked Tompkins Associates to assist in selecting and implementing a solution.

The Solution

Tompkins worked with Nissan to complete an analysis of its current operations and systems functionality. From this initial study, Tompkins produced a gap analysis of Nissan's current legacy system and a document defining its current operations.

The Tompkins/Nissan team defined and documented the company's requirements into a Request for Proposal (RFP). All responses were evaluated and qualified vendors were selected for a second round of in-depth evaluation. The team then conducted site visits and reference checks on the chosen vendors. Summit Group's LogisticsPro® WMS was the final selection.

LogisticsPro® provides Nissan with the real-time functionality and capabilities required to meet its operational needs by tracking and locating inventory in real-time and providing the status of each location in real-time. It also directs putaway and replenishment actions to reduce labor cost and increase productivity.

Although LogisticsPro met most of Nissan's requirements, extensive modifications were necessary to maintain current shipping functionalities. Working with The Summit Group,

continued...

NISSAN

TOMPKINS ASSOCIATES

the Tompkins/Nissan team developed an operational flow of Nissan's current operation to help define where LogisticsPro should be modified. Detailed specifications for each required modification were developed. Interfaces between Nissan's business systems and LogisticsPro were also identified and designed.

While the coding of the modifications and interfaces were being completed, the Tompkins/Nissan team turned its attention to the preparation of the Nissan facilities and its employees. Tompkins performed data collection, user and system acceptance testing, contingency and conversion planning, training, and facility preparation.

The Tompkins/Nissan team developed a comprehensive, hands-on, interactive training program to ensure that employees could fully perform their duties under the new WMS. In addition, user acceptance tests and system acceptance tests were created and executed to ensure that any "show stoppers" in production were detected early and corrected prior to the actual go-live day.

The Results

Tompkins assisted Nissan from project initiation through go-live and post-installation support. Tasks included: project management and planning, scheduling, operational design, set-up and configuration, physical preparation, acceptance testing, user training, conversion and contingency planning, documentation, and user support. Beginning with the Sacramento, California facility through the Chicago, Illinois facility, implementation plans were developed and executed on schedule at all nine PDCs.

With the WMS, all PDCs meet and exceed the metrics placed upon them by the national corporation. The WMS produced significant gains in productivity for both inbound and outbound operations due to effective receiving, stocking, picking, and shipping. The time from notification of receipt to available to allocate a container was reduced by 11 percent at all PDCs. The throughput of lines per hour per operator for all PDCs has increased by 13 percent. The throughputs of all PDCs increased by 7.5 percent and are now 104 percent effective.

Labor savings expected for the project were achieved and exceeded by an additional 21 percent savings from 1996 through 2000. Overtime costs were cut by 50 percent and the use of temporary employees was virtually eliminated.

The WMS also increased the inventory control and accuracy. Picking errors decreased by 26 percent and inventory accuracy rose from 99.82 percent accuracy in 2000 to 99.86 percent accuracy in 2001. This means that 99.86 percent of the time an operator arrives at a location, the correct product and quantity is in that location.

Superior Results

After the successful completion of the WMS implementation, Nissan added a tenth PDC to its network. The new PDC was brought online and staffed only with current employees of other PDCs.