

Tool supplier cuts printing time from 15 minutes to a few seconds with TEKLYNX products

Solution Overview

Industry

Automotive manufacturing

Application

Automated labeling

Teklynx Software Products

Label Design Software
LABELVIEW
Host Connectivity Software
SENTINEL

Hardware

Zebra 140Xi, 140Xill, 170Xill
HP Jetdirect print servers
Personal Computers
Compaq Wildfire GS 160

Software

Windows XP
SSA Global (Baan) ERP
Oracle 8.12
Unix 6.4

Partner

Coridian Technologies, Inc.
Scott Strand
8140 Mallory CT
Chanhassen, MN 55317
info@coridian.com
www.coridian.com
953-361-9980

A supplier of auto aftermarket tools was stuck in a time warp. Its high volume label printing was hobbled by a process that took up to 15 minutes to print the first label in a run. For a company that does 3.2 million labels a year that was clearly an unacceptable situation. Despite the fact that the division was using LABELVIEW from TEKLYNX, an industrial-level label design and printing software package, the system configuration did not allow the performance required. A division manager with responsibilities for ERP integration contacted TEKLYNX to see what could be done. That's when he was put in touch with Scott Strand of Coridian Technologies, Inc., a Minneapolis-based TEKLYNX systems integrator, who worked to redesign the system. The division now produces first-out labels in about 3 to 7 seconds.

Part of a corporate family that designs, manufactures and markets a wide range of specialty auto aftermarket service tools including hand-held diagnostics systems and service equipment, inspection and gauging systems, and technical and training information, the division has a great deal of autonomy but receives corporate support for strategic functions. One of these functions is Enterprise Resource Planning (ERP). The auto parts supplier uses a Baan ERP system that supports all enterprise functions including manufacturing and shipping.

The division used a locally-based process that relied strictly on a few local servers and a Local Area Network (LAN), a fast communications medium, label printing was glacially slow – the first label out would take up to 15 minutes. For a company that prints 3.2 million labels per year on 640 formats on multiple label stocks on several printers, the situation was untenable.

Old process is complex -- takes time

It was the process itself that hobbled label printing performance. In order to print, operators would enter the required variables on a local PC that would populate a Microsoft Access database resident on a server. The Access database would then send a request for static data, such as part name and number, to a second Access database. The data from the second database would be merged with the primary Access DB and the merged data would then be sent to the LABELVIEW label design and printing software on another server to pick up the right label format.

The label was then distributed to a PC for printing. Each of the seven

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PC/printer units dedicated to label printing had a run-time version of LABELVIEW so, when it received the print request, it had to query the LABELVIEW server to validate that there were enough licenses available to run the job. Finally, after receiving all of the data and validation, the personal computer sent the label run to its printer connected through a standard printer port. Everything had to funnel through the PC. Commented the division manager, "I traced the process out and by the time I got done I was exhausted! It's no wonder it took so long to print."

Clearly, the label printing operation required business process re-engineering as well as the application of some new technology.

Coridian and TEKLYNX have the answers

The manager got in touch with TEKLYNX to see what could be done. The TEKLYNX representative explained that the company sells through resellers and system integrators but that it has the expertise through its professional services group to work with its partners to customize applications. TEKLYNX suggested a few Minneapolis-based partners and that's when the customer connected with Coridian Technologies, Inc. and Scott Strand. Strand reviewed the situation and promised that, working with TEKLYNX professional services, he could have labels printing in less than 15 seconds. In fact, he guaranteed it.

"The new process covers a lot more ground in much less time. Now, the label printing process receives data directly from our corporate Baan ERP system. The fact that the database is located a thousand miles away is incidental," said the manager.

The team solved the performance issues by eliminating the Access database and adding a crucial piece of TEKLYNX middleware connectivity software, called SENTINEL. A division programmer wrote a program for the Baan ERP system that sends all of the print job information directly to a designated folder monitored by SENTINEL so the label job can immediately be sent to the appropriate printer. This direct access to the ERP system also ensures that the information used in the printing process is absolutely current.

This whole process – receiving the print request, routing the request to the Baan ERP system over the company Wide Area Network (WAN) and passing the label data back to the appropriate printer through the LAN -- takes about 10 seconds instead of 900 seconds (15 minutes) under the old system. A single server handles the SENTINEL middleware operations and the LABELVIEW design station. The process was also streamlined since the division changed the LABELVIEW license agreement to eliminate the verification process.

The Zebra printers are now connected to the PCs via HP JetDirect print servers so placement on the production floor and in shipping is easier. Security is provided at two levels; the Baan user-security level governs session access and determines printing authorization; Microsoft authorizations provide server access security for LABELVIEW and SENTINEL.

For More Information

For more information about Teklynx products or services, please visit our Web site or call us at (414) 535-6200 in the US or Canada. Outside the 50 United States and Canada, please contact Teklynx at +33 562-601-080. To access information via the World Wide Web, go to:

<http://www.teklynx.com/>

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Labels reformatted

The technical and communications aspects of the project went as planned. One unanticipated aspect was that label formats had to be reworked. Due to the upgrading of old printers and conversion and layout changes, the label administrator was required to check and update each of the company's label formats. The result is that every label is now in compliance. "Overall, the whole process went extremely smoothly," the manager said.

Flexibility remains

With the new system, the division is able to expand the range and flexibility of its label printing operations in its three plants. The labeling operation supports over 100 different label stocks and the full complement of 640 label designs. Authorized plant personnel can order product labels or the labels can be digitally requested through the label printing office by the Manufacturing Execution System (MES) as the product is ready for labeling.

The LABELVIEW printing system easily handles both random and serial numbered labels and since the information is governed at the LABELVIEW server level, serialized printing can be assigned to several printers. In addition, by accessing the Baan system, label batches can be identified and printed to correspond to specific requirements. For instance, the company makes several private label products; based on input from the Baan ERP system, private labels can be produced according to customer specifications. In addition, label batches can be produced to match single or multiple purchase orders and pick lists. "If we have a thousand items on a pick list, we can print the correct labels," the manager commented.

The future

Because the label system is now part of the enterprise system, the IT staff is looking at new applications. It can easily be opened up to additional users – virtually any Baan user can be authorized to print labels. Also, the manager is confident that the system will support RFID tags when the time comes.

The manager concluded, "From an efficiency and effectiveness standpoint the new label printing system is wonderful."