

INTERNATIONAL CASE STUDY

INTERNATIONAL FLAVORS & FRAGRANCES INC.

Integrating a World-Class Labeling System With SAP

Solution Overview

Industry

Food and consumer products

Application

Enterprise-wide labeling

Teklynx Software Products*Print Management Software*

SENTINEL™

Label Design Software

CODESOFT®

Hardware

Zebra 105, 140, 160, 170, 220

HP Jetdirect print servers

Personal computers

IBM XSeries 345 Servers

IBM RS.6000 Servers

Software

SAP Enterprise

AIX

Windows XP

Remedy

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International Flavors & Fragrances, based in New York City (NYSE:IFF), is the world's leading creator and manufacturer of flavors and fragrances. It produces fine fragrances and toiletries, soaps, detergents and other household products, as well beverages and food products. IFF is dedicated to the pursuit of excellence in every area of its business using knowledge, creativity, innovation and technology to continually provide customers with the highest quality products and services. In its pursuit of excellence it has developed an SAP-based worldwide shipping, stock and inspection labeling system that is centrally driven from its IT headquarters in Union Beach, NJ, and managed through a network of SENTINEL™ Print Management servers and CODESOFT® label design and printing software terminals.

At the close of the 20th century most companies examined and corrected their systems to accommodate the changeover to what was called Y2K. International Flavors & Fragrances took the project as an opportunity to rationalize and centralize many of its information technologies to eliminate non-integrated systems and cut down on hardware, software and administrative costs across its operations in over 30 countries. IFF began by consolidating two mainframes, one in Europe and one in the U.S., into a single IBM RS6000 and installed a single incidence of SAP Enterprise Resource Planning (ERP) software located in Union Beach, NJ.

At the same time, it was decided to drive all label printing for stock, shipping and inspection labels from the SAP system in New Jersey. This would standardize label printing across the company, eliminate incompatible and redundant systems and ensure data integrity since all labels would be generated directly from the SAP system.

The change required the creation of an interactive label printing infrastructure that would accept label requests from locations throughout the world and direct the data and label format information from SAP to local printers. The system also had to accommodate every potential label requirement in all of IFF's geographies. The wide range of products requiring labels, ranging from small vials to units as large as metal drums and totes, demands an equally wide range of labels. The company has about 300 label printers in 25 locations worldwide and supports over 110 label definition files.

“Putting the SENTINEL servers up was quick.”

Bill Kmak, IFF Server Network Engineer

Developer discovers solution

One of the software architects on IFF’s development team in Holland discovered SENTINEL print management software and CODESOFT label design and printing software from TEKLYNX. IFF developers felt that, for an enterprise-level solution, SENTINEL would be more versatile than the JetForm system they had been using. They tested the configuration and then worked with Bill Kmak, IFF’s Server Network Engineer and his team, based in New Jersey, to scale up and implement the project.

The company already had most of the Zebra printers in place and had been using HP Jetdirect print server software to drive the networked printers. It would continue to use this infrastructure. The value-added part of the project that SENTINEL brought into play was in managing the print requests and delivering label information to the proper networked printer. Industrial Labeling Systems of Chelmsford, Massachusetts worked with IFF to implement the new SENTINEL and CODESOFT based system.

The new system required some new servers and communications lines, and the deployment team built in redundancy for the 24X7 operation. “Putting the SENTINEL servers up was quick. Getting the configuration right took some time. We learned that we had to keep the printer driver and service pack levels in synch,” commented Kmak.

SENTINEL handles print requests

The deployment uses two SENTINEL print management production servers running on Microsoft Windows 2000. One server, based in NJ, handles print requests for North America, South America and Asia; the Holland-based unit serves Europe and Africa. Since the SAP system manages several enterprise functions including manufacturing and inventory, label print requests can be triggered automatically by an event, such as the completion of a manufacturing process, or manually by an authorized operator from any of the 25 sites.

The request is received by the SAP system over IFF’s Frame Relay network. The print job is created in SAP and sent to a print queue. SENTINEL “watches” the print queue and, when it finds data, processes the label information, matches it to the assigned label format and sends it to the designated network printer. The CODESOFT printing software processes the print request and applies the label data to a pre-designed label format that is resident on the local system. It then prints the label on the local printer which is pre-loaded with the label stock. The system also drives some printer/applicators.

Because of the sophistication of the IFF network and the fact that only label data, and not designs, are sent, the label request is printed immediately. Since SENTINEL monitors a standard print queue, there were few adjustments to be made to the SAP system, saving considerable development time and cost. SENTINEL handles directing the label to the proper printer based on information

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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that is contained in the file from SAP. CODESOFT label design and printing software applies the label data to the proper label definition.

High volume – low maintenance

The system now handles between 30,000 and 50,000 print requests per month and requires only a part-time administrator. System administration is aided by a Remedy software deployment/management system to update drivers and label designs on both the SENTINEL servers and local CODESOFT stations.

As needed, the designer develops new labels on a development server. A change ticket is created for the revised script. The Remedy system is directed to distribute it in a quality control mode to the proper systems. The new label definition is tested locally to identify any potential problems. Once approved, the developer moves the script from the QC environment to the production environment and Remedy distributes and installs it to all target systems. System and printer driver updates follow the same procedure.

License agreements ensure upgrades/compatibility

As one of TEKLYNX' largest SENTINEL and CODESOFT deployments, IFF and TEKLYNX developed an innovative licensing and upgrade program to handle the worldwide deployment. This service agreement, coupled with IFF's software distribution/management system, gives the company a structured approach to enterprise-wide label printing.

After about three years of experience with SENTINEL, IFF has been through a few product cycles. "Last year, we refreshed some of the hardware and software and upgraded the servers in the U.S. and Europe," said Kmak. "We still have a team that is upgrading some locations to SAP. During the conversion they transition to the standard system, including labels and network upgrades."

***** Since this article was written, the number of IFF servers running SENTINEL has increased to 6 and a 7th server is used as a test bed.**

***** Since this article was written, we have many similar implementations with SAP, Oracle and a variety of other host systems.**

