

INDUSTRY

Manufacturing / Distribution

SOLUTION

COLD and Imaging Systems Save Conveyor Manufacturer Hundreds of Weeks of Labor/Year

Since implementing a computer output to laser disk (COLD) and imaging system, Hytrol Conveyor Company is saving hundreds of weeks of labor each year. Previously, after an order was filled, a document specialist created a binder containing all documents related to that order. This took about one week. Now, most of the information that used to be compiled by hand is captured and maintained electronically by the COLD and imaging software. Instead of filling binders, the information is simply burned onto CD-ROMs, shrinking a week-long task to one day and reducing overall paper handling time by hundreds of weeks per year. In addition, the new system has improved the level of service Hytrol provides to its distributors. "Through key word searches of the database, we can now find any document in less than a second and respond instantly to questions," says Alan Sulfridge, Hytrol's MIS Manager. Hytrol took advantage of Metafile's integration with the IBM AS/400 to reduce implementation time for the system. The integration automatically pulled indexing information from the AS/400 database, eliminating the need to manually key in that data when scanning existing documents.

Hytrol Conveyor Company, Inc., Jonesboro, Arkansas, is a major manufacturer of conveyors, conveying systems, and conveyor accessories. Since its beginnings in 1947, Hytrol has grown into one of the largest manufacturers of conveyors and conveying hardware in the world. The company moved to Jonesboro in 1962 with 26 employees in a 27,000 square foot facility. It has since expanded to more than 725 people in a manufacturing center covering more than 500,000 square feet. In addition, Hytrol operates two fully developed conveyor stockyards, one in Manteca, California, and the other adjacent to the plant in Jonesboro. Each center maintains extensive inventories of conveyors and conveyor accessories that are shipped within 24 hours. The company currently has approximately 85 distributors in the United States and 22 international

distributors representing 13 countries.

Paper-heavy process

Hytrol's previous order fulfillment process was paper-intensive. After an order was received from a distributor, either by fax or email through the company's remote order entry system, information about the order, along with a unique six-digit order number, was entered manually into the company's IBM AS/400 system. Usually there were additional documents associated with the order, such as hand sketches or notes indicating special requirements. These were given the same six-



digit number as the original order and filed. In the process of filling the order, many additional documents were created by the different groups involved, such as materials, engineering, and production. These were also identified by the six-digit number and eventually filed as well. Three people were dedicated to filing and retrieving paper documents. "We were getting buried in paper," says Sulfridge.

After an order was filled, Hytrol spent at least an additional week per order preparing the binder that accompanied the order. This binder contained a copy of every item related to that order. It included information that the end user would need for maintenance, replacement part ordering, and so on in addition to all documents associated with the original order. For a medium-size conveyor system, this took one week. With Hytrol selling hundreds of systems each year, this

ORGANIZATION


Hytrol Conveyor Company



represented a sizable labor expenditure. In addition to the time spent dealing with paper documents, however, another drawback was that employees did not have timely access to information. Whenever someone in order processing or customer service needed a filed document, they emailed a request to their clerk. This delay meant that inquiries from distributors could not be answered immediately.

This led Hytrol management to begin searching for technology that would reduce the number of paper documents that were generated in the processing of an order. They learned that a COLD system, which reads host report files and distributes them over a network, would allow users to call up documents electronically in seconds rather than having to search through filing cabinets. Because some project documents, such as sketches, are created as hard copies rather than computer reports, Hytrol also wanted a way to archive images of these documents and link them to the order forms in the central document database. After researching the technology, they decided that the combination of a COLD system with an imaging system that scans documents and stores them digitally would address the company's document handling needs.

The company evaluated products from four vendors. Their main requirements were ease of use, full text searching capability, and good integration between the COLD and imaging systems. They learned that while it was easy to find an economical solution to address one of these needs in isolation, the higher-end systems capable of handling both COLD and imaging in a single integrated solution generally run into millions of dollars and years

more 

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of implementation time. Metafile, a Rochester, Minnesota-based company offered a better alternative: COLD, imaging, and workflow in a single integrated solution at a very reasonable price. Metafile provides print capture and imaging products that feed a single print output and imaging warehouse. Documents can be easily written to CDs or hard drives for storage. Information stored in the document warehouse can be accessed with a viewer client or over the web. Web-access was important to Hytrol because eventually they plan to give distributors access to the document database this way. What really sold them on Metafile were two features, ease of use and the full text search capability, which was "far more powerful than search tools in the other products we looked at," says Sulfridge.

Integrated implementation

The software installation was performed by Metafile. As with most installations, one aspect involves scanning in existing documents to make them accessible electronically. This task, called back scanning, can take time because an operator must manually type in some identifying information for each scanned document, such as customer name, order number, and so on. This information allows people to use Metafile's search feature to locate the scanned documents in the database.

After studying Hytrol's operations, Terry Bradt, Metafile Solutions Engineer, realized that all of this information already existed in the company's AS/400 database. He used a new Metafile product to query the AS/400 database and generate a series of sheets printed with barcodes representing an identifying number for each paper file in the same order that the files were arranged in the cabinets. As the files were scanned, the bar coded sheets were used as separators with the numbers of the bar codes matching the files. The Metafile scanning software read the bar codes and linked the identifying numbers to the series of scanned images. Then the Metafile software was used to query the AS/400 based on the identifying number for each series of scanned images to obtain other pertinent information about the file, such as the customer name, serial number for the conveyor, the purchase order number from distributor, shipping information, and so on. Metafile automatically populated its database

index with this information. The labor savings with this approach were significant. The need to key in indexing information was completely eliminated. No longer was there a possibility of data entry errors which would have made it difficult to access documents. Finally, the Metafile software accessed the AS/400 database again to set a flag to indicate the documents that had been scanned. This saved additional time by making it unnecessary to go back and manually update the AS/400 database with this information. Once the flag was set, Hytrol technicians could easily query the AS/400 database to generate a list of documents that had not been scanned.



This approach provided more indexing information than companies usually have when they manually enter the information, making it possible to perform searches on a wider range of key words. The ease of finding stored information this way is now saving Hytrol a great deal of time on an on-going basis. "One of our managers from customer service told me that having information available on his desktop PC saves him an hour a day," says Sulfridge. "Instead of writing messages to his clerk each time he needs something, he finds it himself almost instantly." Hytrol's database has more than one million documents, yet most searches take less than one second. This makes it possible to respond to inquiries from distributors while they are on the phone. It also reduces the time needed to put together the binders that accompany all outgoing orders. Finding the documents is just a matter of doing a search on an order number. The only additional requirement is to print them to a CD.

With the success of the scanning portion of the system well established, Hytrol is now increasing its use of the COLD system as a way of reducing the number of documents that must be scanned. Currently, internal documents created during order fulfillment are still printed and routed as hard copies. Soon, the COLD system will capture these documents directly from the AS/400 and convert them to compact, searchable files that reside on a Windows server. Recently Metafile has added support for other Windows print streams so that the software can also capture Word documents, spreadsheets, engineering drawings, and email messages. The information then becomes available to users on their computer screens. Instead of waiting for documents to be distributed, they can access information almost as soon as it is created. Rather than paging through reports to find the relevant information, they can perform a full-text search and zero into any section of interest in a few seconds.

The next phase of the implementation will be to use Metafile's web viewer to give distributors access to the document database. "When the information they are authorized to see is available over the web, distributors will be able to do things like find out the status of their orders even when our main office is closed," says Sulfridge. "That will be a big benefit for distributors in other time zones." Hytrol also plans to use the Metafile system to eliminate much of the information currently given to distributors in paper format. "We will create CDs for them. One might contain all their orders for the last five years, for example," explains Sulfridge. "This will save them from having to keep so much paper at their sites."

While the full benefits of the COLD and imaging systems will not be felt for several more years, Hytrol has already achieved a huge labor savings from the new system. Sulfridge compares the effects to a "snowball gathering momentum as it goes downhill," with benefits multiplying as paper documents are replaced by instantly accessible digital data in more and more areas of the company. "We probably haven't thought of everything we are eventually going to do with this system," Sulfridge says.

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APPLICATION OVERVIEW