Red Ball Oxygen Company, Inc.
Shreveport, Louisiana

North America Excellence Awards: Imaging, Finalist

Executive Overview

Red Ball Oxygen employs a Minolta MI^{3}MS 3000 network with AOS and MI^{3}MS 3000 I.C.E. to help achieve one of its main business objectives: reduce *transaction costs,* that is, to reduce every step possible to minimize the time associated with any function involving employees. They discovered that imaging was one of the ways to accomplish this objective.

The situation and the problem

Red Ball distributes industrial gas cylinders to the welding supply industry and also, through a medical division, to hospitals, clinics and home users of oxygen in a territory of approximately a 150 mile radius from its headquarters The firm has 100 employees, seven branches and 5,000 active customers.

Accounting for the delivered cylinders is important not only because the cylinders represent a company asset, but also because of government regulations associated with the cylinder's content. A signed delivery receipt, therefore, is mandated, and must be kept on file. Approximately 120,000 deliveries are made in a year. A file is created for each delivery comprising the delivery receipt, customer invoice and attachments such as meter readings. According to Red Ball the volume of paper associated with each delivery was the foundation for their "file and misfile" system, as they called it, which overloaded the file room with five to six hundred thousand pages. To file these transactions, documents were first arranged numerically by delivery ticket/invoice number, then integrated into a temporary file, and then into a larger permanent file. Labor costs for filing, retrievals at a rate of ten to twenty per day and locating misfiles was estimated at $30,000.00 per year.

The solution

Working with Microfilm Supply Inc. of Monroe, Louisiana, Red Ball arrived at an image and information management system solution. A five-seat MI^{3}MS 3000 system was installed in August, 1995.

The application flows as follows:

- The drivers return signed delivery receipts at the end of the day. The documents may be preprinted on the distributor's AS/400 Advanced 36 mainframe computer or in some cases written by the drivers. The delivery ticket number becomes the subsequent invoice number.

- Data from the delivery receipts are entered to the AS/400, which then generates invoices.

- The invoices are downloaded daily to the imaging system and indexed through the MI3MS 3000 I.C.E. option (a COLD-type software module). Fields that are extracted include customer name, customer number and invoice number.

- Signed delivery receipts are scanned to a batch. To index the individual receipts, the indexing workstation operator enters only the invoice number. Through

macros developed for this application by the customer, a number of functions occur automatically:

- the remainder of the fields from the downloaded invoice are transferred to the imaging system index;
- the image of the invoice is then displayed on the monitor side-by-side with the delivery receipt;
- the image of the receipt is zoomed up to the receipt (invoice) number for verification;
- when verification is complete, the receipt and attachments are saved on optical disk along with the invoice and the next item comes up automatically.

Red Ball has now stored a compound document consisting of a scanned, bit mapped image of the delivery receipt and attachments plus a character-based, computer-generated invoice. All of this has been accomplished with a minimum of manual indexing and zero toggling between or manipulation of different software modules.

By using the invoice file to create the bulk of the index along with the custom macros, operators are able to capture, index and store six documents per minute. At an average volume of 450 per day, the process requires just one to two hours. Images are cached temporarily and then committed to 5.25-inch WORM optical disks housed in a 24-disk jukebox, providing for a near-line image base of approximately one million pages.

Retrievals are made primarily by customer service people in the accounting department. Inquiries are divided about equally between customers and internal sources. Because of the ease of retrieval with the new system, substantially more inquiries are made now than with the manual filing system. The ease of retrievals is facilitated by the Advanced Optical Services (AOS) option of the MI^3MS 3000 system. For example, after images are retrieved they are temporarily cached in the event that other requestors may need them. The fax capability of the system is used to communicate images direct to requestors from the network nodes.

The system consists of:

MI^3MS 3000 version 2.5 multi-user software with five-user license
AOS (optical disk and jukebox management software)
MI^3MS 3000 I.C.E. (COLD software)
Novell network operating system with Ethernet backbone (a new network)
Minolta 750P file and database servers
DS 2400 document scanner
AC 1424 Autochanger with two internal 5.25-inch drives
Ten customer 486 PCS
Minolta 3100P Laser Printer

Benefits

An imaging system with advanced features such as compound document architecture, integrated computer output to laser disk (COLD) and AOS has resulted in a measurable increase in the Red Ball's productivity, saving the company approximately $30,000 in transaction costs to date. Filing is more accurate—the "file and misfile" label is history—and the files are more accessible to many more users, including people in the plant who would not have had access before.

The customer says that their biggest volume of paper is in this application, and they have made a big dent in reducing that volume. Aside from the achievement of strategic business goals such as reduced transaction costs, the reduced labor costs will result in a three-year payback.

Fast facts

Product Installed:	MI^{3}MS 3000 V. 2.5, 5-user license
Application:	Delivery receipt/invoice tracking
System configuration:	MI^{3}MS 3000 five-seat network; Advanced Optical Services (AOS) software; MI^{3}MS 3000 I.C.E. software; Minolta 750P file and database servers; Document Scanner, DS 2400; AC 1424 Autochanger with two 5.25-inch internal drives; Novell Netware with Ethernet backbone.
Operating System:	DOS/Windows
Network Software:	Novell Netware
Host integration:	None
Customization:	None
Other Products Used:	Advanced Optical Services (AOS) software
	MI^{3}MS 3000 I.C.E. software
Benefits:	Measurable increase in productivity—eliminated misfiles, permits multiple access to files, more accessible files. Reduced dependence on paper. Reduced transaction costs.