# INDUSTRY

Government / Education

# SOLUTION

## West Point Saves $86,000 by Delivering Host Reports over Wide Area Network

The United States Military Academy (USMA), West Point, New York, is saving about $86,000 per year by delivering host reports over the wide area network and Intra Net instead of manually distributing microfiche and paper reports. The academy now uses software that automatically converts print spools so they can be accessed through a Windows viewer and provides a fast full-text search that makes it easy for report users to find what they need. The savings come from eliminating an expensive maintenance agreement, microfiche supplies, paper, copier maintenance, distribution costs and microfiche records. Time savings of a similar magnitude, although they can't be quantified, are being achieved by users of the information. They can now find what they need in seconds through a text search, as opposed to the days previously required to deliver and scroll through microfiche .

Since its founding nearly two centuries ago, the USMA has accomplished its mission by developing cadets in four critical areas: intellectual, physical, military, and moral-ethical - a four-year process called the "West Point Experience." Today, the Academy graduates more than 900 new officers annually, which represents approximately 25 percent of the new lieutenants required by the Army each year. A favorite expression at West Point is that "much of the history we teach was made by people we taught." Great leaders such as Grant, Lee, Pershing, MacArthur, Eisenhower, Patton, Westmoreland and

Schwarzkopf are among the more than 50,000 graduates of the USMA. Countless others have served society in the fields of medicine, law, business, politics, and science following their careers in uniform.

### Need to distribute financial data

The West Point community includes about 8000 people, including both cadets and

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>
> MICHELE CRANDALL
> ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS MGR
> UNITED STATES MILITARY ACADEMY
> WEST POINT

staff. A mainframe application that runs on a host located in St. Louis is used to maintain financial data on the academy and its many subsidiary organizations such as the bookstore, golf course, medical clinic, veterinary facilities, gift shop, etc. This information must be delivered to users in many different locations, primarily around the West Point campus but also at several satellite facilities such as the USMA prep school in Fort Monmouth, New Jersey. The 250 users of this information include members of the financial staff, managers of

various operations as well as administrative staff in nearly every branch of the academy.

In the past, distributing this information was a difficult and expensive process. First of all, copies of new reports were printed and distributed by hand or mailed to users. The cost of paper and copier maintenance was $20,000 per year. The time involved in generating and distributing the reports was approximately 1500 hours per year, which equates to lost productivity time. The cost savings is still under examination. Then, the reports were archived on a microfiche system with maintenance support costs estimated at $30,000 per year. Supplies for the microfiche system were another $10,000 per year.

### Difficulty of retrieving information

Despite the cost of creating and distributing these documents, they weren't particularly convenient to use. Users had to page through paper documents to find needed information. To get historical information, they had to first wait for the microfiche strip to be located and delivered, which could take several days. Then they had to scroll through the strip with a viewer to find what they needed. This could take 5 minutes if they knew exactly what they were looking for or from 15 to 30 minutes for an impromptu search.

**METAFILE**
**The Total Solution**
**APPLICATION OVERVIEW**

The situation came to a head when the Academy was notified that they would need to spend $26,000 to upgrade their microfiche system to make it Year 2000 compliant, according to Michele Crandall, Electronic Document Management System Manager. "It wasn't cost effective to upgrade an antiquated system," Crandall said. "We were aware a number of companies had developed Computer Output to Laser Disk (COLD) technology designed to archive reports and distribute them over a network. We concentrated on five of these applications and found that any one of them cost less to operate and provides faster access to data than our current methods. Because of manpower cutbacks, our selection process focused on which system required the least time to administrate and train users."

### Defining electronic report distribution

West Point selected the Metafile system from Metafile Information Systems Inc., Rochester, Minnesota. Crandall installed the system on a Windows NT server and arranged to have print spools sent there using the FTP protocol as soon as they were generated. She then used Metafile to define the reports that she needed to distribute. This process involved working with the print spool file to define the location of the report information, line lengths, field labels, headings, etc. Crandall organized the reports into a hierarchical structure that simplified security assignments. She defined groups of users and then provided them with access to families of reports. She also defined full-text indexes for the reports, providing each family of reports with a separate index file. It took Crandall several months of part-time effort to set up about 50 report groups.

"Once the reports are defined," Crandall said, "they require minimal administration time. Whenever a print spool file is downloaded, the system automatically detects its existence as it scans the directories. It then automatically processes the report, creates a full-text index and makes it available to users over our wide area network. Users retrieve reports from their desktop with a viewer program that runs under Windows. The interface is user friendly and requires only a single day of training. Of course, the reports or the archiving schedule can be changed at any time or the administrator can reach out to the host and download a single occurrence of a report."

### Dramatic cost reductions

The conversion has dramatically reduced the cost of archiving and distributing reports. Maintenance costs run only about $12,000 per year for a large user base. No supplies are required and, as mentioned before, administration costs are virtually nonexistent. The result is that the academy saves nearly $100,000 per year in maintenance, supplies and distribution costs. Changing the process provides substantial productivity gains for the users of the information. They can find any item in any report by using the full-text search capabilities. By typing a few characters in the search line, to define what they're looking for, the viewer instantly moves them to the proper line or groups of pages that identify the data they where trying to locate. The index file greatly reduces the amount of time needed to perform a text search. The biggest savings are achieved by users in remote offices who receive the microfiche strip through the mail. The text search also eliminates the need to determine in advance which fields will be indexed and made searchable.

The changeover process proceeded on a deliberate basis, partly because of manpower shortages and partly to build user buy-in. Crandall received the new software about one year ago. Working part-time in the project, she had all of the reports and security set up in about six months. She then began training the user community. The system operated in parallel with the old one for the last three months of the academy's fiscal year. By this time, users had not only accepted the new system but were enthusiastic about the amount of time they were saving. Crandall decided to pull the plug on the old system at the end of the fiscal year. The new system was used to close out the latest fiscal year.

"Distributing reports electronically has provided substantial improvements," Crandall concluded. "We have eliminated the cost of creating and distributing paper and microfiche reports. The new system requires limited administration, which means a lot in a time of budgetary cutbacks. Our users also save a remarkable amount of time by being able to use the text search feature to instantly retrieve the information they need. Our intention is to build on the improvements that we have already made by setting up other types of reports. The system is capable of handling virtually any type of information, either electronic or scanned images, so there's virtually no limit to what we can do."

# APPLICATION OVERVIEW