

## Systems Engineering Associates - Case Study

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# Migrating to a Paperless Solution in Investment Management

A prominent investment firm's successful expansion into international investment management resulted in an avalanche of paper work that needed to be processed daily. To cope, the firm migrated to a paperless, client/server-based imaging solution, where volumes of paper were scanned into digital documents on CDs and placed on a network jukebox. This arrangement provided the firm's money managers, investment counselors, and brokers worldwide with instant access to mission-critical data from their client workstations. This solution has worked so well that, in just a few months, over 5 million pages have been placed on-line!

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### *The Challenge*

A highly successful investment firm headquartered in San Diego, California, with branch offices throughout the United States and overseas, recently enjoyed a successful expansion into the international investment arena. The success translates into tens of billions of investment dollars that the firm must manage efficiently and effectively for its clients.

Confronting this challenge head-on, the firm has migrated from a paper-based infrastructure to an automated, paperless client/server solution. Key to this migration is a state-of-the-art imaging system that digitizes up to 80 pages per minute and scans them onto high-capacity CDs. The CDs are placed on a

network jukebox, where local and remote users can instantly access — and even share — information.

### *Why Automate?*

Prior to migrating, users went to filing cabinets and searched each other's desks to find the paper documents they needed. This data retrieval method was time-consuming and highly inefficient, especially for users in branch offices or overseas who had no access to the original paper documents.

Contributing to this mire was the labor-intensive effort involved with processing 75,000 monthly statements by hand. Because this process was manual, it often resulted in documents being misfiled, rendered unreadable by careless or rough handling, or being inadvertently discarded.

To resolve this nightmare, SEA suggested an automated paperless solution that offered local and remote users a fast, dependable system for retrieving information. This solution would provide users with instant access to the information they need, empowering them to make the critical judgments vital to their clients' success and the lifeblood of the firm.

### *Designing the Solution*

From the start SEA was careful to balance the firm's immediate requirements with a solution that would not overwhelm the organization's existing network resources, infrastructure, or budget.

To that end, SEA established design goals to:

- Optimize performance and minimize costs for *any*

organization facing similar dilemmas.

- Create a solution that integrates seamlessly into homogeneous and heterogeneous networking environments, where various operating systems and workstations coexist on the same network.
- Avoid “hidden” costs for upgrading server memory, hard drives, and input/output devices.

### *Phase 1: Identifying a Solution*

With these design goals in place, SEA divided the migration effort into two phases: Phase 1 identified the components that made up the prototype system. After extensive research, the team decided on:

- *Three high-speed scanners and Kofax hardware and software*, for scanning paper documents into digital images.
- *A Windows NT server running Microsoft SQL Server and a custom SEA application*, for indexing the images onto CDs.
- *An NSM Mercury 40 Jukebox*, for storing up to 150 CDs. The jukebox has four read-only drives, and connects to the network backbone and Windows NT server.
- *Desktop client personal computers with 16 to 64 MB of RAM*, for retrieving digitized images.

With this system, users could instantly access information by referencing a unique index ID associated with each image.

### *Phase 2: Testing the Solution*

No matter how powerful and friendly a prototype system is designed to be, the real test is how it performs in real-life situations. Therefore, Phase 2 of the project involved recruiting employees from the firm to test the prototype system through its paces. This allowed SEA to evaluate the prototype system’s capabilities, performance, limitations, and ability to coexist with older legacy systems without interrupting operations.

The prototype performed so well that the firm migrated to the new on-line system shortly thereafter. While only a few account statements were scanned and indexed initially, the immediate gains in performance and productivity prompted the firm to place all new accounts on-line. To date, over 5 million pages have been scanned into the system.

### *The Results*

The firm’s automated imaging system:

- Ended the chaos associated with paper documents.
- Simplified archiving and retrieval, by replacing physical filing cabinets with an electronic filing system that organized information logically and provided users with instant access to information from their desktop computers.

- Centralized data resources to provide the entire organization with the same set of up-to-date data.
- Freed valuable disk space.
- Let administrators control who has access to CDs, ensure compliance with license agreements, verify that all users read from the same software version, and administer software updates over the network.
- Provided cost savings by replacing pricey single-user software licenses with less-expensive network licenses, eliminating the need to stock duplicate CD titles, and obviating the need for client computers to have their own CD-ROM drives.

### *Outdistancing the Competition*

Migrating to new on-line system has prepared the firm for a digitized future, allowing it to tap into the benefits afforded by evolving optical technology solutions. By opening new avenues and creating limitless possibilities, the firm will stay on the leading edge of technology and maintain its edge over the competition.

#### **COMPANY DETAILS**

Industry: Investment management

Application: Retrieval of client statements and other critical data

Date installed: July 1998