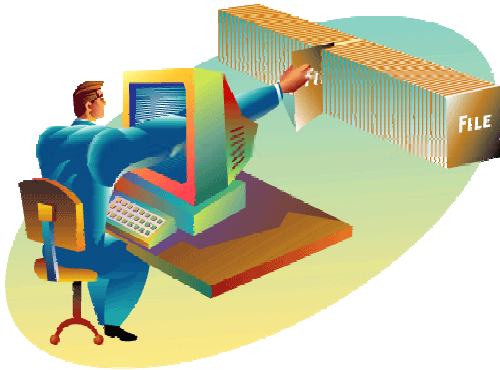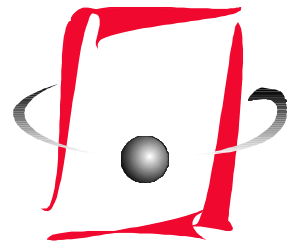# ACS Software, Inc.

AutoEDMS™ Customer Testimonials

Testimonials from ACS Software's customers to help you in your evaluation process of the AutoEDMS Document Management and Workflow Solution

ACS
SOFTWARE INC.

The AutoEDMS Document Management System was first released in 1986, under the name of "10CAD EDMS". 10CAD EDMS was the first commercially available, PC-based, drawing and document management system. Since then, there have been ten major releases of the AutoEDMS system, with over twenty-four thousand users worldwide, including:

ABB Lummus Crest Inc.
ABB Randall
Agam Motoren Rotterdam B.V.
Amoco Chemical Company
ANR Pipeline Company
APV Baker, Inc.
ARCO
Argonne National Laboratories
Bahrain Telecom (Batelco)
BOC Gases Australia (CIG Ltd.)
BP Oil
Chevron
Conestoga Rovers & Associates
Detroit Edison
DynCorp
Elf Oil UK Ltd.
Enerpac
Erico Corporation
Esso Production Malaysia Inc.
Ethyl Petroleum Corporation
Fisher Pierce
Fluor Daniel B.V.
Halter Marine Group
Hutchinson Technology, Inc.
Inductotherm Corp.
Industrie en Handelsmaatschappij
ITT Flygt Pompen B.V.
Long Island Lighting Co.
Loram Maintenance of Way, Inc.
Los Angeles Dept.of Water & Power
Mallinckrodt Medical, Inc.
Mars B.V.
Medical Data Electronics
Mobil Chemical PE
Morgan Corporation
NBC
Nebraska Public Power

New York City Housing Authority
New York Power Authority
New York Telephone
Northern Illinois Gas
Northern States Power
Parker Pen
PCCC Electricity
Petromin Shell Refinery Co.
Philadelphia Electric Company
Philadelphia Gas Works
Powell Duffryn Rail Ltd.
Power-Packer
Robert Bosch SDN. BHD.
Ryland Homes
Saudi Aramco Shell Refinery Co.
Schipol (Amsterdam) Airport
Signal Processing Systems, Inc.
Sony Corporation
Steelcraft
Stewart & Stevenson Services, Inc.
Stupp Bridge Company
Sunds Defribrator Inc.
Sverdrup Corp.
Telecom New Zealand Ltd.
The Brooklyn Museum
The HMS Company
The Kirlin Company
The New Zealand Refining Co.
Toshiba International
Trinity Marine Group
U.S. Bureau Of Reclamation
U.S. Department of Energy
U.S. Dept. of Transportation
U.S. Patent & Trade Office
Valmet-Enerdry
Vulcan Materials Co.
Washington Gas Company

Example AutoEDMS Users by Industry

Major manufacturing and engineering firms have traditionally used AutoEDMS for local area and wide-area management of their computer-based files and hard-copy documents. Many AutoEDMS installations are now managing 500,000 to a million documents per database, quickly and reliably. These systems have continued to evolve, as our clients' document management needs have grown.

The following stories highlight a few of our clients' document management issues and their AutoEDMS systems (in their own words). These hands-on AutoEDMS system managers also offer a few words of advice:

<u>Automotive</u> – The Morgan Corporation

"Finding a software package to handle the EDMS requirements of your company is the easy part. Identifying the requirements of EDMS for your business is the difficult part of the justification and implementation process. After you have the requirements identified, find a package that will fit your needs without altering your requirements. Then go to training."

Dean Heffentrager
CAD Network Administrator
Morgan Corporation
Morgantown, PA

Morgan Corporation is the leading manufacturer of truck van bodies and innovative transportation industry products. Morgan has set the standard for quality and design in the industry for over two decades. Specialized options are engineered to conform to customer requirements and satisfy the needs of a diverse market.

Morgan is in our fourth year utilizing AutoEDMS. Our initial 30 user system has since grown to 50 users and is currently managing all our AutoCAD drawing files, scanned raster drawing files, and Microsoft Office Suite generated files for the Design and Development, Systems, and Productions Engineering departments at Morgan. Engineering standards, change notices, stock standards, project reports, fastener index, test reports and all other documents generated and distributed by the Engineering department are controlled by AutoEDMS. These files currently total 22,000 documents.

Engineering managers and other departments now have access to review project drawing files and reports without the expense of the native applications. The software is being utilized within the Purchasing and Materials departments for immediate access to the current revision of part or assembly drawings for standard and custom orders. This was all accomplished during the first four months of implementation.

AutoEDMS will be used in the near future for shop floor and regional manufacturing plant access to the Engineering database across our WAN. We're also customizing the AutoEDMS Workflow Engine to handle ECN (Engineering Change Notice) approval and distribution, production job data release notification and general document release and flow. ODBC will be used to pull required information from our AS/400 order entry system directly into the production job AutoEDMS database to reduce custom order lead-time.

The flexibility of AutoEDMS guarantees that it is the right document management solution for any company serious about implementing a software package to enhance their business processes without changing their business processes to meet the limitations of most out-of-box document management solutions. The ACS programming language provides this flexibility. It is easy to learn and extremely powerful in providing the custom solutions every successful EDMS implementation requires. Another key benefit AutoEDMS provides is the people behind ACS Software, Inc. The experience ACS has with document management solutions consistently comes shining through.

Paul has this advice to offer to "Document Management Newbies":

Find a good psychoanalyst

Investigate in Rogaine (before it's too late)

Take advantage of the technical support by ACS. (you're my hero)

Take advantage of the ACS Technical Training Classes, not just for the training, but also to benefit from the experience of the other students.

Create your time estimates for implementation, then double them and add three days before submitting them to management.

Keep your initial implementations as simple as possible. Save the bells and whistles for later.

Paul Molnar
Engineering Software Analyst
ERICO, Inc.
Solon, OH

ERICO manufactures parts and tools for the construction industry. We have 30 offices worldwide in places like Hong Kong, Sydney Australia and Sao Paulo Brazil. Six are manufacturing plants, the rest are sales or administrative offices. We currently have four major product lines that we produce and sell: concrete reinforcement products, fasteners, rail products and electrical products.

ERICO presently has 30 seats of AutoEDMS installed at our Solon, Ohio factory. AutoEDMS is used at ERICO to manage and control the workflow, engineering routing and revision history of about 30,000 engineering documents. These documents include drawings, instruction and installation manuals, standards and specifications, test data and reports. Newer drawings are AutoCAD Release 14. Older manual files are being converted to TIFF images.

The ACS Customization Language (ACL) and the Extension Association database (also the Workflow Engine and 32-bit ELC) give us a great deal of flexibility to rearrange AutoEDMS to fit ERICO, not the other way around.

The Pervasive SQL/Btrieve database engine is one of the quickest, most robust engines that we've encountered. We're very happy with its performance. In 1997, we established 2-way communication with the AS/400 mainframe that runs our business software (MacPac), using ACS' Connectivity Server. Future implementation plans include:

- Expansion of the AutoEDMS system into our Purchasing, Sales and Production Control areas at our Solon, Ohio plant.

- Creation of a time management/engineering project tracking system with the AutoEDMS software.

- Implementation at and connection to our sister plant in Aberdeen, North Carolina.

- Creation of a plan for implementation at our European plants.

The people at ACS Software, Inc. are the company's biggest asset. Take advantage of their accessibility, experience, expertise and willingness to help. (Anyone who's called Microsoft tech support knows what a boon this can be.)

> *"Plan your system thoroughly. Although AutoEDMS works well right out-of-the-box, a lot of benefits can be realized by customizing the system to the way your company operates. AutoEDMS with the ACL programming language is very powerful and much can be done with it."*
>
> *Rick Nowakowski*
> *Sr. Systems Designer*
> *Sunds Defibrator*
> *Norcross, GA*

Sunds Defibrator, located in Norcross, Georgia, is an equipment manufacturer for the pulp and paper industry. We started with 5 seats of AutoEDMS for DOS in 1992 and have grown to 17 seats of AutoEDMS under Windows. AutoEDMS is being used to manage approximately 12,000 AutoCAD drawings on a Novell network.

Sunds put the ACS Customization Language (ACL) to the test, by creating a standard "Automatic Document Registration" process. This ensures that all drawings and documents created are consistent. The ACL includes the following functions:

- Automatic file naming
- Standardized choice of document descriptions
- Automatic workflow and file management
- Links to central mainframe systems to eliminate duplicate data entry. This ACL also makes searching easier. In fact, productivity has increased by 50% since its implementation! AutoEDMS is also being used for:
- Drawing revision workflow routines
- Searching capabilities across AutoCAD drawing titleblock attributes
- Advanced searching capabilities not currently available with our mainframe system
- Automated batch plotting of drawing sets
- Link to cc:Mail for sending drawings as attachments

AutoEDMS has benefited Sunds the most by enabling us to locate documents by different look-up fields, i.e., drawing number, project, etc. Also, the ability to view drawings and documents from a PC rather then tracking down microfilm or a flat file has saved a tremendous amount of time.

THE **KIRLIN** CO.

"When we look at something new, for the first time, it appears complex. When we look at it a second time, it appears less complex. When we look at it a third time, it unfolds itself in front of our eyes and reveals its wonderful secrets and capabilities.

Take action. If one idea does not work, try another. AutoEDMS is loaded with functionality and powerful tools to help you develop file management application solutions painlessly. Take advantage of ACS Software's time-proven experience in the document management business synthesized into AutoEDMS.

Evaluate your current situation and get rid of processes and procedures that are a burden or unnecessary and keep those that you know work -- simplify, consolidate, innovate."

James Terrell
Systems/Applications Manager
The KIRLIN Company
Detroit, MI

The KIRLIN Company is a lighting fixtures manufacturer. The company designs and manufactures high quality, high performance, efficient lighting systems, including high intensity discharge, architectural compact fluorescent, incandescent, and infrared remote controlled lighting systems. In business since 1895, the KIRLIN Company is the oldest family owned and operated business in the United States.

We use AutoEDMS to:

- Create and modify documents (files) in a controlled environment

- Release documents and maintain a history of released notifications

- Locate, view and print existing files quickly and easily without launching the native applications

- Categorize, organize and clean-up existing files and data.

- Perform pre-defined queries to locate files and information

- Increase productivity, improve quality, minimize duplication of effort and reduce errors

- Communicate, inform and share both documents and data in real time via a local area network

- Minimize paperwork and reduce waste

Instead of drastically changing the way you do business in order to adapt to an "off-the-shelf" application, you can hold on to your proven processes and system and customize AutoEDMS to meet your specific needs.

AutoEDMS is a very powerful solution. It can easily be customized with the built-in ACS Customization Language (ACL) to meet the unique requirements of your organization.

Currently, we have eight licenses of AutoEDMS in the Engineering department. In the future, we plan to add seats to the Manufacturing/Production area, Purchasing and Customer Service departments, bringing the total number of AutoEDMS users up to about thirty.

<u>Mil Spec</u> – Signal Processing Systems

SMITHS INDUSTRIES
Aerospace

"Be informed! Make sure you've done your homework prior to beginning the actual implementation.

Start small! Rather than try to implement a grandiose system that does everything, learn by starting with a pilot implementation that will produce enough results to get a handle on the complexity of the system-wide implementation.

Just do it! Many people favor implementation by committee. Our experience is that unless the people within the committee are willing to put in the time and effort necessary, the implementation will bog down very quickly. To get a workable system in place, the approach in our experience is to learn by doing."

John Hafer
Engineering Designer
Signal Processing Systems
San Diego, CA

Signal Processing Systems (SPS) is a 25 million-dollar division of Smiths Industries Aerospace, serving industrial and military customers utilizing advanced signal processing technology. SPS is known as a technology leader in undersea acoustics, aircraft diagnostics and measurement systems, intelligent transportation systems, and signal processing instrumentation.

In 1994, SPS started looking for an electronic viewing solution for our drafting department. We decided though that we needed more than just a viewing tool, since we also had to deal with revision control issues. We started with AutoEDMS for DOS, but we waited and implemented AutoEDMS for Windows on our Novell network.

We integrated a Visual Basic program that was written in-house with an AutoEDMS Revision Control system to control the scanning of our ECO documents. Eighty percent of our files are AutoCAD drawings, but we also manage PADS and ORCAD schematic designs, and Word files.

AutoEDMS is used to view and print selected drawings and schematics. Before, we had to request hard copies of the required drawings from Document Control, which would often take hours or days. Now we use AutoEDMS to view and print the required drawings at any time. That has been the biggest benefit we have gained from the AutoEDMS system: quick retrieval of documents, including our scanned ECOs, for all of our departments, including Purchasing, Drafting, Engineering and Production.

Since the original system was implemented, we have integrated AutoEDMS with a third party batch plotting program (PowerPlot). We are working on expanding AutoEDMS into other departments.

Engineering:

Conestoga-Rovers & Associates

Conestoga-Rovers & Associates (CRA), headquartered in Ontario, Canada, offers a complete range of engineering and environmental services. These services include environmental assessments, plan development and remediation, hydrogeology in both contaminant and water supply hydrogeology, air emissions assessments, permitting and control system design as well as a variety of other services.

CRA has been a user of AutoEDMS since 1989, when we started with our first drawing management system -- 10CAD EDMS from ACS. Since then, we upgraded to AutoEDMS and use it to manage our AutoCAD drawings, and to provide a searchable index of documents. It is also an information resource providing basic drawing data, such as scale, size, titles, dates and other notes.

AutoEDMS is also used for archiving purposes. On the database record, there is a field where we put information about archiving (i.e., which CD or tape with the date of archive). Our AutoEDMS system provides many benefits, including:

- a searchable index, which eliminates the need for our users to remember the complex file paths
- automated recording of basic drawing attributes (i.e., size, scale, date)
- creation of a consistent method of filing that promotes a more efficient way of doing things

We started out with 15 seats of AutoEDMS and now have between 40-50 seats. Next, we plan to implement AutoEDMS in our Graphics department. AutoEDMS will be used to manage the graphic files, which consist of Corel, 3D Studio MAX, and other files.

"Take the time to learn the product. Develop a highly detailed Pilot scope with goals (a big thanks to ACS for their persistence to make us clearly define our scope), and utilize the experience of your software vendor. We were extremely lucky, or should I say fortunate, to find a company like ACS Software that knew their product and could adapt it to our business model. With their help, I can rate our success a solid 10."

Steve Hollingsworth
CAD Systems Manager
Stupp Bridge Company
St Louis, MO

Since 1856, the Stupp Bros., Bridge & Iron Company (St. Louis, MO) has been a leader in the steel fabrication industry.

In 1998, Stupp Bros. Bridge & Iron Co. changed its name to the Stupp Bridge Company, and started construction on its new 380,000 square foot fabrication facility that went online in the summer of 1999. This new state-of-the-art fabrication facility is located in Bowling Green, Kentucky, and allows the Stupp Bridge Company to be the most customer-responsive steel bridge fabricator in the country.

Steve Hollingsworth, the CAD Systems Manager of Stupp, describes the strategy they used in upgrading their CAD system and how they implemented a document management system that would maintain their company's industry-wide lead as number one and take them into the new millennium:

"In order to meet the expectations and output of the new facility, the Stupp Bridge Company's Engineering Services had to reevaluate all of its hardware and software and structure itself to produce three times the amount of shop drawings and CNC files that we once produced. In years past, we relied heavily on old DOS-based programs to route our files to the shop and to the different CNC equipment. Now, due to OS upgrades and the new fabrication facility hundreds of miles away, we had to look at replacing these programs. This required us to revisit all of our Shop drawing and CNC file procedures — including our revision control procedures. After months of strategizing, we began to set our plans in motion. First, we migrated from drawing in a 2-D VMS-based GDS system to Autodesk's Mechanical Desktop running on NT 4.0. We then set out to purchase a document management system

that would allow us to manage and route our drawings. After evaluating AutoEDMS and its workflow functions, we felt it offered everything that we were looking for. We purchased 20 seats of AutoEDMS and Pervasive.SQL for the database. Then, with the help of ACS Software, we piloted AutoEDMS and went live within just a few weeks of the pilot. We literally went from hundreds of filing drawers and a paper driven operation to almost paperless in a matter of weeks!

Before we started, I read a lot of horror stories about implementing a document management system (DMS) and how many installations were never successful for one reason or another. Now, after installing a new CAD System, AutoEDMS, and being involved with implementing a new manufacturing system in less than one year, the secret to our success was planning, and more planning.

Words of Thought:
- Start small
- A well thought out plan and Pilot scope should be everyone's first and most important objective.
- List your company's strengths in DM and development, utilize the experience of your DMS vendor and purchase their time to help achieve your Pilot scope.
- Don't stray from the Pilot scope. You will always have time to make and add modifications later. Just be sure to include long term goals in your Pilot scope.
- Invest in the ACS System Administrator and Developer training courses!

Future Plans:
Currently, we just finished an Intranet application that ties into the AutoEDMS database, and we have future plans on expanding the product into other disciplines of the company. We have nothing but high hopes for AutoEDMS and we plan to upgrade to AutoEDMS v6 later this year."

Petrochemical – ANR Pipeline Company

ANR Pipeline Company is a Detroit-based interstate pipeline subsidiary of The Coastal Corporation. ANR operates a 10,600-mile interstate natural gas pipeline system providing storage, transportation and various capacity- related services for customers in the United States and Canada.

ANR started with 25 drafting technicians using AutoEDMS for DOS back in 1993. At the time, we had a large collection of existing pipeline map and facility drawings that we scanned and stored on an optical disk jukebox. The scanned files used a complicated file naming system from which we customized AutoEDMS to intelligently recognize filenames and populate the database as much as possible. We have since added 8 additional technicians and upgraded to AutoEDMS for Windows. Another 70 users from different floors and departments within our building were also added.

Last year, we extended our AutoEDMS system to provide corporate-wide, WAN-based viewing, printing and redlining, for our area offices located in Michigan, Wisconsin, New York, Illinois, Kentucky, Missouri, Oklahoma, Louisiana and Texas. These "external" locations all share a 20-user "floating" license of AutoEDMS among 200 stations on our corporate WAN-based connections. We recently setup AutoEDMS on our in-house *Citrix WinFrame* system to provide faster access for our dial-up sites.

AutoEDMS is now managing about 68,000 drawings. Half of these are scanned Group IV images, and the other half are AutoCAD drawings. They are all stored on a 187 gigabyte optical disk jukebox and two mirrored servers.

Using ANR's AutoEDMS system, drafting technicians can quickly check drawings out of our electronic vault while all users have access to an "Electronic Print Request" for hard copies of the drawings they need. The ACL language has allowed us to customize AutoEDMS to do virtually anything we have required, from moving drawings from the jukebox to a working project and back, to automating the print room.

We have implemented a "Print Request Engine" using AutoEDMS' DDE commands. It directs AutoCAD to plot drawings and builds a "Job Ticket" that is processed by our high-speed, large format, printer/plotter/scanner. As these "Print Requests" are generated by field locations with AutoEDMS, they are printed with a banner page that has their address already prepared for delivery. In Drafting, we use the print request not only to produce copies of the drawings we need to ship, but also print a Drawing List from the database which contains title block and revision information. We have also generated a Scanning Control System to allow the print room to scan drawings directly into the AutoEDMS system, allowing our document management system to do a full circle, input and output. This year, we plan to move to Windows NT workstations and AutoCAD 2000.

Machinery Manufacturing:

Western Printing and Machinery

> *"If you are considering putting in a document management system ---*
> pawn this task off on someone else!
>
> *In all seriousness, be prepared for an intense experience. Make a realistic estimate of time and resource requirements, and add some "pad" to each for unexpected issues.*"
>
> *John Brisbois*
> *IS Manager*
> *Western Printing & Machinery*
> *Schiller Park, IL*

Western Printing & Machinery (WPM), Schiller Park, IL, a leading manufacturer of customized machinery and cutting dies for printing and converting operations, is a company well known for their innovative technology in the graphic arts industry.

At the moment, AutoEDMS is primarily used in our engineering department. This will change as we introduce it to our other departments. Originally, we purchased eight seats, but we are now the proud owner of sixteen. As our company grows, AutoEDMS is able to grow with us. We are now managing AutoCAD drawings, Word documents and Excel spreadsheets directly from the AutoEDMS interface.

Before AutoEDMS, we had a "homegrown" document management system designed and created in-house. Unfortunately, we outgrew the system and were unable to properly maintain it. Since we had written the applications ourselves, it was obviously very customized to our particular environment and needs. This made the search for a new document management system seem akin to that of the search for the Holy Grail!

After many months of sorting through demos, brochures and "test" systems, we stumbled across ACS Software in sunny CA. Their product, AutoEDMS, not only fitted our environment, but also turned out to be highly (and easily) customizable -- the search was over. In August of '97, we purchased AutoEDMS through MasterGraphics, a VAR located in Wisconsin. MasterGraphics was able to provide assistance and resources during our original install.

As an overall document management system, AutoEDMS is extremely customizable. This can be an invaluable trait when trying to install *any* system into a unique environment (and every company is unique -- make no mistake about that!).

Another key benefit of AutoEDMS is the "setup-and-forget" mentality regarding maintenance. After the initial setup of AutoEDMS is complete, the system will generally run without a lot of support from a system administrator.

Most document management systems need to be constantly monitored, frequently tweaked and massaged. The opposite is true of AutoEDMS -- it tends to run quietly on its stable Btrieve database platform and doesn't demand daily attention. The best qualities of any piece of software are its usability and stability. AutoEDMS scores high marks in both these categories.

Another good bet is the AutoEDMS "Quick Start Project." You will have the invaluable assistance of experienced personnel in your planning and implementation stage, and outstanding technical support once you are up and running. Finally, you can attend regional, in-depth AutoEDMS training sessions where you will learn to be much more than a document management administrator."

General Industry Issues

Although AutoEDMS offers a wide range of features and benefits, a few issues stand-out within different industries:

AEC (Architectural, Engineering and Construction)

The key issue that the AEC industry focuses when considering document management systems is *time*. Most of their work is on a contract or project basis so "time is money". AutoEDMS offers them an attractive solution for recording time spent on the files (the Workflow history audit trail can easily be tallied and reported).

The Workflow Engine allows project managers to easily assign (check-out) files to drafters' and engineers' AutoEDMS in-baskets and check them back in when the work is completed.

AutoEDMS can also help them archive files from their completed projects. Built-in *Attachés* can be used to automatically move a group of files to an archive directory, while retaining the database records for reference.

Mechanical/Manufacturing

Manufacturing firms are very concerned about using the proper *revisions* of their files. A wrong revision used in production can result in huge losses in scrap materials, money and time. *Quality* also plays an important factor in document management. Many manufacturing companies have become or are trying to become ISO9000 or QS9000 certified. This means that they have to religiously document everything they do and have absolute certainty that the files they're using are the correct ones.

The Workflow Engine helps companies implement controlled document revision, approval and release processes. This helps ensure that the files that make it to the factory floor are the correct versions. By setting-up view-only AutoEDMS stations, everyone has access to the latest drawings and work instructions, without pulling hardcopy prints.

The Redline Module offers easy redlining and commenting as part of the workflow processes. Engineers and managers can also use the drawing compare function to quickly verify the differences between drawing revisions, and perform on-screen measurements.

<u>Petrochemical</u>

Petrochemical firms usually have a very large quantity of paper drawings and new CAD drawings that they need quick and distributed access to. Often times, employees are spread-out across a plant or across the country. They need immediate access to their plant drawings, especially in the event of an emergency.

AutoEDMS can easily handle the large volumes of files (records) that petrochemical companies typically have – and the retrieval time is instant. AutoEDMS allows easy viewing and printing of a company's scanned images and CAD drawings. Since AutoEDMS supports LANs, WANs and Intranets very well, it offers easy and secure access to legacy documents. AutoEDMS' concurrent-license pricing also makes it very cost effective to support hundreds of users.

For More Information:

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