

# AutoEDMS for Industry Mechanical Engineering

## AutoEDMS for Manufacturing and Design

### Key Features

- Automatic Check-in and Checkout.
- Revision Control
- ECO Work Orders
- Multiple Workflow Processes
- Viewing support for over 200 industry leading file types
- Electronic markup (redline) of CAD and scanned images
- Electronic commenting
- Integrated E-mail
- History log
- Audit Trails

**M**anufacturing and design firms depend more and more on design technology to reduce costs and bring their products to market more quickly. The engineering process requires an effective document strategy that involves design, manufacturing, customer services, sales and suppliers right from the beginning of the design process. 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 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. AutoEDMS can manage and control the way manufacturing firms handle their business processes. The AutoEDMS 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.

## Engineering Change Orders (ECOs)

**T**hrough the AutoEDMS Workflow Engine, customized workflow routes can be designed to process Engineering Change Orders (ECO), requests and notices. Each company processes change orders differently and AutoEDMS can handle any variety of ECO/ECR/ECN methodology.

These processes typically involve four key issues:

- **ROUTING** - Initial change requests are routed to the appropriate person(s) for review and evaluation. Change Management personnel then route the requested changes to department heads and

managers for their input and approval

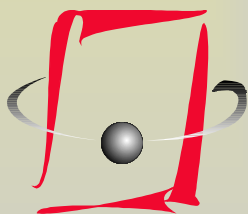
- **DISTRIBUTION** - ECO is routed to appropriate departments and personnel. Affected files are assigned and distributed to drafters, etc.
- **APPROVAL** - The affected files are routed back to management for approval
- **NOTIFICATION** - Management notifies all affected departments, customers, suppliers, etc. with an Engineering Change Notice to relate the completed changes.

The various notices and change orders are typically created with off-the-shelf tools like Microsoft Word, using

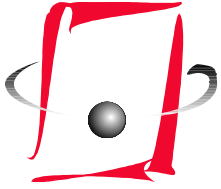
predefined document templates, based on the type and severity of the change.

AutoEDMS provides a flexible change control management system, to meet in-house requirements and outside agency approvals (ISO 9000, for example).

AutoEDMS manages the creation of the change documents in Word and routes them to the appropriate personnel. In many companies, most changes are small and do not require as much control as big changes. Big changes though, typically require extensive routing, approval and audit trails.



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## A Selection of AutoEDMS Customers

- ABB Flexible Automation
- A-dec, Inc.
- Altos Hornos de Mexico S.A.
- Applied Precision, Inc.
- Berg Steel Pipe
- Caterpillar Paving Products
- Carver Yachts
- Delta Nuts Bedrijven N.V.
- Durr Industries
- Dynacorp
- Erico Inc.
- GE Energy Services
- Inductotherm Corp
- ICL Huntsman
- Mars B.V.
- Merillat Industries
- Morgan Corporation
- Napa Pipe Co.
- Nutone Corp
- NWL Transformers, Inc.
- Oremet-Wah Chang
- Parker Pen
- Philips
- Rockford Products Corp.
- Signal Processing Systems
- Sony Corporation
- Stupp Brothers Bridge & Iron Co.
- Sunds Defibrator
- The Kirlin Company
- U.S. Filter/Wheelabrator
- VATEch (Reyrolle Transmission)
- Webster Industries
- Western Printing & Machinery

**E**stablished in 1981, ACS Software, Inc. is the developer of the AutoEDMS document management and workflow solution, designed for workgroups and multi-site enterprises. ACS Software delivered the first PC-based EDMS system in 1986, and there are thousands of AutoEDMS customers worldwide, in a wide variety of industries. ACS supports clients in all 50 states and in over 25 countries.

AutoEDMS is a comprehensive document management and workflow solution, which manages documents and document revision processes, in a small workgroup or a multiple-server, wide-area network. AutoEDMS includes file check-in/check-out, revision control, workflow routing, document security, optional redlining, and viewing/printing of over 200 file formats. AutoEDMS implements document management through user-designed screens ("Forms") that contain textual database information, in addition to graphical "views" of the managed files. The built-in Workflow Engine is used to graphically define file revision and approval processes. AutoEDMS supports Windows 98/2000/NT/XP and all leading network systems.



We literally went from manually managing thousands of drawings to a mechanism that now allows us to seamlessly create a knowledge base of drawing information and is allowing us to work towards a more informed and paperless organization. Since then, we have embarked on the second phase of our system plans, which included the following objectives: allowing users to view integrated EDMS/MRP data in real-time, track hard copies of drawing prints (revision control), view drawings from anywhere within the company, track materials and reduce inventory, track labor, automate scheduling of labor and materials. In order to meet our Phase II objectives, we developed a Visual Basic (VB) application in-house, which we call 'StuppEDMS'. Through Open Database Connectivity (ODBC), we were able to combine our Visual Manufacturing MRP system and the AutoEDMS databases for a consolidated shop floor view. StuppEDMS now provides real-time workflow information, drawing viewing/printing, print logs, project, drawing and CNC file details, and linked BOM information. We now have an effortless way to manage all of our data and files. Our second phase system objectives have been met. We now have everything tied together, from design to fabrication. Our EDM system allows Stupp to capture data and control our shop drawings, CNC files and BOM files. Our manufacturing system allows us to retrieve labor data and schedule work, and StuppEDMS allows us to look at a drawing or part and view the drafting manufacturing status. This ability to automatically manage all of our data gave Stupp Bridge the confidence to expand its services and share our drawing and manufacturing data inside and outside our organization. Lastly, with the implementation of web technology, we took the final step and developed extensive Intranet and Extranet sites that allow the sharing of data being produced by our internal software systems. This 'complete solution' was the result of the ease of implementation and expandability of our software products. In summary, our biggest achievement is that all of our manufacturing and design information can be displayed in real-time. That's pretty impressive when you consider that all of this data can be input and viewed instantly from two locations, 300 miles apart."



**"T**he 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."

**Dean Heffentrager**  
CAD Network Administrator  
Morgan Corporation

**"A**s 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 as it tends to run quietly on its stable 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."

**Linda Cygen**  
IS Manager  
Western Printing & Machinery

**"A**fter evaluating AutoEDMS and its workflow functions, we felt it offered everything that we were looking for. With the help of ACS Software, we piloted AutoEDMS and went live within just a few weeks of the pilot. We literally went from manually managing thousands of drawings to a mechanism that now allows us to seamlessly create a knowledge base of drawing information and is allowing us to work towards a more informed and paperless organization. Since then, we have embarked on the second phase of our system plans, which included the following objectives: allowing users to view integrated EDMS/MRP data in real-time, track hard copies of drawing prints (revision control), view drawings from anywhere within the company, track materials and reduce inventory, track labor, automate scheduling of labor and materials. In order to meet our Phase II objectives, we developed a Visual Basic (VB) application in-house, which we call 'StuppEDMS'. Through Open Database Connectivity (ODBC), we were able to combine our Visual Manufacturing MRP system and the AutoEDMS databases for a consolidated shop floor view. StuppEDMS now provides real-time workflow information, drawing viewing/printing, print logs, project, drawing and CNC file details, and linked BOM information. We now have an effortless way to manage all of our data and files. Our second phase system objectives have been met. We now have everything tied together, from design to fabrication. Our EDM system allows Stupp to capture data and control our shop drawings, CNC files and BOM files. Our manufacturing system allows us to retrieve labor data and schedule work, and StuppEDMS allows us to look at a drawing or part and view the drafting manufacturing status. This ability to automatically manage all of our data gave Stupp Bridge the confidence to expand its services and share our drawing and manufacturing data inside and outside our organization. Lastly, with the implementation of web technology, we took the final step and developed extensive Intranet and Extranet sites that allow the sharing of data being produced by our internal software systems. This 'complete solution' was the result of the ease of implementation and expandability of our software products. In summary, our biggest achievement is that all of our manufacturing and design information can be displayed in real-time. That's pretty impressive when you consider that all of this data can be input and viewed instantly from two locations, 300 miles apart."

**Steve Hollingsworth**  
CAD Systems Manager  
Stupp Bridge Company