

What to Expect from Today's Document Management Solutions



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More than just products...performance

Avatech is the nation's largest provider of design automation solutions for companies looking to dramatically improve productivity and create competitive advantages. Avatech has the people, the skills and the depth of resources you need to become more successful, productive and competitive.

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What to Expect from Today's Document Management Solutions

Distribution of Data

Connecting the Entire Organization
Full Integration
EDM Core Functionality
Impact of the Internet

What is the value of having access to all of your documents, at any moment, and from anywhere? Or of being able to find all the documents you need in an instant—without ever having to worry if each is the correct version? Of having control over each document's status and revisions while having the opportunity to improve the information flow and communication within both organization and project teams?

The way that people work together has changed enormously over the last decade. Product developments and project realizations require large investments that must be earned back in shorter periods of time; thus companies have attempted to streamline their infrastructure. Suppliers, cooperating project partners, mobile workers on remote sites, and the customers themselves make up virtual organizations that are increasingly flexible. To support these virtual organizations, efficient and effective information management is critical. Companies can only control sensitive external communication if their internal information workflows are managed properly.

Until the mid-1990's, organizations invested in automation mainly to increase personal productivity and track certain proprietary information. Many of the different applications used couldn't be integrated to communicate with each other. For the most part, Local Area Networks (LANs) were used simply to connect people within the same building. Communication with the outside world was too expensive and was implemented primarily for proprietary solutions. There were a few standardized communication protocols (EDI initiatives and STEP), but they weren't widely used. With the advent of the Internet and the widespread use of integrated application suites, this situation changed virtually overnight.

Connecting the Extended Organization

EDM software ensures that engineering teams, cooperating organizations, supply chains, and even customers can all be included in the design and decision-making process, no matter where they are or in what time zone they may be located. Thus, this technology is especially useful when supporting an environment that encourages teams to collaborate—regardless of time and physical location.

Virtual Engineering Teams

Today, there is often necessary for colleagues to work together from different locations because they're on site, on the road, or perhaps working from home. EDM supports these scenarios with a structured storage of all documents, easy-to-use search functions, direct document access (based on system authorization), *Property Pages*, and the use of *Working Copies*.

Cooperating Companies

Organizations often need to coordinate projects with separate profit centers within their own enterprise or with outside vendors. There is sometimes a tendency for services from individual departments to be hired informally or even to outsource detail engineering to low-wage countries. Document management ensures that control remains with the authorizing company or department through revision management and tight security.

Does your design team ever work with outside contractors or remote project team members? If so, how well do your existing systems support this type of collaboration?

Supply Chains

Once a company is able to structure its internal document management, it can structure and control the information flow within its supply chain. Because other companies may not have the same IT infrastructure, EDM software can offer to cooperating organizations the following:

- Structured document storage
- A uniform application to manage status and versioning
- A familiar, easy-to-use interface
- Workflow and procedures support
- Intranet/extranet distribution of documents; and security

Do your customers ever need to view or access your design documents during the design process?

Keeping Customers “In the Loop”

Customers want to be kept informed throughout product development and project phases. Offering access to the EDM vault can fulfill this demand by giving customers access to all documents already completed or released for their reviewing and approval.

Full Integration

An important aspect of EDM is its integration with commonly used business applications. Designers who design products or constructions allocate most of their time with CAD applications towards drawing production. In addition to producing drawings as graphical information interfaces, they also need to make specifications, schedules, calculations, etc., in Microsoft Word/Excel or generate bills of material for a company-wide ERP system.

Do your designers have to interact with systems other than CAD? If so, what are these systems and is redundant information being keyed into multiple systems?

In order to work efficiently, engineers need an EDM system that supports their entire business process as well as all applications used in their environment. Application integration is provided by a combination of the standard Windows operating system and inherent EDM functionality.

EDM adds valuable functionality for managing the status, correct version, and change process of all documents, *without needing to change any application in use*. The more people working together on a product or a project, the bigger the threat that they will accidentally use wrong versions, losing valuable time searching for the right information—even losing the correct information itself.

Design Process Automation

Do you have a formal process for initiating a new design or changing an existing design? Once the design or design change is completed, do you have a formal process for releasing these designs for production or use?

EDM systems have emerged with a powerful design focus that distinguishes them from most other document management solutions because they support both project-based and process-based working methods. There is also specific CAD integration without excessive administrative obligations or restrictions. In addition, document management systems offer Assembly/Reference Structure Management and support for online, web-based engineering collaboration.

Revision Control

Each document stored in the document vault has a database record associated with it. Each of these records has assigned property fields assigned to it. Among these fields is related revision level information e.g. revision number, revision description, and so on.

Where Used

The capability to create relationships between two individual records in the database. For instance, a drawing document record may have a relationship pointer to a material specification document's record. When you reference one of the two documents you will be able to see the reference to the other document.

Document Comparison

A feature that enables users to take two revisions of the same document and compare the differences between them.

Baseline Creation

Creates a snapshot of the database at a given point in time. This allows milestones in a projects lifecycle to be made and referred to at a later point.

Office Support

The Windows-based interface of EDM systems provides a natural looking and easy-to-learn working environment for office applications. Therefore, office application users can also benefit from the versioning management, easy-to-use folders, navigation views, and search functions. They, too, can have document management without needing to change the way they work today.

ERP Integration

ERP systems support and, sometimes heavily control, an organization's logistic processes from the moment a product is ordered until it's delivered to the customer. Before and during this chain of activities, engineering and ERP are frequently

Does your design team create and manage non-CAD documents to support the design (e.g. Word, Excel, Lotus, CNC, etc.)?

required to interact with each other. EDM offers ERP users the benefit of direct access to all relevant documents as well as to easy-to-use folders, document organization, and search functions. There is no demand for additional software and the EDM software is easily customized according to the user's needs.

CRM Integration

The original sales-oriented contact management systems have grown into professional Customer Relationship Management (CRM) systems that are also used by service people and other employees who have frequent contact with customers. These systems primarily manage customer information, not the associated documentation. A document management system offers the additional benefit of linking contact information with all customer-related documents along with secured access and a flexible and scalable structure.

The Impact of the Internet

Do you have the need to make your document available over the Internet? If so, have you thought about your security requirements?

The increased use of the internet and local corporate intranets provide organizations with a broadly accepted and highly standardized infrastructure to communicate with others and share documents, regardless of a user's local time zone or physical location. Intranets are increasingly being used to centralize information for easy access. Embracing the internet within an EDM environment offers organizations the opportunity to improve the distribution and communication of documents at lower costs. People can be offered controlled access to documents through their browser.

One of the latest revolutions on the internet is the creation of market-specific and project-oriented websites or *information portals*. Service providers can use these to develop specialized services for the publication of standard parts information or certain document collections. Similarly, project web sites can be used to publish any available project documentation. Combined with the internet, an EDM system becomes a powerful tool for improved information management and workflow throughout the organization and its vendors; thus offering a valuable competitive advantage.

Document Publication

Throughout any engineering process many documents are produced that need to be shared with co-workers and service providers. Web publication offers an easy way to share them. EDM systems can support the use of web publication through web integration, tight security, property pages that identify a document's contents to others.

Electronic Mail

Electronic mail has secured a solid place in people's daily communication since it's much faster than faxing and is easy to use. EDM can enhance the use of e-mail because of its direct, yet secure, access to documents via the internet/intranet. Its intuitive search functions are able to find any document that needs to be attached to.

Project Extranets

The broad acceptance of the internet as an electronic communication tool has made it possible to develop new ways to work together. One of these developments is the implementation of project extranets. A project extranet provides the necessary links to everyone involved in a project so that they can communicate with each other more easily. There are even specialized web sites enabling companies to outsource the storage and management of project information. An EDM system can help to implement extranets because it assures central and secure document storage and retrieval.

E-commerce

E-commerce, the use of the internet to sell products, makes it essential for organizations to have a good database in which all product documentation is stored and tightly secured. CRM integration is supported through EDM systems by providing the logical storage of all necessary documents on a central server that can be connected to the E-commerce server. Some EDM solutions also offer full internet integration and customizable business templates to adapt document storage to specific e-commerce needs.

Do you currently use e-mail as a notification mechanism to notify project team members that a design file has changed or that a new revision has been released?

Do you currently share design resources with coworkers or consultants located in other offices? If so, do you have a WAN in place that allows sharing of electronic data?

Contacting Avatech Solutions

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