Engineering Workflow and Document Management Systems for Facilities Management

Many corporations, manufacturers, universities/schools, and government agencies are undergoing changes in their facilities which can be accomplished faster and more efficiently using a robust engineering workflow and document management system (EDMS). As owners, expansion, renovation, and maintenance projects require facilities management teams to adopt specialized software to better manage their growing facilities and communicate with contractors responsible for their construction projects. The utilization of a document management system to control their as-built and construction documents can ultimately improve the processes of maintaining and building needed structures, plants, equipment, and roads and bridges.

In addition, facilities management departments have myriad of related documents used to keep their facilities up and running. A document management system helps organizations better store, organize, secure, distribute, and track these documents through document versioning, workflow management, and NIST-level document security protocols.

Facilities Management for Engineering-based Projects

An engineering workflow and document control system assists organizations in better managing their design and construction projects and maintaining tight control over their facility documents. For example, universities can use building floor plans, equipment information, and other infrastructure documents in the ongoing maintenance of their facilities, including space planning utilization and renovations. In addition, since universities and school districts often outsource their design and construction projects to external AEC vendors, they are better able to review and approve work performed by external contractors employing a robust engineering workflow and document management application.

Document Versioning

An engineering workflow and document management system provides a single source of truth by versioning documents by the system and ensuring the correct version of a document is being used or reviewed at all times. The system also includes the option to include redundant approvals, such as time stamps and seals of approval, so there is no question as to whether a document has been reviewed and if it is the current version.

Facilities management departments can base version numbers on their preferred versioning schemes, which can be numerical, alphabetical, or alphanumerical, and can even change between vendors and projects. This allows them to use their traditional versioning schemes, making it easy to train new users.

Digital CAD Drawing Markups

With ImageSite and EngineBox, workers can markup (redline) drawings from any location, making it easy to identify changes. Workers can indicate changes using images, text, audio, and even video, making it easy to communicate changes. Comments and Notes also can be assigned with markups to record a string of changes and requirements. Additionally, markups allow organizations to create their library of symbols with variable text for engineering stamps or seals for approval and more.

Efficient Storage and Continuity

The facilities management department can use this technology to preserve knowledge, having all system users follow the same set of document management procedures. This ensures organizations don't lose files as workers move between companies or retire. For universities, this is a critical element of an engineering workflow and document management system as institutions often have high turnover.

Faster Project Turnaround

Employees often spend a large portion of their time searching for and handling documents, creating inefficient workflows that can lead to project delays. ImageSite and EngineBox provide sophisticated and quick search capabilities using both metadata attributes and full-text search indexing. The systems also provide internal and external notifications to ensure the timeliness of projects, and the accuracy of the information used. Users can also automate document actions, eliminating the time needed for manual handling of documents. Project managers can review workflow audit trails and analytically identify bottlenecks, inefficiencies, unneeded tasks, and general workflow velocity.

Transparency for Vendors and Contractors

With ImageSite and EngineBox, companies can ensure their vendors, contractors, and customers have access to the files they need, when they need them, without granting them access to your network or unnecessary files. Additionally, the RFI/Submittal and Transmittal modules, ensure speedy communications between third parties, and complete control over project deadlines, all with recorded audit trails. It is the perfect solution, as it helps improve their collaboration and increase the overall efficiency of workflows.

Engineering Workflow and Document Management System vs. Local Devices

The use of PCs and laptops to execute and manage workflows has become the norm with software like Microsoft Project, with the majority of these workflows being document-centric. The digital files are maintained and employed on user local machines for years or public shares, using decentralized software applications (e.g., Excel, Acrobat, and Windows File Manager). Centralized document management systems now provide a more disciplined, secure way to maintain, distribute, and manage these files. The major differences are:

Engineering Workflow and Document Management System

- Automatic versioning of files based on preferred versioning schemes
- Full-text search and advanced search filters using conditional operators
- Automated document actions based on workflow configuration
- Secure communications with vendors and contractors
- Collaboration tools such as markups, (redlining), internal/external notifications, RFIs/Submittals, and more.

Local Systems

- Basic version control
- Organizations are subject to data loss by misplacing or overwriting files
- No automation
- Simplistic searching
- Little to no file sharing
- Unsecure communications via email
- No collaboration tools.

eQuorum

eQuorum is an engineering document management software provider offering Cloud, on-premise, and hybrid solutions for companies with a large number of files, file types, or locations. Companies have been utilizing this software for more than 27 years, including some of the country's leading engineering, aerospace, energy, national defense, architecture, pharmaceuticals, and manufacturing companies.

Learn more about our EDMS solutions.
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