

Solution for Plant and Facilities Management

The Big Picture

- Enable seamless management of engineering documentation
- Collaborate on engineering content in multiple languages, over long distances, and across internal and external systems
- Mitigate the risk of non-compliance

Maximize the value of engineering content, minimize the cost of rework, and mitigate the risk and cost of non-compliance

Engineering firms deal daily with the challenges inherent in the lifecycle of plant and facility management, from design and construction, to ongoing operation, major modifications, refurbishments, and finally plant decommissioning. At the same time, asset owner-operators are under pressure to extract the maximum value from plant and facility assets while reducing operational and capital expenditure. Facility downtime can be very expensive to the owner-operator; conversely, anything that can be done to accelerate the commissioning of an asset can be a very lucrative proposition.

To achieve these goals, it is vitally important that asset documentation is tightly controlled so that it complies with any necessary industry regulations and is reliable and accurate for mission-critical situations. Effective operation of a facility depends on up-to-date engineering or CAD drawings, health and safety documents, maintenance manuals, SOPs, and as-built documents.

Managing engineering documentation: No simple feat

Managing engineering documentation carries several unique challenges.

First, the sheer volume of documentation that needs to be managed to maintain and operate a production asset is vast. A single asset can have hundreds of thousands of pieces of documentation which may have many critical dependencies, making it extremely complex to manage.

Second, the ability manage as-built documentation is invaluable. During a capital project in which facilities are refurbished or extended, the same engineering documents may be modified by different capital projects and maintenance teams all working in parallel. Not only are the existing documents being modified, but they are modified and extended in different ways. When they are brought together, they don't always fit neatly to provide a consistent view of the facility. Reconciling various changes is absolutely necessary so that the final document reflects all of the changes in the appropriate manner.

Third, industry regulatory bodies are mandating stronger documentation control and proof that appropriate business processes are being followed during the lifecycle of asset-related documentation. For some industries, this may require documents to be archived for as few as twenty years or as long as a hundred. If a plant shutdown is necessary, a regulatory agency may require that all asset documentation is reviewed and approved prior to start up, which can be an arduous process. The documentation acts as a formal record and, if anything does go wrong, it must be easily accessible and accurate.

Finally, there are risks associated with using incorrect documentation. Doing so can create project delays and plant downtime, which reduces profitability, or compliance issues, which in turn could lead to fines, compensation payments, and potential bad press coverage and public relations—severely impacting shareholder confidence and stock value.

EMC and McLaren Software: Seamless management of engineering documentation

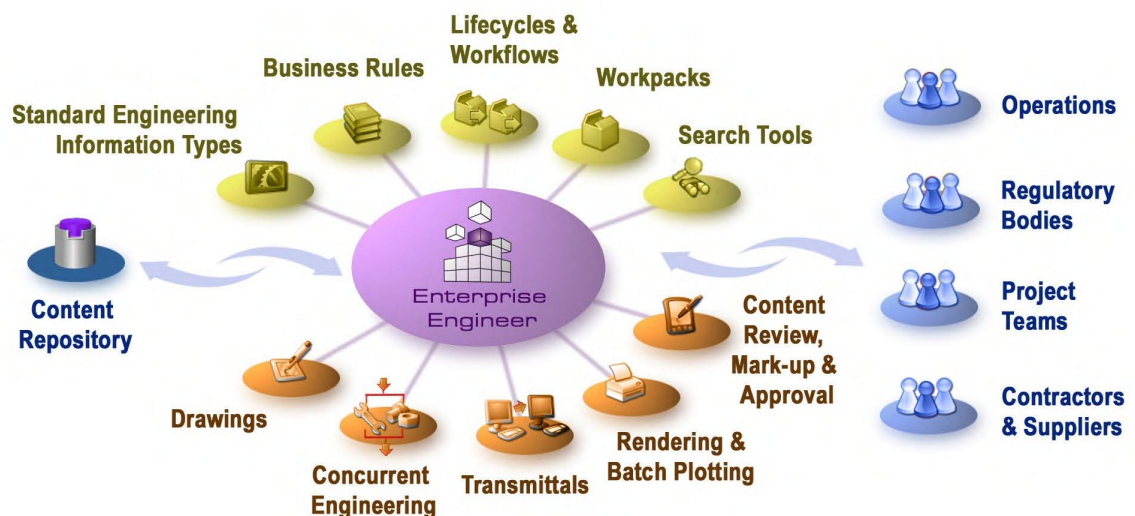
The EMC® Documentum® platform and the McLaren Enterprise Engineer application suite together provide a complete solution for managing engineering documentation (engineering or CAD drawings, specifications, contracts, correspondence, etc.) in the context of enterprise business processes. The joint solution gives you enterprise-wide access to vital engineering information and ensures the right versions of the right documents are available to the right individuals throughout the design, construction, operation, maintenance, and decommissioning of plants and other large assets. Seamless management of engineering documentation allows you to ensure that consistent business processes are followed. As a result, your organization can increase productivity, reduce costs, and reduce the risk of non-compliance.

McLaren Enterprise Engineer leverages the power of the EMC Documentum enterprise content management platform, providing full access to all its functionality and co-existing with other EMC Documentum solutions. Enterprise Engineer combines EMC Documentum content services, such as workflows, lifecycles, and audit trails, with packaged business logic to deliver engineering-specific functionality. Enterprise Engineer also integrates with other EMC Documentum products to support the full range of customer requirements for managing engineering content, including EMC Documentum Records Manager and Content Storage Services. And because it's built on the EMC Documentum platform, Enterprise Engineer makes it possible to distribute engineering content in multiple languages, over long distances, and across internal and external systems.

Benefits of an EMC/McLaren solution for plant and facilities management

The chief benefits of the EMC and McLaren solution for plant and facilities management solution include:

- Enterprise-wide management of all engineering documentation and associated business processes concerned with operating and maintaining large capital assets, including the operation of existing facilities, design and construction of new facilities, major modifications, refurbishments, and plant decommissioning
- Control over the creation, review and publication of all types of engineering content including CAD drawings, raster images, and hybrid drawings, specifications, calculations, SOPs, MSDS sheets, project correspondence, work instructions, contracts, invoices, environmental analysis, inspection reports, and so on
- Integration with Microsoft Office, Autodesk AutoCAD, and Bentley Systems MicroStation
- Reduced risk of plant downtime due to inaccurate asset documentation or noncompliance with industry regulations



Powered by the EMC Documentum platform, Enterprise Engineer provides access to engineering content across the extended enterprise.



EMC and partner content management solutions

This solution is one of many content management solutions offered by EMC and partners.

EMC and partners provide content management solutions that help organizations to solve business problems specific to their function or industry. Built on the EMC Documentum platform, and combining EMC and partner technologies and services, these solutions help organizations to streamline and automate processes, increase productivity of teams and individuals, address their information compliance and retention requirements, foster creative work, and lower the cost of operations.

A Designed for EMC accredited application

Enterprise Engineer carries the “Designed for EMC” accreditation. This accreditation ensures tight integration and product roadmap alignment between ISV applications and the EMC Documentum platform. Recognized as a Designed for EMC Offering of the Year and Best Vertical Offering, Enterprise Engineer requires minimal implementation and configuration. Together, EMC Documentum and Enterprise Engineer generate rapid return on investment, shortening time to deployment and by replacing expensive customizations.

About McLaren Software

McLaren Software develops engineering-centric intellectual work management applications for the oil and gas, manufacturing, utilities, pharmaceutical, and engineering, design, and construction sectors. McLaren helps organizations optimize their engineering design and asset change management processes to maximize the value in their engineering documentation while mitigating the commercial risk associated with their use.

About EMC

EMC Corporation (NYSE: EMC) is the world’s leading developer and provider of information infrastructure technology and solutions that enable organizations of all sizes to transform the way they compete and create value from their information. Information about EMC’s products and services can be found at www.EMC.com.



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Take the next step

To learn more managing engineering documentation and reducing the risk of non-compliance, visit www.EMC.com or call 800.607.9546 (outside the U.S.: +1.925.600.5802).