

TRANSFORM ENGINEERING DATA INTO ACTIONABLE ASSET INFORMATION

For several organizations, there are significant staggering consequences for poor engineering information and document management. A loss caused by information incidents is equivalent to 1.5% of annual sales. For example, a plant with sales of \$250 million means \$3.75 million lost in a single year.¹

It can be extremely difficult for many organizations to track their mission-critical engineering documents properly. In the engineering department, engineers struggle with the lack of global access to engineering data. With an uptick in projects that go beyond one facility or plant, these projects mean engineers need to work together more closely and must have access to engineering information across multiple assets and sites.

Many solutions also don't support concurrent engineering, so instead of modifying assets associated with multiple projects simultaneously, engineers are modifying assets for various projects in consecutive order, which takes a lot more time and energy. And with sequential updates, users may be working with outdated documentation during an engineering project.

Another considerable business challenge is information silos between disparate engineering and maintenance teams. These teams need each other's information, but they can't share information in a simple and reliable way. As a result, these teams must input their engineering information manually in two separate systems, conduct extensive information searches, and endure delays in reviews and approvals. In addition, without an integration into a maintenance team's enterprise asset management system, organizations can't ensure employee and plant safety when their maintenance team is out on the job working on an asset without the associated asset-related information.

¹ Asset Information and Analytics: Drivers of Process Industry Operational Excellence", ARC Advisory Group, January 2012, http://www.rolta.com/wp-content/uploads/pdfs/resources/ARC%20-%20Rolta%20-%20White%20Paper_Final.pdf



Accruent Meridian Server manages engineering documents, data, and drawings throughout the entire asset lifecycle. All mission-critical engineering documentation is stored within a single system which can be made available to the extended organization. It seamlessly connects operations and maintenance

departments to engineering to work safely and efficiently. Meridian provides a complete engineering document management system (EDMS) that ensures 24/7 access to technical documentation, so users can break down information silos and increase operational excellence.

SINGLE SOURCE OF TRUTH

Meridian creates a single source of truth by providing all users with a single location to find, view, print, and mark up the latest, approved asset documentation content. By providing these users access to asset information whenever and wherever it's needed, they can avoid costly rework, delays, accidents, or unplanned downtime caused by inaccurate or outdated information. Meridian helps to make the most of valuable engineering data by placing it in a secure, centralized repository and providing a well-established and proven change management process that helps ensure the engineering data is accurate and up-to-date. Every change is versioned and audited, giving you the confidence and control to demonstrate compliance. By having a single source of truth, users can facilitate the data handover process from engineering to operations & maintenance.

CONCURRENT ENGINEERING MADE EASY

There are numerous changes occurring all over a plant at any point in time. With all these engineering updates, it can prove challenging to keep up. The problem becomes even more complex when these changes overlap and have common interdependencies. The documents associated with these changes, such as piping and instrumentation design, general arrangements, process guidelines, etc., are changed as part of two or more separate initiatives. Meridian allows organizations to track all documents easily, ensuring projects run in parallel, without error, and provides real-time visibility to monitor revisions from different projects and ongoing maintenance. Project members associated with the same documents and drawings are notified automatically when a parallel project releases updated documents, avoiding unnecessary delays and shortening project turnaround times.

"The global process industry loses \$20 billion annually due to unplanned downtime, and it has become increasingly clear that in order to survive in a competitive, fast-changing, global industry, organizations are required to continually look for ways to increase their operational efficiency."

ARC, Asset Reliability Software & Services
Global Market Research Student



EMPOWERED COLLABORATION

In Meridian Server, different types of documents can have different workflows. The EDMS solution allows users to apply their internal business rules to Meridian by utilizing process flow diagrams and specifications. This approach enables them to set requirements before the documents can move to the next stage and view all the documents and their status, ensuring they are not released before all dependencies are completed. A change in a document related to other documents will trigger the user to revalidate the documents and start a workflow. This functionality ensures that organizations do not advance too soon, wasting time and money. In addition to facilitating collaboration with internal departments, it can also help securely exchange data with external contractors using the Meridian Portal interface. With improved internal and external collaboration, everyone can work more simply and efficiently.

ENTERPRISE INTEGRATIONS

Accruent understands that our customers are working with various popular applications, so it's crucial to develop products to effectively interface between multiple applications. Accruent offers a complete CAD-agnostic engineering drawing solution where users can easily store, manage, render, and visualize 2D and 3D content from major CAD systems. Organizations keep their master data up-to-date while coordinating change processes in isolated work areas with workflows, ensuring data validation, and providing a complete audit trail for regulatory compliance. Users can also manage Microsoft Office documents, PDFs, scanned images, and hybrid files, allowing the Meridian Server solution to serve as the ultimate repository for consolidating all legacy and project-related engineering information. In addition, Meridian provides certified integrations with several major computerized maintenance management systems (CMMS). These integrations make up-to-date engineering information related to assets, equipment, and functional locations easily accessible to maintenance.

COMPLY WITH EVEN THE MOST DEMANDING REGULATIONS

Meridian facilitates compliance with global and industry-specific document management regulations to help minimize risk and avoid costly fines. It enables organizations to fulfill document standard processes that describe, structure, exchange, and maintain information by classifying asset and document data according to standards. For example, pharmaceutical is one of the most strictly regulated industries. Meridian helps the world's top pharmaceutical companies maintain compliance with CFR 21 Part 11 for their complex technical documentation, tracing interdependencies between documents and ensuring full validation of engineering content required for production.

"Distance is irrelevant with Meridian. Whether you're an engineer at a power plant or a maintenance technician out in the field, you have reliable access to a single source of information. Meridian has significantly improved our team collaboration at all levels."

Janet Hart, Technical Services Manager, Generation
Operations & Engineering, Seattle City Light



ASSET LINKING

The Meridian solution ties documents to asset tags so users can take advantage of its robust search capabilities to locate files quickly. It makes it easier for operations and maintenance teams to find the documentation needed while on-site. Together with the seamless integration with a computerized maintenance management system, asset linking puts the correct version of the document in the hands of the operations and maintenance personnel simply by selecting the asset or opening the work order. For example, suppose engineering is working on an optimization project. In that case, they can easily find all assets related to the specific drawings. At the same time, maintenance can see all the documents associated with the asset to carry out their maintenance tasks.

PURPOSE-BUILT CLIENT INTERFACES

To provide the functionality needed by various user groups, Meridian offers unique and purpose-built client interfaces:

- Meridian Explorer. Easy access to search and retrieve information and add comments.
 Ideal for sharing engineering information with other departments, such as operations, maintenance, work schedules, and purchasing.
- Meridian Power. Used by the engineering team for complete control to create and modify engineering information in a controlled project environment. This client interface enforces your business rules, from automatically naming and filing documents, to managing complex CAD references, to exchanging data with CAD and Office files, and more.
- Meridian Portal. A secure, cloud-based engineering collaboration tool used by project teams to collaborate with external contractors and vendors. Meridian Portal implements data, CAD references, and other validation rules so that contractors hand over correct and complete data the first time.
- Meridian Mobile. This mobile EDMS solution provides anywhere access to search, view, and add comments to documents and drawings through any user's mobile phone or tablet. Meridian Mobile helps users find information quickly by scanning barcodes or QR codes on assets.

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