



TRANSFORM ENGINEERING DATA INTO ACTIONABLE ASSET INFORMATION

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

For many organizations, it can be extremely difficult 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 must work together more closely and must have access to engineering information across multiple assets and sites.

Many solutions do not support concurrent engineering, so instead of modifying assets associated with multiple projects at the same time, engineers are modifying assets for various projects in consecutive order. With sequential updates, users may be working with outdated documentation during an engineering project.

¹Asset 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



Another huge business challenge is information silos between disparate engineering and maintenance teams. These teams need each other's information, but they cannot 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 to the maintenance team's enterprise asset management system, organizations cannot ensure employee and plant safety when their maintenance team is out on the job working on an asset without the asset-related information.

Accruent Meridian Server manages engineering information 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. Our solution connects operations and maintenance departments seamlessly to engineering to work safely and efficiently. Meridian provides a full Engineering Information Management (EIM) solution that ensures 24/7 access to technical documentation, so users can break down information silos, integrate your departments, and increase operational excellence.

SINGLE SOURCE OF TRUTH

Meridian creates a single source of truth by providing all users 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 quite challenging to keep up with all these changes. The problem becomes even more complex when these changes overlap, and they 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 providing 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 is has become increasingly clear that in order to survive in a competitive, fastchanging, 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, different types of documents can have different workflows. Our solution allows users to apply their internal business rules to Meridian by utilizing process flow diagrams and specifications. This approach allows users to set requirements before the documents can move to the next stage and view all the documents and their status, ensuring that documents are not released before all dependencies are completed. If there is a change in a document that relates to other documents, it will trigger the user to revalidate the documents and start a workflow. This functionality ensures that organizations do not advance too soon and end up wasting time and money. In addition to facilitating collaboration with internal departments, our solution can also help to securely exchange data with external contractors using Meridian Portal. 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 we know it is crucial to develop our product in such a way that users can interface between these multiple applications in the most effective manner. Accruent offers a full CAD-platform independent solution for engineering drawing management where utilities can store, manage, render, and visualize both 2D and 3D content easily from major CAD systems. Organizations keep their master data up-to-date while coordinating their change processes in isolated work areas with workflows, ensuring data validation, and providing a full audit trail for regulatory compliance. Users can also manage Microsoft Office documents, PDFs, scanned images, and hybrid files, allowing our solution to serve as the ultimate repository for consolidating all legacy and project-related engineering information. In addition, Meridian provides certified integrations with several of the major maintenance management systems. With these integrations, up-to-date engineering information related to assets, equipment, and functional locations is 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. Meridian 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 documents quickly. Our solution makes it easier for operations and maintenance teams to find the relevant documentation that they need while on-site. Together with the seamless integration with computerized maintenance management systems, asset linking puts the correct version of the correct documentation in the hands of the operations and maintenance personnel simply by selecting the asset or opening the work order. Meridian bridges the gap between engineering and maintenance. If engineering is working on an optimization project, they can easily grab all assets related/ mentioned in the specific drawings, while maintenance can see all the documents related to the asset, so they can resolve the problem more quickly.

PURPOSE-BUILT CLIENT INTERFACES

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

- **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 full control to modify and create engineering information in a controlled project environment. This client interface enforces your business rules in the engineering process, from automatically naming and filing documents, to managing complex CAD references, to exchanging data with CAD and Office files, and more.
- **Meridian Portal** Secure, cloud-based engineering collaboration tool used by project teams to collaborate with external contractors and vendors. Meridian Portal implements data and CAD reference and other validation rules so that contractors hand over correct and complete data the first time.
- **Meridian Analytics** Empower the value of your asset information with powerful insights from robust analytical capabilities used to determine metadata quality over time. Typical users are document controllers, engineering managers, and others that have a vested interest in complete and accurate engineering documentation and tagging.
- **Meridian Mobile** Meridian Mobile is the “EIM in the Field” solution, providing 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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