Learn the four stages to operational excellence

1. Get your content under control
2. Ensure optimal access to content
3. Manage change with a structured approach
4. Coordinate information from other business applications

EMC DOCUMENTUM®
ASSET OPERATIONS
THE CHALLENGES OF OPERATING AND MAINTAINING ENERGY FACILITIES

Your plant has served you well for many years. But you may find operating and maintaining it is becoming increasingly challenging. The assets are aging and regulations are becoming more demanding. Yet pressure continues to increase production and reduce downtime.

You’re not alone. Plant managers throughout the world face similar difficulties.

1976

The year the last new refinery was built in US

75%
of nuclear plants in Europe in last half of operating lifespan

The key to effective management is having the right information at your disposal. It does you little good to have an “as-designed” document in your hands when there’s a more accurate “as-built” document that you can’t locate. When information is missing, mistakes are made. You might drill in the wrong spot and find hidden pipes or face an unscheduled shutdown because you couldn’t plan properly.

It also would be valuable to have a clear process in place to manage change, make operations more efficient and pinpoint causes of any difficulties.

Sources:
- National Petrochemical and Refiners Association from Oil and Refiners, Steve Austin, OIL-PRICE.NET, September 2012.
- European Nuclear Society from Average Age, Michael Hennigan, Finfacts Ireland, December 2009.
These people have the “tribal knowledge” that has come in handy when no one else knows the answer. Many of them are retirement age, and you’ll lose their knowledge once they leave.

Some organizations strive to retain those employees. Not only is that costly, it is often unreliable and fails to solve the underlying problem.

Many plant managers have relied on a core group of people who have been with their organizations for decades.

Source: March 12, 2013, Todd Woody, Quartz
With information potentially being lost, your plant becomes vulnerable. This is a particular concern in an age of terrorist attacks and other security threats. You have to capture the key information in document form. But you have to be careful about how that information is shared.

Too little security exposes you to unknown threats.

Too much makes it difficult to keep operations moving forward.
And finally, there are regulatory concerns. With agencies of all sorts monitoring your activities, you want to be able to produce the needed documents quickly.

But when they're scattered in different locations throughout your operation – or simply can't be found – you may not be able to do so.

Some organizations have resigned themselves to continual fines for failing to meet regulatory concerns.

Such an approach is expensive and can result in lawsuits if accidents were to occur.

Managing an energy facility is complex and challenging. At times, it may seem that improving your plant’s operations is too daunting a task to take on.

While you cannot create an ultra-efficient system overnight, you can make steady progress and realize benefits each step of the way.

EMC has thoroughly analyzed the process by which our customers have enhanced their maintenance and operations systems.

We’ve looked at industry standards, reviewed analyst recommendations and leveraged the expertise of our services group and our partners.

With that knowledge, we have developed a four-stage maturity model of the process of achieving operational excellence.
Here is a summary of each of those four stages and how Documentum Asset Operations helps you move through each stage

**STAGE 1**
Get your content under control
- Industry-standard taxonomies and document metadata
- Compatibility with all file types, including Adobe Acrobat®, Microsoft® Office®, CAD formats, and many others
- Unified repository to eliminate information silos
- Tools and services to migrate from completed projects and legacy systems

**STAGE 2**
Ensure optimal access to content
- Advanced search to quickly find required documents
- Security systems for limiting access to those requiring it
- Version control to provide visibility of documents' effective versions
- Wide array of mobile access options

**STAGE 3**
Manage change with a structured approach
- Built-in processes for reviews and approvals
- Easily tracked audit trails
- Support for transmittals
- Automatic distribution and notification of information changes

**STAGE 4**
Coordinate information from other business applications
- Integration with existing operations, maintenance systems and common business systems
- Compatibility with standard authoring and collaboration tools, including CAD
- Expertise in developing energy-sector industry solutions
The Energy & Engineering information experts at EMC have thoroughly considered these issues, drawing from their experience of helping customers address the challenges of these industries. From this base of understanding, they have developed a solution that addresses the critical factors essential to smooth and efficient management and operations.
Automate and streamline change management as part of uniform processes based on industry best practices.

Manage all of your documents no matter their form, so that those who need access to them can do so when and where they like.

Boost productivity & optimize processes by integrating your managed content with operations, maintenance, GIS and other business systems.

Comply with health, safety, security & environmental requirements and other regulations by making it easy to respond to compliance inquiries and conduct internal audits and incident reviews.

Avoid unplanned downtimes, cost overruns or catastrophic events by ensuring key participants have access to current standard operating procedures and specifications.
STAGE 1
Get your content under control
Any improvement begins with collecting all of the content that is critical to maintaining and operating your plant.

Many plants were built decades ago. When they were constructed, information was captured on paper and stored in filing cabinets. Even if some of these documents were captured electronically, they are likely stored in a variety of locations.

As the years have gone by, keeping those documents in separate places has led to operational silos.

The first step is to collect and manage all of the relevant documents.

This includes standard operating procedures (SOPs), technical documents, as-built specifications and drawings, project plans, spreadsheets, contracts, training documents, and video and audio recordings. As you move these documents into a unified system, you want to be certain that they’re set up properly for the next stage of your process: managing access to your content. Therefore, you want to develop a system that conforms to standards and ensures effective enterprise content management capacities.
Using the Enterprise Content Management features

Documentum Asset Operations is part of the EMC Documentum for Engineering, Plant and Facilities Management (Documentum EPFM™) solution suite. This full-featured enterprise content management system enables you to eliminate the information silos that exist within many organizations with an enterprise-wide system that can support thousands of users and millions of documents.

More importantly, Documentum Asset Operations leverages years of EMC experience and industry best practices and is built to support industry standards. By supporting current and emerging standards, such as PAS55 and ISO55000, you ensure that content can be managed effectively to meet the requirements of your operating and regulatory environment.

Documentum Asset Operations Provides line of sight between:

- Strategic Objectives
- Management Goals
- Standardized Policies
- Technical Standards

Watch video
To address the myriad of different types of information, Documentum Asset Operations accommodates all file types.

Allow users to quickly find what they need.

While it sounds straightforward, this first step is often very difficult. It requires scanning boxes and filing cabinets full of records, as well as consolidating departmental and legacy repositories. To assist, EMC has services experts with years of experience implementing systems and migrating content.

EMC also provides industry-leading document capture and transformation technologies. These technologies can automate the migration or handover processes, improving reliability, accelerating the implementation process, and mitigating the risk of moving content into a new system.
STAGE 2
Ensure optimal access to content
Once you have the content under control, you need to determine how it is distributed and accessed. Even in a well-managed system, finding content can be a challenge. Typically, plants have huge volumes of documents and different standards of organizing them. But the need to quickly gather the appropriate documents can be critical in cases such as preparing incident reports. Rich search capabilities are required to allow users to rapidly find engineering content based on the part or tag number, document type or effective version.

Due to security concerns, you cannot simply make the information available to everyone.

On the other hand, you don’t want your information so locked down that those who need it are prevented from seeing it in a timely fashion.

Part of the task in this stage is to determine rules and processes for document access. You may need to share documents with outside contractors or others who have a need to see the content but no right to alter it.

Other documents you’ll want to be automatically sent to critical parties so the proper signoffs are obtained and information gets to those who require it as part of a task or project.
Tools for improving access

Documentum Asset Operations provides easy-to-use controls to tailor access for each document, depending on the project facility and discipline and the role each individual plays in it. And you don’t need to reconfigure each document for access: You can automate it based on document type or organization.

You can govern what each user can do with a document

- VIEW
- EDIT
- PRINT

Documents that you do not want altered can be distributed in formats that prohibit editing, such as locked-down PDFs.
Just as importantly, the solution allows you to ensure that the reader sees the most recent version of a document with automated features to move the updated version to the front of the line. At the same time, previous versions are maintained as history. You can automatically add a watermark that indicates the document’s status and date it was viewed, for example. All of these features apply to mobile versions as well.

The solution also lets you “push” documents to those who need to see them. For example, you may want to provide an update of an SOP before or during a repair. This helps guarantee that critical information gets to where it needs to go – without depending on others to request it.

Finally, because operations are increasingly conducted at remote sites, the solution allows field workers to quickly access information from their mobile devices.
STAGE 3
Manage change with a structured approach
Responding to new demands – whether from internal or external sources – is a constant focus of operations and maintenance managers. Failing to respond to those demands is not an option. At the same time, managers need assurance that their change programs will be effective across their organizations.

The reasons to initiate change are many – replacing failing parts, installing more efficient systems, improving SOPs to increase safety, and the like. Yet all changes require a consistent process. It’s paramount that pending changes are approved by all necessary stakeholders, fully documented to meet compliance concerns, and thoroughly communicated to all who need to be informed.

Miscommunication, poor decisions and delayed responses are continual threats to successfully implementing operational changes.

Often these programs involve assistance from outside vendors who need adequate communication and expect transmittals to be executed in a timely fashion.

With the emergence of quality asset information management standards such as PAS55 and ISO-55000, those in charge of change management know that they will be expected to meet these norms before they can consider their operations successful.

In short, managers need all the help they can get – not only from their colleagues, but from their information systems.
Best practices, captured and automated

Documentum Asset Operations uses industry best practices created by experts working with customers for many years. It is based on the principles described in PAS55, ISO 55000, ISO 9001, and other standards, so you can have confidence that your information is being managed effectively.

Furthermore, the solution follows a structured process for change requests, beginning with submitting an electronic field request and continuing with step-by-step review and approval check-offs. By using this structured approach, reviews and approvals are far more readily attained and overseen.

To facilitate collaboration with outside parties, the solution provides a design process and transmittal controls to ensure those relationships and payments proceed smoothly.
MANAGE CHANGE WITH A STRUCTURED APPROACH

Documentum Asset Operations allows automated notification and distribution of documents so that parties are brought up to date on all aspects of the change management. It also allows managers to share content across organizational boundaries while maintaining security through controlled access. Because the solution has versioning features to guarantee each group sees the documents that are current and effective, the threats of miscommunication, poor decisions and delayed responses can be minimized.

Should an error occur or processes not go as smoothly as anticipated, the solution allows managers to reconstruct where the difficulties occurred, identifying mistakes during design and construction or confirming that the plant was operating and maintaining the asset properly. It adds up to greater overall efficiency and risk-reduction – and few fewer headaches for managers.

The solution allows managers to reconstruct where the difficulties occurred.
STAGE 4
Coordinate information with business processes
You also likely want to consider the use of mobile technology. With mobile platforms and devices becoming increasingly part of daily functions, you want to be certain that all of your document control extends to this technology. No more time needs to be wasted printing out paper documents, nor do you want to risk failing to have the most current version of the documents in question.

But mobility is no longer just a passive reception of information.

Today's organizations rely on using mobile devices to gather and report information from the field, such as notes and photos.

While the documents that are involved in running your plant – training manuals, SOPs, and the like – are easily managed by Documentum Asset Operations, other systems are critical to ensuring your plant runs efficiently every day. One of those critical components is your maintenance management application. Any new solution needs to integrate these familiar tools into day-to-day operations.

These existing elements are part of the system your employees have come to understand. They are comfortable with them. They also represent a significant investment in time and resources.
From the beginning, Documentum Asset Operations was designed to “play well with others.” The software designers who created it fully anticipated that plant employees and managers would want to retain those systems that are working well for them. So the solution can readily integrate with existing information portals such as Microsoft SharePoint and with standard, well-established software such as the Microsoft Office, Adobe Acrobat and industry-leading CAD systems. These are the systems that your users are comfortable using. By allowing them to continue to do so, you avoid any retraining costs or other investments that would be associated with different applications.

Beyond those baseline applications, the Documentum solution works with maintenance and operations management solutions. These solutions are part of your core operation, but on their own cannot provide all of the document handling and oversight that you need to maintain an efficient structure.
Because Documentum Asset Operations was built upon a deep understanding of the energy sector, it anticipates the ways in which plant managers would rely upon its features. That means you're able to move through all four stages of improving your plant efficiency as quickly as you're able.

But you don't need to go it alone as you make these transitions. Our service teams and certified partners have years of experience in the industry, working with the systems commonly employed by operations worldwide. They can help you manage your progression through all the stages of development to unleash your plant's potential—to make it run smoother, easier and more reliably.

Documentum anticipates how plant managers would rely upon its features.
DOCUMENTUM ASSET OPERATIONS

is an asset all its own, helping you:

Manage
all of your documents

Streamline
change management

Boost
productivity and optimize processes

Comply
with health, safety, security and environmental requirements

Avoid
unplanned downtimes, cost overruns or catastrophic events

Prepared for change

The challenges of maintaining and operating a plant are likely to endure. There is no escaping the fact that the plants are aging, as are the workers who have kept things running well for years. Demands for efficiency and regulatory compliance will continue as well.

Thankfully, there's a solution for managing the documents that are so critical to efficient maintenance and operations management.

Visit EMC.com for more information