SMARTPLANT® FUSION
Take Control of Your Unstructured Data
Engineering data and documentation are essential for effective project delivery and safe, efficient operations. Every person involved in designing, constructing, operating, and maintaining a facility needs ready access to trustworthy information to perform their job effectively.

But the truth is, EPCs and owner operators alike struggle to manage large volumes of unstructured, unintelligent information – documents, drawings, models, lists, and data sheets – which are often duplicated in various folders and databases throughout the organization. Even companies that have implemented a central document management system continually battle against unofficial storage locations that spring up over time. This lack of control leads to duplication, fragmentation, and degradation of information integrity, and sometimes, its outright loss.

**TAKE CONTROL WITH SMARTPLANT® FUSION**

Intergraph® SmartPlant Fusion is a breakthrough solution to help you rapidly find, capture, organize, link, and visualize large volumes of data and documents through a simple Web portal. SmartPlant Fusion is the fastest way to establish a single point of access to all of your engineering information.

With SmartPlant Fusion, you can:

- Rapidly capture, organize, and link documents and information.
- Identify masters and eliminate access to duplicates and outdated revisions.
- Extract intelligence from documents, even from image files and PDFs.
- Automatically create links between tags and documents.
- View inconsistencies of tag attributes from various engineering data sources.
- Correct document relationships and identify missing reference files.
- Compare data and documents with 3D models and laser scans.
- Validate the facility’s “as-built” configuration at your desktop prior to field verification.
- Make information accessible to remote stakeholders.
- Visualize and navigate all facility information through an intuitive Web portal.

**HOW IT WORKS**

**Document Discovery**

First, you “teach” SmartPlant Fusion where to look for documents, and how to extract available information about the document type and classifications from folder and file naming conventions. SmartPlant Fusion then repeatedly crawls these file locations, searching for new or updated files.

**Master Identification**

When duplicates or multiple revisions of the same document are found, engineering judgment may be required to determine which document best represents the current configuration of the facility. SmartPlant Fusion makes this easy by providing special tools for side-by-side or overlay comparison of documents.

**Content Discovery**

Next, SmartPlant Fusion uses various Readers to examine and extract the content of the documents. Dedicated readers are used for each document type: drawings, documents, 3D models, and laser scans. There’s even an image reader for bitmap images (like PDFs), which employs optical character recognition (OCR) technology to produce searchable text.

There’s also a Database Reader that lets you import information from multiple data sources and registers. For example, tag attributes from various sources can be imported and quickly compared for inconsistencies.

**Linking and Hot-Spotting**

Document content is used to create hot-spots and links between tags and related models, drawings,
EPC CHALLENGES

EPCs have the challenge of dealing with a continuous flow of unstructured information arriving from suppliers and engineering partners. This information takes many forms – PDFs, images, scans, Microsoft® Word and Excel® files, and unintelligent drawing files. The valuable data inside these files are largely invisible unless each and every file is read and evaluated. Even with this burdensome manual effort, there are invariably inconsistencies in the naming, numbering, and tagging of information. This makes it very difficult to provide a structured handover with accurate tag-to-document reports that most owners demand.

OWNER OPERATOR CHALLENGES

Brownfield operators face an even greater challenge with legacy information. Data and documents may have been created over decades of the facility's life cycle, being sourced from various contractors using different design and data management tools. Some of the documents may only exist in hardcopy. And there may be dozens of versions (or even multiple copies of the same version) of any given document, making it unclear which version accurately represents the current configuration. With limited engineering, administrative, and IT personnel on a brownfield site, organizing and keeping track of this legacy information is a significant challenge, especially when the operational asset is subject to continual updates, revamps, shutdowns, and maintenance changes.

As a result, information is difficult to find when it is needed most – like for shutdown planning, project evaluation, incident investigation, modifications, revamps, compliance audits, and facility start-up. Thus, unstructured, unreliable information exposes the owner operator to significant operational, financial, and safety risks.

THE INFORMATION YOU NEED IS AVAILABLE AT A GLANCE. THE WEB BROWSER SHOWS TAG LINKS BETWEEN YOUR LASER SCAN AND P&ID DATA.

• Quickly find a certain equipment item everywhere it appears – specification sheets, service manuals, drawings, data sheets, P&IDs, purchase orders, invoices, construction plans, etc.
• Navigate using 3D models or Leica TruView laser scans to compare data and documents with the as-designed and as-is facility configuration.
In this way, you quickly go beyond just knowing what documents are available to truly understanding the content and how it’s related to all other facility information.

**QUICK LOOK**

**Key Features**

- Provides a single point of access to all facility documents and data.
- Supports readers for data, documents, diagrams, images, 3D models, and Leica TruView laser scans.
- Reveals document revisions and duplicates and helps you determine the best master.
- Helps you “find what you need from what you know” by linking objects to their related documents.
- Provides Quality Control for correction of document attributes and relationships.

**Business Benefits**

- Dramatically reduces the time and effort required to find and validate engineering documents.
- Provides an approach for data quality improvement at a pace that suits both projects and operations.
- Discovers content that would otherwise be hidden or require hours of manual searching.
- Makes information accessible to all stakeholders simply and intuitively.
- Helps you avoid bad decisions caused by relying on the wrong information.
- Enables off-site access and team collaboration, avoiding travel costs and the hazards associated with on-facility work.
- Increases safety and regulatory compliance by providing timely access to required information.
- Deploys quickly to get you up and running in a matter of weeks, not months.

**Let’s Get Started**

SmartPlant Fusion is the fastest way to gain control of your unstructured information. It deploys quickly, enabling you to build relationships, extract intelligence, and apply structure to your unstructured documents and drawings.

SmartPlant Fusion provides interoperability with our template solutions for EPCs and owner operators. You can incrementally promote documents with their related tags into a fully managed environment within SmartPlant Enterprise for EPCs or SmartPlant Enterprise for Owner Operators with integrated tools, automated work processes, check-in/check-out, electronic sign-off, transmittals, management of change, and much more.

**ABOUT INTERGRAPH**

Intergraph helps the world work smarter. The company’s software and solutions improve the lives of millions of people through better facilities, safer communities, and more reliable operations.

Intergraph Process, Power & Marine (PP&M) is the world’s leading provider of enterprise engineering software enabling smarter design and operation of plants, ships, and offshore facilities. Intergraph Security, Government & Infrastructure (SG&I) is the leader in smart solutions for emergency response, utilities, transportation, and other global challenges. For more information, visit www.intergraph.com.

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