INTERGRAPH®

FACTS AT A GLANCE

Company: OMV Aktiengesellschaft

Website: www.omv.com

Description: OMV is one of Austria's largest listed industrial companies. The leading energy group in the European growth belt has oil and gas reserves of approximately 1.19 bn boe, daily production of around 316,000 boe in Q3/10, and an annual refining capacity of approximately 26 mn t.

Group sales: EUR 17.92 billion

Employees: More than 34,000

Industry: Energy

Country: Headquarters in Austria

PRODUCTS USED

- PDS®
- SmartPlant® Explorer
- SmartPlant Isometrics
- SmartPlant P&ID
- SmartPlant Reference Data
- SmartPlant Review

KEY BENEFITS

- SmartPlant Enterprise enables synchronized workflows
- The tools are worldwide, common, and standardized, used by both EPCs and O/Os
- Intergraph offers the best support for all tools from a single supplier

OMV STANDARDIZES ON SMARTPLANT® ENTERPRISE TO SIMPLIFY PROJECTS

Building on common workflows helps OMV refineries gain more efficient pipe management and as-built document control

IDENTIFYING GOALS

The technical documentation department at OMV Refining & Marketing GmbH provides pipe management services for OMV refineries across Austria, Germany, and Romania. This requires a lot of teamwork and collaboration between various teams in different geographic locations.

"It is very important that our piping information is accurate to keep the plants running and ensure maximum productivity and safety," said Albert Meyer, senior expert engineer in technical documentation at OMV Refining & Marketing GmbH. "We realized that we could better meet these goals if all of our software was integrated. So we set a series of plans to change how things were done."

OVERCOMING CHALLENGES

- Standardize all the software tools in the company
- Create a common, quick, and efficient working process
- Reduce the number of different software tools
- Make projects and documentation simpler and cheaper

REALIZING RESULTS

After evaluating all its alternatives, OMV ultimately chose Intergraph® SmartPlant Enterprise, the suite of Intergraph solutions. The company's experience with Intergraph goes back to 1999. OMV was introduced to PDS when its engineering partners used the plant design application. The company enjoyed the benefits of using SmartPlant Review on those projects. SmartPlant Review provides a visualization environment for interactively reviewing and analyzing 3D plant models.

In 2005, OMV standardized on PDS as its basis for all key documents, including plot planning, layout, escape, and fire protection. This gives the advantage of common plant and equipment information for all necessary documents.

OMV recently started a huge project to bring all of the plants in its Austrian refinery into 3D using laser scanning technology. All existing equipment and framework (steel and buildings), including pipes greater than or equal to 500 mm were modeled. The company expects to soon have approximately 46 as-built plant models for its refinery in Austria, including key documents that total about 1,000 plans.

OMV has used I-Sketch™ since 2001 and recently upgraded to SmartPlant Isometrics, Intergraph's intuitive and productive pipe-sketching solution. The application automatically generates complete piping isometrics from sketches. The company plans to migrate about 12,500 I-Sketch isometrics into SmartPlant Isometrics, including isometrics coming from project design models.

With the standardization of its isometric models produced in SmartPlant Isometrics, OMV will gain productivity in the bi-directional usage of piping data.

"In addition to the 3D model, we decided to maintain all isometrics intelligently, within SmartPlant Isometrics, which makes our work easier and saves costs," said Meyer.

To complete the life cycle, OMV is testing the use of I-View CAD™ to provide intelligent 3D graphics of the maintained, as-built pipelines. For ongoing revamps, the company uses PDS. At the end of those projects, updated and new pipelines are transferred back to SmartPlant Isometrics.

"SmartPlant Reference Data has enabled us to develop 53 piping classes for use in multiple Intergraph applications. We don't have to keep recreating it in the different tools," said Meyer. "We just create it once and then send it out to each application, such as SmartPlant Isometrics and PDS. SmartPlant Reference Data is our central repository for all piping reference data."

Besides this work, OMV has started to bring all P&IDs and PFDs into an as-built status with SmartPlant P&ID. The company maintains approximately 3,000 plans in its system.

The integration management generates benefits from standardizing on certain systems across specific operations and streamlining data and document collection. There are thousands of data and documents to handle in the newly implemented Intergraph systems. OMV handles about 100,000 data attributes in addition to the previously mentioned numbers of pipe classes, isometrics, flowcharts and key plans in PDS.

SmartPlant Explorer is connected to OMV's DMS database. All employees in the refinery can search for flowcharts and will be connected to SmartPlant P&ID through SmartPlant Explorer when a searched target is found. Also, SAP® PM is connected to Smart Plant Explorer via DMS. SAP PM is used for all tags too, including data attributes, and they are distributed via enterprise application integration to SmartPlant P&ID.

Extracts from SmartPlant Reference Data can be created to generate PDS, SmartPlant Isometrics, and other CAD pipe class formats. The SAP warehouse management system is connected to SmartPlant Reference Data for spare part management. Output from PDS and SmartPlant Isometrics is sent to AutoCAD® through the add-on SYMBOLICA to create standardized documents.

"For our tool standardization and as-built project workflow, we started seeing benefits very quickly after implementing the software and migrating the first documents into the system," said Meyer. Performing all documentation work in a simple, standardized method has minimized labor hours throughout the teams located in various countries.

"I am proud to say that we are 100 percent satisfied with the support provided by Intergraph's support team and management personnel! Without their dedication and understanding of our vision, we never could have reached our goals as quickly as we have."

MOVING FORWARD

OMV is working to fully implement all of the Intergraph systems and will then experience the full data integration benefits. "We expect to receive significant time and cost savings on additional data handling," said Meyer.

As-built documentation will lead to higher synchronization and elimination of redundancies.

ABOUT INTERGRAPH

Intergraph is the leading global provider of engineering and geospatial software that enables customers to visualize complex data. Businesses and governments in more than 60 countries rely on Intergraph's industry-specific software to organize vast amounts of data to make processes and infrastructure better, safer, and smarter. The company's software and services empower customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure and millions of people around the world.

Intergraph operates through two divisions: Process, Power & Marine (PP&M) and Security, Government & Infrastructure (SG&I). Intergraph PP&M provides enterprise engineering software for the design, construction, operation, and data management of plants, ships, and offshore facilities.

Intergraph SG&I provides geospatially powered solutions to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is an independent subsidiary for SG&I's U.S. federal and classified business.

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