CASE STUDY: EMPRESARIOS AGRUPADOS, SPAIN

INTERGRAPH® PROCESS, POWER & MARINE SOLUTIONS SUPPORTING SUCCESS IN THE POWER GENERATION INDUSTRY

Leading architect-engineering company improves project design data and interrelations with customised SmartPlant® Enterprise solutions

IDENTIFYING GOALS

EMPRESARIOS AGRUPADOS (EA), one of the largest Spanish engineering companies specialising in the power generation industry, has succeeded internationally with Intergraph SmartPlant solutions. The company is currently using the SmartPlant suite in most of its engineering projects around the globe. As a long-time Intergraph customer, EA is acquainted with the interoperability of the SmartPlant Enterprise suite and has customised the software in an exceptional manner. This customisation enabled EA to further improve the integration between solutions and enhance engineering efficiency and accuracy.

Intergraph solutions were selected due to them becoming a market standard for integrated engineering disciplines. Since its original implementation SmartPlant Foundation-based integrated solution has been used as the basis for EA's engineering information management system.

Integration between SmartPlant Enterprise tools and EA's existing systems was needed to ensure a successful implementation. This integration capability also became key to obtaining the expected productivity and quality improvements. These systems include both existing in-house programs for engineering design and calculation as well as the repository documentation system.

GETTING RESULTS

EA is using Intergraph solutions in most of its engineering projects in the energy industry globally. EA has customised its SmartPlant Enterprise suite for each discipline, most notably:

- Automation of the design and calculation of typical pipe and cable tray supports in Integraph Smart 3D. This has provided significant productivity and quality improvements.
- Implementation of SmartPlant Electrical Detailed for all the electric wiring diagrams and logic diagrams. This has automated a large amount of schematic generation reducing elapsed times.
- Improvement and customisation of SmartPlant P&ID to maximise the capability to reuse engineering information to better integrate with SmartPlant Instrumentation and Smart 3D.
• Integration of SmartPlant Foundation publishing workflows with those in the EA’s documentation management system to simplify issuing of engineering and design documentation.

• Improving how information is accessed and managed. The engineer or designer can use Smart 3D and SmartPlant P&ID to check with a single click the information of the equipment, manufacturer drawings, etc. that are hosted in the EA document management system.

• Enhancing the interference management processes, ATEX area management, escape routes and passage areas in the Smart 3D model. This has been done by implementing the solutions based on a ‘rule checker system’ that helps to avoid errors whilst streamlining processes.

• Automation in Smart 3D, which generates a structural analysis model for non-typical large pipe supports. These calculate and automatically update the support Smart 3D model.

J. García Rendón, IT Project Manager at Empresarios Agrupados said: “The high integration level of the software suite and the capability to better share data between disciplines improve engineering quality while process automation enhances efficiency. As more processes are automated and all disciplines have access to the same information, we have witnessed significant time savings, for example during pipe support design. Our experience highlights SmartPlant Enterprise’s potential and capabilities for integration and automation. It also showcases how SmartPlant Enterprise can contribute to a major improvement in work processes”.

**MOVING FORWARD**

EA is using the SmartPlant Enterprise system to successfully complete the engineering and design of 20 power generation plants including coal, fuel, solar and combined cycle projects. These include some of the largest projects in the world.

Although the system is highly mature, there is always room for improvement when it comes to the use of new functionalities and products.

“We have always worked closely with Intergraph PP&M to share all of the issues, experiences and successes we have had and have received the support we have needed. The automations made in SmartPlant Enterprise suite are bringing us a competitive advantage we need to perform better in the power generation industry. In addition, this helps us to offer our customers more added value”, J. García Rendón, IT Project Manager at Empresarios Agrupados, concluded.

ABOUT INTERGRAPH PROCESS, POWER & MARINE

Soon to be known as Hexagon Process, Power & Marine, Intergraph Process, Power & Marine is the leading global provider of engineering software for the design, construction and operation of plants, ships and offshore facilities. Intergraph Process, Power & Marine is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications.

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