PT SAIPEM INDONESIA DEVELOPS INTELLIGENT P&ID CAPABILITIES WITH SMARTPLANT® P&ID

Rule-driven Intergraph® technology delivers increased accuracy and productivity for enhanced collaboration across global engineering centers

IDENTIFYING GOALS

Headquartered in Italy, Saipem is a world leader in the oil and gas contracting services sector, both onshore and offshore. It is a global contractor, with strong local presence in strategic and emerging areas, such as West Africa, North Africa, Former Soviet Union (FSU), Central Asia, Middle East, and Southeast Asia.

Piping and instrumentation diagrams (P&IDs) now contain a lot more data, which needs to be integrated with other disciplines. PT Saipem Indonesia decided that it should be aligned with other Saipem global engineering centers and develop smart P&ID capabilities with a single reference point to enhance efficiency. This can help to reduce the workload for engineers as less time will be required to check and synchronize P&IDs, especially when there could be over 200 drawings generated for a typical project. A single, standardized P&ID reference point also ensures consistency in data and symbology across all of Saipem’s engineering centers worldwide.

OVERCOMING CHALLENGES

- Establish single reference point for accurate and consistent P&IDs that can be accessed by all engineering centers
- Create intelligent P&IDs that reflect the as-built status at all times
- Improve quality of P&ID data and overall productivity

REALIZING RESULTS

PT Saipem Indonesia chose to implement Intergraph® SmartPlant® P&ID because it is proven technology and is already in use at other Saipem engineering centers. SmartPlant P&ID is the No. 1 asset-centric, rule-driven P&ID solution in the global market and has created more than 200,000 P&IDs for plants from around the world. It helps users at PT Saipem Indonesia to develop and manage their P&IDs with a focus on the plant asset rather than the documentation representation, and can be leveraged into the downstream tasks, such as SmartPlant Process Safety, SmartPlant 3D, and SmartPlant Instrumentation. This accurately reflects the as-built plant for enhanced safety, quality, efficiency, and productivity.
Smart P&ID Generation Teams were established at Saipem’s global engineering centers, including PT Saipem Indonesia. With the standardization of SmartPlant P&ID, all centers are using the same reference and the same work instruction. This helps to enhance global collaboration as all the engineering centers can easily access the consistent, high-quality data, enabling them to work on projects remotely and provide a continuous work cycle.

SmartPlant P&ID can also be integrated with other solutions, such as SmartPlant Instrumentation for instrumentation data, and SmartPlant 3D for piping. Engineers at PT Saipem Indonesia can easily transfer the required engineering information from discipline to discipline to facilitate the workflow process.

PT Saipem Indonesia implemented SmartPlant P&ID for an onshore liquefied natural gas (LNG) train front-end engineering design (FEED) project as a pilot. With a user-friendly interface, it was easy to train draftsmen to do drafting in SmartPlant P&ID, even for those who are less experienced with computer-aided design (CAD) systems. PT Saipem Indonesia found that the number of man-hours required to generate drawings was significantly reduced, while design accuracy and quality were greatly enhanced.

**MOVING FORWARD**

PT Saipem Indonesia has been very impressed with the application of SmartPlant P&ID for its pilot project, and the company plans to train all of its engineers in the solution and extend the use of SmartPlant P&ID for other projects in Indonesia. The company will also further enhance collaboration with other Saipem centers and establish additional engineering standards, such as common symbols, equipment, piping, and instrumentation arrangements.

In addition, PT Saipem Indonesia intends to expand its use of Intergraph technology by adopting other SmartPlant Enterprise solutions for a true integrated engineering environment across the entire plant life cycle.

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**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, including ERDAS technologies, to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is a wholly owned subsidiary of Intergraph Corporation for the SG&I U.S. federal business.

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