



## SMARTPLANT® 3D

### A BETTER WAY TO DESIGN A PLANT

Today's global, fast-track projects require engineering, procurement, and construction (EPC) contractors to successfully manage and perform projects involving concurrent participation of multiple design centers worldwide, while still keeping a handle on project schedule and costs. They also have the need to preserve their "best practice" design information for reuse on future projects, to increase productivity, and to preserve their corporate knowledge.

Likewise, plant owner operators (O/Os) must employ concurrent in-house and off-site contract design resources for greenfield, major revamp, and maintenance projects. They also need the ability to reuse the as-built models of their plants to shorten project design cycles, while continuing to preserve the as-built plant model to support operations and maintenance activities.

SmartPlant® 3D, the most advanced plant design software offered in two decades, is a next generation, data-centric, rule-driven solution from Intergraph®. Streamline engineering design processes while preserving existing data and making it more usable/reusable. A fundamental component of Intergraph's SmartPlant Enterprise, SmartPlant 3D is a complementary, full-suite solution that provides all the capabilities needed to design a plant, and then keep it as-built throughout its life cycle.

SmartPlant 3D is a forward-looking product that is changing the way plants are engineered and designed. It breaks through the constraints imposed by traditional design technology. Rather than focusing on simply achieving design, SmartPlant 3D effectively enables optimized design, increasing productivity and shortening project schedules.

SmartPlant 3D provides both EPCs and O/Os with a competitive edge by:

- Integrating plant engineering data enterprisewide:  
SmartPlant 3D integrates with complementary tools such

as other SmartPlant Enterprise products – SmartPlant Instrumentation, SmartPlant P&ID, or SmartPlant Materials – creating an optimal workflow throughout your enterprise.

- Providing unparalleled ease of use, which reduces the learning curve and increases productivity.
- Shortening project schedules by enabling streamlined design processes.
- Enabling global, concurrent engineering, allowing contractors to manage and execute projects worldwide.
- Preserving the value of plant engineering information and enabling its reuse for future projects.
- Capturing new and existing engineering knowledge so that it can be saved and reused in the future, which is the key to success in today's competitive global economy.

### Ease of Use Boosts Productivity

SmartPlant 3D's ease of use reduces the learning curve, widens the user base, and increases productivity – you don't have to be a CAD specialist to use SmartPlant 3D. SmartPlant 3D speeds up the design process by reducing the number of key-strokes and mouse-clicks required to perform design tasks.

### Proactive Tools for Managing Change

SmartPlant 3D provides tools for the continuous monitoring of design rules and notification of the impacts of change throughout the design process. It keeps track of drawings that have been updated due to changes in the engineering model.

### Design Rules Increase Data Quality and Ensure Design Integrity

SmartPlant 3D ensures design accuracy and consistency through enforcement of design rules. SmartPlant 3D reduces design errors, engineering changes, and rework. Enforcement of the design

rules results in increased product quality and reliability by enabling faster and more efficient creation, transfer, and review of design iterations. This allows you to make more informed decisions.

### Automated Drawing Generation Reduces Engineering Costs

SmartPlant 3D provides fully automated generation of piping isometric and scaled orthographic drawings, with associated reports – dramatically reducing production time.

### Global, Concurrent Engineering Capability Enhances Project Execution

SmartPlant 3D's global engineering and data reuse capabilities substantially reduce engineering costs and shorten project schedules. Project databases may be replicated anywhere in the world to facilitate sharing of the work or to transfer work to a remote location. Other sites are kept up-to-date automatically.

### Preserving the Value of Plant Engineering Information

SmartPlant 3D provides plant owners with the opportunity to preserve the value of the data generated by engineering contractors. It enables the reuse of data generated during design to facilitate making changes to the plant after plant startup.

### Integrating Plant Engineering Data Throughout Your Enterprise

SmartPlant 3D facilitates the physical design and arrangement of all the systems that make up a plant, including civil/structural, equipment, HVAC, and piping.

### Support for Oracle and Microsoft® Database Platforms

SmartPlant 3D supports both Oracle and Microsoft commercial database platforms, enabling clients to deploy SmartPlant 3D in full conformance with their corporate database platform standards while eliminating administrative costs of nonconforming or proprietary databases.

### Extending the Capabilities of Intergraph's PDS®

Even without translation of PDS data, SmartPlant 3D leverages existing designs by complementing and extending the capabilities of PDS. By enabling PDS design data to be referenced from the SmartPlant 3D model, SmartPlant 3D is immediately useful for revamp projects with no translation effort necessary. SmartPlant 3D provides for intelligent referencing of PDS, enabling functions such as interference detection, drawing generation, display filters, and queries and access to property data. If you do require translation of PDS data to a SmartPlant 3D format, Intergraph offers the capability to translate specifications, projects/models, and other data from PDS to SmartPlant 3D.

## 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 responsible for the SG&I U.S. federal business.

Intergraph is part of Hexagon (Nordic exchange: HEXA B; www.hexagon.com), a leading global provider of design, measurement, and visualization technologies that enable customers to design, measure and position objects, and process and present data.

For more information, visit [www.intergraph.com](http://www.intergraph.com).

