



## PDS®

### DELIVERING THE BEST POSSIBLE DESIGN

Intergraph® PDS® is a comprehensive, intelligent computer-aided design/engineering (CAD/CAE) application. Production-driven, PDS delivers the best design possible – and does it more efficiently to reduce the total installed cost of the project. It enhances value and minimizes risk while preserving the value of data.

PDS is the market leader, chosen by owner operators (O/Os); engineering, procurement, and construction (EPC) firms; and their vendors to design projects around the world since the mid-1980s. Due to its capability and commitment to the industry, many leading EPCs and O/Os have selected PDS as their corporate standard.

Whether you're operating on a global scale or at the project level, PDS fits perfectly into your corporate strategy. PDS projects range from small plant revamps to multibillion-dollar offshore platform construction (see Figure 1).

PDS helps companies achieve more with fewer resources by providing:

- Automation that improves productivity
- Three-dimensional modeling that helps designers create a better design
- Dynamic walkthroughs that allow operations and maintenance personnel to interactively view the plant before it is constructed
- Interference checking to reduce or eliminate field rework
- Accurate material take-offs that cut costs
- Specification-driven design and checking that improve accuracy

PDS runs on Microsoft® Windows®; is compatible with popular relational database management systems such as Microsoft SQL Server, Oracle, and Informix; and interfaces with Intergraph SmartPlant® Enterprise software as well as a variety of third-party software.

### Distribution of Work Increases Productivity

Today's process, power, and marine industries are global, characterized by complex design and engineering. Construction is often carried out in remote locations. Large international corporations execute these projects concurrently with teams from different offices and even different companies around the world.

PDS is built on industry standards that promote the creation, sharing, exchange, and best use of engineering data, and its integration with key business systems and processes throughout a facility's life cycle. PDS users in multiple disciplines can work on a project simultaneously – improving design coordination, reducing errors, and increasing productivity.

Providing all the tools you need to distribute work, PDS ensures design data integrity, accuracy, and auditability. PDS creates and maintains the essential database for global operations and regulatory compliance, streamlining operations, maintenance, and downstream retrofit projects. In addition, PDS provides an environment for companies to archive their best practices for reuse in future projects, providing additional value.

### Front-end Accuracy Creates Downstream Savings

PDS uses the same technology platform and user interface to make FEED solutions easier to implement, lowering the total cost of ownership. Our strategic alliance vendors also share technology and user interface standards to facilitate the sharing of front-end data. Front-end tasks in PDS provide data downstream to the physical design, construction, operations, and maintenance phases.

### Integration with Complementary Applications

PDS integrates with Intergraph's SmartPlant P&ID, a data-centric, rule-based engineering solution that creates intelligent P&IDs while building a comprehensive data model (see Figure 2). It also integrates with SmartPlant Instrumentation – the industry standard

for instrumentation – which drives deliverables for different phases of the life cycle, enforcing data consistency and eliminating duplicate data entry. PDS can also be used in conjunction with SmartPlant Electrical, an electrical schematics and wiring diagram application that interfaces with the instrument application to generate wiring diagrams.

### Equipment Modeling Module

The equipment modeling module enables you to model primary process equipment such as vessels, towers, heat exchangers, columns, and pumps, as well as ancillary items such as platforms, ladders, and stairs.

### Piping Module

The piping module is specification-driven, using extensive online piping component catalogs organized by piping material classes to make design efficient, standardized, and accurate. The library contains ANSI, DIN, ISO, and other standards.

### Structural Modeling with the FrameWorks® Plus Module

FrameWorks® Plus, a PDS module, is a powerful, easy-to-use 2D/3D structural modeling and drafting program that supports drawing, modeling, analysis, and reporting.

### HVAC Modeling Module

The HVAC modeling module provides interactive 3D tools to lay out and model ducts and other HVAC components.

### Electrical Raceway Module

PDS Electrical Raceway provides powerful, interactive 3D tools to lay out and design electrical cable trays and conduit systems, junction boxes, underground duct banks, and cable trenches. It can also be used to lay out electrical equipment such as motor control centers, starters, disconnect, and transformers.

### Automatic Orthographic Drawing Generation Solution

PDS Ortho Drawings is an automatic annotation and dimensioning standalone solution used to produce project deliverables from PDS physical (3D) models.



Figure 1: PDS is production-proven on small- and large-scale projects.

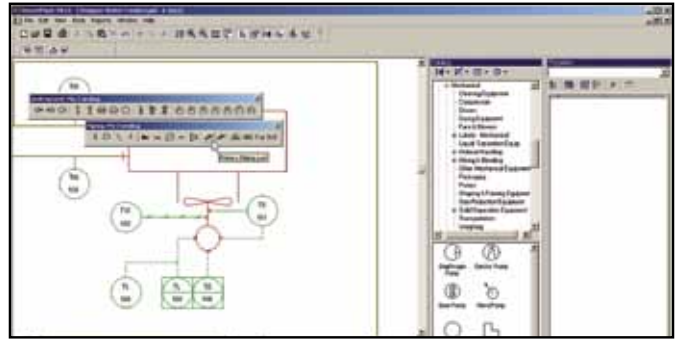


Figure 2: SmartPlant P&ID data can be shared with upstream and downstream tasks.

## 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](http://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).

