

SmartPlant® Foundation



Intergraph's information management solution, SmartPlant® Foundation, is the "e-Engineering integration hub" for the SmartPlant Enterprise. This collaborative conduit ensures that valid, consistent, and high-quality engineering data is shared between applications and users when and where they need it. This engineering information is consistent and highly accurate on three fronts: 1) the physical asset information (what is there); 2) logical and functional information (what was designed to be there); and 3) regulatory and safety imperatives (what is required to be there). These are the pivotal tenets of engineering integrity.

SmartPlant Foundation is multi-dimensional in its usage and deployment capabilities. These include:

- Engineering handover
- Application integration
- "Engineering companion" between operation, maintenance, and ERP systems for decision support
- Client and regulatory remote review portal
- Document management and control, including lists and sheets management

The solution supports global collaboration between clients, contractors, and suppliers. It helps streamline business processes that share common information. These overarching and collaborative workflows through the internal and external value-chains deliver quality information to the desktop regardless of the source application; audit activities and signatories to ensure completion and support regulatory review; and enhance decisions with cross-discipline, cross-referenced data and indices.

It reduces the cost and errors associated with multiple tools by eliminating the boundaries between them. SmartPlant Foundation is the single source of access to the engineering truth about a plant – its structure, tags, equipment, data, and documents. No other product on the market today supports such a wide scope and yet is

deployable in a modular, incremental fashion.

THE GOAL: ENGINEERING INFORMATION INTEGRITY

Information is the basis upon which real-time decisions are made. Engineering information is abundant, dynamic, and complex. Keeping this information current, synchronized, and readily accessible is the challenge – whether it is used concurrently by multiple companies during plant design, by engineers during plant construction and commissioning, or by maintenance workers on the plant floor.

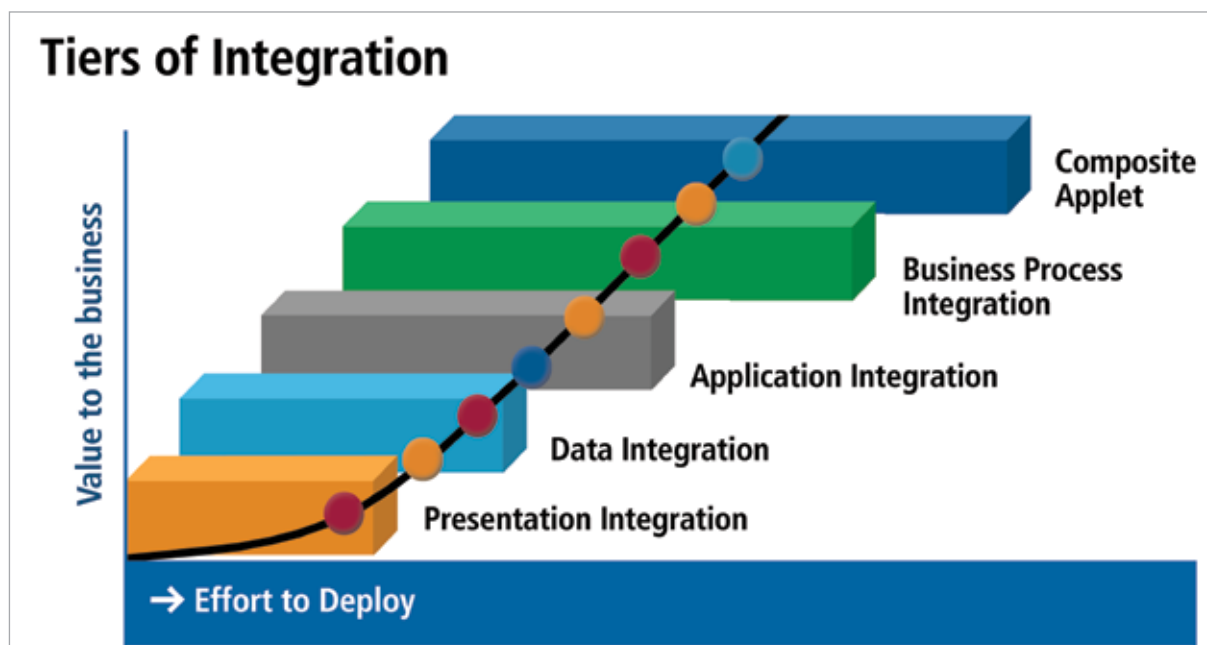
SmartPlant Foundation – Intergraph's total solution for plant information management – ensures secure access to plant information whenever and wherever it is needed. It is a complementary offering to Intergraph's industry-leading design tools – PDS®, SmartPlant Instrumentation, SmartPlant Electrical, SmartPlant P&ID, SmartPlant 3D, and SmartPlant Materials. SmartPlant Foundation provides:

- **Common integration architecture** – Features all five tiers of integration:
 - Presentation integration: Unify interface and information presentation to ensure rapid assimilation and understanding in order to provide a portal – a "single point of access to the truth"
 - Data integration: Consolidation and aggregation of data from multiple heterogeneous sources to provide the single reliable source of truth – the data repository
 - Application integration: Adaptors to move the consolidated information between applications
 - Business process integration: Overarching delivery, collaboration, and execution, enhancing the workflow
 - Extensible composite applications (applets): New applications that make use of the high integrity repository

- **Plant/project configuration** – Models and audits the evolving plant configuration, including all plant components (i.e., structure, tags, and assets) and associated characteristics, logical function, physical location, and inter-relationships. Houses all plant information – tag/asset data and associated plant documentation – against the familiar plant structure, delivering relevant, timely, and accurate information to authorized personnel. The data-centricity of the solution enables management of data to a very granular level. The system tracks revisions and changes, assuring data accuracy and integrity.
- **Change management** – Enables effective management of change by providing an overview of engineering changes, tracking the details and status of each change, and highlighting plant items subject to change. It enables early visibility of changes, including “what’s in the pipeline,” manages the electronic delivery of work items to pre-defined workflows, and manages the revisions of both plant objects and documents, while keeping an audit history of activities.
- **Information access** – Enables flexible search and retrieval of

information. Engineers can access information via familiar plant terminology.

- **e-Engineering access** – A user-configurable view of engineering information delivered remotely over the Internet via a single, consistent browser interface – secure, intuitive access to information eliminates the need for the authoring application at the remote desktop, thereby reducing cost and training requirements.
- **Streamlined work processes** – Provides electronic definition of processes, enforcing mandatory procedures such as required approvals and sign-offs, while remaining flexible for ad-hoc workflows. Delivers tasks to authorized personnel, recording the tasks and resulting actions performed.
- **Collaborative engineering** – Supports collaborative engineering between companies and supply chains, controlling shared information access and updates, notifying interested parties of changes, and retaining a complete history of all actions taken. SmartPlant Foundation builds a comprehensive repository of information about a plant, including its structure, tags, equipment, and documents.



ABOUT INTERGRAPH

Intergraph Corporation is the leading global provider of spatial information management (SIM) software. Security organizations, businesses and governments in more than 60 countries rely on the company’s spatial technology and services to make better and faster operational decisions. Intergraph’s customers organize vast amounts of complex data into understandable visual representations, creating intelligent maps, managing assets, building and operating better

plants and ships, and protecting critical infrastructure and millions of people around the world.

For more information, visit www.intergraph.com.

