



## SMARTPLANT® ENTERPRISE FOR OWNER OPERATORS CORE SOLUTION

The Intergraph® SmartPlant® Enterprise for Owner Operators Core Solution includes key work processes that are relevant throughout the complete plant life cycle. To help you manage the engineering design basis, this solution provides common core work processes and is a prerequisite for the SmartPlant Enterprise for Owner Operators (SPO) solutions for SPO Project Execution and SPO Operating Plant.

The following SPO Core Solution business packages are available.

### PLANT & WORK BREAKDOWN STRUCTURES

Establishing the plant breakdown structure is a fundamental activity required to manage the design basis of any plant. Managing the work breakdown structure by definition of work packages is a critical part of managing activities such as engineering, construction, and procurement both in greenfield/brownfield developments and turnarounds.

These business packages facilitate the navigation of data via the plant breakdown structure (area, system, discipline, etc.) and work breakdown structure by work packages.

### TAG MANAGEMENT

The consistent and accurate allocation of tag numbers in accordance with the plant engineering numbering system – in addition to the capture and maintenance of design properties in tag registers – are essential activities during all phases of the plant life cycle.

This business package supports the centralized allocation of tag numbers in SmartPlant Foundation in accordance with a pre-defined engineering numbering system, providing a central tag master, maintenance of tag register data, and exchange of tag details with design tools.

### DOCUMENT & TRANSMITTAL MANAGEMENT

These business packages ensure the effective and consistent management of documents with auditable traceability and are essential for operations to demonstrate regulatory compliance and manage the

vast numbers of documents that describe a complex process facility. During development projects, revamp projects, and turnarounds, the allocation of document numbers and workflows to review and distribute necessary documentation to relevant stakeholders are critical processes. These business packages address the needs of both projects and operations for document management and transmittals. The document management business package features a comprehensive set of work processes, including:

- Central allocation of document numbers
- Capture of document metadata
- Managing document revision and version history
- File archiving
- Distribution and review
- Subscription
- Check-in and check-out
- Online approval

Documents can be linked to the plant or work breakdown structures, tags, referenced documents, contracts, disciplines, and more. Where an Enterprise Content Management (ECM) system such as LiveLink, SAP® DMS, Documentum, or Microsoft® SharePoint® is deployed in an organization, Intergraph's business package can be integrated with these systems. To facilitate flexible retrieval, the business package offers many alternate ways of locating documents based on whatever information the user knows, such as document name, relation to elements in the plant hierarchy, related tags, models, or combinations of multiple search criteria. The transmittal business package offers preconfigured processes for managing incoming, outgoing, and internal transmittals, including definition of standard distribution matrices to ensure consistent distribution.

## MODEL, ASSET & MANUFACTURER

The SPO Core solution provides the capability of managing standard manufactured materials as identified by a manufacturer's model/type reference, individual serialized equipment (assets), and associated documentation. Both model/types and assets may be related to the plant design (tags) to facilitate a reduction in the variation of plant materials and spares and to enable material traceability. Managing manufacturer catalog documentation against model/types and assets can significantly reduce the volume of vendor package documentation and simplify the administration of document management during operations.

## PLANT DATA LOADING

Simple, bulk loading of data into SPO via pre-configured, template Microsoft Excel® Load Files is provided by SPO Core. A more comprehensive solution for loading and validation is also available with Intergraph's SPO Validation, Transformation, and Loading Solution.

## CONCEPTUAL ENGINEERING

The commercial and technical evaluation of alternative plant layouts is an essential part of the conceptual engineering process for both greenfield and brownfield projects.

The Conceptual Engineering business package exploits SmartPlant Layout (available separately) for the conceptual layout of plants. You can quickly generate and compare various plant layout concepts, then export the results of any layout to estimating tools to facilitate cost comparison.

## ENGINEERING DATA BROWSING

The SPO Core Solution provides rapid access to key information within the engineering design basis via multiple search mechanisms and navigation paths. This reduces the time needed to gather necessary information and ensures all relevant information is readily available to facilitate quicker and better decision-making.

## 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

## ON-PLANT ENGINEERING & DESIGN

Maintaining the dynamic design basis in-line with plant modifications during the plant life cycle is a critical, demanding activity. Intergraph offers a bundle of pre-configured, well-proven SmartPlant Enterprise applications on a plant site basis to support maintenance of the engineering design basis and perform small on-site projects.

These applications include:

- SmartPlant Reference Data
- SmartPlant Isometrics (formerly I-Sketch™)
- SmartSketch®

SmartPlant Isometrics provides a simple means of maintaining isometrics. The application provides a digital basis for fabrication purposes and facilitates the update of the 3D model.

In addition, SmartPlant Foundation is included as the common information hub to support data exchange between SmartPlant design tools and provides the workflow engine to power the preconfigured SPO work processes. SmartPlant Foundation also serves as a flexible information management repository.

SPO gains its strength from integration with well-proven SmartPlant Enterprise applications such as SmartPlant P&ID, SmartPlant Instrumentation, and SmartPlant Electrical (available separately).

## FAST TRACK IMPLEMENTATION

Intergraph offers an optional Fast Track implementation approach for the SPO Core solution. Fast Track is based on completing a fixed implementation scope to configure SPO Core for a plant and meeting customer needs within 60 days from the beginning of implementation. Fast Track avoids lengthy initial analysis workshops and specification preparation and can potentially satisfy the complete needs of a customer with basic requirements or can be used to achieve the first implementation milestone for a customer with more extensive needs.

data management of plants, ships, and offshore facilities. Intergraph SG&I provides geospatially powered solutions to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is an independent subsidiary for SG&I's U.S. federal and classified business.

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