

Standard Database for SmartPlant[®] Reference Data

Contents

1. Introduction	2
2. SmartPlant Reference Data	3
3. Standard Database for SmartPlant Reference Data.....	4
3.1 Out-of-the-box Productivity.....	4
3.2 PIP Piping Practices	4
3.3 Interfaces	4
4. Business Benefits.....	5
4.1 Time and Cost Savings	5
4.2 Data Quality.....	5
4.3 Cost Value Proposition	5
4.4 Secure Investment for the Future	5
5. Future Content Development Plans	6
5.1 Next Releases	6
5.2 Non-Piping Content in SmartPlant Reference Data Plus	7
5.3 Standard Database Backlog Items	8

1. Introduction

Intergraph® has built a Standard Database for SmartPlant® Reference Data that delivers a comprehensive range of commodity codes that can be used to uniquely describe material throughout a project life cycle. Within SmartPlant Reference Data, the Standard Database uses sophisticated and in-depth rules to maintain commodity codes and material descriptions (see Figure 1).

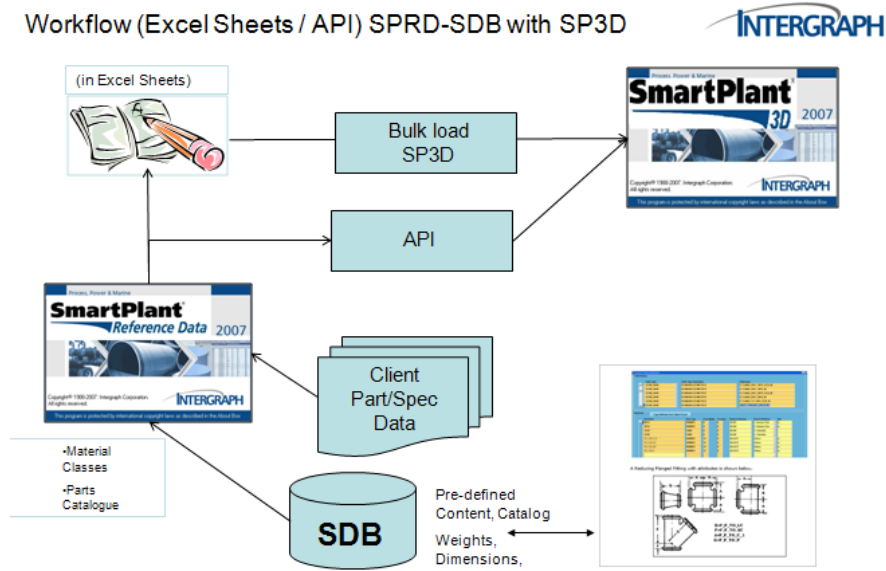


Figure 1: Standard Database for SmartPlant Reference Data uses advanced rules to manage data effectively.

2. SmartPlant Reference Data

Intergraph SmartPlant Reference Data is a user-definable, rules-based catalog and specification management tool for both projects and the enterprise. It can be used with SmartPlant 3D, SmartPlant Materials, and other enterprise software.

SmartPlant Reference Data offers a number of benefits, such as:

- It provides a single point of data entry for materials and specifications, minimizing the potential for inconsistent data across both teams and systems.
- The standardization of material classifications dramatically reduces engineering cost, especially in a global environment.
- Tight integration with design and procurement systems results in efficient change management, critical for successful project execution.



3. Standard Database for SmartPlant Reference Data

Standard Database for SmartPlant Reference Data is a preconfigured, recommended practice solution to enable rapid implementation of enterprise reference data management and/or materials management in general.

The Standard Database incorporates a comprehensive catalog of industry-standard material parts, organized and described for “out-of-the-box” use by owner operators and engineering, procurement, fabrication, and construction companies.

The content is pre-configured to enable catalog and piping specification interfaces to intelligent 3D applications. The content is certified for use with SmartPlant 3D.

Comprehensive rules ensure any additional commodity codes added are unique and maintain data integrity. The commodity coding philosophy is suited to the coding of any material and is not limited to the piping discipline.

3.1 Out-of-the-box Productivity

Standard Database for SmartPlant Reference Data (version 2008R4) is delivered with:

- U.S. standards (ASME, ASTM, MSS, API)
- DIN standards (DIN, DIN-EN)
- PAS 1057 piping specs and part data for the petrochemical industry
- Five Process Industry Practices (PIP) specifications
- Migration tool that enables Standard Database users to load new content into their existing database

3.2 PIP Piping Practices

PIP members and subscribers can apply Standard Database Service Pack 1 (version 2008R4 SP1) to receive five PIP specifications as mentioned in the previous section.

There are 16 additional PIP piping practices only available to PIP members or PIP subscriber companies. For more information about PIP membership, please visit www.pip.org.

3.3 Interfaces

The Standard Database is delivered with a pre-configured interface to SmartPlant 3D, SmartPlant Isometrics, PDS®, and SmartPlant Materials.

Future content and interfaces to SmartPlant Electrical and SmartPlant Instrumentation are being developed. See Section 5 for more information on future content development plans.

4. Business Benefits

Significant savings and advantages are available to clients using the Standard Database:

4.1 Time and Cost Savings

- **Configuration** – Users can save months of tedious configuration work.
- **Implementation and consulting** – Users can typically save an additional three to 12 months on initial implementation in addition to reducing related consulting services, depending on the scope of material covered.
- **Training** – Training requirements are not as extensive, which saves training time, implementation time, and cost.
- **Physical dimension tables** – Intergraph has invested thousands of hours in physical dimension tables for every component in the catalog, saving EPCs and owners alike the time, cost, and effort in recreating this industry-standard, certified information.
- **SmartPlant 3D** – Standard Database piping components and specifications have been downloaded, tested, and certified for use with SmartPlant 3D. This saves SmartPlant 3D users considerable time and effort. Users benefit from more complete and accurate specifications, plus quicker, error-free startups of SmartPlant 3D.

4.2 Data Quality

- **Production startup** – Ensure high-quality production startup by eliminating the need for re-entering the standard reference data.
- **Joint ventures** – Using Standard Database across a consortium or joint venture partnership means that seamless electronic models will result, easing the integration of multiple EPCs and suppliers.

4.3 Cost Value Proposition

Intergraph has invested more than \$650,000 in the configuration of the Standard Database. The solution is available to clients at a small fraction of that cost. This represents a significant cost value proposition.

4.4 Secure Investment for the Future

Users can maintain and expand the Standard Database through regular new releases and the migration tool. Conveniently receive new releases as soon as they become available through a maintenance agreement.

5. Future Content Development Plans

The following content is envisioned as being included in future releases of Standard Database for SmartPlant Reference Data.¹

5.1 Next Releases

The next releases for Standard Database are scheduled for June and December 2010. The June 2010 release is scheduled to offer the following content:

- ~ Guobiao (GB) Chinese National Standards (will be delivered as a Service Pack)
- 20 PIP specifications
- Migration tool
- More ASME and MSS data



¹ Future development and inclusion of any functionality within any Intergraph product is within the sole discretion of Intergraph, and is subject to change based upon technological issues, market conditions, and other factors. This document merely highlights Intergraph's present intent as to future actions, which are subject to change, and shall not in any way be considered as a contractual obligation or as a representation to any particular individual or company.

5.2 Non-Piping Content in SmartPlant Reference Data Plus

Structural, instrumentation, and electrical content is scheduled to be included in service packs to be released beginning in December 2010, as shown in Figures 2 and 3.

SPRD Plus for non piping content

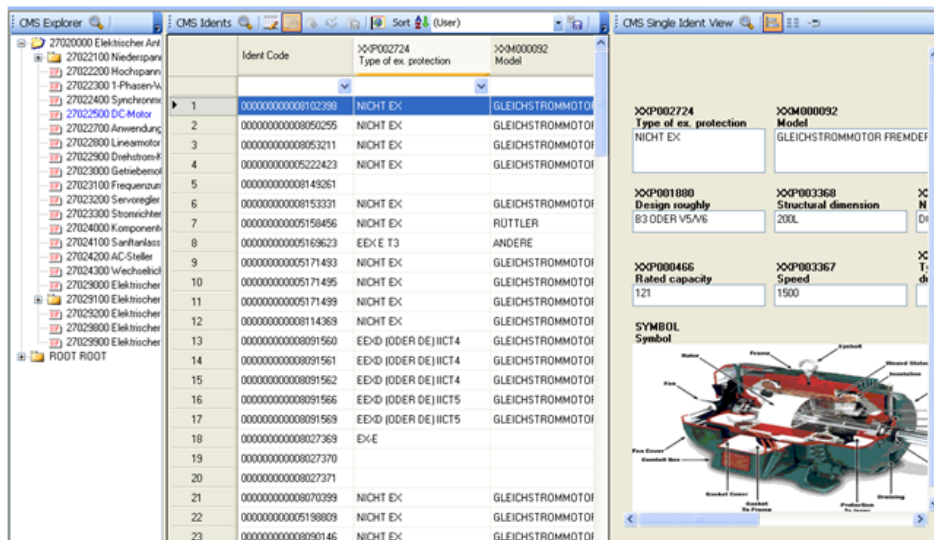


Figure 2: SmartPlant Reference Data Plus will offer non-piping content.

Cable data

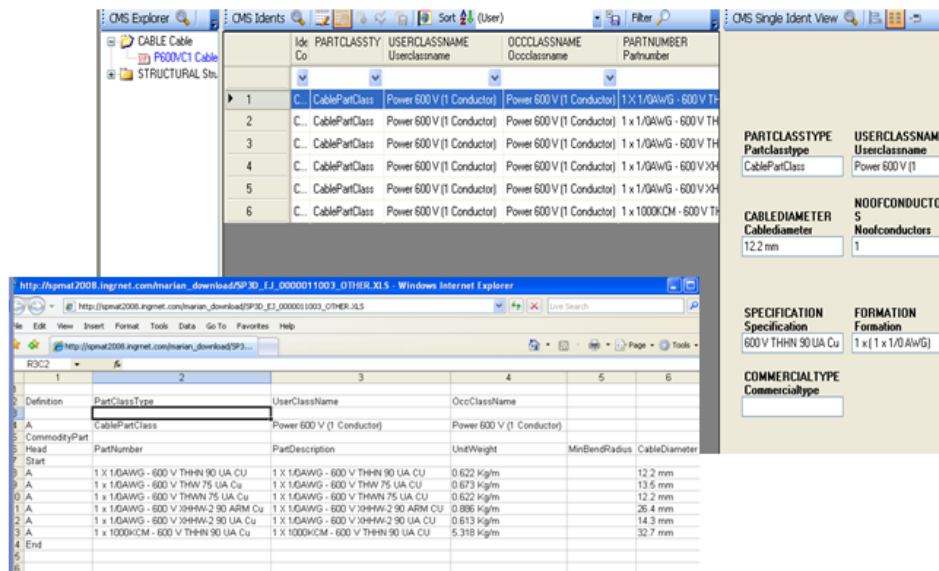


Figure 3: SmartPlant Reference Data Plus will offer cable data content.

5.3 Standard Database Backlog Items

Table 1 shows a list of example backlog items which are planned to be included in upcoming releases.

Table 1: This is a list of selected items from the Standard Database backlog.

Category	Backlog Item
Piping	Include SANS standards and components, structural and piping, and interface to SmartPlant 3D
Piping	Offer DIN/EN standards with 34 new piping specifications for the power industry
Piping	Provide GOST and Russian standards and components
Instrumentation	Include content for instrumentation and electrical in .NET
HVAC	Offer content and new interface in .NET
Cable Tray	Provide content and new interface in .NET
SmartPlant Isometrics Interface	Map and configure the SmartPlant Isometrics interface
Selection Filter Sheets for Smart 3D	Automatically generate the bolt/gasket/washer and nut selection filter
Generic Files for Smart 3D	Automatically produce generic files

For more information about Intergraph, visit our Web site at www.intergraph.com.

Intergraph, the Intergraph logo, SmartPlant, and PDS are registered trademarks of Intergraph Corporation. Other brands and product names are trademarks of their respective owners. Intergraph believes that the information in this publication is accurate as of its publication date. Such information is subject to change without notice. Intergraph is not responsible for inadvertent errors. ©2010 Intergraph Corporation. All Rights Reserved. 6/10 PPM-US-0104A-ENG