HEXAGON
PPM

PRODUCT SHEET

ISOGEN® PUBLISHER

UNLOCK ISOGEN PIPING DATA FOR SMARTPLANT® ENTERPRISE

Isogen® is the most widely used software for the automated generation of piping isometric drawings. Most commercially available 3D design solutions for piping systems either use Isogen directly or support the Isogen data file formats – the Piping Component File (PCF) or the Isogen Data File (IDF).

Every year, millions of these data files are created. Each one is a small chunk of valuable piping data.

Isogen Publisher can unlock this data by making it SmartPlant® Enterprise-ready, so that it can be used by solutions like SmartPlant Enterprise for Owner Operators, Intergraph Smart® Construction, and Intergraph Smart 3D in the fields of piping asset management, construction planning, and piping data transfer.

HOW IT WORKS

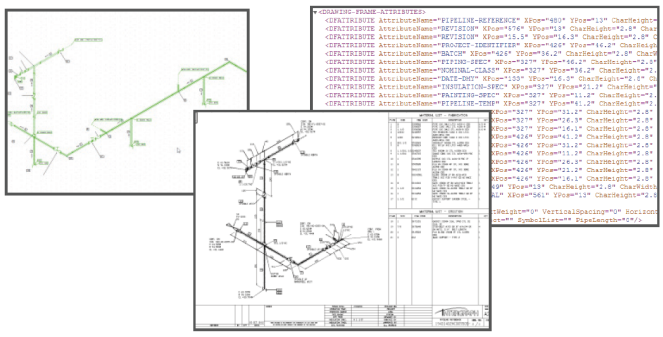
Isogen Publisher supports a number of data sources and destinations. In addition to reading Isogen data directly from disk files (IDF, PCF, or POD), Isogen Publisher can connect to a SmartPlant Spoolgen® or SmartPlant Isometrics project as the source of the data. In the "Files on Disk" mode, any system that can generate Isogen files can be linked to SmartPlant Enterprise. This includes Smart 3D, PDS®, and CADWorx®, as well as third-party solutions like Aveva PDMS, Bentley AutoPLANT, and many others.

Piping data can be published to two different destinations: SmartPlant Foundation and Smart 3D.

PUBLISHING TO SMARTPLANT FOUNDATION

Isogen Publisher includes Isogen, so it can create new piping isometric drawings in CAD format and extract all the data encoded in the files. There are three main deliverables:

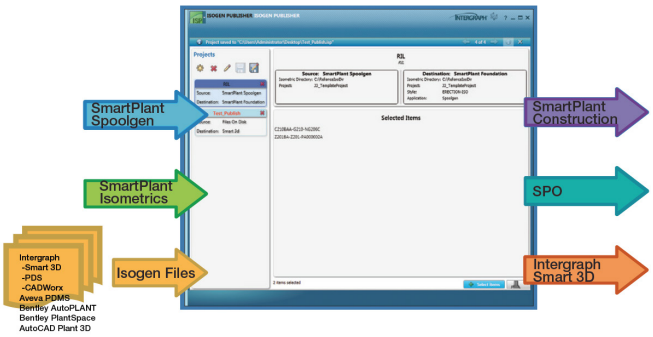
- An editable version of the source data – This takes the form of a POD file, which can be downloaded and edited in SmartPlant Isometrics.
- A new piping isometric drawing in CAD format – The drawing is identical to those produced by Smart 3D, PDS, or Isogen. The layout and content of the drawing are controlled by the Isogen Configuration software, which is included with Isogen Publisher. The published drawing is always in SmartSketch® format.
- A configurable set of piping data extracted from the source file – For example, data can include line reference, piping specification, operating temperature, and much more.



PUBLISHING TO SMART 3D

Isogen Publisher can also convert the same files into a format which can be imported into Smart 3D – creating native Smart 3D piping data.

Isogen Publisher Workflow



SAMPLE WORKFLOWS

Workflow 1: Piping Asset Management

Collecting and maintaining an up-to-date version of piping documents and data on an operating plant can be challenging. Sitebased engineering teams and subcontractors supporting the site may use different systems at different times to create 3D models of parts of the facility.

Isogen Publisher provides a way to extract all of the value from these different piping models and deliver a set of consistent quality, standardized piping drawings. SmartPlant Enterprise for Owner Operators provides a platform to manage these documents, providing workflows for change management. SmartPlant Isometrics can be used to edit and update these documents as the plant is modified over time. And Isogen Publisher can be used again to populate a new 3D model with accurate as-built data when a major project comes along.

Workflow 2: Construction Planning

For most construction projects in the process industries, managing the construction of piping is a signifi cant challenge. Multiple engineering and construction companies and their fabrication and erection sub-contractors must collaborate to deliver the final result within budget and on schedule.

Hexagon PPM's innovative construction planning solution, Intergraph Smart Construction, benefits from consistent piping data and documents delivered through Isogen Publisher. These data and documents may come from Spoolgen or any 3D piping solution that does not have its own SmartPlant Foundation adaptor.

Because the input data is uniform in nature and delivers a rich data set for the piping, spools, and field materials, Smart Construction's powerful rules of progress enable precise scheduling and tracking of the piping installation.

Workflow 3: Piping Data Transfer

Intergraph Smart 3D offers many powerful tools for working with "foreign" data – in particular, using the 3D Interop capability, which enables many different formats to be integrated with the native 3D model.

However, sometimes there is a benefit to being able to transfer a native piping model from a different system (for example, where a preliminary FEED model is developed in one package, but the detailed design is to be performed in Smart 3D). Isogen Publisher supports this scenario by using the Isogen data file as the input and creating a data file which can be loaded into Smart 3D. The data file uses the industry-standard XMpLant format and it contains all the information from the set of Isogen data.

Please note:

- A special Smart 3D license is needed to enable the loading of this data.
- The piping reference data in the source system must correspond to that in the Smart 3D system.

ABOUT HEXAGON PPM

Hexagon PPM is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technology solutions that drive productivity and quality across geospatial and industrial landscapes.