HEXAGON
PPM

PRODUCT SHEET

ISOGEN®

CREATE ISOMETRICS FROM ANY ISOGEN-READY CAD SYSTEM

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).

If your system produces IDFs or PCFs, but does not have Isogen bundled with it, then you need Isogen. This will enable you to turn your valuable piping data into piping isometric drawings.

TEAM AND SOLO EDITIONS

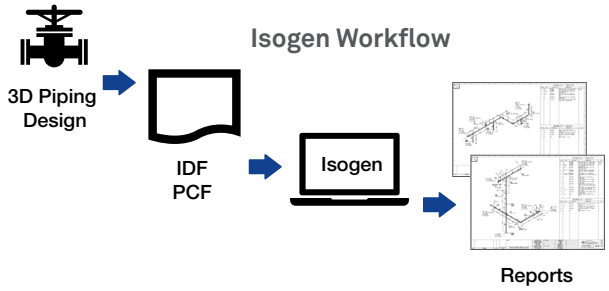
Choose the licensing model that best meets your needs:

- **Isogen Team Edition** enables you to process an unlimited number of pipelines, from any source, into drawings. This option is more cost-effective for larger projects, or if you plan to use Isogen for more than one project.
- **Isogen Solo Edition** offers a counted pool of licenses that decreases each time Isogen runs a PCF or IDF. You can buy license tokens in batches of 500 or 1,000, making sure you have enough for the project, and allowing for any testing, revisions, or re-runs. This is a cost-effective, low-risk way to start using the software. It is ideal for small projects.

INTERACTIVE AND AUTOMATIC MODES

Isogen provides two mode choices. When installing either Isogen Edition, you can install one or both modes:

- **Isogen-R** (formerly known as I-Run) provides an interactive graphical user interface (GUI) through which you can select the input files and view the resulting output.
- **Isogen -S** (formerly known as I-Serve) runs automatically as a service. Isogen-S monitors a folder for IDFs or PCFs, running them through Isogen when new files are detected.



ISOGEN CONFIGURATION

Two tools are supplied with Isogen Editions to help configure the required output.

- **I-Configure** includes the new Isogen Configuration panel, which offers a new visual approach to setting up Isogen. You can alter the settings and see the results immediately before proceeding to run your drawings through Isogen.
- **Symbol Editor** enables you to redefine the 2D shape used by Isogen to represent certain fittings on the final isometric.

DRAWING OPTIONS

The isometrics automatically created by Isogen are unscaled andthe tube sections are shrunk or stretched to give the best layout on the paper. Isogen's unique system logic produces clear, practical pipeline layouts, including cross-overs, based on industry practice.

Isogen's automatic drawing options include:

- Dimensions, text positioning, and item tagging
- Standard industry symbols – also covering food hygiene pipework
- Splitting long pipelines into multi-drawings
- Calculation and tabulation of cut pipe lengths and end preparations
- Weld numbers generated
- Detailed Bill of Materials
- Material control reports by line or spool

An Isogen isometric is essentially a report where users have a very high level of configuration available to tailor both the drawing and material list to their exact needs, including control of:

- Isometric type – Fabrication and construction; fabrication only; construction only; individual spool isometrics; multi-pipeline system isometrics
- Drawing size – Metric A series, American ANSI sizes, or special sizes
- Viewpoint orientation – Indicated by a north arrow
- Dimensions – Standard string, overall, pipe supports, and to valve centers
- Company-standard drawing templates
- Different fonts and text sizes

CAPABILITIES

Isogen drawing options offer a variety of capabilities, such as:

- Reference dimensions to nearby items like steelwork and equipment
- Insulation/tracing/fluid flow on pipe and fittings
- Pipe centerline or BOP elevations
- Continuation/nozzle connection points shown by dotted pipeline indication
- Additional materials – The user can add in materials to the bill of materials
- User-defined spool prefixing and numbering
- Support for hygienic pipework fittings
- Detail sketches
- Information notes
- Tapping points on fittings
- Unique part numbers
- Location points and penetrations
- Reinforcement pads on fabricated tees and crosses
- Alternative text – In-house terminology can be included as headings or messages, with support for foreign languages
- Text positioning – Standard information and symbols can be placed at user-defined locations
- Ensure the same number of drawings, basic content, and spool and weld numbers following pipe design changes via isometric repeatability
- Grouping of messages on individual components
- Item code description and substitution
- User-defined fittings and symbols
- Choice of 2D or 3D skew representation

Some of these features are dependent on content in the input data file, so not all options will be available in every situation.

SUPPORTED OUTPUTS

Processing through Isogen results in a CAD drawing and any associated text report files. Supported outputs are AutoCAD® (DWG), MicroStation (DGN), and Intergraph SmartSketch® (IGR). MicroStationis required for DGN output, and SmartSketch is needed for IGR output. A basic viewer is supplied for reviewing the output.

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.