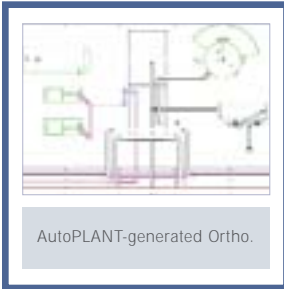


BENTLEY® AUTOPLANT® PIPING™

A solution for innovative 3D modeling and detailed design

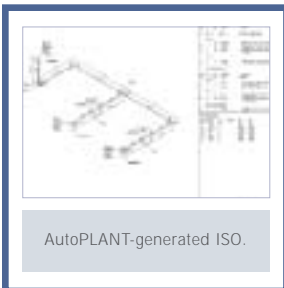
Bentley AutoPLANT® Piping™ 2004 Edition is an object-based 3D piping system design and modeling application that runs on AutoCAD. The system is built on powerful object oriented technology, yet it is easy to use and customize. The software enables users to interactively route and place piping components in a 3D environment. Piping can be used to generate orthographic and isometric drawings and report quantities from the 3D model.



AutoPLANT Piping provides state-of-the-art 3D modeling capabilities previously unavailable in any AutoCAD-based package. This capability is achieved through ObjectARX technology, using 3D objects to represent plant components. These custom objects provide superior representations from any viewing perspective while using a fraction of the file size required using standard AutoCAD shapes.

Specification Driven

Piping utilizes a “spec driven” design approach, which maximizes quality by ensuring compliance with applicable design criteria. Active database links ensure correlation between the graphical and descriptive data in the model.



AutoPLANT Piping includes hundreds of catalogs representing either dimensional standards or manufacturer specific components. These catalogs include hundreds of thousands of items used to create specific specifications for your project requirements. Components placed in a design model are parametric objects with a high degree of intelligence.

Flexible Operation

Component placement in AutoPLANT Piping is an intuitive process used to automate common tasks. Whether placing adjacent piping and components in congested plant areas, or routing over large areas, automated component placement and orientation options reflect standard design conventions and maximize productivity.

Powerful Editing

AutoPLANT Piping is designed with the realities of the typical project in mind. Sections of piping can be edited to change the size or specification. Commonly used assemblies can be saved and inserted in other models or on other projects.

Integrated

AutoPLANT Piping works seamlessly with other Bentley design and information management technologies. The 3D piping model is automatically integrated with the schematic information entered using Bentley Datasheets, P&ID, or Instrumentation. Powerful creation and checking tools verify the consistency and completeness of the piping design. The Bentley plant project database can also be integrated with your plant and business systems to make the most of your valuable information investments.

Life Cycle Enhancement

AutoPLANT Piping offers data storage that's right for your needs in a variety of formats and configurations. Powerful project administration and data management tools enhance the value of your plant data by providing easy access and powerful integration.



Visit us on the Web for more information about Bentley solutions and services.
www.bentley.com

BENTLEY AUTOPLANT PIPING AT-A-GLANCE



AutoPLANT model.

AutoPLANT bill of materials.

Component Features

- Use standard AutoCAD commands (move, stretch, copy, mirror, etc.)
- Modular menu layout groups components together by type (HVAC, cable tray, conduit, Instruments, plastic piping, ductile iron, high purity and tubing)
- Flexible placement features
 - Fitting-to-fitting
 - Relative placement from a component or other known point (wall, building column, etc)
 - Alignment to intersection with ports on other components
 - Insert from any point on a component (such as the branch, center, or run of a tee)
 - Automatically aligns to ports of connected components
- Insert one or more items into an existing pipe segment
- Change size and/or spec
- Create and insert assemblies of components
- Display single or double line representations
- Single line components display correctly in all views

Specification Driven

- Specgen tool quickly creates custom specs from scratch or by editing example specs
- Includes catalogs and example specs
- Spec defines automatic bend, flange, and branch selections
- Use the spec as a menu using the powerful "Spec Browser application"

Work sharing and Drawing Creation

- Save and restore groups of reference drawings (Xref)
- Section views saved and restored for ease of design or drawing production
- Customizable annotation features read any component data (even from reference drawings)
- Annotation placed in paperspace or modelspace
- Automatic dimension "nodes" placed at key points
- Automatic piping isometrics from the 3D model

Integration

- 2D/3D Interface places items defined in the project by other applications such as P&ID or Data sheets
- Export piping components to Bentley's Plant Exchange Format (PXF) for use with applications, such as Bentley AutoPIPE™, stress analysis software
- Import piping components from (PXF) files generated by AutoPIPE or AutoPLANT Isometrics
- Export piping components to Bentley's Jspace (JSM) for use with applications, such as Bentley Navigator™, Interference Detection, Schedule Simulation, and more

Customization Tools

- Provided toolset can be supplemented
- Project configurations can be created or modified through a highly intuitive graphical user interface
- New component types can be created using comprehensive editor

Material Reporting

- Powerful query mechanism allows selection by any properties or fields
- Global reports generated from any or all project models
- Placement of bill of materials (BOM) table directly on drawing
- Generation of accurate quantities of all components (including pipe cut-lengths)
- Reports to a number of common outputs (HTML, spreadsheets, documents, data sources)
- Complete customization of reports and BOM

BENTLEY AUTOPLANT PIPING SYSTEM REQUIREMENTS

- Processor: Intel Pentium 500 MHz or greater
- Operating System: Windows NT4, 2000 SP4, XP Pro
- Memory: 256MEG (Typically more results in better performance)
- Disk Space: 1.5 GIG
- Software: AutoCAD 2000, 2000i, 2002, 2004

ABOUT BENTLEY

Bentley Systems, Incorporated provides software for the lifecycle of the world's infrastructure. The company's comprehensive portfolio for the building, plant, civil, and geospatial vertical markets spans architecture, engineering, construction (AEC) and operations. With 2003 revenues reaching \$260 million, Bentley is the leading provider of AEC software to the Engineering News-Record Design 500 and major owner-operators.

For more information, visit www.bentley.com or call 1-800-BENTLEY.

Bentley Worldwide Headquarters

Bentley Systems, Incorporated
Exton, PA, USA
+1 800 BENTLEY
+1 610 458 5000

Bentley International Headquarters

Bentley Systems Europe B.V.
JC Hoofddorp
THE NETHERLANDS
+31 23 556 0560

