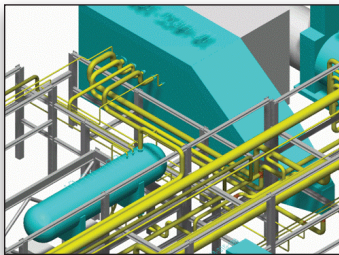


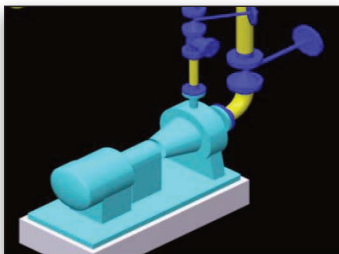
Bentley® PlantWise® V8i

Optimizing Plant Functionality and Minimizing Cost

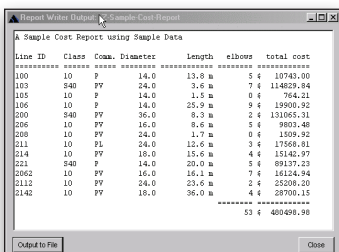
With Bentley PlantWise, you can rapidly create automatically piped 3D plant concepts for immediate collaborative review well in advance of detailing. The software automatic routing and immediate costing of piping and steel provides early, real-time “what-if” analysis of unlimited plant layout scenarios for ultimate plant optimization.



Rule-based AutoRouter lays out pipe using pipers preferences while avoiding obstacles on the pipeway.



Intricate, user-defined inline piping components



Integrated Report Writer creates customized reports and calculations

Fast and Easy Conceptual Plant Modeling

PlantWise uses information straight out of the process design: equipment and pipelines (or streams). It starts from the PFD data—the 3D layout can proceed in parallel with the P&ID development. The PlantWise PlantBuilder module allows designers to quickly lay out equipment, piperacks and structures during the early phases of a project. They can then add to the model incrementally as more information is available. The PlantWise AutoRouter module is tightly integrated with PlantBuilder. AutoRouter rapidly computes pipeline paths, selects and places in-line components, optimizes piperack packing, and lets pipers interactively edit routed pipelines and inline component placement. PlantWise provides designers with precise material takeoffs based on an optimized layout.

Bentley PlantWise can rapidly create automatically piped 3D plant concepts for immediate collaborative review well in advance of detailing.

Early Project Decisions

PlantWise saves lifecycle costs through early review of the 3D design for potential maintenance and operability concerns. Even before any detailed design has begun, operators and contractors can walk through the fully-piped 3D plant model, find operations access problems, and immediately make adjustments. PlantWise re-routes the model to test and validate the solution.

In the chemical process industry, accepting a plant concept is a commitment to plant design and to the associated costs that extend throughout a plant’s life. PlantWise helps enable fully informed decisions at the earliest project stage, thus greatly reducing project costs and schedule times.

Imagine reviewing a fully piped 3D plant model, finding a constructability problem, and then immediately making an adjustment. PlantWise automatically implements the change and re-pipes the model to test and validate the solution. All of this can save millions of dollars on a single project!

Competitive Advantage

PlantWise provides instant creation and review of unlimited plant concept iterations, allowing design teams to make quick decisions on key factors like constructability, operation, maintenance and safety. These rapid decisions and accurate takeoffs permit early procurement of critical-path material, reducing project schedules. In contrast, graphics-centric 2D plant layout studies provide limited decision support, and conventional 3D tools are too cumbersome to use in advance of the detailed design phase.

With PlantWise, designers, process engineers, operators and maintenance supervisors work together to quickly implement changes that optimize plant functionality and minimize costs, while practically eliminating change orders and rework. PlantWise uses your plant knowledge and “best practices” to optimize value throughout a plant’s lifecycle, which adds up to real competitive advantage.

System Requirements

Processor:

2 GHz x86 or x64 processor or better, dual-core or multiple-processor architecture is strongly recommended

Memory:

1 GB RAM minimum, 2+ GB recommended

Hard disk:

500 MB of free hard disk space

Operating system:

Microsoft Windows XP Professional SP2, Windows Server 2003, or Windows Vista.

MicroStation:

MicroStation® 7.1 (J), 8.9.4 (XM), 8.11.5 (V8i)

Find out about Bentley at: www.bentley.com

Contact Bentley

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Global Office Listings

www.bentley.com/contact

Bentley PlantWise V8i At-A-Glance

Automatic Pipeline Routing

- Fast, automatic routing
- Quality autorouting based on pipers rules
- Scales up to thousands of pipelines while maintaining fast autorouting performance
- Autorouting driven from process connectivity

Automatic Component Placement

- Positions standard components such as tees, reducers, control valves, etc.
- Selects proper tee type
- User-defined parametric components available
- Intelligently auto-places key components and routes pipelines through them

Pipeline and Component Manipulation

- Manually adjust a pipeline route and freeze it
- Manipulate part of a route and autoroute the rest
- Manually position key components and autoroute through them
- Slide tees, reducers, and other components along the routed pipeline path

Parametric Equipment

- Create complex equipment graphics from a few inputs
- Simple geometry rules to build equipment types

- AutoNozzle positions nozzles on equipment
- Automatically create symbols and intelligent obstacles from 3D CAD graphics

Parametric Structures

- Build multi-section pipeways and structures from simple dialogs
- Multilevel pipeways with routing preferences by level
- Change the number of levels along a pipeway's sections
- Change alignment of pipeway sections
- Define special reserved spaces such as HVAC and fire suppression levels

User Rules

- Create your own equipment geometry
- Create your own AutoNozzle rules
- Create your own equipment-specific routing patterns
- Specify routing preferences for pipeline spacing, etc.

Integrated ReportWriter

- Report on anything that you input or that PlantWise calculates
- Use simple spreadsheet-style formulas to provide calculations
- Produce summary cost reports using simple ReportWriter calculations
- Customize your output for human readability or export to another program
- Built-in mass property calculations

PlantDrafter

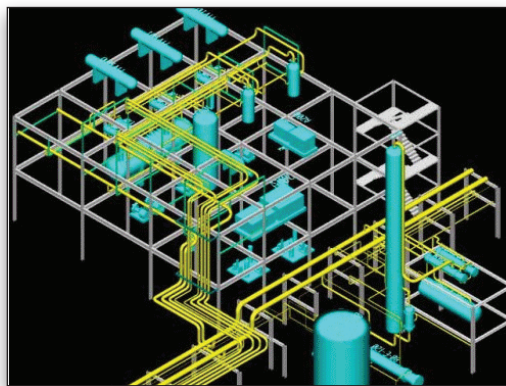
- Produce labeled plot-plan drawings
- Detached plan drawings for multi-level structures
- Optionally include single-line representations of routed pipelines
- Include your standard drawing symbols

Model Management

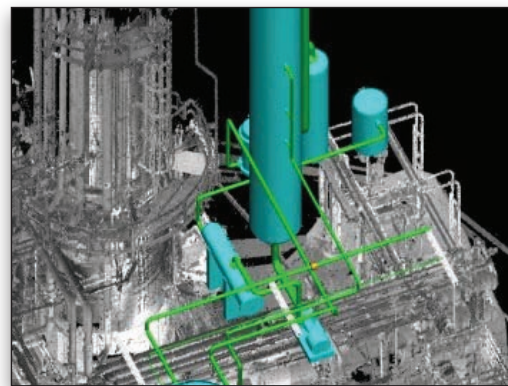
- Model save includes only user input—results in very small save files
- Merge multiple models into new combined model
- Compare current model to previously saved versions
- Import process information and geometry from spreadsheets
- Move, rotate, mirror, copy and delete groups of equipment

Interfaces

- Input equipment and stream from Bentley AXSYS.Process
- AutoPlant and PlantSpace export for pipeline centerlines, components, and equipment
- Structural Modeler and ProSteel export for structural steel
- Explore model using ProjectWise Navigator
- Output model data in XMplant
- Output APL (Alphanumeric Piping Language) output for PDS piping
- FrameWorks structural output via .pml file



Rapidly create a plant concept with drag-and-drop modification capability, including immediate automatic re-routing of pipes.



PlantWise routes in point clouds captured using laser scanning - a valuable tool for brownfield retrofits.