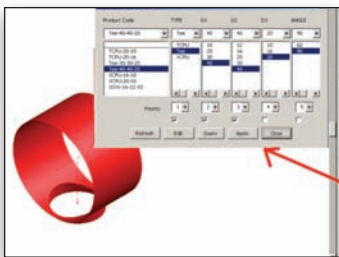




Bentley® Building Mechanical Systems V8i

A Comprehensive BIM Solution for the Design and Documentation of Heating, Ventilation, Air-Conditioning, and Plumbing Systems

Bentley Building Mechanical Systems V8i is a focused application for mechanical engineers, designers, CAD technicians, and BIM practitioners responsible for the design, construction, operations, and maintenance of facility mechanical systems.



A multidisciplinary Building Information Model

Intuitive and Customizable Interface

Bentley Building Mechanical Systems V8i is an advanced, yet intuitive and easy-to-use Building Information Modeling (BIM) application. It empowers mechanical engineers to create air-handling and plumbing systems for buildings and industrial plants with unlimited freedom to, explore more design options, make better-informed design decisions, predict costs and performance.

With an intuitive and customizable user interface, extensive component libraries, and powerful modeling, drafting, and reporting tools, Bentley Building Mechanical Systems V8i supports all phases of the engineering workflow, from the design and modeling of air-handling and plumbing systems to analysis and construction documentation. Integrating design, visualization, drawing production, and reporting of quantities and costs, Bentley Building Mechanical Systems V8i is part of Bentley's BIM solution of integrated design, engineering, and management applications for the entire lifecycle of constructed assets.

Used on large and complex projects around the world, Bentley Building Mechanical Systems V8i was specifically developed to support workgroups and distributed teams in a managed environment, allowing architects, engineers, and contractors to build as one. BIM enables business-critical benefits over traditional computer-aided drafting (CAD), eliminates waste, significantly reduces errors and omissions, provides greater predictability of costs and performance, allows exploration of more design options, and ultimately results in better buildings.

Design and Modeling of Air-Handling and Plumbing Systems

Components such as rectangular, round, oval or flexible ducts; pipes; connectors; in-line devices; valves; pumps; grilles and diffusers; dampers; filters; and silencers are fully parametric, which allows dimension-driven creation and modification. A variety of country-specific standards are supported, and metric and imperial components can also be chosen from selected manufacturers' catalogs. Manufacturers' content can be

globally applied to existing generically placed systems.

Rapid design and production is facilitated through automatic placement of transitions and connectors, automatic hookup to pipes or ducts, and automatic sloping of complete piping systems. Automated, rule-based, creation of insulation can be applied to complete systems.

Choice of 2D, 3D, or both

The building information model can be created and manipulated in a traditional 2D plan, an advanced 3D model environment, or both – using the same tools and interface for either. Plans, sections, and elevations comply with user-definable drawing standards and rules for re-symbolization and annotation. Options are provided for single-line duct or pipe representation, removal or display of hidden lines, and extensive labeling and annotation of ducts, pipes, and fittings. Coordination and consistency is thereby ensured across all documentation.

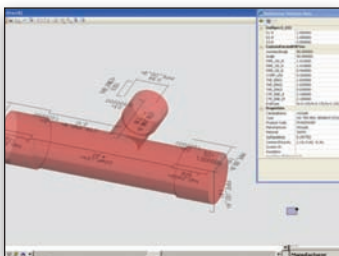
User-definable attributes and properties associated with mechanical and plumbing components can be used to query the information model, to make selective or global changes to the geometry and non-graphical information, and to generate accurate component schedules and material takeoffs.

Integration with Analysis and Fabrication

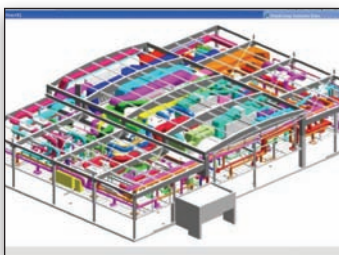
Energy analysis can be carried out through gbXML import/export functionality to various energy analysis packages. Design alternatives can be investigated at an early conceptual design phase and throughout the project to increase communication within the design team to optimize the energy performance of the building.

A Managed Environment

Bentley Building Mechanical Systems V8i can be integrated with ProjectWise® V8i, Bentley's project team collaboration server that manages access to project information across a LAN, WAN, VPN, or via the Internet, and publishes and synchronizes shared information, manages change, protects intellectual property rights, and more.



Parametric fittings



Support of manufacturers' catalogs

System Requirements

Software:

MicroStation® V8i v8.11 or higher

Processor:

Intel Pentium-based or AMD Athlon-based PC or workstation

Operating System:

Microsoft Windows Vista (32 & 64-bit), XP (SP2 or later), Windows XP Professional (64-bit), Windows 7

Memory:

512MB RAM

Hard Disk: 900MB minimum free disk space

Input device:

Mouse or digitizing tablet (tablet on Windows requires WINTAB driver or Bentley's Windows Digitizer Tablet interface)

Find out about Bentley at: www.bentley.com

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Global Office Listings

www.bentley.com/contact

Bentley Building Mechanical Systems V8i At-A-Glance

Building Information Modeling (BIM)

- Design and construction documentation of air-handling and piping/ plumbing systems
- Choice to work in 2D plans, 3D models, or both with a single set of tools
- Offers automatic connector placement, pipe and component hookup, and sloping of complete systems
- Provides attributes and properties significant for design, analysis, construction, and operations

Parametric component design

- Offers parametric, dimension-driven creation and modification of components
- Access to component product manufacturers, such as Lindab
- Creation of custom components with VBA scripts and XML

Coordinated construction documentation

- Rule-based creation of plans, sections, and elevations. Automatic re-symbolization of 3D components to 2D representations
- User-definable annotation and labeling
- Material takeoffs, component schedules, and other reports

- Compatibility with office automation tools for further processing and formatting

International and custom standards support

- Create, manage, verify, and enforce company and project standards
- Support for U.S. and other country-specific component libraries
- Support of DGN, DWG, gbXML, DXF, PDF, STEP, IGES, IFC, and other major industry standards

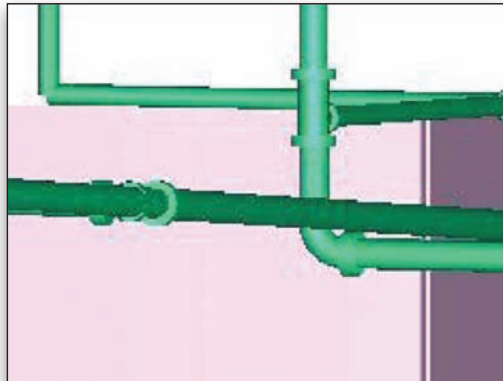
Interoperability with building design, engineering, and analysis

- Fully integrated with Bentley Architecture V8i, Structural Modeler V8i, Bentley Building Electrical Systems V8i, and more
- Wall attribute checking to determine fire damper requirements
- Review and manage interferences across multiple files and disciplines, in conjunction with ProjectWise Clash Resolution Visa
- Simulated construction schedules in conjunction with Navigator V8i and project management applications, such as Microsoft Project or Primavera P3

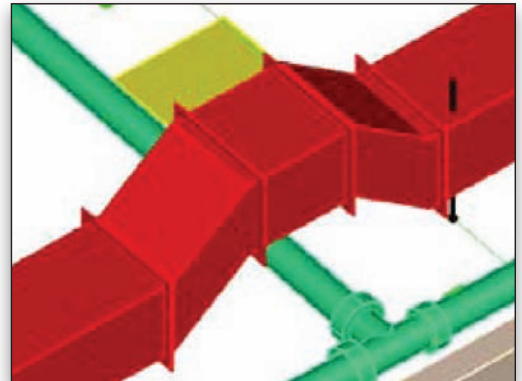
- A shared multidisciplinary model for team collaboration and coordination
- Export to CAM-Duct (M.A.P.) for automated fabrication
- Exchange data with Energy Analysis programs such as Bentley TAS V8i, Bentley Hevacomp, ECOTECH, Trace 700, Carrier HAP, Green Building Studio, and more
- Facilitated by Bentley's newly introduced i-model (a container for open infrastructure information exchange), Bentley Building Mechanical Systems V8i maximizes the interoperability of information between different specialized applications, CAD and BIM platforms, and design reviews of a project's mechanical information.

Integration with managed environment

- Fully supported in ProjectWise V8i, Bentley's comprehensive project team collaboration server



Automatic sloping of pipe system



Multidisciplinary Building Information Model