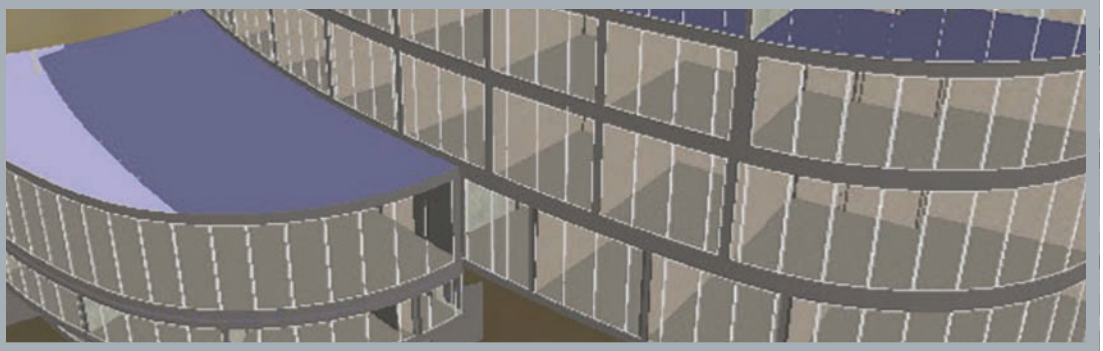
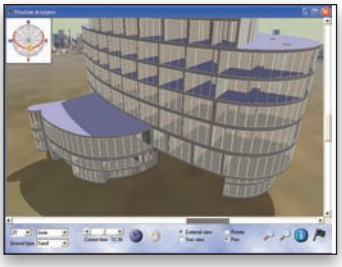
PRODUCT DATA SHEET



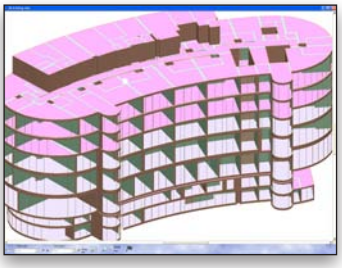
Bentley Hevacomp Mechanical Designer V8*i*

Building Systems Mechanical Design Software Suite



Shadow Analysis

Cad Input-Select Glazing



3D-Building View

Weather Map

Bentley Hevacomp Mechanical Designer V8*i* is a design software suite for all consultant and design contractor professionals working with building mechanical systems.

Systems Design

Bentley Hevacomp Mechanical Designer V8*i* is used by building services engineers, HVAC professionals and other MEP professionals who want a quick and easy tool for making engineering quality building load and energy calculations. Duct and pipe system sizing can be carried out along with fan and pump sizing and selection. This software uses a straightforward, robust calculation methodology to provide quality analysis, making it indispensable in a mechanical designer's software toolkit.

Pipe and Duct Sizing

Systems can be sketched out schematically on-screen, forming the data input for pipe and duct sizing in Bentley Hevacomp. This powerful graphical interface provides a simple and intuitive input method, which enables systems to be defined faster and with less error. Systems can be sketched in plan or as an isometric. A DXF CAD drawing can be imported to act as a template for the system. Simple building elements can also be drawn as required. Pipe and duct systems are drawn to scale, using a snap grid. Bends and tees are automatically implied from the layout and default fitting types can be used, making global changes very simple.

Results from Bentley Hevacomp's pipe and duct sizing programs can be produced to the screen, a printer, or as a database or spreadsheet file. Reports of sizes, pressure drops, balancing pressures, quantities schedules and total weight are produced. System drawings can be exported as DXF files to AutoCAD and other CAD packages.

Bentley Hevacomp pipe and duct sizing programs are available for single pipe, two pipe heating and cooling and reversed return systems, gas and steam systems, hot and cold water services, above and below ground drainage.

Ductwork programs are supplemented with programs for grille sizing using a database of manufacturers' grille data, pitot/anemometer reading analysis and smoke control calculations to BS 5588.

Acoustics programs are provided for noise in ductwork systems, plant room noise levels, noise nuisance to adjacent buildings and audibility of fire alarms.

Load Calculations

Load calculations such as heat loss, radiator sizing, heat gains (CIBSE, Carrier and ASHRAE), shadow analysis, heating and air conditioning energy, summer overheating, Building Regulations and psychrometric analysis can be carried out.

Bends and tees are automatically implied from the layout and default fitting types can be used, making global changes very simple.

Room data can be set up automatically from an imported DXF CAD drawing or directly entered. Room selection for load calculations is either graphical from the drawing or by direct selection. Extensive databases of materials and weather data are available and construction elements can be analysed to check for condensation and admittance.

A powerful Hot Key feature enables you to change room or building data while simultaneously viewing the effect of these changes in your design results and graphics.

The extensive range of Bentley Hevacomp Mechanical Designer also includes programs for U values, chimney sizing, infiltration, insulation economics, solar panel analysis, discounted cash flow, lifecycle costing, CPA analysis and NEDO calculations.

The lighting design software ini Bentley Hevacomp is integrated with the mechanical software, enabling the use of a common project database for design work.

SYSTEM REQUIREMENTS

Processor:
P3 @1GHz

Memory:
1GB

Graphics:
On board SVGA

O/S:
Win 2000 or XP pro

USB:
Yes

CD-ROM:
Yes

Find out about Bentley at: www.bentley.com

Contact Bentley
1-800-BENTLEY (1-800-236-8539)
Outside the US +1 610-458-5000

Global Office Listings
www.bentley.com/contact

Bentley Hevacomp Mechanical Designer V8*i* At-A-Glance

Design Database
- Easy-to-use everyday tool
- Simple input, short learning curve

CAD-export to DXF
- Buildings can quickly and easily be defined
- Easy-to-use building modeler utilizing a DXF file

3D Model
- 3D visualization tools with rotate and zoom functionality
- Visual identification of input errors

Heating and cooling Load Calculations
- One common model for all load calculations
- Reduction in input time by running calculations from a common model

Heating and Cooling Load Calculations
- Localized calculation modules
- Able to calculate with the appropriate method

Energy Calculations
- Compare of efficient building design options
- More efficient building designs with lower carbon footprint

Summer Overheating
- Assess summer design conditions with no cooling
- Assess simple passive design solutions quickly

Code Checking
- Data from common model can be compared to country specific building codes
- Easy and quick comparison with local codes ensuring building is compliant

Construction Properties
- Delivered with a comprehensive material list as well as a built in module for calculating thermal properties
- Quick building definition using standard constructions or user-defined constructions from base materials

Shadow Analysis
- All structures can be defined around design building
- Beneficial shading and corresponding cooling load calculations can be assessed

External Shading From Fins/Louvers
- Predefined and user defined fins/ louvers can be added to windows
- Fin/louver designs can be assessed when considering cooling loads

Duct and Pipe Sizing
- Graphical interface for easy definition
- Significant reduction in time and improved accuracy over manual calculations

Simple 2 ½ D input
- Systems are laid out in x,y,z plane and between floors
- Quick way to define systems and easily refine design

Comprehensive List of System Types
- System types include heating, chilled water, ductwork, gas, Hot water and cold water services
- Most system types are supported

Duct and Pipe Sizing
- All sections sized so index run is identified
- As all sections are sized balance pressures and schedules can be produced

Fan and Pump Sizing
- Fan and pump duties are calculated
- As all sections size accurate fan and pump duties can be calculated

Pump Selection
- Pump database is provided.
- Pumps can be selected directly from the pump database without having to search multiple catalogues

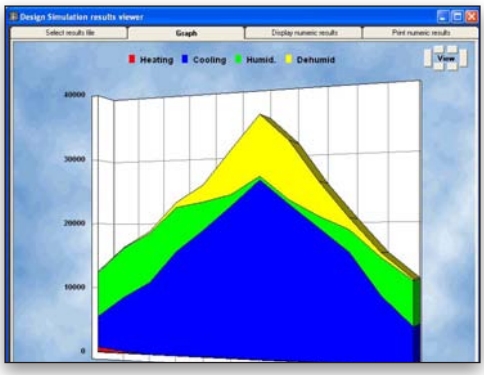
Schedules
- Schedules are automatically produced
- Components can easily be reported as all sections are sized

Control Valve Selection
- Control valves can be selected directly from the provided control valve database without having to search multiple catalogues

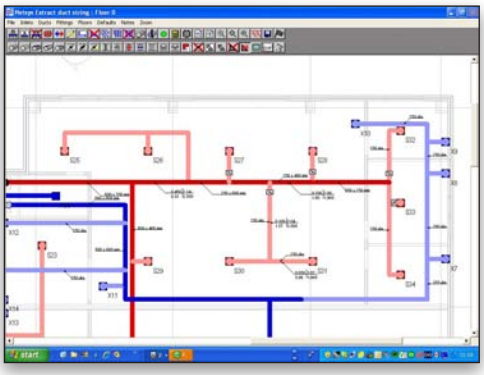
Addition of Notes
- Notes are added to drawings automatically
- Simple drawing being created

Single Line Schematic Drawing
- Graphical input method is also generating a simple schematic drawing
- Simple drawing being created

DXF Output
- DXF output allows schematic drawing to be exported to most CAD systems



Design Simulation Results



Duct Sizing

Bentley Sustaining Infrastructure

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