AutoCAD® Revit® MEP Suite 2009
(Including Revit® MEP 2009)

Questions and Answers

Purpose-built for building information modeling (BIM), Revit® MEP software enables cost-effective and environmentally sustainable design and better coordination across integrated project teams.

Revit MEP works the way engineers and designers of mechanical, electrical, and plumbing systems think, with tools to intuitively create, design, and document building systems. Revit MEP helps engineers and designers visualize their designs before they are built, to minimize design coordination errors between the engineering and architecture teams working on integrated projects. With its parametric change technology, any change is automatically coordinated everywhere in the project, including model views, drawing sheets, schedules, sections, and plans. Design and documentation stay coordinated, consistent, and complete. Partner applications and built-in tools for building performance analysis support better design decision making.

1. General Product Information

1.1 Why should users switch to the AutoCAD Revit MEP Suite?
AutoCAD® Revit® MEP Suite software turns unparalleled flexibility to maximum advantage. By combining the industry-leading AutoCAD® MEP application with the immediate benefits of the Revit MEP building information modeling (BIM) software, this solution protects your investment in technology, training, and design data; accelerates engineering design and analysis; and enhances coordination of your presentations and documentation. It also enables you to move to BIM at your own pace.

1.2 What content has been added to Revit MEP 2009?
In addition to the new content of the mid-year content extension, which more than doubled the MEP components available for use in Revit MEP, a significant amount of new content has been added to the 2009 version:

- Commercial condensing units up to 130 tons
- Air-cooled and water-cooled vertical packaged systems up to 60 tons
- Horizontal and vertical belt-drive DX and CW fan coils, stacked fan coils, and ceiling-mounted fan coils
- Packaged air handlers up to 25 tons
- Gas-fired and electric commercial packaged rooftop units to 130 tons

- Down-flow, vertical, and horizontal high-efficiency water source heat pumps up to 20 tons
- Occupancy and daylighting sensors
- Consolidation of Revit® Architecture light catalogs with Revit MEP catalogs
- Volumetric and direct-indirect lights

2. Technology

2.1 How is Autodesk addressing the growing demand for design-to-fabrication in the MEP industry?

AutoCAD Revit MEP Suite 2009 software offers design-to-fabrication capabilities in two ways:

- AutoCAD MEP has had design-to-fabrication capabilities through third-party vendors such as EastCoast CAD/CAM, QuickPen, and others for several years. For AutoCAD MEP 2009, a strategic partnership was formed with EastCoast to integrate its sheet metal and piping capabilities into AutoCAD MEP. EastCoast CAD/CAM is now able to offer a unique, seamless design-to-fabrication solution inside AutoCAD MEP 2009.
- Revit MEP 2009, through its ability to import DWG™ files and ACIS® solids from AutoCAD MEP 2009, will also be able to take advantage of the benefits of Autodesk's relationships with the third-party vendors just mentioned. You can also export architectural building elements from AutoCAD MEP and import them into Revit MEP software using the International Alliance for Interoperability's Industry Foundation Class (IFC) standards. With AutoCAD MEP, you can also manually assign IFC classifications for MEP objects such as ducts, pipe, and etc., which enables you to take advantage of the design-to-fabrication capabilities of AutoCAD MEP.

2.2 How can I support sustainable design efforts using Revit MEP 2009?

Built-in duct, pipe, and electrical sizing tools dynamically interact with the BIM and built-in heating and cooling load analysis tools to optimize system design for maximum efficiency and more accurately predict the performance of building systems. Export to gbXML (green building extensible markup language) and API (application programming interface) links allow industry-standard tools such as Integrated Environmental Solutions' <Virtual Environment> (IES <VE>) to further optimize building designs for energy analysis, lifecycle cost, CFD, daylight, solar gain studies, and many other types of building performance analysis.

2.3 What integrated tools are available in Autodesk's MEP software solutions to help support sustainable design?

Sustainable design tools in AutoCAD Revit MEP Suite include:

- Duct sizing (AutoCAD MEP, Revit MEP)
- Pipe sizing (Revit MEP)
- Plumbing fixture unit sizing (AutoCAD MEP, Revit MEP)
- Electrical feeder sizing (Revit MEP)
- Panel schedule loads (AutoCAD MEP, Revit MEP)
- Heating/cooling loads (Revit MEP)
- gbXML export to trace 700, IES <VE>, and others (AutoCAD MEP, Revit MEP)
- API link to IES <VE> (Revit MEP)
- API link to Elite software (AutoCAD MEP)
- API link to EC-CAD® (AutoCAD MEP)

3. Compatibility and Interoperability

4.1 How can I support my clients' demands for integrated project delivery using Autodesk's MEP software solutions?

MEP designs developed in either AutoCAD MEP or Revit MEP contain a level of information in the digital design that supports clear and complete information transfer between disciplines on the project, streamlining collaborative workflows.

4.2 Are AutoCAD MEP software and Revit MEP software files interoperable?

You can exchange drawing information (2D DWG files) between AutoCAD MEP and Revit MEP software through their respective Export to AutoCAD features. You can also export architectural building elements from AutoCAD MEP and import them into Revit MEP software using the International Alliance for Interoperability's Industry Foundation Class (IFC) standards. With AutoCAD MEP, you can also manually assign IFC classifications for MEP objects such as ducts, pipe, and etc.

In addition, Revit MEP software has the ability to read and write ACIS solids. This capability gives users a way to export their models from AutoCAD MEP software and then import or link this 3D information to Revit MEP or Revit Architecture software.

4.3 Does Autodesk MEP software work in a Windows Vista® environment?

AutoCAD Revit MEP Suite 2009 software supports Windows Vista® Home Premium, Ultimate, and Business versions. (Please refer to the AutoCAD MEP 2009 Q&A document for specific information regarding AutoCAD MEP 2009 compatibility) In addition, the AutoCAD Revit MEP Suite 2009 software takes advantage of some new Vista capabilities, specifically thumbnail previews for DWG and DWF files in Windows Explorer, display of properties in the Detail tab of Windows Explorer, and the ability to use the Windows Vista search tools to locate text strings found in drawing properties, text, mtext, and so forth, in the DWG file.