

Autodesk 2012 AEC Software Portfolio Expands Value of Building Information Modeling

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Building Design, Construction and Infrastructure Product Lines Deliver Real Business Benefits

SAN RAFAEL, Calif., Mar 22, 2011 (BUSINESS WIRE) --

Autodesk, Inc. (NASDAQ:ADSK), a leader in 3D design, engineering and entertainment software, announced its 2012 portfolio of software for the AEC industry. The updated portfolio supports the Building Information Modeling (BIM) process by offering comprehensive software solutions to help architects, engineers, planners, contractors, facility managers and owners in the building and infrastructure industries meet today's business challenges. In addition to new and updated software products, Autodesk announced two new design suites for building design, construction and infrastructure professionals.

"The value that Autodesk BIM solutions bring to the industry begins with the information in Building Information Modeling," said Jay Bhatt, senior vice president, AEC Solutions Division, Autodesk. "Building Information Modeling is about more than just the model, it's a process that helps our customers use the information inherent in the model to design, visualize, analyze and simulate a project. The motivation behind the 2012 portfolio is to help our customers get more from that rich information to realize real business results, including quality, efficiency, productivity and sustainability."

Building Information Modeling (BIM) is an intelligent model-based process that provides insight for creating and managing building and infrastructure projects faster, more economically, and with less environmental impact. Autodesk BIM solutions for the building lifecycle, from design to construction and through operations and maintenance, are based on intelligent models created with Autodesk Revit software, including solutions for architecture, structural engineering, and mechanical, electrical, and plumbing (MEP) engineering. Autodesk BIM solutions for the infrastructure lifecycle are based on intelligent models created with AutoCAD Civil 3D software for civil engineering design and AutoCAD Map 3D software for infrastructure planning. Helping to expand the benefits of BIM is a powerful set of complementary solutions, including Autodesk Navisworks and Autodesk 3ds Max Design to visualize and simulate projects virtually, and AutoCAD software for documentation and professional drafting. Autodesk Vault Collaboration AEC helps project teams manage and track digital models; secure, organize, and access project documentation; and facilitate team collaboration.

New Building and Infrastructure Design Suites for Enhanced Workflows

The new Autodesk Building Design Suite and Autodesk Infrastructure Design Suite provide a comprehensive set of tools to help users address a variety of workflow needs, from project design, visualization and simulation to documentation and construction. The visualization technology offered by the suites helps improve efficiency by making visualization an integral part of the entire design process. Each suite offers a cost-effective way to respond to changing business requirements, providing access to the latest design and visualization tools through a single, economical and convenient purchase.

2012 Products for Infrastructure

The new Autodesk Infrastructure Design Suite will be available later this year in three editions: Standard, Premium and Ultimate. The Standard edition includes <u>AutoCAD Map 3D 2012</u>, Autodesk Navisworks Simulate 2012 and AutoCAD. The Premium edition adds AutoCAD Civil 3D 2012 and Autodesk 3ds Max Design. The Ultimate edition includes all of the software in the Premium edition, with <u>Autodesk Navisworks Manage 2012</u> instead of Autodesk Navisworks Simulate 2012.

Autodesk's 2012 software products for transportation, water, land, and energy infrastructure projects help civil engineering professionals deliver more innovative project solutions by enabling BIM processes. New or updated products include:

- AutoCAD Civil 3D 2012 helps civil engineering teams deliver more innovative project solutions. It includes transportation
 design enhancements that help speed corridor modeling and provide more control over roadway alignment layout.
 Extended visualization and analysis capabilities, such as the inclusion of Autodesk Storm and Sanitary Analysis 2012
 software, help civil engineers more efficiently explore design options and better analyze project performance.
- AutoCAD Map 3D 2012 now offers comprehensive, customizable industry models (previously only available in <u>Autodesk Topobase</u> Client) for the gas, water, wastewater, and electric industries. The models provide structure to complex data, help users enforce quality standards, and improve the value of information for planning and managing infrastructure assets. In addition, users now have direct access to Esri ArcGIS personal and file-based geodatabases, in addition to ArcSDE geodatabases.
- New Autodesk Infrastructure Map Server 2012 delivers all the features and functionality of the Autodesk MapGuide Enterprise and Autodesk Topobase Web products, and adds a new mobile viewer extension and GeoREST extension.

2012 Products for Building Design and Construction

The new Autodesk Building Design Suite is available in three editions: Standard, Premium and Ultimate. All three editions include AutoCAD 2012, AutoCAD Architecture 2012, AutoCAD MEP 2012, AutoCAD Structural Detailing 2012, Autodesk Showcase 2012 and Autodesk SketchBook Designer 2012. The Premium edition adds Autodesk Revit Architecture 2012, Autodesk Revit MEP 2012, Autodesk Revit Structure 2012 and Autodesk 3ds Max Design 2012. The Ultimate edition adds Autodesk Navisworks Manage 2012, Autodesk Quantity Takeoff 2012 and Autodesk Inventor 2012.

Autodesk software products for building design and construction support a more complete BIM workflow, and includes Autodesk Revit Architecture 2012, Autodesk Revit MEP 2012, Autodesk Revit Structure 2012 and <u>Autodesk Navisworks 2012</u>. Enhanced with a new point cloud tool, the Revit Family of software can now connect directly to laser scans as a part of the BIM process. Revit-based products are now Citrix XenApp6 ready*,

supporting working from remote locations using a single server, and Revit Server to support collaboration on shared Revit models across a wide-area network (WAN). Revit Architecture 2012 and Revit Structure 2012 offer a new construction modeling tool to help users derive better construction insight from design models. Improved conceptual energy analysis tools** for Revit Architecture 2012 and Revit MEP 2012 help support sustainable design decision-making early in the design process.

Additional AEC software-specific updates include:

- Autodesk Revit Architecture 2012 enables users to create material appearance libraries to help standardize materials
 across projects and improve collaboration within the project team. Visualization enhancements give users the ability to
 display edges with more realistic views and shadows in consistent colors mode.
- Autodesk Revit Structure 2012 offers analytical model enhancements to help users create and manage the structural analytical model, enabling greater control and better consistency with the structural physical model. Reinforcement enhancements help users more easily define and visualize concrete reinforcement.
- Autodesk Revit MEP 2012 now enables users create custom systems, assign systems to ducts/pipes without requiring
 them to be connected to equipment, assign color and linetype by system without filters, as well as see total electrical load,
 air flow or pipe flow at any point within the system. New placeholders give users the ability to create conceptual level
 single line ducts and pipes early in the design process, and later convert them to 3D geometry.
- Autodesk Navisworks 2012 accelerates BIM project review through integration, analysis, and communication
 enhancements. File interoperability improvements help boost productivity by supporting workflows between the latest
 enhancements in Autodesk Revit products and third-party applications. New user interface and API (application
 programming interface) for the Timeliner tool provide greater control and flexibility when working with 4D simulations. New
 multi-sheet 2D DWF support enables users to open, review and explore 2D data sets alongside 3D models.
- The 2012 AutoCAD Family adds a more robust set of 3D modeling tools that enable improved surfacing and conceptual design functionality, expanded point cloud support and direct access to the AutoCAD WS application via the AutoCAD user interface to enable users to view, edit and share DWG drawings through a web browser or mobile device. Other enhancements provide faster start times, faster commands and overall improved product performance, and a premium graphics and visual experience. Product-specific updates include:
 - AutoCAD Architecture 2012 now offers faster startup and drawing load times for more immediate access to tools
 and large drawing navigation. A new corner windows capability makes it easy to add a single window in the corner
 intersection of two walls.
 - AutoCAD MEP 2012 offers enhanced native productivity and utilities tools that make it easier to access dynamic and interactive 3D modeling for building system design. New Industry Foundation Classes (IFC) support from within AutoCAD MEP helps users manage and share data with others throughout the design process.
 - AutoCAD Structural Detailing 2012 now offers the ability to display solid objects on structural drawings that include items typically supported by a steel structure. Users now also have the ability to present reinforcement and reinforced concrete element geometry in 3D views.

Additional 2012 Autodesk AEC Products

Autodesk visualization technology (available as individual products or through the new Autodesk Building Design Suite and Autodesk Infrastructure Design Suite) helps users win more business through effective communication of design intent. Autodesk Showcase 2012 3D presentation and rendering software helps users to quickly and easily transform AutoCAD and Revit files into compelling imagery, movies, and interactive design presentations. Autodesk 3ds Max Design 2012 visualization software delivers powerful new rendering toolsets, accelerated iterative workflows, and enhanced interoperability to increase productivity. Additional new or updated 2012 Autodesk AEC products announced include Autodesk Buzzsaw 2012, Autodesk Quantity Takeoff 2012, and Autodesk Constructware 2012.

Availability

Product availability varies by country. Details and purchasing options are available at www.autodesk.com/purchaseoptions.

About Autodesk

Autodesk, Inc., is a leader in <u>3D design</u>, engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries -- including the last 16 Academy Award winners for Best Visual Effects -- use Autodesk software to design, visualize and simulate their ideas. Since its introduction of AutoCAD software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software for global markets. For additional information about Autodesk, visit www.autodesk.com.

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