NASA and Autodesk Collaborate on Sustainable Building Performance Monitoring

January 22, 2013

New Agreement to Advance Development of Technology to Monitor and Visualize Building Performance using Building Information Models

SAN FRANCISCO--(BUSINESS WIRE)--Jan. 22, 2013-- Autodesk Inc., (NASDAQ: ADSK) and NASA Ames Research Center are collaborating to research and develop new technology that can monitor and optimize the operational life-cycle of high performance buildings. Researchers from Autodesk Research and NASA will implement Autodesk Project Dasher technology at the NASA Ames Sustainability Base, a 50,000 square foot office building and showcase for technologies enhancing efficient resource utilization, including those developed by NASA for its space and aeronautics missions. Autodesk Project Dasher is an experimental Building Information Modeling (BIM) based platform that can provide building owners and operators with insight into full life-cycle real-time building performance.

With its specialized sustainability features, and because it was designed in-part using Autodesk software for BIM, the NASA Ames Sustainability Base was an ideal choice for this research project. On-site power generation from photovoltaics and a solid oxide fuel cell provide more electricity than the facility requires and contribute excess capacity to the NASA Ames local grid. Sustainability Base also uses landscape design solutions, remediated ground water, and water reclaimed using NASA technology designed to reduce its potable water footprint by 90 percent when compared to a traditional building of comparable size.

"NASA Ames operates Sustainability Base not only as an attractive workspace and a high-performing facility, but as a dynamic laboratory for advancing technologies for the built environment. An accurately detailed building information model, accessible and useful to facility operators, is a critical component to managing buildings effectively. Through our collaboration with Autodesk and implementation of Project Dasher, we hope to optimize the lifecycle operations of, and achieve unprecedented operational efficiencies with, Sustainability Base while helping to contribute to industry best practices for use of BIM in building performance management," said Dr. Rose Grymes, Technical Lead for Sustainability, NASA Ames Research Center.

Autodesk Project Dasher is designed to provide the interactive building management capabilities that will enable the on-going optimization of facility function that is critical in high performance buildings. Autodesk researchers are currently engaged with NASA Ames architects, planners, researchers, and facilities engineers to develop and test the visualization and analytical tools inside Project Dasher to better address the gap between design and operations. This collaboration is part of a Non-Reimbursable Space Act Agreement between NASA Ames and Autodesk, Inc.

"Our collaboration with NASA Ames is offering a unique opportunity for Autodesk to develop, augment, test, and validate the use of BIM as a process for building lifecycle management," said Jeff Kowalski, Autodesk chief technology officer. "Through this cooperation, we are actively improving and modifying the Project Dasher technology so in the future, facility owners and operators will be able to take a more integrative approach to maintaining the complex balance between energy-saving measures and occupant comfort."

Autodesk Research developed Project Dasher in response to the growing need for tools that can help to continuously evaluate and verify building performance. The goal of Project Dasher is to go beyond existing building dashboards to represent a comprehensive framework for monitoring building performance. Project Dasher acts as a visualization hub where collected data from various sources is intuitively aggregated and presented in 3D. This can enhance the ability of building owners and operators to infer more complex causal relationships pertaining to building performance and overall operational requirements. Autodesk Project Dasher is not currently available for commercial use.

About Autodesk

Autodesk, Inc. is a leader in 3D design, engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries — including the last 17 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.

Source: Autodesk Inc.

for Autodesk
Angela Simoes, 415-302-2934
angela.simoes@autodesk.com