

Autodesk Green Index Predicts 100 Percent Increase in Green Design Practices by Architects by 2010

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Respondents Estimate Use of Sustainable Design Techniques to Realize Ideas Has Increased 50 Percent Since 2000, and is Estimated to Increase 100 Percent in the Next Five Years

ATLANTA, Greenbuild Expo, Nov 10, 2005 /PRNewswire-FirstCall via COMTEX News Network/ -- Autodesk, Inc. (Nasdaq: ADSK) today announced the results of the first annual Autodesk Green Index, a study commissioned to evaluate the use of green design elements and practices by architects. The study indicated that the rate of adoption of green building elements is accelerating, with the use of high-efficiency heating, ventilating and air-conditioning (HVAC) systems leading the way, followed by the increasing use of design software to predict and evaluate HVAC operating costs, solar lighting, and retention basins for storm water run-off. The study queried practicing architects on their expected use of 16 green design practices and elements from five years ago, the previous 12 months and the expected use of these practices five years from now.

(Logo: http://www.newscom.com/cgi-bin/prnh/20050415/SFF034LOGO)

"We will see a dramatic increase in the very near future in the green design strategies architects use to design buildings," said Phil Bernstein, FAIA, LEED AP, vice president of Autodesk Building Solutions Division. "Architects and designers will need to be increasingly familiar with materials research, energy and atmosphere management alternatives and design software tools that facilitate these new green designs practices using building information models (BIM)."

Incorporating high-efficiency HVAC systems was found to be the most common element of green building design today, with greater than 50% of the study's architects specifying use on more than half of their projects over the past year. Sixty-seven percent of the architects responding to the survey used design software to maximize solar lighting, and approximately 64% used retention basins. More than half of architects used design software to predict and evaluate HVAC operating costs in the past year with one third of these architects using this software on more than half of their projects. Other elements and practices identified as important to incorporate into green buildings include monitoring devices for lighting, heating and cooling, evaluation of building materials to maximize energy performance and minimize environmental impact, use of design software to do energy modeling/baseline analysis, use of salvaged, refurbished, or reused building materials products, maximization of interior solar lighting, and prediction and evaluation of the environmental impact and lifecycle of building materials. The study investigated the use of 16 practices based on the US Green Building Council's LEED (Leadership in Energy and Environmental Design) standards.

Renewable Energy, Green Roofs and Design Software Use to Skyrocket

Some practices that are uncommon today, such as green roofs and on-site renewable energy, are expected to increase significantly over the next five years. The use of renewable on-site energy is expected to increase over 200% in the next five years, with use of vegetated or green roof covers increasing by 167%. Architects responding to the survey expect to have greatly expanded their use of design software in five years to:

- -- Specify material quantities and schedules to minimize waste during construction process (150% increase)
 - -- Predict and evaluate solar lighting (150% increase)
 - -- Predict and evaluate solar heating (125% increase)
 - -- Evaluate and explore alternative building materials to maximize energy performance and minimize environmental impact (100% increase)
 - -- Conduct energy modeling/baseline analysis (90% increase)

High Costs and Client Education Affect Growth of Green Design

Fifty-two percent of the architects reported that the leading obstacle to wider adoption of green design practices and processes is cost/budget with almost one third of responding architects reporting that client education is the leading obstacle. The implication is that if green design practices are to become more widely used, the industry needs to take a proactive approach to educate its clients about the long-term benefits of incorporating green building practices relative to their initial costs.

The study's architects believe that the greatest impetus for the adoption of green initiatives will come from higher energy costs for heating, cooling and lighting. This in turn will induce clients to demand efficient, renewable sources. Government intervention, using either a stick (regulatory requirements) or a carrot (incentives), would also influence adoption according to the survey. Sixty-four percent of commercial architects contributing to the study believe that client demand has the greatest influence on whether or not green initiatives are incorporated into the design process. Eighty-five percent of the study's residential architects believe rising energy cost has the greatest influence and 81% of institutional architects believe regulatory requirements and client demand have the greatest influence on the adoption of green design practices.

Methodology

This internet survey was conducted in October 2005 among architects practicing in the United States. Of the architects who responded to the survey, 54% are predominantly involved in commercial projects. The rest are involved with single-family homes (24%), institutional (19%), or industrial projects (4%). Fifty-seven percent have ten or more years of experience as an architect. Seventy percent have received training or continuing education on the subject of green buildings. The full survey is available at www.autodesk.com.

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