



## VOX Amps Up New Designs with Autodesk Inventor and Autodesk Showcase Software

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### Digital Prototyping with 3D Visualization Helps VOX Reduce Costs, Cut Development Time in Half

SAN RAFAEL, Calif., Feb 04, 2010 (BUSINESS WIRE) -- VOX Amplification recently used Autodesk Inventor and Autodesk Showcase software, developed by Autodesk, Inc. (NASDAQ:ADSK), to help design four newly released guitar amplifiers -- the AC30C2 and the AC15C1 Custom Series, as well as the AC15VR and the AC30VR. VOX products have been used by numerous influential bands and musicians, including "The Beatles" and Deep Purple's Joe Satriani.

"In today's economic climate, we need to react fast to market trends," said Dave Clarke, product development manager, VOX R&D. "Creating [digital prototypes](#) with Inventor software and using Showcase for [3D visualization](#) reduces costs and cuts development time in half."

"Digital prototypes help save money by reducing the need for more costly physical prototypes," explained Clarke. "With Showcase, we're able to make real-time changes to a design and quickly reach a concept that the whole team is happy with. This significantly reduces time to market."

#### VOX Design Goals

VOX wanted to maintain the quality and iconic look of its AC30 amplifier, while adding modern design features, improving serviceability and lowering the price point. The result is the new AC30C2 Custom Series.

For the more affordable AC15VR and AC30VR amplifiers, it was important to keep manufacturing costs down while maintaining the renowned VOX sound quality. The economical amps also needed a look that distinguished them from the company's premium Custom Series offering.

#### Digital Prototyping with Inventor Software

Inventor software was used to help design and digitally prototype the new amplifiers, reducing the need for multiple costly physical prototypes. VOX also developed cost-effective manufacturing processes using Inventor software, enabling the company to achieve target price points.

"We wanted a more accessible price point for the AC30C2 Custom Series, but there was no way we would sacrifice quality," said Clarke. "Using Inventor for the mechanical design of the Custom Series, we were able to more quickly prototype construction techniques that achieved the best possible quality and value. We did the same thing with the AC15VR and AC30VR amps."

#### 3D Visualization with Autodesk Showcase Software

VOX used [Autodesk Showcase](#) software for real-time 3D visualization, creating highly realistic digital imagery of the new products before they were built. 3D visualization helped VOX to more quickly refine and finalize aesthetic decisions, before physical prototypes were built.

"The biggest challenge we faced when launching the new AC30 was adding cool features while remaining true to our roots," said Clarke. "We used Showcase to help make and finalize cosmetic decisions at the earliest possible stage of the design process. Creating near photo-realistic visualizations also helped eliminate the need for small but costly changes further down the line, which saved a lot of time and money."

"We also used Showcase from the start of the conceptual design phase for the AC15VR and AC30VR amps," added Clarke. "The software's real-time visualization capabilities helped us determine the precise differences between the VR Series and the premium Custom Series."

VOX also used Inventor and Showcase software to help design the VOX Night Train amp and the Big Bad Wah pedal, which was developed with musician Joe Satriani. To learn more, watch the video titled "[VOX Amps Up Designs with Autodesk Inventor and Autodesk Showcase](#)" on the [Autodesk YouTube channel](#).

#### About Autodesk

Autodesk, Inc., is a world leader in 2D and [3D design](#), engineering and entertainment software for the manufacturing, building and construction, and media and entertainment markets. Since its introduction of AutoCAD software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software to help customers experience their ideas digitally before they are built. Fortune 100 companies -- as well as the last 14 Academy Award winners for Best Visual Effects -- use [Autodesk software](#) tools to design, visualize and simulate their ideas to save time and money, enhance quality and foster innovation for competitive advantage. For additional information about Autodesk, visit <http://www.autodesk.com/pr-autodesk>.

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SOURCE: Autodesk, Inc.

Autodesk, Inc.  
Brittany Bonhomme, 416-874-8798  
[brittany.bonhomme@autodesk.com](mailto:brittany.bonhomme@autodesk.com)  
Clay Helm, 415-547-2425

[clay.helm@autodesk.com](mailto:clay.helm@autodesk.com)