



**Autodesk**<sup>®</sup>  
Showcase<sup>™</sup>

Reflect your decisions.



Autodesk<sup>®</sup>

# Visualize Your Products

It's expensive and time-consuming to build physical prototypes—and each prototype represents only one design variation. Autodesk® Showcase® software helps makes it faster, easier, and less expensive to make design decisions. Use it to quickly evaluate multiple design variations by creating highly realistic, accurate, and compelling imagery from your 3D CAD data.

## Contents

Data Preparation .....	3
Presentation Authoring .....	5
Presentation, Review, and Decision Making .....	7
Learn More or Purchase.....	9

### Make Better Decisions, Faster

Autodesk Showcase software, part of the Autodesk solution for Digital Prototyping, helps you convey the form and brand character of your conceptual designs. Use Showcase to present multiple design options, locally and via remote sessions, before team members and customers make decisions. Viewing photorealistic imagery in real-world contexts gives reviewers the confidence to approve designs—while you enjoy an efficient, economical review process.

### Power Up Digital Prototypes

Showcase helps you communicate your ideas quickly and clearly, radically reducing reliance on both costly, time-consuming physical prototypes and low-quality digital prototypes. Showcase lets you create high-quality digital 3D visualizations of your digital prototypes, and place them in realistic environments. Present digital prototypes to reflect a range of materials and geometry, switching among variations with a single click. With Showcase, generate photorealistic imagery that accurately represents real-world materials, lighting, and environments. And do it all in record time.

### Making Visualization Accessible

You don't need to be a visualization expert to create stunning, professional design presentations. Showcase offers the advanced functionality visualization experts need, while remaining accessible to even those new to visualization software. Its

simple user interface, well-documented API, and scripting language makes Showcase accessible to a range of user abilities and needs. From a single application, you can easily prepare, process, and present compelling, high-quality imagery from 3D CAD data. And because you can make design model changes while preparing imagery, you save time by performing design and visualization simultaneously.

### Autodesk Showcase Product Family

#### Autodesk Showcase

Autodesk Showcase software addresses the visualization needs of design, engineering, and marketing teams, letting them interactively evaluate design work and present it for review.

#### **PRO** Autodesk Showcase Professional

Designed for visualization specialists, Autodesk® Showcase® Professional software includes all the functionality in Autodesk Showcase and more. Visualization experts can take advantage of high-end visualization environments and tools for automating the visualization workflow, enhancing asset and presentation authoring, and building complex visualization setups.

#### Autodesk Showcase Viewer

Autodesk Showcase Viewer is a free application that allows non-Showcase license holders to view and navigate a Showcase scene.



Image courtesy of ADEPT Airmotive (Pty) Ltd.

# Data Preparation

Visualize your designs by importing models from Autodesk Alias products or other 3rd party CAD software into Autodesk Showcase, then convert them into a format suitable for high-quality interactive visualization.

## Visualize Data from Autodesk® Alias® Products or CAD Applications

Import 3D data via Autodesk® DirectConnect software. Supported formats include Autodesk® Inventor®, APF, STEP, IGES, SGI® Open Inventor, CSB, and STL. Autodesk DirectConnect data translators can be purchased separately and are available for other CAD formats, including JT, UGS® NX®, Catia® V4/V5, SolidWorks®, and ProENGINEER®/Granite® formats.



## Import Filter

Use DirectConnect journal files to add a defined filter to import scripts, removing unnecessary geometry up front. Save time by automatically including only the geometry you need, based on layers and materials.

## Maintain Organization and Visual Information from Source

Preserve information imported from CAD files to make use of work completed in your 3D authoring package. Maintain organizational information such as hierarchy, layers, and levels of detail. Showcase can combine multiple sources in a single file, without losing design history.

## Import FBX

Take advantage of work done in other visualization software by importing FBX® data files into Autodesk Showcase.

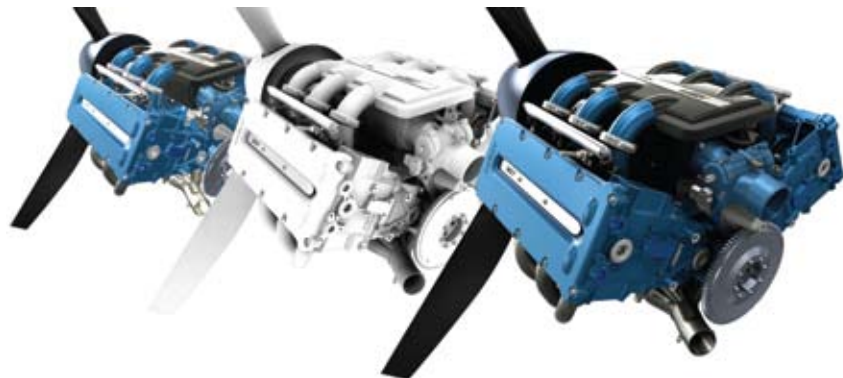
## PRO Import Animation

Increase design presentation realism by bringing the presented model to life. With the FBX data format, you can transfer complex animations from Autodesk® 3ds Max® or Autodesk® Maya® software to Autodesk Showcase. Showcase automatically creates all the necessary links during geometry and animation import. You can access the animation via hotkeys or storyboard slides and integrate them into your presentations.



## Ambient Shadows

Showcase helps you create more realistic imagery by simulating natural shadowing. The software renders and assigns ambient shadow textures to all or parts of a model. Shadows can be re-colored on a material base or adjusted on a part base.



# Data Preparation

## Design Model Updates

Showcase monitors source files and automatically updates visualizations when there are changes to source files, retaining information about which parts were removed, where they were positioned, and which materials were applied. Showcase notifies users of updates, and automatically applies the visualization setup from the previous version. As a result, design and visualization work can occur simultaneously—and the visualization team doesn't lose time working on updated models.

## Optimize Data for Visualization

Optimize large 3D models for visualization, displaying higher-quality results at interactive frame rates. Showcase tessellates models on import to create polygon representations of the originals. With its tessellation algorithms, Showcase produces images that retain high fidelity and accuracy, while keeping geometry as light as possible for interactive visualization.



To improve interactive performance of large models or preserve detail for close inspection, Showcase makes it easy to selectively retessellate files and create multiple levels of detail on import. For simpler handling, Showcase can automatically stitch surfaces together on import based on proximity to adjacent surfaces, layer organization, and material assignment. Surface stitching streamlines material application and results in higher-quality, crack-free tessellated models.

## PRO Batch, Distributed Tessellation

Minimize tedious data conversion tasks by using scripts to prepare data outside of Showcase and convert large data files. Scripts can use predefined tessellation settings or be customized for particular needs. You can integrate batch tessellation into existing database workflows to help ensure that the most current data is available for visualization.

## Automated Material Substitution

Produce high-quality results in less time, automating the repetitive task of assigning Showcase materials to incoming geometry. Use the Showcase material substitution feature to automatically search for and assign the best available material to imported models based on names, layers, or colors defined in the CAD package.



## Unit System

Showcase scales imported data based on the assigned unit of measurement, displaying the model at its true size.

## Data Organizer

Make it easier to access data during the visualization process by organizing data by components or material. Rename data without affecting the original organization.



# Presentation Authoring

Create a range of realistic design alternatives for review. Use Autodesk Showcase software to apply realistic textures and materials—such as paint, glass, and leather—to your model, then add context by placing it in an environment.

## Realistic Materials

Make virtual prototypes look real using an extensive library of high-quality, customizable materials. Choose from common materials—such as car paint, glass, leather, metals, and plastics—created by visualization professionals. Adjust materials using controls based on real-world parameters.



## Materials Management

Use this new interface to manage user-defined materials and libraries. It makes it easy to edit, save, and delete materials and to create, delete, and share libraries across the network.



## Decals/Layered Materials

Layer materials without worrying about UV mapping. WYSIWYG (what you see is what you get) materials feature clear handles; Showcase guides you through the decoration process. Try out multiple looks, then store them as alternatives.



## Photorealistic Environments

Visualize models in a variety of high-quality environments, quickly and easily. Showcase includes new environments for realistic presentations.



## Environment Creation Tools

Create your own environments or combine existing environments. Generate lighting maps from 360-degree high dynamic range images (HDRI). You can maintain full control over all light maps, and can adjust dome geometry to minimize distortion.

## Environment Management

Easily organize the customized environments you produce in Showcase. The software offers a new intuitive interface for managing user-defined materials and libraries.

## Design Alternatives

Set up design alternatives by varying geometry, materials, or positions—or create combinations of existing alternatives. During presentations, switching among them with a single click.

# Presentation Authoring

## Backplate Images

Quickly and easily compose ready-to-print shots of a model in any available environment. Use 2D images as a backplate to blend in the 3D geometry. Use any 2D image as a background wherever the actual model is added.

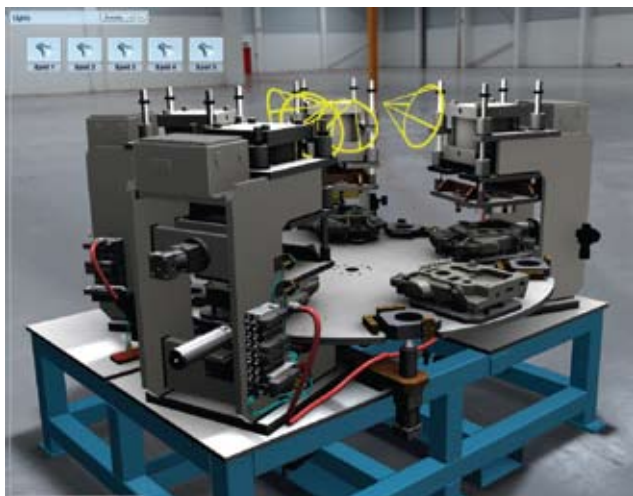


## Turntable Animation

Assign a model to a turntable, defining interaction between the two. Combine turntables with alternatives to evaluate subtle differences in design alternatives.

## Enhanced Lighting Controls

Add as many lights as you need to control the look of a scene and emphasize important design details.



## PRO Storyboards

Use storyboards to quickly jump to complex variants, camera positions, or specific scenes. Showcase lets you activate multiple variants—such as environmental switching, alternative changes, behavior triggering, and camera control—with one click. Environments and cameras guide you to a specific model or scene.

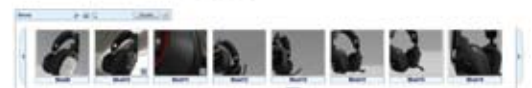


## Real-World Size

Calibrate displays to real-world dimensions, giving reviewers a better understanding of the actual size of objects.

## Shots

Showcase makes it quick and easy to set up dynamic camera movements that highlight important features for review. Use camera tilt controls to add interesting effects—simply select transition type and view at the beginning and end of each shot, and Showcase creates the shot automatically. You can access these cinematic shots during presentations with a single click.



# Presentation, Review, and Decision Making

Help team members make informed decisions by displaying your 3D CAD data with realism and accuracy. Showcase presentation features let team members and customers—whether in the same room or across the globe—evaluate and smoothly interact with large models.

## Integrated Raytracing

Showcase makes high-quality image generation accessible to everyone. With integrated raytracing, you can choose the visualization quality you desire. Reuse precalculated shadows or calculate them interactively with reflections and refractions delivered by the raytracing functionality. No workflow changes are necessary. OpenGL® and raytracing look so similar that you have the freedom to control quality and speed parameters. The integrated raytracer uses all available cores and requires no additional license.



## PRO Multiple Design Display (Side by Side)

Review design alternatives side by side—making it easier to evaluate design differences or visualize them with other products in a brand family. Load and display multiple scenes in the same session, viewing several designs simultaneously.



## PRO Remote Collaboration

Save travel time and cost by conducting reviews with staff in different locations. Enable multisite, multiuser collaboration by connecting concurrently running versions of Showcase over a network. With a network connection available, you can control Showcase presentations from a different host machine. Presentation data can reside in a central location, or be distributed across the network to allow faster access over low-bandwidth connections.

## High-Resolution Image Creation

Frame the image you want and save the current view in one of several standard image formats at your resolution of choice, including alpha channel.



# Presentation, Review, and Decision Making

## Input Devices

Use a variety of standard input devices, including game controllers, to control a presentation. Easy to learn and handle, these devices let both decision makers and inexperienced users control presentations smoothly and confidently.



## Movie Output

Create movies in free resolution from one or all shots, including transitions. Movies can be distributed to team members who do not use Showcase, or incorporated into presentations.

## PRO Cluster Support

Present your designs on high-resolution, real-size displays without compromising quality or performance. Use clustering to show a single image distributed over multiple projectors or screens—and use one computer per projector for maximum performance.

## PRO External User Interface

Use standard HTML or Macromedia Flash® editors to create your own user interface. Showcase commands can be embedded into an HTML page, controlling the application via API commands.

## Support of Photoshop Output

Save Showcase-generated images in Adobe® Photoshop® file format. The separation of background, object, and shadows allows for easier image editing and post-processing.

