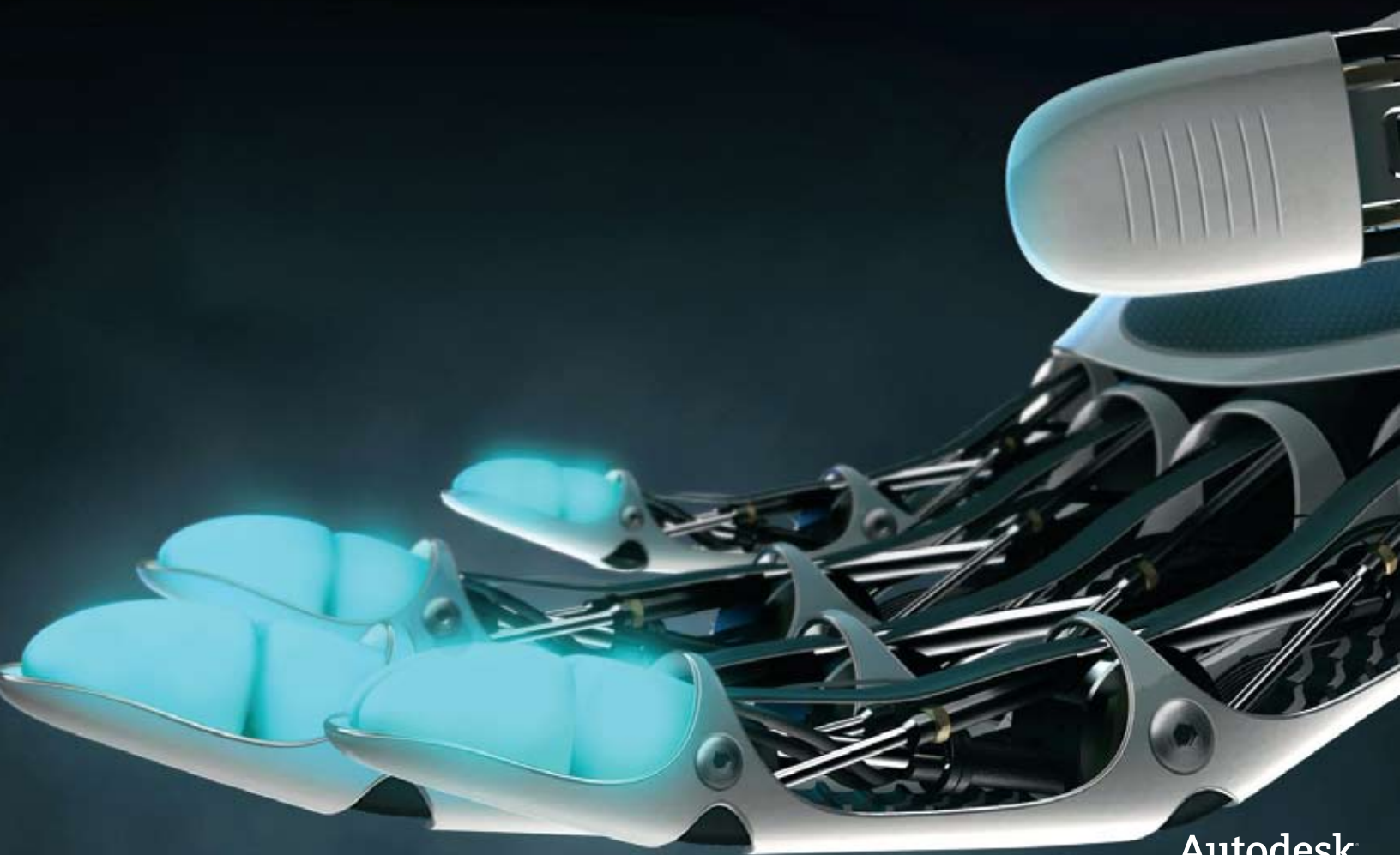


Autodesk®
AliasSTUDIO™ 2009

Technical What's New



Autodesk

Technical What's New

The AliasStudio™ product line provides a comprehensive suite of tools for conceptual design and design realization. It closely integrates the tools designers require for conceptual design and design realization—from sketching and concept visualization through to production modeling—and makes them readily accessible through a single intuitive working environment.

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Autodesk® AliasStudio™ 2009 software provides innovative tools for the specific needs of industrial designers. This release offers new features and enhancements that benefit designers in the following areas:

- Innovation throughout the design process with tools to explore and communicate ideas quickly
- Unique integrated paint tools
- Modeling and Reverse Engineering
- Evaluation tools
- Process integration with computer-aided design (CAD)

The AliasStudio Product Family

AliasStudio is a scalable product line with the right offering for your design tasks and deliverables.

- Autodesk® DesignStudio®
- Autodesk® Studio
- Autodesk® AutoStudio
- Autodesk® SurfaceStudio

Note: Not all features listed in this document apply to all products in the AliasStudio product line. Information pertaining to features and their corresponding products is available in the Features at a Glance section later in this document.



Image courtesy of Wild West Motors

Technical What's New

General Improvements

Improved Printing Solution

Updated print options streamlines the print workflow by enabling users to print paint canvasses, viewing windows and traditional technical plots directly through the print interface.

Consolidated User Preferences

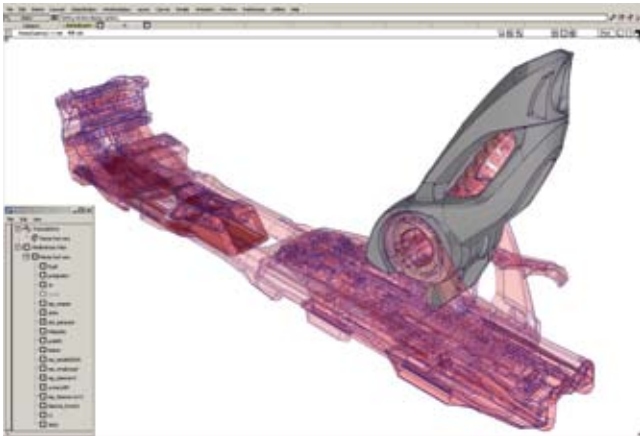
Easily access your custom interface settings by saving all your settings in a single "Preference Set" file that can be moved to others systems or switched between on shared computers. The Preference Set consolidates users' Shelves, Marking Menus, Colors, Hotkeys, Workflows/Menus, Construction Options, and User Options.

Changes to the Object Lister

Access, organize and view geometry more efficiently. The object lister now enables users to dynamically sort, group and organize geometries as well as search for specific object names.

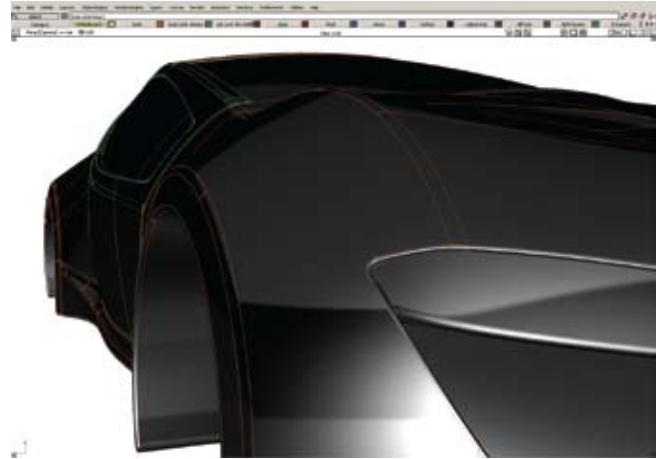
Reference Manager

Reference large engineering datasets while designing and reference different design iterations during design reviews. The reference manager loads data faster, uses less memory and can be viewed dynamically faster than native data. Reference data can be Diagnostically Shaded, Hardware Shaded, has a dedicated transparency control and can be cross sectioned. Reference data can be organized into multiple variations in order to evaluate different design iterations or material properties. Reference data can also be "promoted" to normal data for manipulation.



Sharper Display of Curves and Edges and Software Anti-aliasing

Increase and adjust the quality of lines and surfaces in both wireframe and shaded modes. Experience crisper and smoother curves and edges, and control line thickness for both single and double line.



Alternate View Navigation Mode

A new viewing mode, Azimuth/Twist is available in addition to the default view tumble settings. This mode allows for a different style navigation in a perspective view. This may be useful for some users who are making the transition from other products.

Painting

AliasStudio's unique integrated paint tools enable you to use 2D sketching throughout the design process to develop your concepts.

Selection Tools Enhancements

Select an area of a Canvas with more control using the pen or mouse by drawing a lasso or clicking down to create a series of polylines to create a marquee that encompasses the selection. You can fine tune your selection by adding/subtracting areas via customizable hotkeys.

New Pastel Soft Brush

AliasStudio includes a new brush type: Pastel Soft.

Changes to Shapes

An improved shapes workflow allows for greater flexibility and control. A new dedicated Shape Editor allows for multiple shape parameter sets to be saved to a Shelf or Marking Menu. Shapes are easier to edit and Shape parameters can be copied and pasted from one Shape to another.

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Simplified Color Manipulation

Perform several color correction procedures at once (Color Balance, Brightness & Contrast, Saturation & Value, Color Replace) using the new Color Manipulation tool while previewing the changes directly in the view window. Advantages include the ability to: apply successive modifications to the active image layer without having to exit the tool, modify only certain colors from the image without the need to use masks or marquees, and preview the modifications made to the active image layer in conjunction with the other visible layers.



Re-arrange, Copy and Paste Layers

Work more efficiently within the Canvas Layer Editor: select more than one layer at a time (including image layers, all types of mask layers and folders), move them to a different position within the same canvas, copy and paste them to a different canvas, or even to a different stage.

Enhancement to Image Import Options in the Canvas Layer Editor

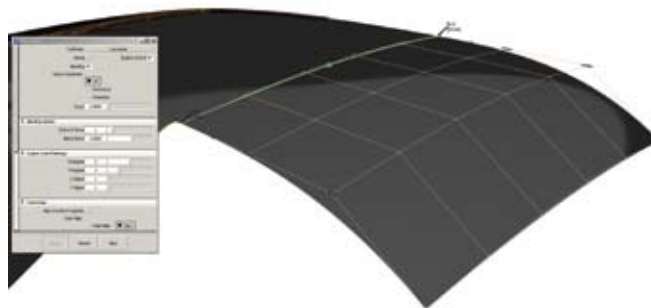
Import an image directly as a mask into the active canvas from the Canvas Layer Editor using the New Image Layer (Import) tool.

Modeling

Changes and improvements to modeling tools help speed your workflow. AliasStudio 2009 introduces a new Align tool, a new Mesh Hole Filling tool, a new construction plane interface, vector options integrated into tools, as well as improvements to Keypoint curve tools, surface filleting tools, Draft, Tubular Offset, and Extend.

New Align Tool

A simplified workflow and new intelligent manipulators provide an experience that increases the user's direct interaction with geometry. This allows for faster, more intuitive surface adjustments while providing complete control over the surface geometry. A great deal of control is afforded over the 'slave' geometry including continuity, blending, and explicit control and vector constraints. All parameters can be edited using history.



Keypoint Curves Enhancements

Improvements to functionality include a consolidated new toolbox and the ability to create accurate (non-periodic) circles and ellipses with a smaller degree and number of spans. Features include the Join curves tool that appeared in earlier versions.

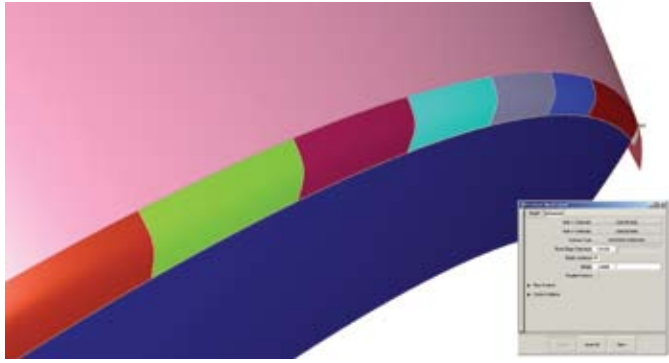
Line Perpendicular

The Line perpendicular tool lets you create lines perpendicular both From and To surface curves (curves on surface, surface edges, isoparms) in addition to free curves.

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Bezier Surface Output

The following tools now support Bezier surface output when single span surfaces are a requirement: Surface Fillet, Freeform Blend, Fillet Flange, Tube flange, Profile Blend and MultiSurface Draft.



Freeform Blend: Positional Continuity

The Freeform Blend tool now offers Position as a Continuity option (as well as Tangent and Curvature).

Freeform Blend: Independent Continuity Level on Both Walls

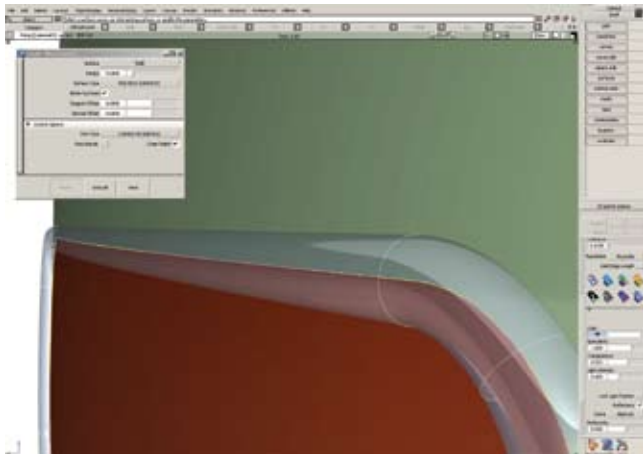
To enable greater flexibility in the creation of blend surfaces Freeform Blend and Profile Blend now allow the independent specification of the level of continuity along both sets of boundaries.

Draft Surface Enhancements

The Draft tool now offers the ability to build draft surfaces on both sides of a curve simultaneously.

Tubular Offset Enhancement

Reduce the time it takes to create finishing details like part lines through enhanced functionality in the Tubular Offset tool which allows for multiple secondary surfaces to be added to the procedure. This allows for creating curves-on-surfaces or trimming back multiple adjoining edges at once. Using this new capability along with the Chain select option further increases efficiency.



Extending with Snap

Snap to a curve, surface curve or trimmed edge while extending a surface.

Vector Integration

Decrease the time it takes to perform procedures in direction influenced tools like Align, Draft/flange, Multi-surface draft, Fillet flange, and Tube flange by using the new integrated vector options.

New Construction Plane Interface

Expanded construction plane options enable users to work faster by defining their construction space more accurately and logically. The new modes allow the user to define construction planes parallel or perpendicular to the current view, relative to world space, using surface normal or curve tangency in addition to point defined planes.

Displaying Controls on New Blend Curves and Keypoint Curves

Display CVs, hulls and edit points while building new blend curves or new keypoint curves.

Selecting Overlapping Curve-on-surface Edit Points

Easily select individual edit points on curves-on-surface using the pick chooser.

Better Hole Filling Tool for Meshes

The Mesh Patch tool fills holes in meshes while recognizing the curvature characteristics of the surrounding area.

Automated Repair of Meshes

Mesh tools now automatically repair a mesh before processing.

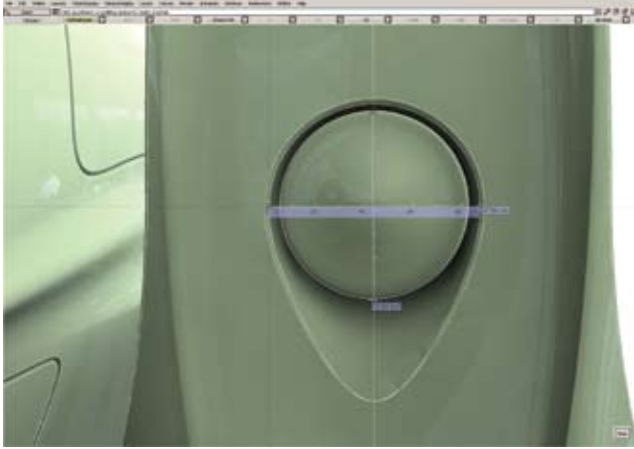
Technical What's New

Evaluation

This version of AliasStudio brings a new evaluation tool: Dynamic Measurement, as well as changes to Cross Sections.

New Dynamic Measurement Tool

Users can quickly measure distances using the new Dynamic Measurement tool. It is particularly useful on shaded models during design reviews.



Saving Visual Cross Sections Across Stages and Work Sessions

Create groups of visual cross-sections in the Control Panel and apply them to objects in different stages. These groups will also be saved between AliasStudio sessions.

Data Transfer

Changes and new features in data transfer, available on all supported operating systems.

New Inventor Import

Autodesk DirectConnect software lets you import Autodesk Inventor® part and assembly files (*.ipt and *.iam) into supported Autodesk software, provided you have Inventor 2008 or the Inventor View software installed and licensed on your machine.

Stay Up-to-Date

Autodesk gives you more. Gain access to technical expertise, utilize training and support programs direct from Autodesk, stay up to date with the latest product releases, and give us your feedback. Not only does Autodesk want to help you use the Autodesk AliasStudio product line more effectively but we want to make sure Autodesk AliasStudio is working effectively for you.

Subscription

Log into the Subscription Center to receive product updates, log and view support requests, or take eLearning courses. A valuable component of Autodesk® Subscription, eLearning provides a continually expanding curriculum of short training exercises.

Feedback

Autodesk AliasStudio customers can interact with the Autodesk AliasStudio development team through several different avenues. For example:

- Provide tips or join newsgroups at www.autodesk.com/aliasstudio*
- Keep up-to-date on what's happening in your industry, stay in touch with other industry professionals, and take advantage of a host of online resources at the Autodesk Alias Design Community Portal at: aliasdesign.autodesk.com
- Talk with your Autodesk Authorized Reseller and support staff

Your input is crucial to our success and we look forward to receiving your comments.

Conclusion

We thank you for your continued support of Autodesk AliasStudio and hope you feel we are listening to your needs. We added the new and enhanced functionality to Autodesk AliasStudio 2009 to help make you more productive, your company more competitive, and to return true value to your bottom line.

Technical What's New

Features at a Glance

The following table indicates which AliasStudio products incorporate the new features in this release.

Feature	DesignStudio	Studio	AutoStudio	SurfaceStudio
General Improvements				
Improved Printing Solution	X	X	X	X
Consolidated User Preferences	X	X	X	X
Changes to the Object Lister	X	X	X	X
Reference Manager	X	X	X	X
Sharper Display of Curves and Edges and Software Anti-aliasing	X	X	X	X
Alternate View Navigation Mode	X	X	X	X
Painting				
Selection Tools enhancements	X	X	X	
Pastel Soft brush	X	X	X	
Changes to Shapes	X	X	X	
Simplified Color Manipulation	X	X	X	
Enhancement to Image Import Options in the Canvas Layer Editor	X	X	X	
Modeling				
Align Tool	X	X	X	X
Keypoint Curves Enhancements	X	X	X	X
Line Perpendicular	X	X	X	X
Bezier Surface Output	X	X	X	
Surface Fillet	X	X	X	X
Free Form Blend	X	X	X	X
Fillet Flange		X	X	X
Profile Blend	X	X	X	X
Multisurface Draft		X	X	X
Freeform Blend: Positional Continuity	X	X	X	X
Freeform Blend: Independent Continuity Level on Both Walls	X	X	X	X
Tubular Offset Enhancement	X	X	X	X
Extending with Snap	X	X	X	X
Vector Integration	X	X	X	X
Align Tool	X	X	X	X
Draft/Flange	X	X	X	X
Mutisurfacce Draft		X	X	X
Fillet Flange		X	X	X
Tube Flange		X	X	X
Construction Plane Interface	X	X	X	X
Displaying Controls on Blend Curves and Keypoint Curves	X	X	X	X
Selecting Overlapping Curve-on-Surface Edit Points	X	X	X	X
Better Hole Filling Tool for Meshes			X	X
Automated Repair of Meshes			X	X
Evaluation				
Dynamic Measurement Tool			X	X
Changes to Cross Sections			X	X
Saving Visual Cross Sections Across Stages and Work Sessions			X	X
Data Transfer				
Inventor Import	X	X	X	X

*All tips contributed and participation in the AliasStudio news-groups are subject to the terms and conditions applicable to www.autodesk.com/aliasstudio.