

solidThinking Inspire and Evolve 2015 b4911

Release Notes

Introduction

The solidThinking package includes Inspire and Evolve 2015. New features for Inspire include fasteners, joints, and contacts for assembly modeling. Evolve includes PolyNURBS, a new rendering engine, and improved surface modeling tools. Both Inspire and Evolve are available on both Windows and Mac

solidThinking Inspire 2015 release notes

The following features have been added or improved for *solidThinking Inspire*® version 2015:

New Tools and Features

Fasteners	The new Fasteners tool allows you to connect parts together using bolts or screws.
Joints	The new Joints tool allows you to connect parts together using pins or sliding pins.
Contacts	The new Contacts tool allows you to find neighboring parts and designate whether they should be bonded, contacting, or have no contact.
G Loads	You can now add G loads to your model using the Model Browser.
Model Snapshots	The new Snapshot tool allows you to take a quick screen capture of your model or generated shape.

User Interface

Ribbon Style User Interface	<i>Inspire</i> keeps growing, so we've adopted a new ribbon-style user interface with tools organized into tabs.
Customizable View Controls	You can now customize the view controls used to pan, zoom, and rotate so they match other common CAD applications using the Preferences window.

Measure Tool Improvements	The Measure tools can now be used on optimization results, and snapping has been added to these tools as well.
Model Configuration Toolbar	Activate and deactivate parts using the new configure toolbar on the Model Browser. This toolbar can be toggled on and off using the View menu.

Geometry and Setup

Faster Geometry Operations	The speed of the Push/Pull and Simplify tools has been significantly improved.
Added Network Materials	You can now designate a common material library on your network so that multiple users can access the same materials.
Improved Supports	You can now control rotations on supports in holes or at a distance.

Optimization and Analysis

Speed / Accuracy Option	A new Speed/Accuracy option has been added to the Run Analysis and Run Optimization windows. This allows you to do quick runs to test loads and supports or generate concepts, saving lengthier runs for situations that require a great degree of accuracy or precision.
Improved Fit Operation	The Fit button on the Shape Explorer now creates better geometry from optimized parts.
Run Analysis and Run Optimization	<i>Inspire</i> no longer locks the session when an optimization or analysis is run.

File Input / Output

Import Autodesk Inventor Files	You can now open Autodesk Inventor files in <i>Inspire</i> .
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Special note:

Mac OS X: The sliding with separation option found within the Run Analysis and Run Optimization Dialogs currently doesn't work on Mac OS X.

solidThinking Evolve 2015 release notes

The following features have been added or improved for *solidThinking Evolve*® version 2015:

User Interface and Workflow

Undo Function	The Undo command is now more robust and is applied to all intermediate steps such as point editing.
World Browser	The redesigned World Browser uses a tab system that provides easier access to objects, layers, materials, cameras, lights, construction planes, dimensions, and drafting views.
Units Management	Units are now displayed in the console and the Control Panel where appropriate. Values entered in different units are automatically converted to the current units. When importing geometry, you are prompted to either accept the assigned units or convert to the current units.
Customizable Keyboard Shortcuts	You can now modify most of the standard hotkeys and assign custom hotkeys to additional functions as well.
Standard Hotkeys	The hotkeys for Translate, Rotate, and Scale have been changed to W , E , and R respectively. When editing polyNURBS objects, the A , S , and D hotkeys can be used to edit vertices, edges, and faces. The N hotkey can be used to convert a polymesh object into a NURBS surface. The hotkeys for snapping to endpoints/midpoints and snapping to curves have been swapped; they are now Alt and Ctrl respectively. To make it easier to snap to curves, snapping to tangents no longer shares the same hotkey and can be only accessed via the Snaps Toolbar. A new hotkey, Right Alt , has been added to select a new object while remaining in Edit Parameters mode.
Customizable Pan and Zoom Controls	The Shift and Ctrl hotkeys for pan and zoom can now be swapped using the customizable keyboard shortcuts.
Selection Aids	Hotkeys have been added to help you modify a selection: <ul style="list-style-type: none"> To add multiple objects to a selection, hold down Shift and box select. To subtract multiple objects from a selection, hold down Ctrl+Shift and box select. To invert the selection of multiple objects, hold down Ctrl and box select. There are also new hotkeys to help you select edge loops and chains: <ul style="list-style-type: none"> When in Edit Edges mode of the new Edit PolyNURBS tool, hold down Shift to select an edge loop. To deselect an edge loop, hold down Ctrl + Shift.
Snaps	Added onscreen feedback for snaps on mouseover to identify the available snap.

Camera Rotation	Right Alt temporarily resets the camera rotation axis to the position of the mouse cursor.
3D Connexion Mouse	3D Connexion mouse support has been improved to provide better control over camera rotation.
Control Panel	The Modeling Tool Panel is now called the Control Panel.

Modeling

PolyNURBS Tools	All of the existing polymesh tools have been improved to increase functionality and robustness. PolyNURBS objects can be used with all surface and solid modeling tools while retaining construction history.
Polymesh to NURBS Conversion	Polymesh objects can be automatically converted to NURBS surfaces with continuity by selecting the Nurbify option in the Edit PolyNURBS tool or by pressing the N hotkey.
Edit PolyNURBS Tool	The new Edit PolyNURBS tool combines vertex, edge, and face editing into one tool to simplify the polyNURBS editing workflow. Interactive controls for chamfering edges and extruding, inseting, and translating faces have been added as well.
Add Edge Loop Tool	The new Add Edge Loop tool allows a connected chain of edges to be inserted.
Faces Bridge Tool	The new Faces Bridge tool allows connections to be made between separate faces.
Combine PolyNURBS Tool	The new Combine PolyNURBS tool allows separate polyNURBS objects to be combined into one single structure.
Extrude Tool	The updated Extrude tool allows extrusions to be applied to multiple objects in a single operation and features symmetry and extrude-to-object options. Holding down the Ctrl key while selecting the Extrude tool now activates single object mode, enabling interactive click-and-drag geometry creation. Extrusions can now be applied to surface edges in addition to curves.
Loft Tool	The Loft tool now features vector control and new vertex placement to increase control over the surface shape. A new feature to swap the rails and the profiles has been added.
Sweep Tool	The Sweep tool now features vector control and new vertex placement to increase control over the surface shape.
Curve on Surface Tool	The new Curve on Surface tool allows curves to be drawn directly on 3D surfaces with multisurface support.
Combine Tool	The Combine tool has been improved to create more robust geometry.

Trim Tool	<p>The workflow for the Trim tool has been streamlined so that multiple curves and surfaces can be selected in a single step, allowing you to create multiple trimmed objects in a single operation.</p> <p>A new option, Perpendicular to Surface, allows curves to be projected perpendicular to the surface to be trimmed.</p>
Face Extract Tool	The revised Face Extract tool allows you to create multiple objects in a single operation.
Boolean Union Tool	The revised Boolean Union tool automatically merges coincident faces, resulting in cleaner geometry output.
Surface Offset Tool	The updated Surface Offset tool now allows you to set a custom offset value for a specific face when working on objects with multiple faces.
Curve Projection Tool	The Path Cast tool is now called Curve Projection.
Revolve Tool	The Lathe tool is now called Revolve.
Section View Tool	The new Section View tool allows you to create and edit section views to be used in the drawing environment or visualized in the modeling windows.
Drafting View Tool	The new Drafting View tool allows you to select groups of objects to be used in the Drawing environment.
Drawing Environment	<p>The updated Drawing environment now uses antialiasing to improve the drawing quality.</p> <p>Section views and drafting views have been added with support for hatching and hidden lines.</p>

Rendering

evoRender	<p><i>Evolve's</i> next-generation rendering engine, <i>evoRender</i>, features new rendering technology and a completely redesigned user interface.</p> <p>Rendering tools are now accessible from a toolbar above the modeling views, and material, environment, and rendering properties can now be modified in the Control Panel.</p>
Interactive Rendering	The new and improved interactive rendering mode is more powerful and robust, and is performed directly inside the modeling views.
Missing Texture Locator Tool	The new Missing Texture Locator tool helps locate missing textures associated with .stl and .obj imports.
KeyShot 5 Plug-in	<i>Evolve</i> now supports KeyShot version 5.

Input/Output

.3ds Files	Updated to the most current libraries and added support for colors and textures.
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.obj Files	Updated to the most current libraries and added support for colors and textures.
.stl Files	Updated to the most current libraries.
New Evolve Bundle	When saving an <i>Evolve</i> model using Save As, a new option allows you to include any image files associated with the model.

Operating Systems

Mac OS X 64-bit	New 64-bit application for Mac maximizes available hardware resources.
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Localization

User Interface Languages	The <i>Evolve</i> user interface is now available in English, Italian, Spanish, Portuguese, French, German, Chinese, Japanese, and Korean.
Mac Asian Character Support	Asian characters are now supported on Mac.