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Release Notes for AliasStudio and StudioViewer 2009 SP1

Improvements

Vista Support

We now support the 32-bit and 64-bit versions of the Vista operating system for Business and Enterprise editions.

New four-sided corner blend in Round

The Surface > Round tool now has the ability to produce a four-sided corner blend on corners with four incident fillets. A single surface, or eight surfaces with setbacks, can be created.
Enhanced DWG/DXF Export

The options windows for DXF and DWG export (File > Export > Active as and File > Save as) now have a new Version option that lets you choose previous versions of those file formats. For DXF you can choose versions 2007, 2004, 2000 or R12. For DWG you can choose 2007, 2004, 2000 or R14. 2007 is the default for both formats.

The Want Curves option has been removed.

The command line utility AlToDWG uses -v for the new version option. Possible values are 2007, 2004, 2000, or 14 for DWG, and 2007, 2004, 2000, or 12 for DXF.

Command line utilities

The following command line utilities were present in AS 2009 but were not documented.

- JTOpenToAl lets you translate Jupiter (JT) files to AliasStudio wire files. Type JTOpenToAl -h for options.

- AlToRef lets you translate files (any format we support) to AliasStudio reference (.wref) files. Type AlToRef -h for options.
Fixed Limitations in AliasStudio

Operating system and hardware

- The spaceball is now supported on the 64-bit version of the operating system (both XP and Vista).

Documentation

- Broken context-sensitive links from Help > What’s This? have been fixed.
- Help can now be invoked from the Canvas Layer Editor by clicking the right mouse button within the editor.

General

- The Top, Front, and Right views should no longer move drastically out of the way when a construction plane is set.
- When you open a wire file that cannot find some of its reference (.wref) files, we now provide an OK to All button in the warning dialog box. If you have several missing reference files (perhaps because the directory containing them has moved or been deleted), you no longer have to click OK for each one.
- AliasStudio used to crash when creating or duplicating an Alternative in the Reference Manager while having at least two stages with reference data opened. This has been fixed.
- The scroll bar in the Reference Manager did not work after you changed the view from the View menu. This has been fixed
- The list of translated files in the Reference Manager always became expanded after switching views. The expansion state of the translated files list is now maintained across view changes.
- In SurfaceStudio, we now automatically switch the workflow to Default if the user checks back in his Visualization license (Preferences > License Options), since the Visualize workflow is then no longer available.
- Deleting all modeling windows, then choosing some of the layouts from Layouts > All windows repeatedly was creating duplicate windows. This has been fixed.
- Using a preset window layout (from Layouts > All windows menu) was closing all windows except those used in the layout. We now leave existing windows alone, as we did in version 13.0.

- If using File > Checkpoint with the Clear on Exit option turned on, and setting the CheckPoint File Location (in Preferences > General Preferences) to a location containing other files and/or folders, those were cleared along with the checkpoint files. AliasStudio now creates a sub-folder called CheckPoints below the CheckPoint File Location where it writes the checkpoint files. This is the folder which is cleared.

- If a window has its aspect ratio locked, changing the window layout (through the Layouts > All windows menu) now maintains the aspect ratio.

- The default views available from the Layouts menu have been changed to be more consistent with previous versions of AliasStudio. Errors in labeling have been fixed so that window names should match the menu selection. As well, the default view in the Perspective window is oriented correctly to match previous releases of AliasStudio.

- Incorrect layer visibility control with Cut/Copy operations has been addressed.

- A degradation in the performance of visual cross sections, when the object is in a layer with symmetry turned on, has been fixed. Performance should be equivalent or slightly better than that of AliasStudio 2008 SP1.

**User Interface**

- The incorrect labeling of the 'Landscape' and 'Portrait' resolutions in the pull-down menu from the size/position icon in the window title bars has been fixed. You must remove your `\user_data\<project_name>\misc\resolutions` file(s) (they will be regenerated) in order to see the correct names.
As in version 2008, if you select only curves, the Isoparm U/V and Curvature V check boxes are greyed out in the Control Panel, and only the Curvature U check box is available.

Selecting the option box from Marking Menu items in the overflow area was causing a delay. This has been fixed.

Clicking in the Category menu inside the Windows > Information > Layer categories window was causing a crash on Windows XP x64. This has been fixed.

Sketching

Copying and pasting folders of layers across canvases or stages now works correctly. The integrity of the folders is preserved.

Black artifacts associated with PaintEdit > Layer effect > Sharpen layer do not occur anymore.

Hide and Show brush modes now work correctly with texture brushes.

When the Brush Options window was opened for Paint > Pastel Soft the first time, the Brush Mode was blank and the color chip was missing. This has been fixed.

Geometry sitting on the construction plane was being drawn below the canvas when using a Brush tool, and flickering through when mousing up and down while painting. This has been fixed so that geometry always draws on top of the canvas plane.
Modeling

- Trying to curve snap to a curve-on-surface very near the boundary of the surface was crashing AliasStudio. This has been fixed. We have also improved the accuracy of this operation so that the position snapped to coincides better with the cursor location, even when closely zoomed in.

- Using Object Edit > Align > Symmetry Plane Align with a blend point picked, and then deleting the picked objects was crashing AliasStudio. This has been fixed.

- A crash in Object Edit > Align > Align, which most often happened when a curve or a surface with history was selected as the input, has been fixed.

- The value of the Partial option (on/off) in the Align tool can now be saved on a shelf.

- When using Object Edit > Align > Align, a trimmed input surface will no longer lose its shape if you change the number of spans in the Explicit Control section of the option window.

- When using Object Edit > Align > Align, the input surface will now keep its shape when you increase its degree after the initial Align operation.

- When using Object Edit > Align > Align, pressing Accept when the Influence option is set to 1.0 will now reset the Influence value to 0. This will allow the input surface to keep its shape.

- The Evaluate > Parting line tool will now recalculate the parting line curves-on-surface if you flip the orientation of the surface.

- When using the Move CV tool (from the Control Panel), picking an object that does not have its CVs and hull showing now turns on the CVs/hull so that you can move the CVs.

- The Max. Spans Factor is now being respected when offsetting periodic surfaces with Object Edit > Offset.

- Crashes experienced during some Trim (Surface Edit > Trim > Trim surface) and Untrim (Surface Edit > Trim > Untrim) operations have been fixed.

- Crashes experienced during some Round (Surfaces > Round) operations have been fixed.

- Crashes experienced when using Chain Select on certain curves-on-surface have been fixed. This could happen with any tool using that option, for example Freeform Blend.
- Using **BlendCrv Tools > Blend curve create** to attach a blend curve to a trim edge on surfaces with degenerate curves-on-surface used to crash AliasStudio. This has been fixed.

- Crashes experienced during some Fillet operations have been fixed.

- The **Segment** and **Slice** options in the **Curve Edit > Curve section** tool work again in DesignStudio.

- **Mesh > Mesh Patch** now restores the view properly when pressing the **Patch View** button in orthographic views.

- The **Object Edit > Offset** tool was always placing the offsetted geometry at the origin if the input geometry was selected with Pick Curve or Pick Surface. This has been fixed.

- We've improved the edge quality produced by the **Surfaces > Rolled edge > Fillet flange** tool, resulting in reduced waviness of the resultant surface.

- We now have better gap detection with the **Surfaces > Round** and **Surfaces > Surface fillet** tools. This prevents end-to-end filleting conditions from extending too far and potentially bridging small gaps.

**Visualization**

- Drawing symmetric reference data using **WindowDisplay > Hardware Shade** with a transparent shader caused flickering when tumbling. This should no longer happen.

- Settings in the **WindowDisplay > Hardware Shade** option box no longer appear blank when turning on the **Use Embedded File Settings** option.

- The **Multi-Color** shader in **Diagnostic Shading** no longer displays artifacts when turning on the **Reflections** option.

- We have fixed problems with the **Deviation Map** and **Contact Analysis** diagnostic shading tools displaying incorrect results.

- We have addressed several performance issues that occurred when using **Diagnostic Shading** on models with layer symmetry.

- We have addressed problems in the calculation of **Diagnostic Shading** texture coordinates for symmetric objects which was causing several of the diagnostic shaders to display incorrect results for those objects.
A degradation in the performance of Diagnostic Shading’s Curvature Evaluation shader, when shading large meshes, has been fixed. Performance should be equivalent or slightly better than that of AliasStudio 2008 SP1.

**Rendering**

- Software raytracing performance may be significantly improved when using an Nth Root value of 3 for the Nth Root Voxel Resolution option in the Raytracing Memory Options section of Render Globals, and turning on Limit edge length in the Global Quality Parameters section. Start with the default Max edge length of 10 cm and modify as necessary to improve rendering time.

**Data Transfer**

- The VRML exporter is now capable of exporting meshes.
- AliasStudio's OBJ importer can now handle larger files with much larger polygon counts.

**Fixed Limitations in StudioViewer**

- The two circular annotation stamps had their logic reversed. The large stamp actually created a small stamp, and vice versa. This is now fixed.
- Display > Shadows did not toggle the shadows on or off. As well, wire files saved in AliasStudio with shadows turned on would not display shadows when opened in StudioViewer. This has been fixed.
- The Single Color diagnostic shading mode in Display > Editor now shades the model properly.