

Autodesk Alias 2018

What's New

April 2017

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Contents

Chapter 1	What's New in Alias 2018	1
Chapter 2	General improvements	3
Chapter 3	Modeling	11
Chapter 4	Data Transfer	21
Chapter 5	Fixed Limitations	23
Chapter 6	What's Where...	25

What's New in Alias 2018



We are pleased to provide you with the latest version of Autodesk® Alias™ software.
This guide leads you through the new and changed features of Alias 2018.

General improvements

2

Describes general changes and new features.

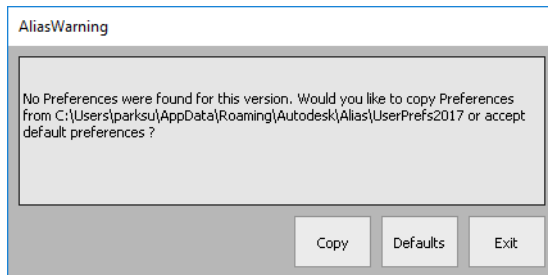
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User preferences for Mac OS are located in
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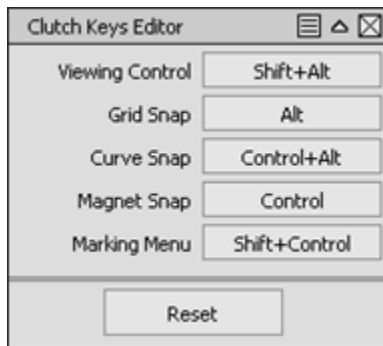


Choose **Defaults** to accept the new default preferences.

Customizable keyboard controls

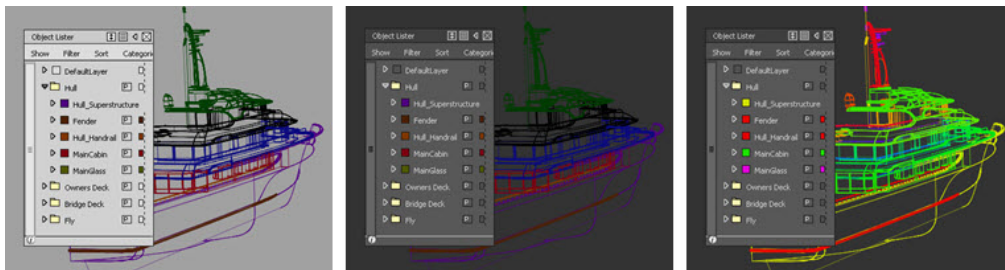
You can now redefine the modifier key combinations (clutch keys) you use for viewing, snapping, and marking menus. Being able to customize these keys makes switching between different products easier (for example, between Maya and AutoStudio) and allows for personal preferences.

Choose Preferences > Interface > Clutch Keys Editor ☐.



Random Layer Colors enhancements

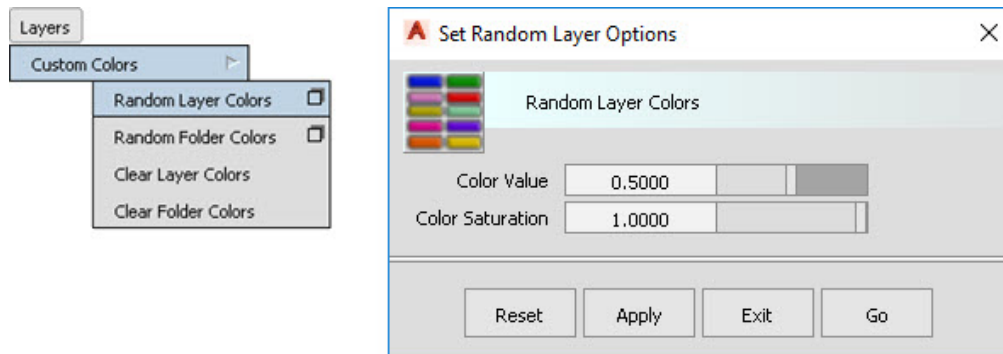
The Random Layer Colors command helps ensure the visibility of layers when sharing files, for example when someone with a light background and dark layers gives a file to someone with a dark background. The command assigns new colors to all layers.



Random Layer Colors applied in left image

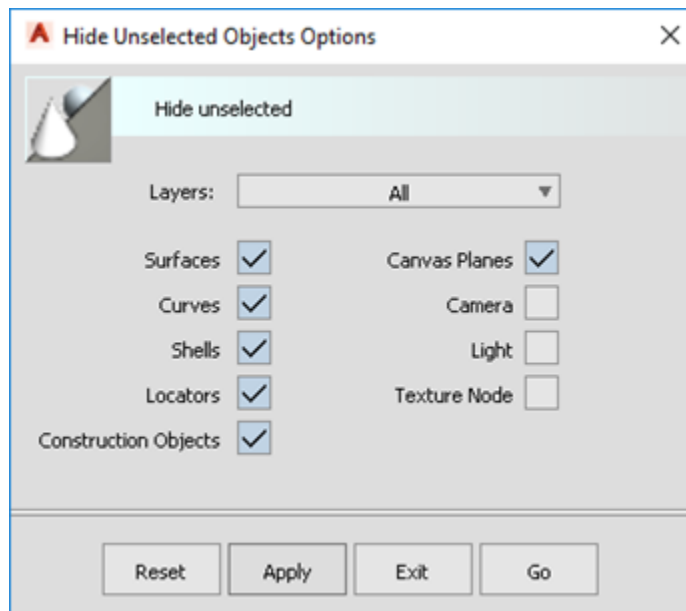
To give more control over the results, we've added the following.

- New Random Folder Colors command (Layers > Custom Colors > Random Folder Colors)
- Two new commands to clear custom colors (Layers > Custom Colors > Clear Layer Colors and Layers > Custom Colors > Clear Folder Colors)
- Ability to apply the random colors only to selected colors
- Ability to adjust Color Value to create light or dark colors
- Ability to adjust Color Saturation to create pale or intense colors



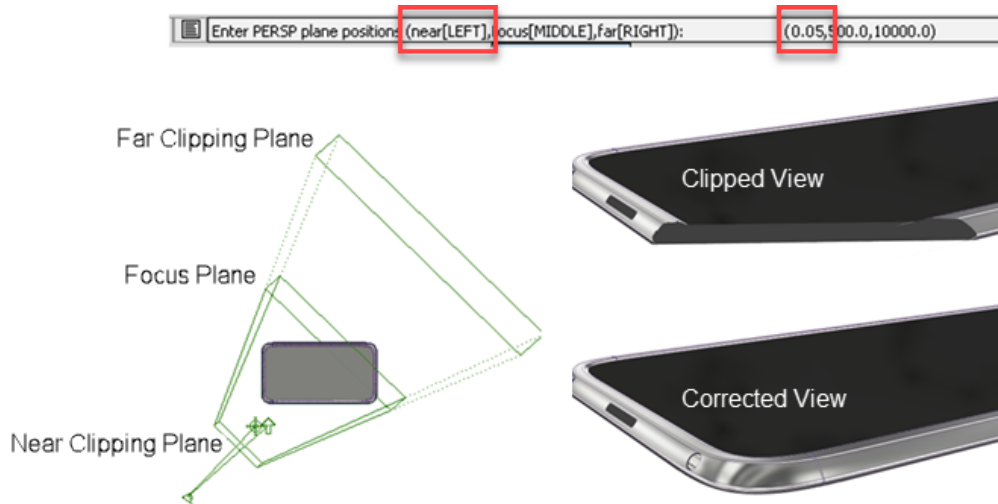
New Hide Unselected options

You can now filter which geometry to display using ObjectDisplay > Hide Unselected. Select which unselected geometry to hide (Surfaces, Curves, Shells, Locators, Construction Objects, Canvas Planes), and which layers the unselected objects are on (All, Same Layers, Selected Layers, Construction Layer, Pickable Layers). For example, you could hide unselected curves on selected layers, but have all other objects visible.



Smaller near-clipping value for Perspective camera

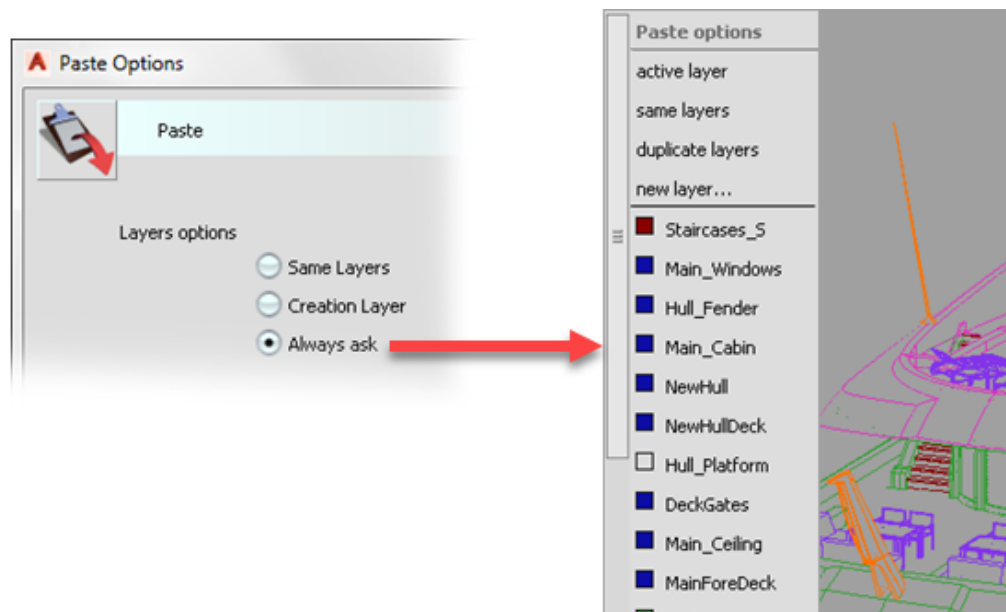
You can now set Near clipping plane values for the Perspective camera to less than 0.1 mm allowing small details to be viewed more easily.



Paste Layer window enhancements

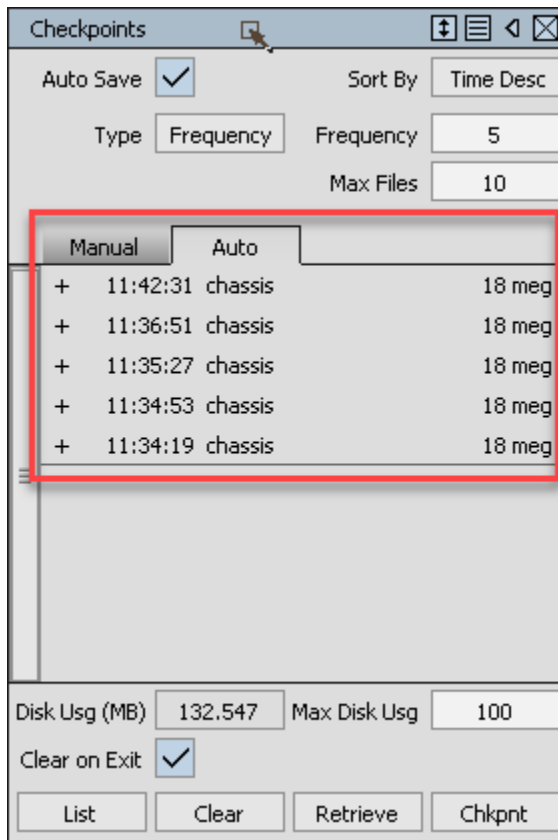
When copying and pasting in files that have lots of layers, it can be useful to use the Always Ask option in the Paste Options box to choose which layer to paste the data into.

Now when you select Always Ask, the layer selection popup that appears when you paste displays layer colors, displays the active layer, and scrolls when the list has many layers.



Improved Checkpoints option box

We made some changes to the Checkpoints window to improve its use:



- You can now retrieve Autosaved files from the Checkpoints window as well as the manually created checkpoint files.
Autosaved files are listed on the new Auto tab and manually created files are listed on the Manual tab. These tabs expand and are scrollable when you resize the window.
- Fixed the Disk Usq field so that it updates properly.
- Removed the Sort By Default option, which was the same as the Time Asc option.

Stage name enhancements

- When you save a wire file using Save As, the stage name now changes to correspond with the wire file name. If you prefer the original behavior, where the stage name does not change, de-select the new **Rename Stage on Save** option in Preferences > General > System.

- The stage name no longer includes the "wire" suffix.

Modeling

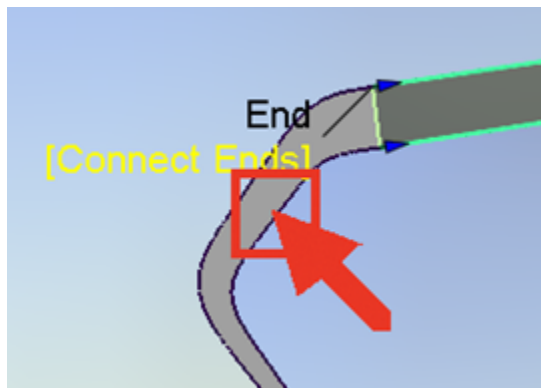
3

Describes changes and improvements to modeling tools.

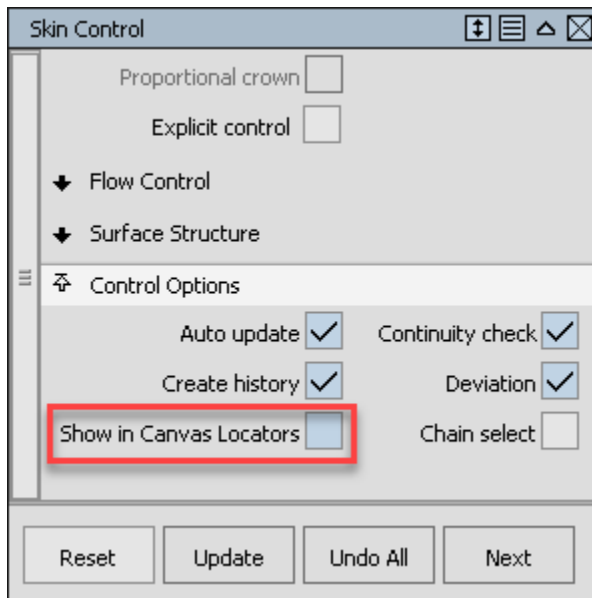
Skin tool enhancements

Ability to hide in-canvas controls

The in-canvas control text can sometimes get in the way of picking edges.

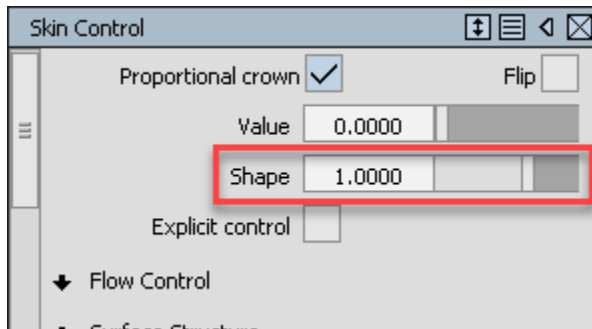


You can now hide the text in Skin manipulator by de-selecting the Show in Canvas Locators option under Control Options in the Skin control box.

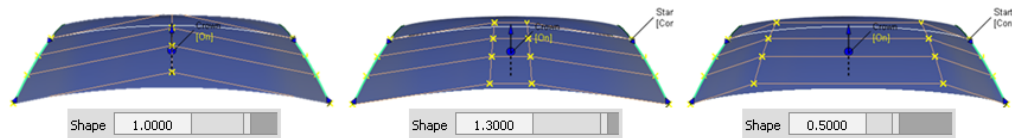


New Proportional Crown Shape control

You can now refine the shape of the skin surface when using the Proportional Crown option.



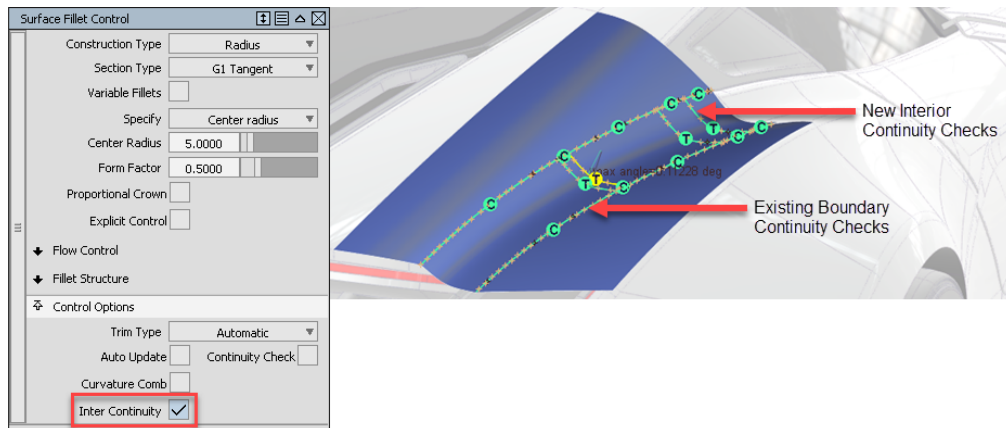
The standard Proportional Crown setting uses a degree 2 surface with a single row of CVs in the center to create an arc-like shape. If you need a more subtle shape, for example, to add some acceleration at the outside edges of the surface, you can use the new Shape slider to increase the surface to degree 3, giving two central rows of CVs. Shape values greater than 1 move these CVs toward the center of the surface, less than 1, toward the edges.



Surface Fillet tool enhancements

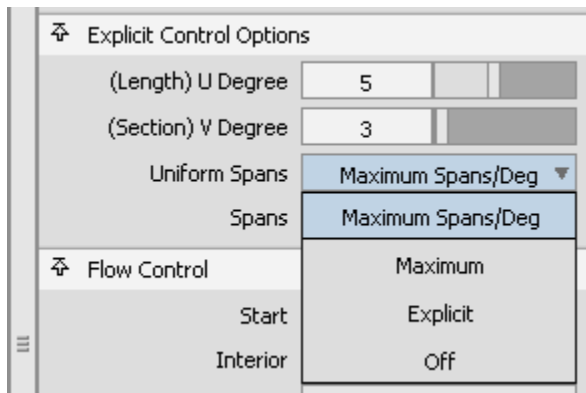
Inter Surface Continuity check

Surface Fillet can now check the continuity between surface patches when multiple surfaces are created. This is particularly useful when you use the Bezier option to create single-span surfaces, as you will typically be working at the production quality level and so you'll want to watch out for and fix any small continuity errors.



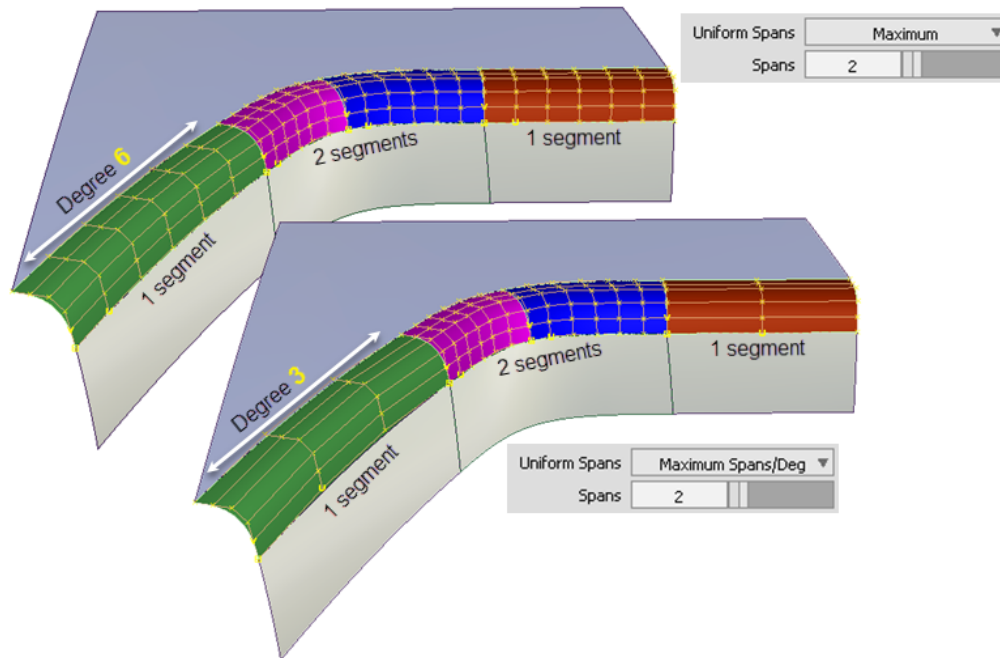
Variable degree surfaces

We added a new **Max Spans/Deg** option to **Explicit Control** that creates the lightest possible surface structure to achieve continuity.



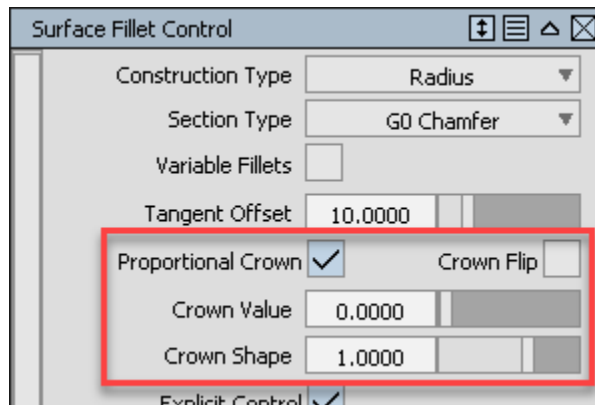
Like the Maximum option, it uses the specified number of spans, or less if it achieves continuity. It also reduces the degree of the surfaces if the continuity can be achieved with a simpler surface. Higher degree is used for areas of high curvature, and lower degree for less complex shapes.

This is particularly useful when working with the Bezier option and aiming to create a clean set of surfaces with maximum control for the CV layout.



Proportional Crown for G0 Chamfers

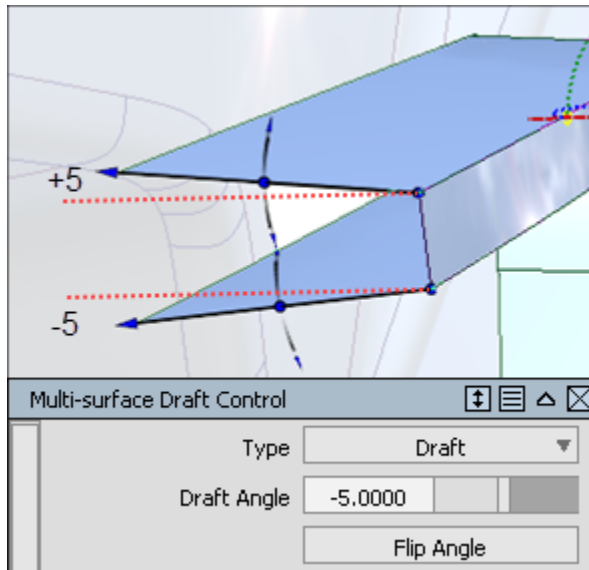
Proportional Crown, which is available in the Skin, Freeform Blend, and MS Draft tools, is now also available in the Surface Fillet tool for G0 chamfers. It includes the new Shape control (see Skin Tool Enhancements).



Multi-Surface Draft tool enhancements

New Flip Angle button

Instead of typing a minus sign to change the draft angle from positive to negative, you can now quickly flip the draft angle using the new Flip Angle button in the Multi-Surface Draft tool control box.



Shape control for Proportional Crown

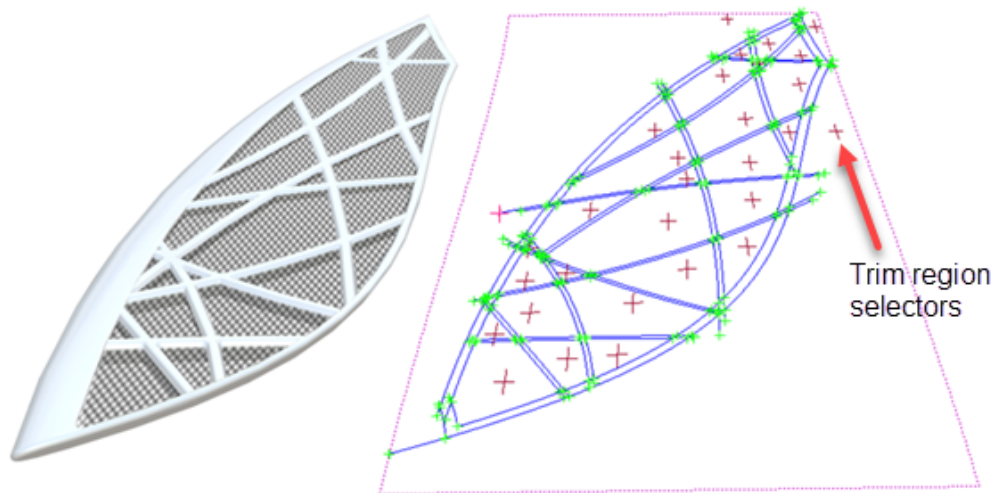
The new Shape control for **Proportional Crown** added in the Skin tool is also available in Multi-Surface Draft (see Skin Tool Enhancements).

Trim enhancements

Trim regions remembered

Trim region selectors are now saved and restored after untrimming. Previously, when you untrimmed a surface, all the trim locators you selected were lost and you would have to reselect all the regions each time you made a change and retrimmed. Now these selections are remembered even after the surface is untrimmed, which means you only have to add or move the selection locator for the change you are making. You do not have to reclick all the original ones.

If you do not want the trim regions to be remembered, de-select Show Last Selection in the Trim control window.



Remove trim locators

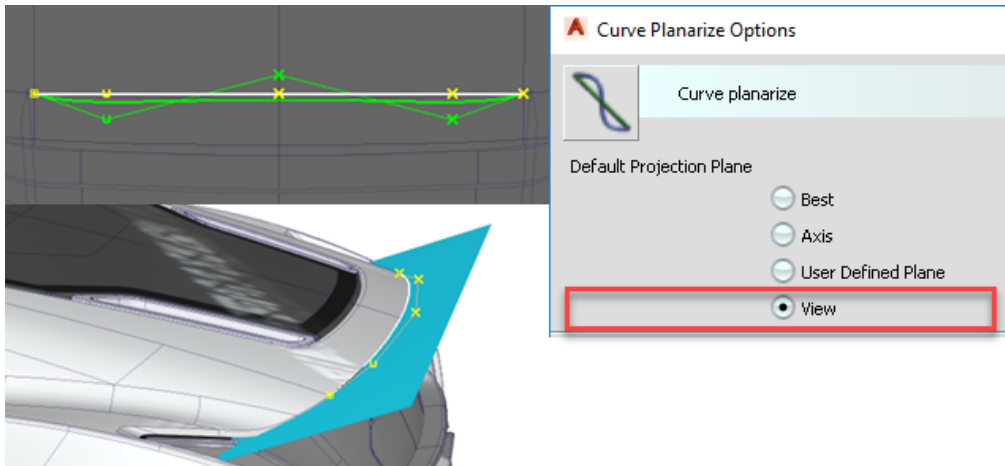
You can now Shift-click to remove trim locators.

Freeform Blend enhancement

The new Shape control for **Proportional Crown** added in the Skin tool is also available in Freeform Blend (see Skin Tool Enhancements).

View-based Curve Planarize

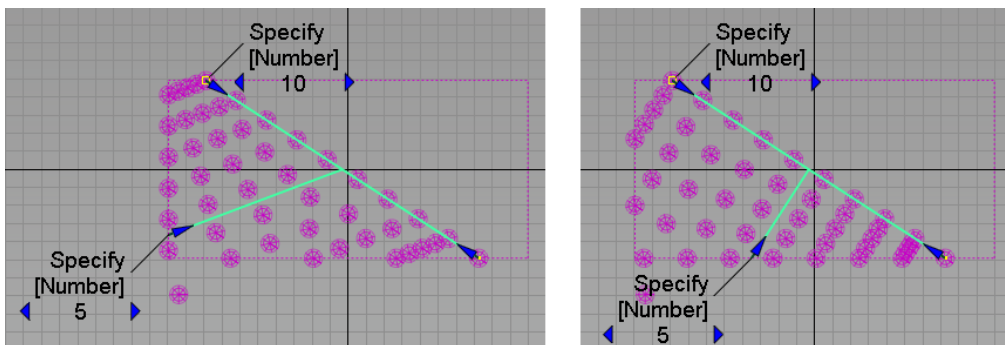
In the Curve Planarize tool, we added the View option to planarize a curve based on a view. The tool is now consistent with the Planarize Hull tool.



Surface Array enhancements

World space Perpendicular direction for secondary pattern

You can now set the preferred coordinate space (UV or 3D) when creating a secondary array in the Perpendicular direction. Selecting UV (the previous default) can give non-perpendicular results in world space coordinates depending on the shape of the surface (the angular difference increases with the ratio of the extents of the surface in U and V directions). Selecting 3D gives perpendicular results in world space.



Left: UV space, Right: 3D space

Number and spacing of copies

You can now specify both the number and the spacing of the copies.

Specify	Number+Spacing ▼	
Number Per Side	Spacing	
Spacing	Number	
Positive End	Number+Spacing	
Negative End	1.0000	<div></div>
Scale	1.0000	<div></div>
Offset	0.0000	<div></div>

Data Transfer

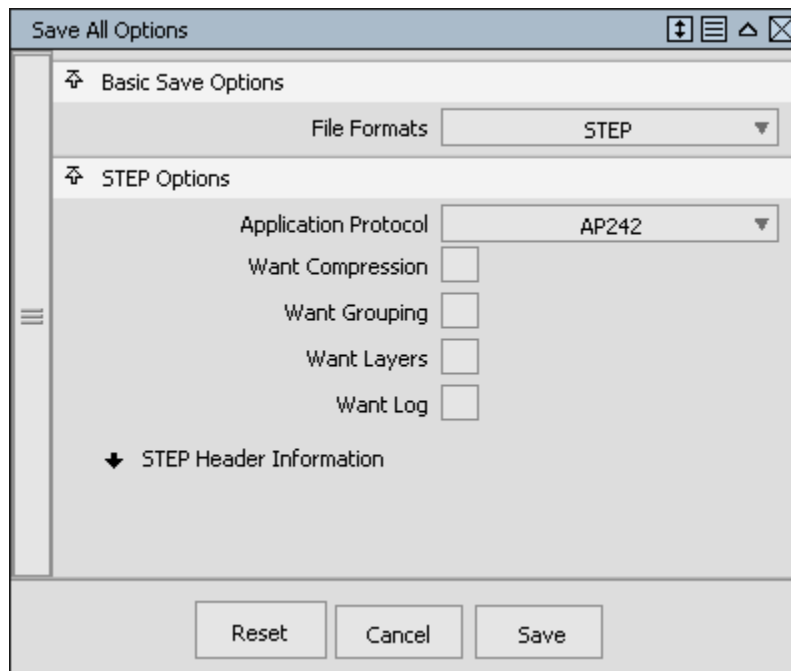
4

Describes changes and new features in data transfer.

STEP AP242 support

STEP export supports STEP AP242, a single standard that combines all the functionality covered by AP203 and AP214 standards.

With the AP242 standard, you can compress on export, preserve layers and grouping information, and generate a log file.



DWG support

We restored support for the input and input of DWG format drawings.

Hardware Shade turned off during file open and import

In previous versions of Alias, if you had Hardware Shade applied to your model and then opened or imported another file, you would have to wait for the imported geometry to be shaded before you could continue working. This could take some time if you were importing heavy engineering data with Hardware Shade turned on.

Now Alias automatically turns Hardware Shade off when you open or import new geometry, reducing the time before you can interact with the model again.

Improved interoperability between Alias and VRED

Changes to VRED have resulted in improvements to the interoperability between Alias and VRED.

- Alias Variants (or bookmarks) now translate into VRED 2018 as Vsets, with a few limitations:
 - Visibility needs to be set at the group node level rather than at the leaf node (surface level).
 - Visibility of lights does not transfer, but can easily be set up again within VRED.
 - Alias switch shaders do not have an equivalent in VRED, so they do not transfer.
- Alias transform pivot points translate to VRED, making it easier to pose the scene.
- Lights in an Alias scene are translated to VRED.

Fixed Limitations

5

Lists important customer issues that have been addressed in this release.

- Profile tool edge Align does not work. (ALS-1321)
- Surface Array works incorrectly if the Secondary Number/Spacing is beyond/below certain value. (ALS-1798)
- Cross Section Tool curve plot is inverted in some cases. (ALS-1783)
- Delete Construction History will only delete history to parent and not to child. (ALS-1670)
- Look at defect in some view angles. (ALS-2133)
- Point of Interest Dolly may be broken. (ALS-1456)
- Pick > Component > Trimmed fails to select. (ALS-1925)
- 4K resolution issues. (ALS-1468)
- ATF STEP export options are now properly set from the Save As option box. (ALS-2175)
- Setting the construction layer inside nested invisible folders now makes the construction layer visible. (ALS-2165)
- Fix layers and folders merging when parent folders have different names. (ALS-1462)
- IGES import/export does not work when using special characters in the path. (ALS-1985)
- Cannot open CATIA file with special characters in name or path. (ALS-1424)

What's Where...

6

New tools

The tools listed in this section are new in this release of Alias.

- **Preferences > Interface > Clutch Keys Editor**
- **Layers > Custom Colors > Random Folder Colors**
- **Layers > Custom Colors > Clear Layer Colors**
- **Layers > Custom Colors > Clear Folder Colors**

