

Product design and Class-A surfacing software

# 2019 Feature Comparison

Applications	Alias Design	Alias Surface	Alias AutoStudio
VRed Design	-	-	✓
Speedform	-	-	✓
Sketchbook <i>Shipped with 2016 product.</i>	-	-	✓
Maya <i>Shipped with 2016 product.</i>	-	-	✓
Automotive Asset Library	-	-	✓

Concept Exploration	Alias Design	Alias Surface	Alias AutoStudio
Paint and Canvas Tools	✓	-	✓
Overlay Annotation	✓	✓	✓

Sketching/Manipulation	Alias Design	Alias Surface	Alias AutoStudio
Raster brushes	✓	-	✓
Annotation pencils	-	✓	-
Custom texture brush	✓	-	✓
Effect brushes	✓	-	✓
Vector/Raster Hybrid (editable shapes)	✓	-	✓
Symmetry	✓	-	✓
Gradient Fill	✓	-	✓
Raster Text	✓	✓	✓
Image warping (transforming)	✓	-	✓
Color Replace	✓	-	✓
Image Cropping	✓	-	✓
Sketch over 3D data (underlay)	✓	-	✓
Canvas Pivot Point	✓	✓	✓

Mark-up brushes over 3D	-	✓	-
Project sketch on 3D geometry	✓	-	✓
Import Image	✓	✓	✓
Save images <i>*screen and window export</i>	✓	*	✓

Modeling	Alias Design	Alias Surface	Alias AutoStudio
G2 Continuity	✓	✓	✓
G3 Continuity	-	✓	✓
Explicit Control	-	✓	✓
New Offset tools/new surface offset, new curve offset	✓	✓	✓
Extend	✓	✓	✓
Cut	✓	✓	✓
Align	✓	✓	✓
Symmetrical Align	✓	✓	✓
Smoothing	✓	✓	✓
Query Edit	✓	✓	✓
Attach	✓	✓	✓
Insert	✓	✓	✓
Vectors	✓	✓	✓
Dynamic Planes	✓	✓	✓
Transform Curve Operator	✓	✓	✓
Surface/Curve Orientation	✓	✓	✓
Workflows <i>*partial</i>	✓	*	✓
Preference Sets and Workspaces	✓	✓	✓

Dynamic Shape Modeling	Alias Design	Alias Surface	Alias AutoStudio
DSM: Transformer Rig	-	✓	✓
DSM: Conform Rig	✓	✓	✓
DSM: Lattice Rig	✓	✓	✓
DSM: Bend	✓	✓	✓
DSM: Twist	✓	✓	✓

Array	Alias Design	Alias Surface	Alias AutoStudio
Array	✓	✓	✓
Path Array (replaces Duplicate Place)	✓	✓	✓
Object Array	✓	✓	✓

Surface Evaluation	Alias Design	Alias Surface	Alias AutoStudio
Diagnostic Panel Curvature Evaluation	-	✓	✓
Diagnostic Panel Cross Section Controls	✓	✓	✓
Dynamic Section	-	✓	✓
IsoAngle	-	✓	✓
VRed Nurbs Analysis	-	-	✓
Isophotes	✓	✓	✓
Light Tunnel	✓	✓	✓
Zebra	✓	✓	✓
Surface Evaluation Diagnostic	✓	✓	✓
Draft Analysis	✓	✓	✓

Surfacing Tools	Alias Design	Alias Surface	Alias AutoStudio
Barrel surface	-	✓	✓
Helix surface	-	✓	✓
Cross Section Manager	✓	✓	✓
Min/Max Curvature + Deviation Map	✓	✓	✓
Symmetric Modeling	✓	✓	✓
Stitch and Seam	✓	✓	✓
Freeform Blend	✓	✓	✓
Profile Blend	✓	✓	✓
Planar	✓	✓	✓
Revolve	✓	✓	✓
Skin	✓	✓	✓
Rail - mono, bi, multi	✓	✓	✓
Extrude	✓	✓	✓
Profile Tool	-	✓	✓
Square	✓	✓	✓
Multi-blend (replace n-sided)	✓	✓	✓
Surface Fillet	✓	✓	✓
Symmetrical Fillet	✓	✓	✓
Fillet Flange	✓	✓	✓
Tube Flange	✓	✓	✓
Tubular Offset Flange	✓	✓	✓
Multi Surface Draft	✓	✓	✓
Panel Gap	-	✓	✓
Ball Corner	-	✓	✓

Round	✓	✓	✓
MultiSurface Draft	✓	✓	✓
Curve Network	✓	✓	✓

Surface Manipulation Tools	Alias Design	Alias Surface	Alias AutoStudio
Combine Surfaces	✓	✓	✓
Trim / Untrim	✓	✓	✓
Trim Convert	✓	✓	✓
Stitch / Unstitch	✓	✓	✓
Shell Boolean Operations	✓	✓	✓
Smooth	-	✓	✓
Planarize Hull	✓	✓	✓
Rebuild Surface	✓	✓	✓

Curve Tools	Alias Design	Alias Surface	Alias AutoStudio
Keypoint Curves	✓	✓	✓
Blend Curves	✓	✓	✓
Fit Curve	✓	✓	✓
Sort Sections	✓	✓	✓

Visualization Preparedness Tools	Alias Design	Alias Surface	Alias AutoStudio
Stitch and Seam Tool	✓	✓	✓

Curve Edit Tools	Alias Design	Alias Surface	Alias AutoStudio
Curve Fillet	✓	✓	✓
Freeform Curve Blend	-	✓	✓

Organization Tools	Alias Design	Alias Surface	Alias AutoStudio
Layers	✓	✓	✓
Layer Folders	✓	✓	✓
Reference Manager	✓	✓	✓
Stages	✓	✓	✓
Stage Set	✓	✓	✓

Virtual Reality	Alias Design	Alias Surface	Alias AutoStudio
Alias VR for interior review	-	✓	✓

Viewing Tool	Alias Design	Alias Surface	Alias AutoStudio
Mouse Tumble/Pan/Zoom	✓	✓	✓
View Cube	✓	✓	✓
3D Mouse	✓	✓	✓
Orthographic	✓	✓	✓
Perspective	✓	✓	✓
Perspective with Ortho Faces	✓	✓	✓
Clipping	✓	✓	✓
Calibrated	✓	✓	✓
View Flip	-	-	✓
View Both	-	-	✓
Variant Lister	✓	✓	✓
Look Around Tool	✓	✓	✓

Automotive Simulation	Alias Design	Alias Surface	Alias AutoStudio
Contact Analysis	-	✓	✓
Pedestrian Protection	-	✓	✓

Reverse Engineering	Alias Design	Alias Surface	Alias AutoStudio
Tesselation NURBS to Mesh	✓	✓	✓
Tesselation Cloud to Mesh	-	✓	✓
Displacement Map to Mesh	✓	✓	✓
Mesh Subset/Merge/Cut	✓	✓	✓
Mesh Position	✓	✓	✓
Mesh Patch	-	✓	✓
Mesh Intersect	-	✓	✓
Mesh Smooth	-	✓	✓
Mesh Reduce	-	✓	✓
Mesh Hole Fill	-	✓	✓
Mesh Bridge	-	✓	✓
Mesh Collar	-	✓	✓
Mesh Offset	-	✓	✓
Mesh Stitch	-	✓	✓
Mesh Edge Reconstruct	-	✓	✓
Mesh Extract Theoretical Edges	-	✓	✓
Automated Repair of Meshes	✓	✓	✓
Fit Scan	-	✓	✓
Surface from Mesh	-	✓	✓
Refit Surfaces	-	-	✓

<b>Evaluation and Locators</b>	Alias Design	Alias Surface	Alias AutoStudio
Simple Evaluation Tools	✓	✓	✓
Complete Evaluation Tools	-	✓	✓
Simple Locators	✓	✓	✓
Complete Locators	-	✓	✓
Dynamic Measurement	-	✓	✓

<b>Visualization</b>	Alias Design	Alias Surface	Alias AutoStudio
Hardware Shade	✓	✓	✓
Image-Based Lighting	✓	✓	✓
Ambient Occlusion Calculation	✓	✓	✓
QuickTime VR	✓	✓	✓
Linear Reflection (Hardware Shade)	-	✓	✓
Keyframe Animation	✓	-	✓
Turntable Animation	✓	-	✓
PowerRender	✓	✓	✓
Hardware Ground Plane Reflection	✓	✓	✓
Hardware Self Shadows	✓	✓	✓
Hardware Shader Glow	✓	✓	✓
Dynamic Measurement Tool	✓	✓	✓
Layered Diagnostic Shaders	✓	✓	✓

<b>Direct Launch with Data</b>	Alias Design	Alias Surface	Alias AutoStudio
<b>Maya</b> <i>Send to Maya.</i>	✓	✓	✓
<b>VRED</b> <i>Send to VRED.</i>	-	-	✓

<b>Data Exchange</b>	Alias Design	Alias Surface	Alias AutoStudio
<b>Autodesk Inventor .ipt import *</b> <i>*not available for Mac OS</i>	✓	✓	✓
<b>Autodesk Inventor .iam import *</b> <i>*not available for Mac OS</i>	✓	✓	✓
<b>Autodesk DXF/DWG</b>	✓	✓	✓
<b>Autodesk DWF*</b> <i>*not available for Mac OS</i>	✓	✓	✓
<b>IGES Translator</b>	✓	✓	✓
<b>STEP</b>	✓	✓	✓
<b>OBJ</b>	✓	✓	✓
<b>STL</b>	✓	✓	✓

<b>ZPR*</b> <i>*not available for Mac OS</i>	✓	✓	✓
<b>SolidWorks* **</b> <i>*not available for Mac OS</i> <i>**for translator to work, must have SolidWorks installed and licensed on same machine, or go through Fusion to DWG</i>	✓	✓	✓
<b>ProE Granite*</b> <i>*not available for Mac OS</i>	✓	✓	✓
<b>CATIA V4 only write*</b> <i>*not available for Mac OS</i>	Included	Included	Included
<b>CATIA V5 read and write*</b> <i>*not available for Mac OS</i>	Included	Included	Included
<b>JT Import*</b> <i>*not available for Mac OS</i>	Included	Included	Included
<b>UGNX*</b> <i>*not available for Mac OS</i>	Purchasable	Purchasable	Purchasable
<b>EDF read and write</b>	-	✓	✓
<b>Autodesk Vault integration*</b> <i>*not available for Mac OS</i>	✓	✓	✓
<b>Adobe Illustrator export</b>	✓	✓	✓
<b>Import / Export SAT</b>	✓	✓	✓
<b>Import / Export FBX</b>	✓	✓	✓
<b>Cloud-based Model Share</b>	✓	✓	✓
<b>Connection with other Applications</b>	Alias Design	Alias Surface	Alias AutoStudio
<b>Photoshop Live Link</b>	✓	✓	✓
<b>User Interface Customization</b>	Alias Design	Alias Surface	Alias AutoStudio
<b>Marking Menu Editor</b>	✓	✓	✓