MOHO™

Complete Animation for Professionals and Digital Artists

COMPLETE FEATURE COMPARISON LIST

General	Moho Debut	Moho Pro
Advanced Bone Rigging	X	X
Ultimate Bone Rigging		X
Smart Bones™	Read Only	X
Frame-By-Frame Animation	Read Only	X
Bezier Handles optimized for animation		X
Smart Warp for images and vectors		X
Animation Length	2 minutes (3000 frames)	Unlimited
Motion Tracking	3 Points	Unlimited
Audio Tracks	2 Tracks	Unlimited
Video Tracks	1 Track	Unlimited

Feature		
Physics		X
Poser Scene Import		X
Layers	X	X
Filters for easy layer search		X
Accurate SVG, EPS and AI Vector Import		X
3D layer and object support		X
Layer Referencing		X
Animated Shape Ordering		X
Edit Multiple layers in the Timeline		X
Morph Targets	Read Only	Read and Create
Automatic Image Tracing	Black and White Only	Black and White, Color and Edges
Particles	Read Only	Read and Create
Import Photoshop Files		X
Real-time media connection		X
Absolute and Relative Path for file Handling	X	X
Patch Layers	Read Only	Read and Create
3D Video Rendering		X
Realistic Motion Blur		X
Global Rendering Styles		X
Scripting	X	X
Layer Outline	X	X
64-Bit Architecture		X
GPU Acceleration		X

MOHO COMPLETE FEATURE COMPARISON LIST

	Moho Debut	Moho Pro
Wacom Multi-Touch Support	X	X
JSON Based File Format	X	X
Character Wizard	X	X
Render Cache		X
Separate Moho Exporter Process		X
Separate Render Process		X
Preview Animation		X
Multiple Document Support (Tabs)	X	X
Library optimized for team work		X
Keyboard Shortcut Editor	X	X
Automatic Update Checking	X	X
Activation, Serialization and License Management	X	X

Window Menu	Moho Debut	Moho Pro
Tools	X	X
Beginner's Mode Tools	X	X
Layers	X	X
Timeline	X	X
Style	X	X
Actions		X
Switch Selection	X	X
Library	X	X
Audio Recording	X	X
Poser Parameters		X

	Moho Debut	Moho Pro
Character Wizard	X	X (1)

(1) Character Wizard in Pro lets you use and create reusable actions that can be applied to any character created with the Wizard..

Vector Drawing Features	Moho Debut	Moho Pro
Text	X	X
Select Points	X	X
Transform Points (Translate, Scale & Rotate)	X	X
Translate, Scale & Rotate	X	X
Add Point	X	X
Hide/Show Points	X	X
Delete Edge	X	X
Curvature	increase/decrease curvature only	Complete Bezier handles control
Freehand	X	X
Color Points	X	X
Multi-brushes	X	X
Blob Brush	X	X
Eraser	X	X
Point Reduction	X	X
Rectangle	X	X
Oval	X	X
Arrow	X	X
Shear Points X		X
Shear Points Y		X
Perspective Points H		X

	Moho Debut	Moho Pro
Perspective Points V		X
Bend Points H		X
Bend Points V		X
Noise		X
Magnet		X
Snap to Grid		X
Reset Line Width		X
Random Line Width		X
Variable Width Curve	X	X

Vector Modifiers	Moho Debut	Moho Pro
Peak	X	X
Smooth	X	X
Flip Points Horizontally	X	X
Flip Points Vertically	X	X

Fill Features	Moho Debut	Moho Pro
Select Shape	X	X
Select Multiple Shapes	X	X
Create Shape	X	X
Paint Bucket	X	X
Delete Shape	X	X
Line Width	X	X
Hide Edge	X	X
Stroke Exposure		X

	Moho Debut	Moho Pro
Curve Profile		X
Texture Transparency		X

Fill Modifiers	Moho Debut	Moho Pro
Lower Shape	X	X
Raise Shape	X	X
Color Points	X	X

Bone Features	Moho Debut	Moho Pro
Select Bone	X	X
Transform Bone Tool (Translate, Scale & Rotate)	X	X
Add Bone	X	X
Hide/Show Bones	X	X
Re-parent Bone	X	X
Bone Strength	X	X
Manipulate Bone	X	X
Bind Layer	X	X
Bind Points	X	X
Offset Bone	X	X
Bone Physics		X
Bone Constraints		X
Target Bones	Read Only	X
Smart Bones™	Read Only	X
Smart Actions auto-naming		X
Pin Bones	X	X

	Moho Debut	Moho Pro
Color Bones	X	X
Bone Labels		X
Nested Layer Controls	X	X
Animated Bone Targets		X
Animated Bone Parenting		X
Bone Flipping		X
Ignore IK Constraint		X

Layer Features	Moho Debut	Moho Pro
Set Origin	X	X
Transformation	X	X
Switch Layer	X	X
Rotate Layer X		X
Rotate Layer Y		X
Shear Layer X		X
Shear Layer Y		X
Particle Layer		X
Follow Path	X	X
Poser		X (1)
Image Masking	X	X
Video Tracking	X (2)	X
Audio Layers	X (3)	X
Vector Shape Selector	X	X
Undo/Redo Layers	X	X
Layer Comps		X

	Moho Debut	Moho Pro
Flexi-Binding	X	X
Depth Shifting		X
Fade Unselected Layers		X
Multiple Layer Editing	X	X
Colorize Layer	X	X
Comments and Tags for Layers		X
Frame-By-Frame Animation		X
Layer Referencing		X
Animated Shape Ordering		X
Group with Selection Layers		X
Normalize Layer Scale		X

(1) Requires Poser 7 or newer (2) Limited to 3 tracking points (3) Limited to 2 audio layers

Layer Modifiers	Moho Debut	Moho Pro
Flip Layer Horizontally	X	X
Flip Layer Vertically	X	X

Layer Types	Moho Debut	Moho Pro
Vector	X	X
Image	X	X
Bone	X	X
Switch	X	X
Group		X
Group with Selection		X
Particle		X

	Moho Debut	Moho Pro
3D		X
Physics (Layer property)		X
Note		X
Audio	X	X
2D to 3D Layer Conversion		X
Patch		X
Layer	X	X

Camera Features	Moho Debut	Moho Pro
Track Camera	X	X
Zoom Camera	X	X
Roll Camera	X	X
Pan/Tilt Camera	X	X
Orbit Workspace		X
Depth of Field		X

Workspace Features	Moho Debut	Moho Pro
Pan Workspace	X	X
Zoom Workspace	X	X
Rotate Workspace		X
Orbit Workspace		X

Timeline Features	Moho Debut	Moho Pro
Keyframes	X	X
Playback Controls	X	X

	Moho Debut	Moho Pro
Animation Channels	X	X
Hide/Show Channels	X	X
Ruler	X	X
Auto Freeze Keys	X	X
Mute Channels		X
Separate Channels Dimensions		X
Onionskins		X
Graph Mode		X
Smooth Interpolation		X
Linear Interpolation		X
Ease In/Out Interpolation		X
Bezier Interpolation		X
Step Interpolation		X
Noisy Interpolation		X
Bounce Interpolation		X
Elastic Interpolation		X
Stagger Interpolation		X
Sequencer	X	X
Keyframe Hold Duration	X	X
Colored Keyframes	X	X

Action Features	Moho Debut	Moho Pro
Store Reusable Animation		X
Import/Export Actions		X
Transform Actions to Relative		X

	Moho Debut	Moho Pro
Edit Reusable Animation		X
Delete Reusable Animation		X

Style Features	Moho Debut	Moho Pro
Save Style		X
Pattern Brush	X (1)	X
Blur	X	X
Threshold	X	X

(1) Pro version contains more brushes

Preferences	Moho Debut	Moho Pro
Options	X	X
Editor Colors	X	X
Easy Options to Personalize the GUI	X	X
GUI Color Themes	X	X

Project Settings	Moho Debut	Moho Pro
Save Project Settings	X	X
Edit Dimensions	X	X
Background Color	X	X
XMP metadata for Projects		X
Quickly Create complex workspaces using personalized templates		X
Depth of Field		X
3D Camera		X
Stereo Rendering		X
Sort layers by Depth	X	X

	Moho Debut	Moho Pro
Sort by True Distance	X	X
Noise Grain		X
Up to 120 Frames/Second Maximum		
Maximum export size (pixels)	900 x 900	9000 x 9000
Maximum number of frames	3000	Unlimited

Content	Moho Debut	Moho Pro
Built in Content	X	X
Third Party Content	X	X
3D Objects		X
Character Wizard	X	X

Scripts	Moho Debut	Moho Pro
3D		X
Camera		X
Draw		X
Image Sequences		X
Layer Effects		X
Particle Effects		X
Sound		X
Warp		X
Visibility		X
Script Writing		X

View	Moho Debut	Moho Pro
Grid		X
Adjust Grid Size		X
Side by Side View		X
Over Under View		X
Four-Way View		X
Display Quality		X
Advanced Current Layer View		X

Import	Moho Debut	Moho Pro
JPEG	X	X
BMP	X	X
PSD	X (1)	X (2)
PNG	X	X
TGA	X	X
TRACING IMAGE		X

VECTOR FORMATS

	Moho Debut	Moho Pro
EPS		X
AI		X
SVG		X

3D FORMATS

	Moho Debut	Moho Pro
OBJ		X
Poser Files and Scenes (Poser 7 or newer)		X

SOUND FORMATS (3)

	Moho Debut	Moho Pro
WAV (Mac and Windows)	X	X
AIFF (Mac and Windows)	X	X
MP3 (Mac and Windows)	X	X
M4A (MPEG-4)	X	X
MOVIE FORMATS		
MOV (Mac and Windows)	X	X
AVI (4)	X	X
MP4	X	X
MOHO FORMATS		
MOHO File Format	X	X
JSON Based File Format	X	X
Anime Studio Formats up to version 5	X	X
MotionArtist File Support	X	X

(1) Layered using Moho script. (2) Directly through File menu. (3) Debut is limited to work with 2 audio layers. (4) AVI Import works on Windows, and on Macintosh systems depending on codecs. If you can play the AVI file in QuickTime on a Mac, you should be able to import it into Moho.

Export Formats	Moho Debut	Moho Pro
IMAGE FORMATS		
JPEG	X	X
BMP	X	X
PSD		
PNG	X	X
TGA	X	X
Batch Image Export		X
Animated GIF		X

VECTOR FORMATS

SVG		X
SVG Sequence		X

MOVIE FORMATS

SWF (1)	X	X
MOV (Mac and Windows)	X	X
AVI (Windows Only)	X	X
MP4	X	X
Sequential JPEG		X
Sequential BMP		X
Layered Sequential PSD		X
Sequential PNG		X
Sequential TGA		X
Batch Movie Export		X

TV FORMATS

NTSC Format		X
PAL		X
HD Movies		X

3D FORMATS

OBJ		X

GAME FORMATS

FBX		X

(1) SWF: Vector animations only; image layers can be used as long as they are not warped by bones.

Upload Features	Moho Debut	Moho Pro
Upload to Facebook®	X	X
Upload to YouTube™	X	X

Optimization Features	Moho Debut	Moho Pro
Document Gathering		X
64-bit Architecture		X
GPU Acceleration		X
Render Cache	X	X
Separate Batch Export Process		X
Separate Render Process		X
Preview Animation		X
Multiple Document Support (Tabs)	X	X
Keyboard Shortcut Editor	X	X
Automatic Update Checking	X	X
Activation, Serialization and License Management	X	X

Note:
- 64-bit Windows does not support QuickTime. As such, there are import and export limitations with the .mov format. While the application supports the import of .mov files that use a general codec (like H.264 or AAC) by using the Windows Media Foundation library, other QuickTime specific codecs are not supported. Also, QuickTime allows for the import of audio formats like .mid, .midi, .m4p and .m4b. If you require the use of QuickTime, then we recommend using the 32-bit Windows version of Anime Studio Pro 9.5.
- When exporting a QuickTime movie with alpha channel on Mac OS, the resulting movie always has a premultiplied alpha channel, regardless of the checkbox that says "Do not premultiply alpha channel."
- When importing QuickTime movies with alpha channels, there is a new option in the Image tab of the Layer Settings dialog labeled "Premultiplied alpha". This is not documented in the manual, but allows Anime Studio to support both

premultiplied and straight alpha channels. (Previously, Moho only supported straight alpha channels.)

- QuickTime on 32-bit Windows does not handle paths that contain Unicode characters. To workaround this issue, Moho will copy a media file with Unicode characters to a temporary folder before it is opened. This temporary media file will be deleted when it is no longer needed. Due to this extra step, very large media files with Unicode characters in the path will take longer to import. Renaming or moving the source media to a path that has no Unicode characters will avoid this performance issue.

- If you don't want any cropping, select a preset that does not include a resolution in its name.