

Appendix A: Debut vs Pro Comparison

General & Animation Features

Feature	Moho Debut	Moho Pro
Realistic Motion Blur	No	Yes
Bone Rigging	Yes	Yes
Smart Bones	No	Yes
Frame-by-Frame Animation	Yes	Yes
Animation Length	2 minutes (3000 frames)	Unlimited
Motion Tracking	3 points	Unlimited
Audio Tracks	2 tracks	Unlimited
Video Tracks	1 track	Unlimited
Physics	No	Yes
Layers	Yes	Yes
3D layer and object support	No	Yes
Layer Referencing	No	Yes
Animated Shape Ordering	No	Yes
Morph targets	Read Only	Read and create
Particles	Read only	Read and Create
Import Photoshop Files	Yes (1)	Yes (2)
Real-time media connection	No	Yes
Patch Layers	Read only	Read and create
3D Video rendering	No	Yes
Global Rendering Styles	No	Yes
Scripting	No	Yes
Layer Outline	Yes	Yes
GPU Acceleration	No	Yes
Wacom Multi-Touch Support	Yes	Yes
Character Wizard	Yes	Yes
Render Cache	Yes	Yes
Separate Moho Exporter Process	No	Yes
Separate Render Process	No	Yes
Preview Animation	No	Yes
Multiple Document Support (Tabs)	Yes	Yes
Keyboard Shortcut Editor	Yes	Yes
Automatic Update Checking	Yes	Yes
Activation, Serialization, and License Management	Yes	Yes

(1) Using a script for Photoshop provided with Moho's installation.

(2) Import directly through File menu.

Usability Features

Feature	Moho Debut	Moho Pro
Absolute and relative path file handling		X
XMP metadata for projects and assets		X
Personalized templates for workspaces		X

Window Menu

Feature	Moho Debut	Moho Pro
Tools	X	X
Beginner Mode Tools	X	
Layers	X	X
Layer Comps		X
Timeline	X	X
Style	X	X
Light		X
Bitmap Color	X	X
Actions		X
Keyframe	X	X
Library	X	X
Audio Recording	X	X
Character Wizard	X	X (1)
Library	X	X
Blend Morphs	X	X
Layer Settings	X	X
Switch Selection	X	X

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

Vector Drawing Features

Feature	Moho Debut	Moho Pro
Bezier Handles for Vectors	View only	View and edit
Smart Warp for Images and Vectors		X
Text	X	X
Select Points	X	X
Transform Points (Translate, Scale, and Rotate)	X	X

Feature	Moho Debut	Moho Pro
Add Point	X	X
Hide/Show Points	X	X
Delete Edge	X	X
Curvature	X	X
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
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

Feature	Moho Debut	Moho Pro
Peak	X	X
Smooth	X	X
Flip Points Horizontally	X	X
Flip Points Vertically	X	X

Fill Features

Feature	Moho Debut	Moho Pro
Select Shape	X	X
Select Multiple Shapes	X	X
Create Shape	X	X

Feature	Moho Debut	Moho Pro
Paint Bucket	X	X
Delete Shape	X	X
Line Width	X	X
Hide Edge	X	X
Stroke Exposure		X
Curve Profile		X
Texture Transparency		X

Fill Modifiers

Feature	Moho Debut	Moho Pro
Lower Shape	X	X
Raise Shape	X	X
Color Points	X	X

Bitmap Features

Feature	Moho Debut	Moho Pro
Freehand Bitmap Brush Tool	X	X
Default Pack of Bitmap Brushes	X	X
Create Custom Bitmap Brushes		X
Edit Bitmap Brush Properties		X
Custom Organization of Bitmap Brushes		X
Create Bitmap Brush Favorites List		X
Bitmap Fill Bucket Tool	X	X
Bitmap Tools Blending Modes	X	X
Bitmap Color Window	X	X
Bitmap Eraser Tool	X	X
Frame by Frame Animation Using Image Layers	X	X

Bone Features

Feature	Moho Debut	Moho Pro
Pin Bones	X	X
Auto-Freeze Pose	X	X
Auto-colored bones while doing Point Binding	X	X
Ignore IK constraint		X
Select Bone	X	X

Feature	Moho Debut	Moho Pro
Transform Bone Tool (Translate, Scale, and Rotate)	X	X
Add Bone	X	X
Hide/Show Bones	X	X
Reparent Bone	X	X
Bone Strength	X	X
Manipulate Bones	X	X
Bind Layer	X	X
Bind Points	X	X
Offset Bone	X	X
Bone Physics		X
Bone Constraints		X
Smart Bones		X
Smart Bones Setup		X
Color Bones	X	X
Bone Labels		X
Nested Layer Controls	X	X
Animated Bone Targets		X
Animated Bone Parenting		X
Bone Flipping		X

3D Objects Features

Feature	Moho Debut	Moho Pro
Manipulation 3D object's lighting		X
Edit material settings of 3D objects		X
Toon shading controls for 3D objects		X

Layer Features

Feature	Moho Debut	Moho Pro
Select Switch window	X	X
New Layers window	X	X
Filters for easy Layer Search		X
Set Origin	X	X
Transform Layer	X	X
Switch Layer	X	X
Rotate Layer X		X

Feature	Moho Debut	Moho Pro
Rotate Layer Y		X
Shear Layer X		X
Shear Layer Y		X
Particle Layer		X
Follow Path	X	X
Image Masking	X	X
Video Tracking	X (1)	X
Audio Layers	X (2)	X
Vector Shape Selector	X	X
Undo/Redo Layers	X	X
Layer Comps		X
Layer Colors	X	X
Flexi Binding	X	X
Depth Shifting		X
Fade Unselected Layers		X
Multiple Layer Editing	X	X
Colorize Layer	X	X
Frame-By-Frame Animation	X	X
Layer Referencing		X
Animated Shape Ordering		X
Group with Selection Layers		X
Normalize Layer Scale		X

(1) Limited to 3 tracking points

(2) Limited to 2 audio layers

Layer Modifiers

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

Layer Types

Feature	Moho Debut	Moho Pro
Vector	X	X
Image	X	X
Bone	X	X
Switch	X	X

Feature	Moho Debut	Moho Pro
Group		X
Group with Selection		X
Particle		X
3D Object		X
Physics (Layer property)		X
Note		X
Audio	X	X
2D to 3D Layer Conversion		X
Patch		X
Text	X	X

Camera Features

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

Workspace Features

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

Timeline Features

Feature	Moho Debut	Moho Pro
Edit Multiple Layers		X
Mute channels		X
Keyframes	X	X
Playback Controls	X	X
Animation Channels	X	X
Hide/Show Channels	X	X

Feature	Moho Debut	Moho Pro
Timeline Ruler	X	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

Feature	Moho Debut	Moho Pro
Store Reusable Animation		X
Edit Reusable Animation		X
Delete Reusable Animation		X
Create Action Groups & Sub-Groups		X
Tag Actions		X
Search Actions Using Keywords		X

Style Features

Feature	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

Feature	Moho Debut	Moho Pro
Options	X	X
Editor Colors	X	X
GUI Colors	X	X
GUI Color Themes	X	X

Project Settings

Feature	Moho Debut	Moho Pro
Save Project Settings	X	X
Edit Dimensions	X	X
Background Color	X	X
Depth of Field		X
3D Camera		X
Stereo Rendering		X
Sort Layers by Depth	X	X
Sort by True Distance	X	X
Noise Grain		X
Up to 120 Frames/Second Maximum	X	X
Maximum export size (pixels)	900 x 900	9000 x 9000
Maximum number of frames	3000	Unlimited

Content

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

Scripts

Feature	Moho Debut	Moho Pro
3D		X
Camera		X
Draw		X
Image Sequences		X

Feature	Moho Debut	Moho Pro
Layer Effects		X
Particle Effects		X
Sound		X
Warp		X
Visibility		X
Script Writing		X

View

Feature	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/Export

Feature	Moho Debut	Moho Pro
Export Queue		X
Actions		Import/Export
2D FORMATS		
JPEG	Import/Export	Import/Export
BMP	Import/Export	Import/Export
PSD	X (1)	X (2)
Layers to PSD		X
PNG	Import/Export	Import/Export
TGA	Import/Export	Import/Export
SVG		Import/Export
EPS, AI, Tracing Image		Import
Batch Image		Export
Vector Export		X
3D FORMATS		
OBJ		X
Poser Files and Scenes (Poser 7 and newer)		X
SOUND FORMATS		
WAV (Windows & Mac)	X	X

Feature	Moho Debut	Moho Pro
AIFF (Windows & Mac)	X	X
MP3 (Windows & Mac)	X	X
M4A (MPEG-4)	X	X
MOVIE FORMATS		
AVI (3)	Import/Export	Import/Export
SWF(4)	Export	Export
MOV (Mac Only) (5)	Import/Export	Import/Export
MP4	Import/Export	Import/Export
Sequential JPEG		Export
Sequential BMP		Export
Sequential PSD		Export
Sequential PNG		Export
Sequential TGA		Export
Batch Movie Export		Export
TV FORMATS		
NTSC Format	Export	Export
PAL	Export	Export
HD movies		Export
MOHO FORMAT		
MOHO File Format	X	X
JSON-Based File Format	X	X
MotionArtist File Support	X	X

- (1) Layered using Moho script.
- (2) Directly through File menu.
- (3) 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.
- (4) SWF: Vector animations only; image layers can be used if they are not warped by bones. [See "Exporting Flash" for more information.](#)
- (5) MOV: Exporting of MOV is supported only on Mac. Importing a MOV works on Mac and Windows; however, there is no alpha channel support on Windows.

Optimization Features

Feature	Moho Debut	Moho Pro
Document Gathering		X
GPU Acceleration		X
Render Cache	X	X
Separate Moho Exporter Process		X

Feature	Moho Debut	Moho Pro
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