

## Maxon Cinema 4D Produktvergleich

Funktionen Cinema 4D	Studio	Visualize	Broadcast	Prime	BodyPaint	Lite*
						
<b>GENERAL WORKFLOW</b>						
Advanced presets and demo scenes	✓					
Annotations Tag	✓	✓	✓	✓	✓	
Arabic interface support	✓	✓	✓	✓	✓	
Available in 11 languages (switchable)	✓	✓	✓	✓	✓	✓
Basic Fields <b>[R20]</b>	✓	✓	✓	✓	✓	
Broadcast Library, incl. materials, cameras + objects	✓		✓			
Color Chooser	✓	✓	✓	✓	✓	✓
Commander	✓	✓	✓	✓	✓	✓
Context-sensitive, fully-searchable HTML help	✓	✓	✓	✓	✓	✓
Cross-platform support for Mac & Windows	✓	✓	✓	✓	✓	✓
Custom User Data per object	✓	✓	✓	✓	✓	✓
Customizable GUI sets (toolbars / layouts / menus)	✓	✓	✓	✓	✓	✓
Doodle viewport annotation tool	✓	✓	✓	✓	✓	
Enhanced OpenGL Viewport	✓	✓	✓	✓	✓	✓
Essential presets and demo scenes	✓	✓	✓	✓	✓	✓
High-Quality OpenGL Viewport <b>[R19]</b>	✓	✓	✓	✓	✓	
Layer system for object & material management	✓	✓	✓	✓	✓	✓
Lite Library, incl. materials, cameras and objects	✓					✓
Multiple projects open at once	✓	✓	✓	✓	✓	✓
New Feature Highlighting <b>[R19]</b>	✓	✓	✓	✓	✓	
Object highlighting	✓	✓	✓	✓	✓	✓
Picture Viewer	✓	✓	✓	✓	✓	✓
Scripting & SDK	✓	✓	✓	✓	✓	
Solo Button	✓	✓	✓	✓	✓	✓
Stereo display in Viewport	✓	✓	✓	✓	✓	
Take System	✓	✓	✓	✓	✓	
To Do List	✓	✓	✓	✓	✓	✓
Updated Content Libraries <b>[R20]</b>	✓	✓	✓	✓	✓	
Vertex Colors	✓	✓	✓	✓	✓	
Visualization Library (materials, presets, architectural objects)	✓	✓				
XRef external instancing / referencing system	✓	✓	✓	✓	✓	

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<b>MODELING</b>						
ABF unwrapping and relaxing	✓	✓	✓	✓	✓	
Basic Tools	✓	✓	✓	✓	✓	
Bevel Deformer	✓	✓	✓	✓	✓	
Deformer Falloff	✓	✓	✓	✓	✓	
Enhanced new Modeling Kernel [R20]	✓	✓	✓	✓	✓	✓
Extrude, Lathe, Loft, Sweep	✓	✓	✓	✓	✓	✓
Interactive UV mapping by projection types	✓	✓	✓	✓	✓	
Knife Tools	✓	✓	✓	✓	✓	
Level of Detail Object [R19]	✓	✓				
LSCM unwrapping and relaxing	✓	✓	✓	✓	✓	
Mesh Check	✓	✓	✓	✓	✓	
Modeling Generators: Metaball, Boolean, Symmetry, Array, Atom Array, Instance, Connect, Spline Mask, Python	✓	✓	✓	✓	✓	✓
New Modeling Kernel [R19]	✓	✓	✓	✓	✓	
New Polygon Reduction Generator [R19]	✓	✓	✓	✓	✓	
OpenSubdiv Support	✓	✓	✓	✓	✓	
OpenVDB Volume Modeling [R20]	✓	✓	✓	✓	✓	
PolyPen	✓	✓	✓	✓	✓	
Scene Objects: Floor, Sky, Environment, Stage, Foreground, Background	✓	✓	✓	✓	✓	✓
Spline Mask object	✓	✓	✓	✓	✓	
Spline Tools	✓	✓	✓	✓	✓	✓
Subdivision surfaces	✓	✓	✓	✓	✓	✓
UV Editing	✓	✓	✓	✓	✓	
UV mapping to automatically remove seams	✓	✓	✓	✓	✓	
UV Peeler	✓	✓	✓	✓	✓	
UVs for Caps	✓	✓	✓	✓	✓	
<b>SCULPTING</b>						
C++ Sculpt Brush API	✓				✓	
Mesh Projection	✓				✓	
Mirroring & Masking	✓				✓	
Python Support for lib_sculpt	✓				✓	
Sculpt Brushes	✓				✓	
Sculpt functionality	✓				✓	
Sculpt Layers	✓				✓	
Sculpt to Pose Morph	✓				✓	
Unsubdivide	✓				✓	

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<b>MATERIALS &amp; TEXTURES</b>						
R2 standard material channels: Color, Diffusion, Luminance, Transparency, Reflection, Environment, Fog, Bump, Normal, Alpha, Glow, Displacement	✓	✓	✓	✓	✓	✓
3D Painting with layers, all blend modes and Photoshop file compatibility	✓	✓	✓	✓	✓	✓
Animated textures (MOV, AVI, sequence) with viewport preview	✓	✓	✓	✓	✓	✓
Blurry reflections and transparencies	✓	✓	✓	✓	✓	✓
Brick, Wood, Weathering, Pavement and Normalizer Shaders	✓	✓	✓	✓	✓	
Choose Photoshop PSD layers per usage	✓	✓	✓	✓	✓	✓
Displacement: intensity (centered), red/green and RGB	✓	✓	✓	✓	✓	✓
Formula Shader	✓					
Fresnel Shader	✓	✓	✓	✓	✓	✓
Grass Material Shader	✓	✓				
Improved Variation Shader [R19]	✓	✓				
Inverse Ambient Occlusion	✓	✓	✓	✓	✓	
Layer shader	✓	✓	✓	✓	✓	
Multi-brush painting of multiple material channels in single stroke	✓	✓	✓	✓	✓	✓
Node-based Material System [R20]	✓	✓	✓	✓	✓	
Noise Procedural shader with 32 different noise algorithms	✓	✓	✓	✓	✓	✓
Normal maps: tangent, object or world	✓	✓	✓	✓	✓	✓
OpenGL-accelerated 3D Painting with layers, all blend modes and Photoshop file compatibility [R19]	✓	✓	✓	✓	✓	
Parallax Shader	✓	✓	✓	✓	✓	✓
Physically correct IOR presets	✓	✓	✓	✓	✓	✓
Procedural surface shaders	✓	✓	✓	✓	✓	✓
Projection Map	✓	✓	✓	✓	✓	✓
Projection painting	✓	✓	✓	✓	✓	✓
Proximity-based Proximal shader	✓	✓	✓	✓	✓	✓
Reflectance Channel	✓	✓	✓	✓	✓	
Set UVW from projection	✓	✓	✓	✓	✓	
Shading models: Lambertian, Oren-Nayar	✓	✓	✓	✓	✓	✓
Shadow Catcher	✓					
Sketch & Toon Art, Hatch, Spot (halftone) Shaders	✓	✓				
Sub-Polygon displacement (SPD)	✓	✓				
Sub-Surface Scattering	✓	✓	✓			

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Terrain Mask shader	✓	✓				
Texture baking: surface color, illumination, Ambient Occlusion, Normals, displacement and more	✓	✓	✓	✓	✓	✓
Texture Manager	✓	✓	✓	✓	✓	
Thin Film Shader	✓	✓	✓			
Transparency with absorption, total internal reflections, exit reflections	✓	✓	✓	✓	✓	✓
<b>LIGHTING</b>						
Caustics	✓	✓				
Color temperature in Kelvin	✓	✓	✓	✓	✓	✓
Custom lens flares	✓	✓	✓	✓	✓	✓
Global Illumination	✓	✓	✓	✓	✓	
Hard, Soft, Area shadows	✓	✓	✓	✓	✓	✓
IES Lights	✓	✓				
Include/exclude light diffusion, specular, shadow per object	✓	✓	✓	✓	✓	✓
Light Types: Omni, Spot, Infinite, Area, Square Spot, Parallel Spot, Square Parallel Spot	✓	✓	✓	✓	✓	✓
Noise within light illumination and/or visibility	✓	✓	✓	✓	✓	✓
Photometric brightness setting in Candela and Lumen	✓	✓	✓	✓	✓	✓
Physical Sky	✓	✓				
Visible, Volumetric and Inverse Volumetric lighting	✓	✓	✓	✓	✓	✓
<b>CAMERA</b>						
Camera Calibrator	✓	✓				
Camera Composition Helpers	✓	✓	✓	✓	✓	✓
Camera Crane	✓	✓	✓			
Camera Focus Picker	✓	✓	✓	✓	✓	✓
Camera Morph	✓	✓	✓			
Camera, Target Camera, Stereo Camera	✓	✓	✓	✓	✓	✓
Enhanced Motion Tracker [R20]	✓					
Graphical View for Motion Tracking	✓					
Lens Distortion Support	✓	✓				
Motion Camera	✓	✓	✓			
Motion Tracker	✓					
Object Tracker	✓					
Scene Reconstruction for Motion Tracker [R19]	✓					
Spherical Camera [R19]	✓	✓				

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<b>RENDERING</b>						
Ambient Occlusion	✓	✓	✓	✓	✓	✓
Camera white balance	✓	✓	✓	✓	✓	✓
Color profile support	✓	✓	✓	✓	✓	✓
Embree Integration	✓	✓	✓			
Enhanced ProRender (GPU-based Renderer) [R20]	✓	✓	✓			
Global Material Override	✓	✓	✓	✓	✓	
Light Mapping	✓	✓	✓	✓	✓	
Linear workflow	✓	✓	✓	✓	✓	✓
Multi-Pass output	✓	✓	✓	✓	✓	✓
Normal Pass	✓	✓	✓	✓	✓	✓
Object buffers - specify unique alpha channels per object	✓	✓	✓	✓	✓	✓
Physical Render Engine	✓	✓	✓			
Position Pass	✓	✓	✓	✓	✓	✓
ProRender (new GPU-based Renderer) [R19]	✓	✓	✓			
Pyrocluster volumetric particle rendering	✓	✓				
Radiosity maps	✓	✓	✓	✓	✓	
Render instances	✓	✓	✓	✓	✓	✓
Render Queue batch rendering system	✓	✓	✓	✓	✓	
Render up to R28,000 pixels square / 32 bits per pixel	✓	✓	✓	✓	✓	✓
Sketch and Toon	✓	✓				
Stereoscopic Rendering	✓	✓	✓	✓	✓	
Sub-Surface Scattering	✓	✓	✓			
Team Render (3 Nodes)		✓	✓			
Team Render (unlimited Nodes)	✓					
Universal Sampler (GI-QMC)	✓	✓	✓	✓	✓	
<b>ANIMATION</b>						
ASCII animation import	✓	✓	✓	✓	✓	
Automatic keyframing	✓	✓	✓	✓	✓	✓
Constant Velocity option per track	✓	✓	✓	✓	✓	✓
Constraints: PSR, Up-Vector, Clamp, Mirror, Parent, Aim, Spring	✓	✓	✓	✓	✓	
Driver tag	✓					
F-Curve Snapshot and Reduced Modification curves	✓	✓	✓	✓	✓	
Interaction Tag	✓	✓	✓	✓	✓	
Keyframe baking	✓	✓	✓	✓	✓	
Keyframe reduction	✓	✓	✓	✓	✓	

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New Parent Constraint workflow	✓	✓	✓	✓	✓	
Non-linear animation / motion mixing system	✓	✓	✓	✓	✓	
PowerSlider animation toolbar for playback and keyframe manipulation	✓	✓	✓	✓	✓	✓
Shift Priority Tag	✓	✓	✓	✓	✓	
Timeline - up to four timeline windows with customizable track display and dopesheet or F-Curve view modes	✓	✓	✓	✓	✓	✓
XPresso	✓	✓	✓	✓	✓	✓
<b>CHARACTER ANIMATION</b>						
Auto weighting	✓	✓	✓	✓	✓	
Character Object	✓					
CMotion	✓					
Enhanced Quaternion workflow	✓	✓	✓	✓	✓	
Joints with full dynamic IK	✓	✓	✓	✓	✓	
Mirror, Naming and Paint Tools	✓	✓	✓	✓	✓	
Muscle deformer	✓					
Point Cache tag	✓	✓	✓	✓	✓	
Pose Morph	✓					
PSD Correctional Morphs	✓					
Skin Deformer supports linear, spherical and blended deformation based on joints	✓	✓	✓	✓	✓	
Tension tag	✓					
VAMP tool for translating weights, morphs, selection, textures, Uvs and vertex maps between different geometry	✓					
Visual Selector	✓					
Weight effector	✓	✓	✓	✓	✓	
Weight Manager and tools	✓	✓	✓	✓	✓	
Weighting Improvements <a href="#">[R19]</a>	✓	✓	✓	✓	✓	
<b>MOGRAPH</b>						
Advanced Fields <a href="#">[R20]</a>						
Beat Shader	✓		✓			
Cloner object	✓		✓			
Effectors for Position, Scale, Rotation, Color, Time using Falloff, Shader, Random, Formula, Delay, C.O.F.F.E.E., Python, Inheritance, Sound, Spline, Step, Target, Time or Volume effectors	✓		✓			✓
Enhanced MoGraph Caching	✓		✓			
Enhanced Voronoi Fracturing (Auto Connectors only available in Studio) <a href="#">[R19]</a>	✓		✓			
Fracture object	✓		✓			✓

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Matrix object	✓		✓			
MoDynamics	✓		✓			
MoExtrude	✓		✓			
MoGraph Multi-shader	✓		✓			
MoGraph Selection tag	✓		✓			
MoInstance object	✓		✓			
MoSpline parametric spline generator with L-system functionality	✓		✓			
MoText object	✓		✓			
Multi Instances [R20]	✓		✓			
New Sound Effector [R19]	✓		✓			
PolyFX polygon fracture deformer	✓		✓			
Push Apart Effector	✓		✓			
ReEffector	✓		✓			
Tracer object	✓		✓			
Weight Map and Weight Paintbrush	✓		✓			
<b>SIMULATION</b>						
Aerodynamic Forces	✓					
Basic particle system	✓	✓	✓	✓	✓	
Breaking Connectors	✓					
Cloth Simulation	✓					
Feather object	✓					
Fur system	✓					
Guide-based Hair system	✓					
Hair instancing	✓					
Hair shading system with multiple speculars, texture-defined root and tip colors, and variable transparency, thickness, length, scale, frizz, kink, density, clump, tighten, displace, bend, curl, twist, wave, straighten	✓					
Hair styling tools: Move, Scale, Rotate, Brush, Comb, Clump, Curl, Cut, Push, Straighten, Add Guides, Mirror, Set Roots	✓					
Joints, Springs, Motors	✓					
Plastic & Breaking Springs	✓					
Rigid Body Dynamics	✓					
Rigid Body dynamics for MoGraph objects	✓		✓			
Soft Body Dynamics	✓					
Spline dynamics	✓					
Thinking Particles	✓					

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<b>PIPELINE INTEGRATION</b>						
After Effects compositing exchange with 3D data	✓	✓	✓	✓	✓	
Apple Final Cut Pro compositing exchange	✓	✓	✓	✓	✓	
Apple Motion compositing exchange with 3D data	✓	✓	✓	✓	✓	
BodyPaint 3D exchange - 3ds Max, Maya, Softimage and Lightwave	✓	✓	✓	✓	✓	
CAD Importer Catia V5, JT, STEP, IGES, Solidworks [R20]	✓	✓				
CineMan Renderman-compliant bridge	✓	✓				
CINEWARE compatible	✓	✓	✓	✓	✓	✓
Digital Fusion compositing exchange (Win only)	✓	✓	✓	✓	✓	
Houdini Engine Bridge / Version 16.5 [R20]	✓					
IGES importer	✓	✓				
Image formats - float with layers: PSD, TIFF, OpenEXR	✓	✓	✓	✓	✓	✓
Image formats - float: HDR, DPX, RLA, RPF	✓	✓	✓	✓	✓	✓
Image formats: BMP, IFF, JPG, PICT, PNG, TARGA	✓	✓	✓	✓	✓	✓
Improved Media handling [R19]	✓	✓	✓	✓	✓	
Improved Substance Engine Integration	✓	✓	✓	✓	✓	
Nuke exchange	✓	✓	✓	✓	✓	✓
Okino connection - seamless CAD file import via optional PolyTrans software (Windows only)	✓	✓				
Photoshop exchange	✓	✓	✓	✓	✓	✓
SketchUp importer / for 2018 format [R20]	✓	✓				
Updated Support of DXF, DWG, 3DS, DAE, FBX 2018, DEM, LWS, STL, VRML2, OBJ, COLLADA, Alembic 1.7, DDS [R20]	✓	✓	✓	✓	✓	✓
Video Formats: Avi, Quicktime	✓	✓	✓	✓	✓	✓

\* Cinema 4D Lite makes important basic Cinema 4D functions available in Adobe After Effects CC. This version is not available as a standalone product. It is installed automatically with After Effects CC and can be upgraded to a full Cinema 4D version at very attractive pricing. Don't hesitate to ask us.

**Informationen zum MAXON SERVICE AGREEMENT (MSA); diese Leistungen erhalten Sie:**

- \* alle Updates, immer die neueste Cinema 4D Version
- \* Erweiterte Nutzungsrechte der Lizenz auf Ihrem Zweitcomputer (z.B. Laptop für unterwegs...)
- \* Erweiterter Service bei Telefonsupport und MAXON-Veranstaltungen
- \* freier Zugang zur Online Lernplattform Cineversity.com