

3 D F O R T H E R E A L W O R L D

# CINEMA 4D

## RELEASE 8.5

- modular 3D software
- tailor to your needs
- easy to use
- fast high-quality rendering
- hardware optimized
- packed with new features
- for Macintosh and Windows



**MAXON**

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# 3D For The Real World

## Welcome...

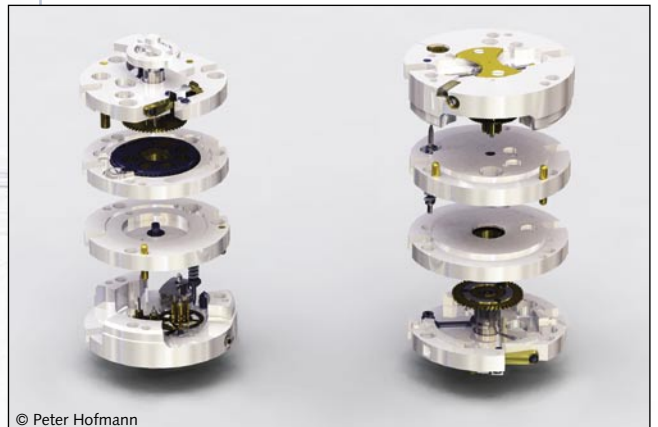
...to the exciting world of CINEMA 4D Release 8.5. When you choose CINEMA 4D you are choosing powerful modeling, rendering and animation software that has been over ten years in the making. During these ten years, our development has been constantly driven by the artist's needs. The hallmarks of CINEMA 4D – speed, stability and above all ease of use – are reasons why tens of thousands of users the world over choose CINEMA 4D. In these pages, you'll discover why so many users swear by us, not at us. Whether you work in film, television, games, medical visualisation, industrial or architectural design, graphics for print or web ... whatever your requirements, CINEMA 4D's rich toolset provides more muscle for your money than any other 3D software. Choose CINEMA 4D and wave goodbye to slow renders, impossibly complex tools and lack of support for the other tools in your digital toolbox!

## Interface

### Work faster, smarter, easier

Let's face it, 3D graphics is complex ... which makes it even more important that the interface you are using is logical and has been built to serve you. That's why we've made the tools in CINEMA 4D incredibly consistent. Take modifiers, for example. Once you've learned how to use one modifier, you'll instinctively know how to use all the other modifiers. This consistency is all the more important if you only use 3D from time to time – you won't have to relearn the software when you come back to it in a couple of weeks.

Another key to working fast is "feedback." Each change you make in CINEMA 4D is shown in the viewport in realtime thanks to non-modal dialogs and blistering OpenGL performance.



## Modeling

The first task when starting a new 3D project is usually to model the objects that you are going to need. CINEMA 4D is packed with classic polygon modeling tools and a wealth of parametric primitives and modifiers. With these non-linear tools, you can go back at any time to adjust the changes you've made, such as to change the degree of twist or the depth of extrusion. Even Boolean operations are non-destructive and can be removed or tweaked as needed.

No matter what you're editing – points, edges or polys – CINEMA 4D's context menu gives you one-click access to the appropriate tools. Just as handy are CINEMA 4D's helper tools. These take the chore out of mundane modeling tasks and include Array, Symmetry and Instances.



## Animation

Bringing your 3D models to life through animation can be the most rewarding aspect of any 3D project. CINEMA 4D provides the tools to achieve almost any animation effect from simple camera fly-throughs to stunning character animation. An extensive timeline enables you to organize and manipulate every animation track. Realtime sound scrubbing helps you to synchronize animation perfectly to any soundtrack.

The powerful F-Curves manager provides fine control over exactly how an object gets from one position to another and how its attributes change over time. And with CINEMA 4D, you really can animate any parameter, no matter where you are in the program. All you need to do is right-click on the parameter's name then choose *Add Keyframe* from the context menu. It's that easy!







## Lighting and Materials

Every 3D artist knows – the key to realistic and convincing images is object surfacing and lighting. Make your objects shine with CINEMA 4D's lighting tools, including nine different light types and an astonishing number of parameters. When it comes to materials, CINEMA 4D's 13-channel material system gives you incredible control over the properties of your 3D objects. Use conventional pictures or movies as your textures, or use dozens of procedural shaders to create even the most challenging surfaces, such as the electron microscope look! Best of all, you can combine all these properties together and even animate them. The only real limitation is your imagination.

## Rendering

CINEMA 4D's world-famous rendering engine enables you to produce final output that cannot be bettered by any other off-the-shelf 3D package. CINEMA 4D uses modern rendering techniques to produce quality results faster than any other 3D package. Render images up to 16,000 by 16,000 pixels and simulate real cameras with controls such as focal length, aperture width and film offset.

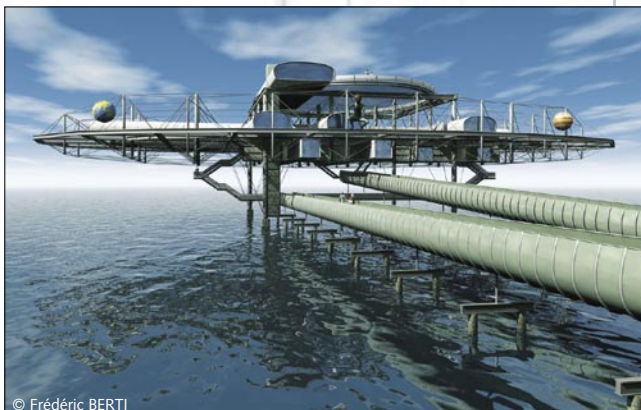
Gain the ultimate control over your renders with superb multipass rendering options, including direct exchange with Adobe's industry-leading applications Photoshop and After Effects. CINEMA 4D can even create a complete After Effects composition file, including the correct blend mode for each layer and three-dimensional camera and light data. Motion-Gfx artists love this.



## Exchange Formats

CINEMA 4D supports most popular 2D and 3D file formats because real-world 3D artists don't work in a vacuum. This includes all popular 3D file formats such as DXF and OBJ, as well as formats for the web including VRML, UZR and Shockwave 3D. Kaydara's FBX format lets you exchange not only models, but fully animated characters and other scene data as well. You can even render 3D scenes to Macromedia's Flash format.

Architects will be delighted to know there is a connection to leading CAD packages such as AllPlan, VectorWorks and ArchiCAD or the STL export. Choose from over a dozen 3D formats and many more 2D formats.



## XPresso

Wouldn't it be great if 3D objects were intelligent and reacted automatically to what's happening in the scene? Well that's exactly what XPresso does for you. XPresso is CINEMA 4D's incredibly powerful yet easy to use node-based expressions editor.

Make objects react to each other when they collide, or just turn a crank and watch the rest of the motor turn itself. The possibilities are endless - almost any type of automated behavior is possible. You can control virtually any parameter in CINEMA 4D or its modules via XPresso to create outstanding effects.





# Standalone & Module: BodyPaint 3D R2

## 3D Painting

Let's face it, when it comes to texturing a complex object or surface, standard texture methods just aren't up to the job. Take the figures on the right, for example. They're impossible to texture properly using plain old cylindrical or spherical mapping. This is where BodyPaint 3D comes in. With this powerful software, you can paint any type of material, no matter how complex, directly onto your 3D models. Paint up to ten material channels (Color, Bump, Specular, etc.) in a single brushstroke! The unique RayBrush™ mode lets you paint your models in raytrace quality. You can see the actual rendered effect while painting in any or all channels! And naturally, BodyPaint 3D supports pressure-sensitive graphics tablets such as Wacom's Intuous range.



## Texture Tools

Over 200 presets are included to assist you, and you can create your own brushes and share them with other users. Just paint stitching, screws, wisps of hair, rust or any other surface detail right on the object.

With projection painting enabled, you can paint on a virtual glass plate over the model and then project this painting onto the actual textures. This powerful feature supports all of BodyPaint 3D's painting tools and provides full control over the projection and final appearance of your paint strokes. Say goodbye to unpredictable distortion caused by model contours and perspective, because with projection painting what you see is truly what you get.

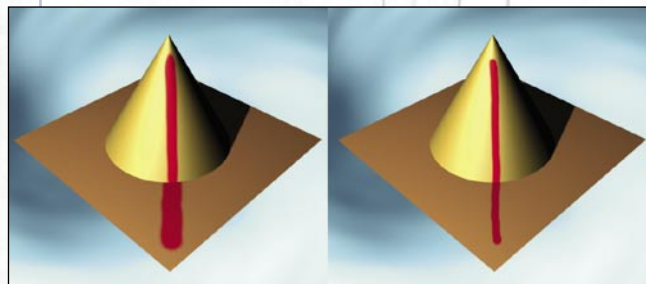
© by Purevee Erdenetulga



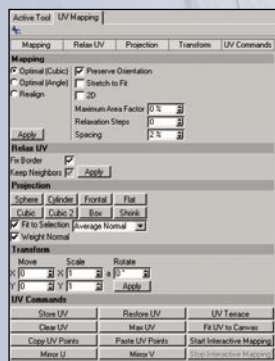
## UV Tools

BodyPaint 3D features an arsenal of UV editing solutions so you can ensure your models and their materials line up properly. Painting in 3D is governed by UVs, a set of coordinates that relate polygons to texturing areas. Properly designed UV coordinates are essential to successful painting and quality texturing. And with BodyPaint 3D's unique PaintSetupWizard you have a 1-2-3-ready-to-paint solution right at your fingertips.

Like this each model is automatically set up with correctly aligned UVs, just like taping off the trim in a room prior to painting.

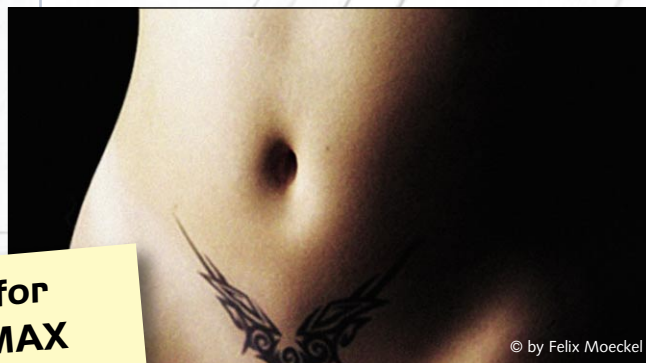


Two objects with different UV maps. Without projection painting (left), the brush will probably change size when you paint over neighboring objects. With projection painting (right), however, the brush stays the same size over both objects.



With BodyPaint 3D you can breathe life into your models, because it's often the little imperfections that make a model come alive. And with off-the-shelf textures, you're just not going to attain that level of perfection. BodyPaint 3D, however, has everything you need to take your 3D models to the next level in realism.

BodyPaint 3D offers an all-inclusive set of UV editing tools.



Also for  
3DS MAX  
MAYA  
LIGHTWAVE





## Non-photorealistic Renderer

Everyone's lining up to render 3D scenes with Sketch and Toon. Rendering engines, including CINEMA 4D and its Advanced Render Module, have become incredibly powerful and made it easier than ever before to create high-quality photorealistic imagery. Many users long for the simpler life, though, and will find their solution in the non-photorealistic rendering capability of CINEMA 4D's newest module. Sketch and Toon has the ability to create so many different styles of 3D render its name is almost misleading. Architects and engineers will enjoy the clean and precise technical illustrations it provides, while artists will appreciate its ability to render 3D scenes as a quick scribble or a charcoal sketch. A variety of shading engines make it easy to create illustrations ranging from halftone stills to cel-rendered animations. NPR- and raytrace-rendered objects can be combined in a single scene for unique styles. An abundance of control and plenty of flexibility provide the user the opportunity to create almost any desired effect.

## Features

Sketch and Toon provides extensive options for drawing object edges and outlines. This powerful tool makes it easy to create high-quality technical illustrations with just a few mouse clicks. Presets allow quick selection of different line styles, to define anything from thickness and opacity to multiple cloned lines that create a sketchier look. Styles let you easily replicate looks and settings among multiple scenes. Plus, you can load and use any texture as a paper background such as cold press watercolor paper or good old papyrus.

Sketch and Toon includes an enormous number of line controls. Sketch and Toon lines can match the contour of any object from any view. They can outline objects, polygons or just essential edges. Sketch and Toon even renders hidden or backface lines in separate user-defined styles. Lines can automatically overshoot and join at intersections for a variety of styles. In addition to rendering as a post-effect, lines can even be previewed realtime in CINEMA 4D's editor window and even exported to Adobe Illustrator in vector format. With this abundance of options, any 3D render will fall into line.

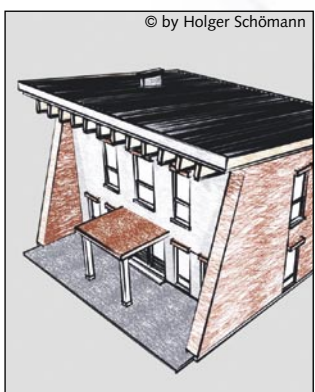
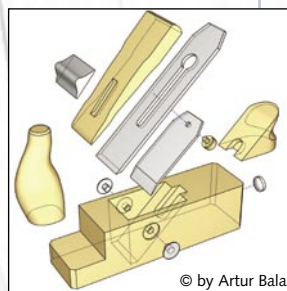
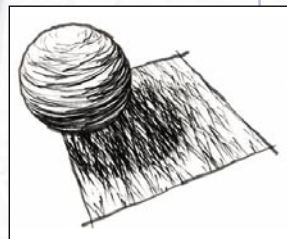
Create custom hatch shading on your 3D objects using the Hatch shader, and easily mimic the halftone appearance of low resolution print images with the Spots shader. The remarkable Art shader can transform ordinary 3D renders into abstract artistic masterpieces. And replicate the unique shading of animations or Manga with the Sketch and Toon Cel shader.

## Familiar Interface

Because Sketch and Toon is a fully integrated CINEMA 4D module, you'll enjoy the same basic interface known for easy learning and speedy workflow.

Sketch and Toon's many parameters are always convenient and responsive, and like all MAXON tools provide you the ability to achieve the results you desire without fighting the tool itself.

Sketch and Toon effects can be combined with any CINEMA 4D features, including radiosity, shaders, splines and particles.





# The Modules

## MOCCA

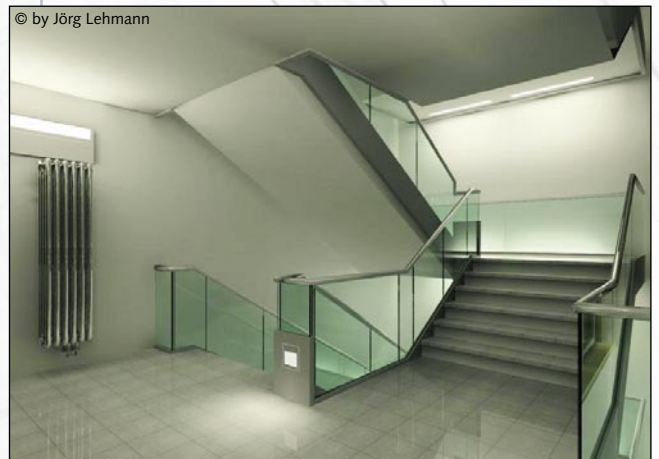
MOCCA includes advanced tools to achieve outstanding control over character animation. Creating complex, custom character rigs and skeletons is made simpler with these powerful tools. A bone manipulation tool allows easy setup of bone chains and provides a quick solution for splitting bones. Bones can be mirrored, saving up to 50% of the work involved to complete your rig. Claude Bonet provides a simple method for painting the influence of individual bones on your mesh while displaying the overall influence of all bones.

You can create and edit preset poses, and quickly create elaborate character animations by mixing these poses. A new IK system with built-in dynamics and constraints allows more fluid motion. Combined with XPresso and FBX, you can easily add secondary motion to your characters or gain even more control over animation parameters. With MOCCA you'll make your characters dance and your clients smile.



## Advanced Render

Take your 3D scenes into the next dimension of reality with CINEMA 4D's Advanced Render Module. While CINEMA 4D's standard renderer produces outstanding results in little time, the Advanced Render Module provides advanced features like radiosity and caustics to achieve the ultimate in realism. Renders will look even more realistic with global illumination radiosity rendering, surface and volume caustics, highlights and glow. The 3D camera may be able to see forever, but in the real world cameras aren't so perfect. The powerful depth of field effect in CINEMA 4D's Advanced Render Module allows you to focus the 3D camera for a realistic look. Attain the ultimate photorealistic lighting and reflections with HDRI texture maps, or use subsurface scattering to give life to organic models. Finally, use vector motion blur to smooth out fast animations. All these features combine to help you easily achieve more realistic renders than ever before.

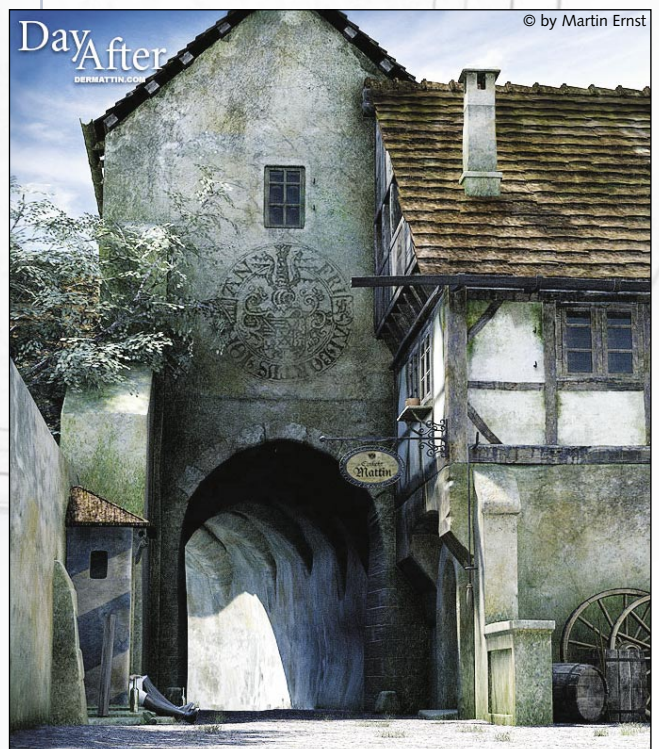


## Thinking Particles

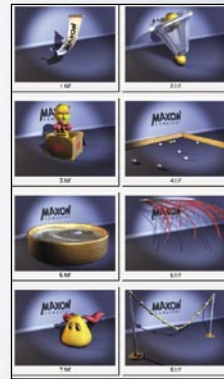
Thinking Particles provides highly advanced particle effects that can be controlled through object and particle interaction. This event-based particle system provides detailed control over particle behavior, and can be used to create very complicated particle effects by making simple connections in XPresso. Thinking Particles provides object-based collision and emission, and can spawn additional particle streams based on events in the scene. Thinking Particles are independent, stand-alone 3D particles, so individual particle groups can even interact with each other to create high-end studio-quality particle effects. When you're thinking of creating a dynamic scene involving particle effects, Thinking Particles is a necessity.



*Particles enable you to create a huge diversity of complex effects. They can react to each other and to objects in the scene. Shatter a model into fragments and watch in amazement as the fragments come together again to form a completely different model! And much more.*







## Dynamics

Dynamics allows you to augment your animations with real-world dynamic forces including friction, gravity, collisions, springs, wind and more. The module's rich feature set offers a high degree of control. Dynamics are applied to existing objects or the points of an object as a modifier. Solver objects complete the calculation of the dynamics effects, which can be baked into keyframes for better workflow. Fast, robust collision detection and reaction combine with gravity, wind and friction to create impressive rigid-body dynamic effects.

Collision detection can take advantage of proxy objects and can be set on a per-object basis. Dynamics also offers a soft body dynamics system that allows you to create soft bodies such as cloth or rubber.



## PyroCluster

If you've ever wanted to create amazing explosion, cloud or smoke effects, PyroCluster is a must. This particle-based volumetric or video-post shading engine integrates seamlessly with CINEMA 4D's standard particle system as well as Thinking Particles and supports all features of the render engine. PyroCluster-shaded particles cast and receive shadows and clouds of particles can receive and dissipate light. The possibilities are unsurpassed. Create clouds, waterfalls, snowblasts and more with ease.

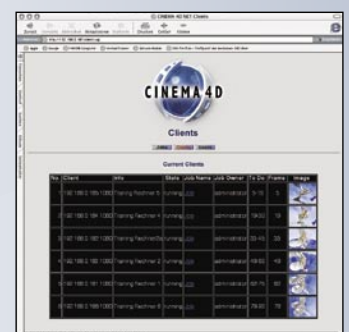


## NET Render

CINEMA 4D NET speeds up your renders even more by using computers on your local network or the Internet to help render your animations. NET uses TCP-IP to transport scenes and rendered frames to any client tuned to the NET server. Your renders will be worry-free thanks to CINEMA 4D NET's automatic handling of client additions and recovery. It's easy to manage your network render using any web browser.

When the deadline's looming for a big animation job, CINEMA 4D NET is a lifesaver you can count on.

*CINEMA 4D NET is administered using any browser. As you'd expect, managing projects is easy and efficient. Clients can be added or removed from the network at any time thanks to hotplug technology. If a connection to the server is lost, the client will continue to render its assigned frames and upload them as soon as it reestablishes a connection. You can disconnect clients at any time without fear of losing frames.*



## ... that fits Your Needs and Your budget

CINEMA 4D lies at the core of a modular feature set designed to meet your needs. The core module CINEMA 4D is an ideal entry point into the world of 3D. You can also purchase the XL Bundle including the most essential tools for professional users, our outfit your production environment with the complete Studio Bundle including BodyPaint 3D R2, Dynamics and NET unlimited. To customize CINEMA 4D

even further, just purchase the core application and add the specific modules you need. Modules can be purchased and added at any time and all work together totally smooth and integrated, so CINEMA 4D grows with you as your needs and desires change. Within this modular strategy, you can design the 3D application that works best for you. In addition there's the unique Sketch and Toon module (see page 5).



### Diese Module gehören zum XL Bundle:

CINEMA 4D R8.5, Advanced Render, Thinking Particles, PyroCluster, MOCCA und NET Render (3-Client-Lizenz)

### Diese Module gehören zum Studio Bundle:

CINEMA 4D R8.5, Advanced Render, Thinking Particles, PyroCluster, MOCCA, BodyPaint 3D R2, Dynamics und NET Render (Unlimited-Client-Lizenz)

## Press Quotes:

### 3D World (Sketch and Toon, 10/10 Points)

*"The range of effects is infinitely variable. Sketch and Toon is powerful, versatile – and great fun. Using Toon textures offers the ability to render in minutes cel-shaded images that would normally require hours of work to draw."*

### InsideCG (CINEMA 4D R8.x)

*"Compared to other programs of similar complexity, CINEMA 4D is a breeze to learn. The results have to be seen to be believed. Try CINEMA 4D R8 and you won't be disappointed"*

### Digital Creative Arts (BodyPaint 3D R2 – \*\*\*\*\*Best Buy Award)

*"The first exciting modification is MAXON's slick exchange plugins. Going from Maya, LightWave, 3ds max and, of course, CINEMA 4D into BodyPaint is a painless process."*

### 3D World, (CINEMA 4D R8.x, 10/10 Points)

*"the programmers have obviously been listening to the needs and wants of the users... This version will make converts out of many, and the new tools and paradigms introduced here will undoubtedly be copied by competitors. CINEMA 4D R8 is a tool to be reckoned with. It's fun to compete with, easy to create with, and a tour de force for MAXON and its customers."*

### Kevin Olson, CG Focus (CINEMA 4D R8.x)

*"All in all, I am very impressed with Release 8.x, and as far as price / features it cannot be beat. MAXON continues to raise the bar for the competition while keeping it affordable for newcomers. The Thinking Particles module provides a highly advanced particle system that is one of the most powerful particle systems I have ever seen in a 3D package..."*

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