

MODELING • ANIMATION • RENDERING



Adobe AfterEffects 5.5

After Effects Project File

General

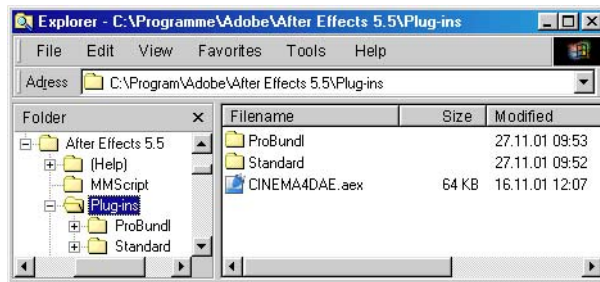
You can quickly and easily transfer multi-pass renderings from CINEMA to After Effects, the powerful motion graphics and visual effects tool from Adobe. Adjust the strength of reflections, shadows, highlights and much more in seconds for optimum visuals. CINEMA 4D supports After Effects version 5 or higher.

The CINEMA 4D plugin enables After Effects to:

- import BodyPaint 3D files (B3D); note that layers are flattened on import.
- import an After Effects composition file (AEC) saved by CINEMA 4D. Among other things, the information in this file enables After Effects to composite the image. Also included are project details such as resolution and frame rate. The AEC file is saved automatically during rendering provided that After Effects Project File is enabled.

Requirements

To render CINEMA 4D multi-passes and edit them in After Effects, you require Adobe After Effects 5.0 or higher. Two versions of the plugin are supplied, one for After Effects 5.0 and one for After Effects 5.5. To install, place the relevant plugin in your After Effects Plug-ins folder.



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To import multi-passes into After Effects ready for editing

- Before you multi-pass render, open the render settings. On the Multi-Pass page, use the Channels drop-down list to choose the passes that you want to be rendered. So that each pass will be saved as a separate file, disable Multi-Layer File (otherwise all the passes would be saved as a single, layered file). Set Format to the desired file format such as QuickTime Movie. Set Path to the save path for the files.
- On the Save page of the render settings, ensure that the After Effects Project File option is enabled. Click OK to accept the render settings then render to the Picture viewer. The passes and the AEC file will be saved in the folder defined by Path.
- In After Effects, import the AEC file (File > Import > File). The passes will be loaded together with project data such as the frame rate. You can now edit the multi-passes in After Effects.

➔ When importing layered Photoshop files, After Effects prompts you to flatten the layers.

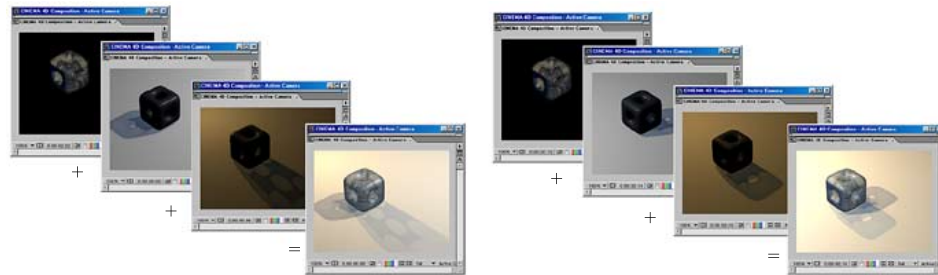
The Save button

Click this button to save the AEC file manually.

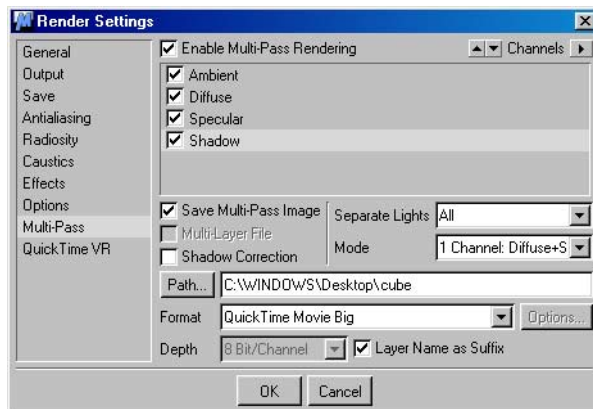
➔ *If you are using Net Render, the optional network rendering module for CINEMA 4D, Net Render is unable to create the AEC files automatically. Thus when you network render, you must click this button to generate the AEC file.*

Example

By combining CINEMA 4D's multi-pass rendering with After Effects, you have extraordinary control over your renderings without having to re-render. This example illustrates how to transfer a multi-pass render from CINEMA 4D to After Effects. The scene used is of a cube and animated lights.



Starting with a ready-to-render scene — for this example a cube and animated lights — the first step is to set the multi-pass parameters on the Render Settings Multi-Pass page. On this page, set Format to the video format you want to use. We chose QuickTime Movie Big. Next, use the Channels drop-down list to choose which passes will be rendered, such as Specular and Diffuse.

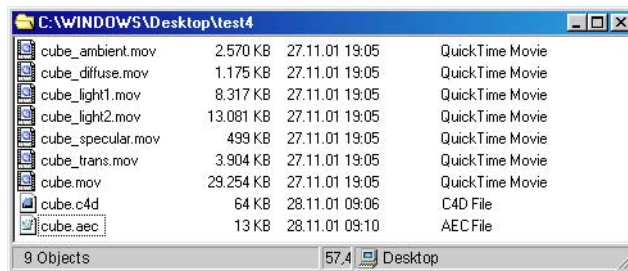


Once you've set the Format, the next step is to add the desired passes using the Channels drop-down list.

If you want a separate pass for each light source, set Separate Lights to All and Mode to 1 Channel. This will enable you to adjust each light separately in After Effects, helping you to achieve the optimum contrast. You could achieve even more control by setting Mode to 3 Channels. Then, three passes would be created for each light: Diffuse, Specular and Shadow. For this simple example, the 1 Channel setting will give ample post-editing power.

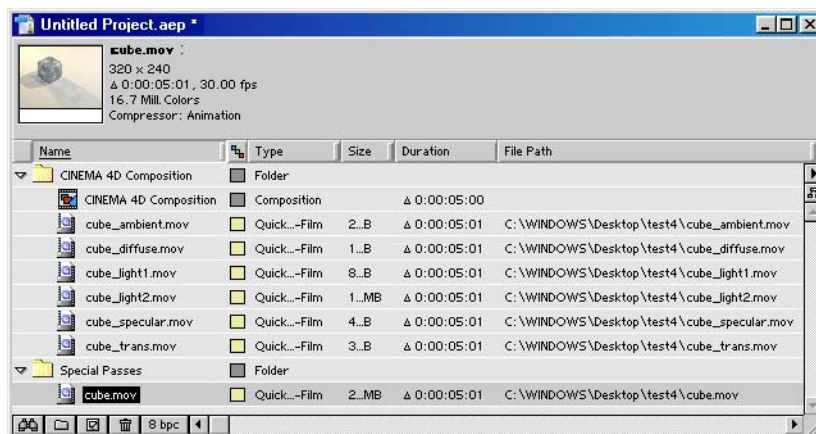
On the Save page of the render settings, ensure that After Effects Project File is enabled. With this option enabled, the AEC file will be created automatically when you render. Later on you will import this essential AEC file into After Effects, where its data will be used to import the passes automatically.

Render to the Picture Viewer. The passes you selected from the Channels list will be rendered and saved; the vital AEC file will be created automatically. Note that if you are using NET Render to render the passes over a network, you must create the AEC file manually — see ‘The Save button’ on page 542.



After rendering to the Picture Viewer, the passes and the AEC file are calculated and saved. Later you will import the AEC file into After Effects to load the multi-passes.

In After Effects, import the AEC file (File > Import > File). The QuickTime passes are loaded into the Project window automatically and animation data such as resolution and frame rate is also read.

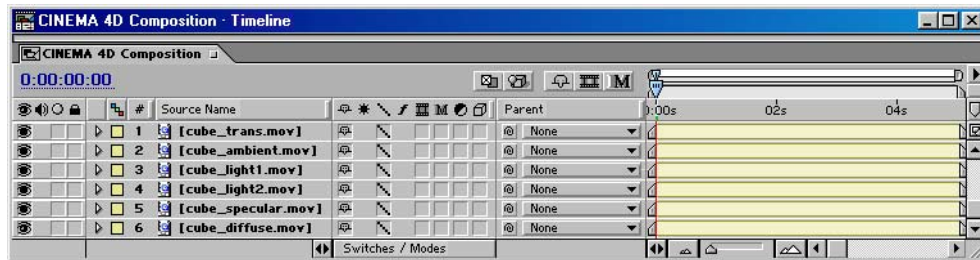


In After Effects, import the AEC file to load rendered passes into the Project window.

➔ Usually there would be a separate folder for each light source containing the passes. We've omitted these for reasons of clarity.

The Special Passes folder stores passes that are not needed to form the composite image. In this case, there is one special pass: cube.mov.

In the Projects window, double-click CINEMA 4D Composition. The composition appears in the Timeline with each pass shown as a separate layer. You can now edit your multi-pass rendering in After Effects.



After double-clicking CINEMA 4D Composition in the Projects window, the composition appears in the Timeline. Each pass is a separately editable layer. You are now ready to post-edit the multi-passes.

Limitations

- NET Render is unable to write AEC files automatically. For network rendering, generate the AEC file manually by clicking the Save button on the Save page of the render settings. You can save the AEC file at any time, even before you have rendered the passes. Missing passes are represented by stand-in frames in After Effects, which you can replace at any stage.
- QTVR cannot be used with AEC files (QTVR does not support multi-passes).
- B3D image sequences are not supported.

Transferring the camera and lights to After Effects

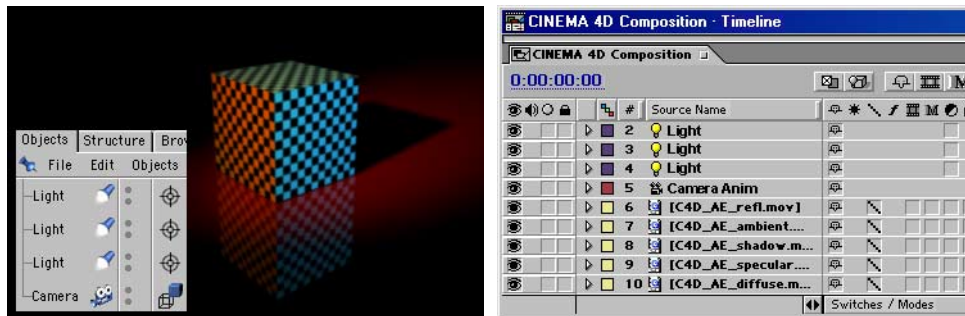
The AEC file that is generating after rendering (After Effects Project file enabled) includes the CINEMA 4D camera and lights. You can use or even edit this camera and lighting directly in After Effects and apply it to any 3D layers. This ensures that items added during post-editing match the lighting and camera angles of the original render, for seamless compositing.

➔ A perfect export of CINEMA 4D's camera and lights is not always possible. After Effects has fewer lighting properties than CINEMA 4D and non-perspective cameras are converted to perspective cameras.

Using CINEMA 4D's camera and lights in After Effects

Suppose a colleague has used CINEMA 4D to render multi-passes. Your colleague gives you the passes and the AEC file then flies off to an exotic island for a three-week break. Having played back the movie a dozen times, you decide the cube looks too bland and needs a logo. Your colleague is a thousand miles away, so re-rendering the scene is not an option.

With CINEMA 4D's tight support for After Effects, there's no need to track down your colleague. You can add the logo as a 3D layer in After Effects and use the CINEMA 4D camera and lights from the AEC file to ensure a seamless fit.



This example of a cube and three lights demonstrates how to use CINEMA 4D's camera and lights in After Effects to add 3D content seamlessly during the post-editing stage.

After importing the AEC file into After Effects, the lights and camera appear in the Timeline, above the multi-passes.

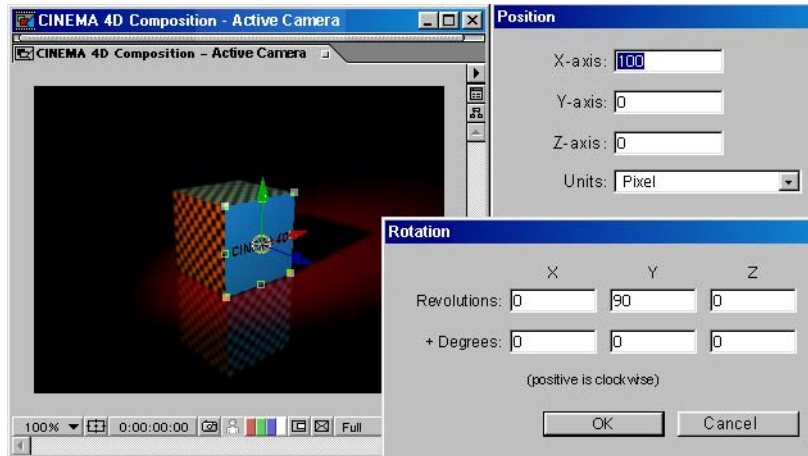
The first step is to start After Effects and import the AEC file. The camera and lights appear in the Timeline (you can access the parameters by double-clicking the camera or light you want to edit).

Create a new layer by choosing Layer > New > Solid.

Set the Width and Height using the same values you would use if you were working in CINEMA 4D. For example, here we set both values to 200, since that was the height and the width of the cube in CINEMA 4D and we want the logo to cover a complete face.

To convert the solid layer into a 3D layer, right-click (Windows) or Command-click (Mac OS) the layer's name and choose 3D Layer from the context menu. The 3D layer appears in the Composition window, using the perspective of the imported CINEMA 4D camera so that it matches the movie.

The next task is to move the layer into position on the cube's front face. To access the Position and Rotation parameters, right-click (Windows) or Command-click (Mac OS) the layer's name and choose what you want to edit from the Transform menu.

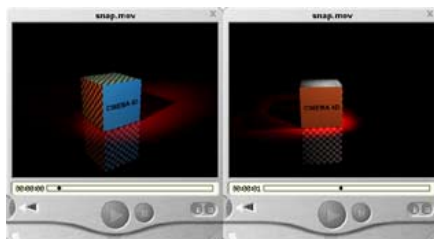


Once a solid layer has been created and converted to a 3D layer, it appears in the viewport using the correct perspective via the imported CINEMA 4D camera. Using the Position and Rotation settings, the layer is moved to the desired position on the front face of the cube.

Enter the same values that you would use in CINEMA 4D. For this example, the front of the cube in CINEMA 4D was at 100,0,0 (X,Y,Z), so we entered these same values for the 3D layer's position in After Effects. However, note that the direction of the Y-axis in After Effects is reversed compared to CINEMA 4D. For example, a Y value of 200 in CINEMA 4D corresponds to a Y value of -200 in After Effects.

After Effects applies the camera motion and lighting to the logo layer. The logo stays locked onto the cube's front surface throughout the animation and uses the same lighting as the cube.

These changes have been made in a few minutes without having to re-render the CINEMA 4D scene. CINEMA 4D's tight integration with After Effects opens up countless possibilities for adjusting your renders quickly and easily, to carry out major changes or simply to produce a better-looking movie.



The logo has been added in After Effects. The logo uses the same lighting and camera as the rendered CINEMA 4D movie, avoiding the need to re-render.