Adobe® After Effects® CS6

Create moving images as unlimited as your imagination

You have creative visions for what you want to deliver. You also have deadlines. Adobe After Effects CS6 software works with you to meet both goals. Deliver cinematic visual effects and sophisticated motion graphics using the industry standard for animation and compositing that offers you complete creative control while delivering unparalleled performance.

After Effects CS6 takes performance to a new level with Global Performance Cache, which maximizes your productivity by saving virtually every preview for instant recall, meaning less waiting for After Effects to catch up. It works as fast as you do. Create and work with extruded text and shapes directly in After Effects, using the new ray-traced 3D rendering engine for a polished final look. Master a wide variety of challenges and extend your creativity with new tools such as variable mask feathering, 3D Camera Tracker, Rolling Shutter Repair, and more high-quality built-in effects to make your final product look the way you intend. Enhanced integration between After Effects CS6 and other Adobe tools makes your workflow even faster and more fluid than ever before.

The ray-traced 3D rendering engine in After Effects CS6 supports reflections, refraction, environment maps, and much more.

With Adobe After Effects CS6, you can:

Work faster. Work more quickly using Adobe After Effects CS6 software, optimized to help you create more in less time. Maximize performance with Global Performance Cache, which preserves previews whenever possible for a fast, robust, and responsive workflow, taking full advantage of the power of your computer's hardware.

Create visual effects with enhanced precision and new creative options. Challenge creative boundaries. Use the 3D Camera Tracker and Rolling Shutter Repair features to seamlessly integrate new elements into your existing video footage. Work precisely with variable mask feathering and mocha AE CS6 to make your visual effects look exactly the way you intend.

Work quickly and easily with ray-traced 3D. Create high-quality imagery faster using a powerful new 3D engine. Easily extrude text and shapes created in After Effects or vector graphics imported from Adobe Illustrator® software.

Who uses After Effects?

Motion graphics designers and visual effects artists use After Effects to produce intricately designed short-form content such as TV commercials, broadcast graphics, and film titles, and to create a wide range of visual effects shots. After Effects is able to handle virtually any animation and compositing task, and offers timesaving integration with other essential tools and components of Production Premium—Adobe Illustrator and Photoshop software, the video editing software Adobe Premiere Pro, and 3D modeling applications such as Maxon CINEMA 4D and Autodesk 3ds Max. A rich ecosystem of third-party plug-ins and scripts means highly specialized solutions are readily available.

Video editors and other post-production professionals use After Effects to complement nonlinear editing tools such as Adobe Premiere Pro because it offers an efficient, well-integrated solution for delivering higher production values. When designing attention-getting show openers, lower thirds, and other types of motion graphics, After Effects offers timesaving presets as well as the ability to refine virtually every aspect of every design element. Video editors also use After Effects for a wide variety of post-production tasks, including color correction, motion tracking, keying, and rotoscoping.

Interactive designers turn to After Effects because it offers flexible tools they can use to prepare dynamic media that integrates well with interactive projects and the tools used to create them. Whether creating finished full-frame video content or objects with transparent backgrounds that can be composited with other elements, designing snippets of persistent motion that add richness to an interactive experience, or creating visually distinctive text animations, interactive designers benefit from the superb quality of After Effects as well as the tight integration between After Effects and Adobe Flash Professional software.

Top new features of Adobe After Effects CS6

Global Performance Cache

The Global Performance Cache feature is a revolution "under the hood" that makes After Effects faster and more responsive than ever before by taking full advantage of the power of your computer's hardware.

Global Performance Cache comprises a set of technologies: a global RAM cache, a persistent disk cache, and a new graphics pipeline.
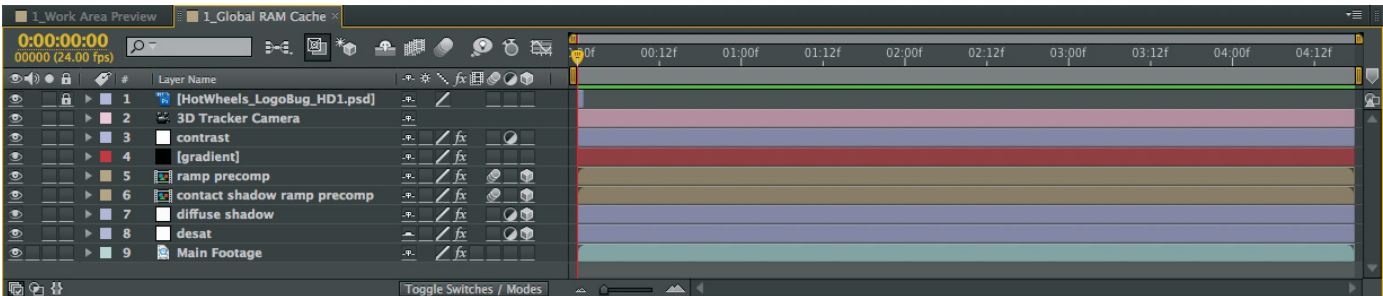
Green bars indicate a composition has been cached into RAM (above); blue bars indicate it has been cached to disk (right). When you open a project you previously worked on, the composition you previewed earlier displays a blue disk-cache indicator bar, indicating that those frames have been stored on disk and are available for immediate use without the need for re-rendering.
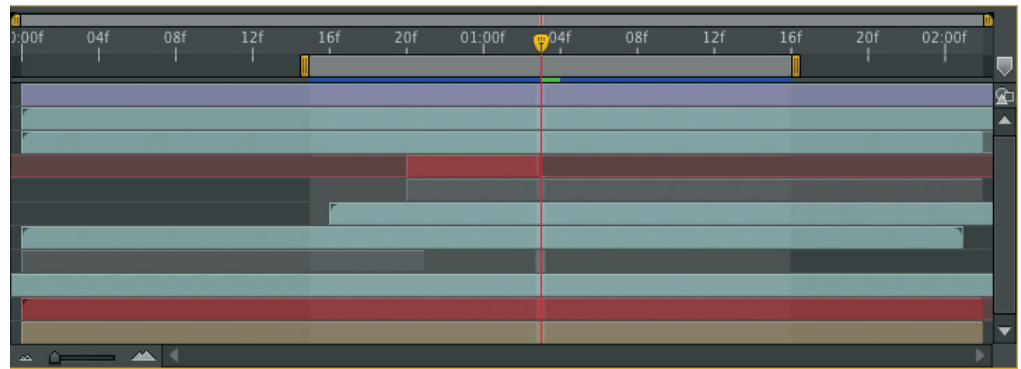
Global RAM cache

Adobe After Effects CS6 contains a vastly improved frame caching system that allows you to reuse elements or play "what if" with various ideas without having to wait for a previously created frame to re-render. For example, you can try a new idea, and then undo if you don't like it, without any penalty in productivity.

What is happening under the hood is that—within the limits of available memory—any frame of a composition or layer inside an After Effects project that is the same as a previously rendered and cached frame does not need to be re-rendered. Reusable frames are recognized anywhere on the timeline, including when using loop expressions, time remapping, and copying then pasting keyframes—not just on adjacent frames. Reusable frames are also recognized on duplicated layers or duplicated compositions. Cached frames are restored after an undo/redo; cached frames are also restored when a composition or layer is returned to a previous state, such as toggling a layer's visibility off and then back on.

Persistent disk cache

With After Effects CS6, you can reopen a project you were working on earlier, and your previously rendered cache is still intact, ready for immediate preview playback and rendering. You can also render and cache a composition's work area to disk in the background while you continue to work.

After Effects calculates if a frame cached to RAM would take less time to retrieve from disk than to render again, and if so, it is also copied to a special user-defined disk cache. Upon opening a project, the disk cache is scanned, looking for frames matching those in the project, and makes them available again for immediate use without the need for re-rendering. This is particularly a boon when you need to work on multiple projects during the course of the day or week.

Additionally, this cache contains frames from all projects you have opened in the same or earlier sessions, so disk-cached frames from one project will be retrieved for reuse in other projects that need those same frames.
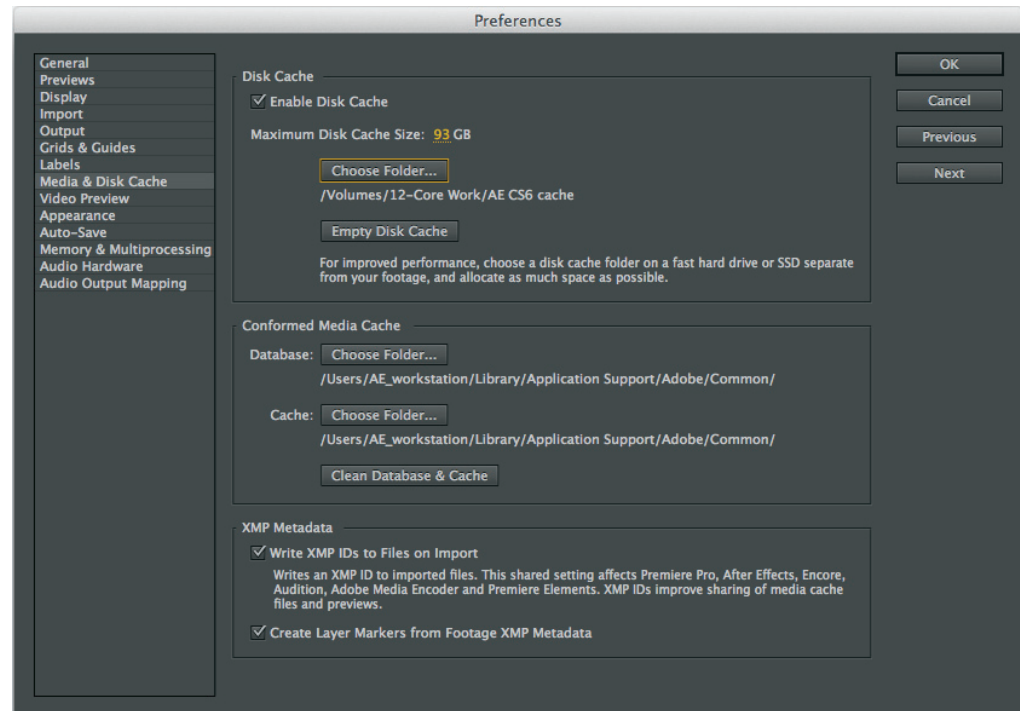
You have control over which disk you use for caching as well as how much space to reserve for the cache.

New graphics pipeline

After Effects CS6 better harnesses OpenGL and the video card in your computer when drawing images to the screen. This results in faster interactivity, a more highly responsive work environment, and a smoother, more immediate user experience.

You get improved playback of memory-cached frames as well as improved performance while working in larger Composition, Layer, and Footage viewer sizes (particularly useful for working with larger image formats and on larger displays). Specific benefits include faster manipulation of layers with graphical overlays such as bounding box handles, masks, motion tracker points, and motion paths, as well as working more efficiently with viewers that contain overlays such as guides and grids, custom user interfaces for effects, and interactions like brush size adjustments.

Based on early tests of After Effects CS6 performed by NVIDIA®, depending on hardware configuration, many of these functions have been accelerated by a factor of 1.5 to 2.5—with some (such as grids, guides, and rulers) being up to 16 times faster than before.

3D Camera Tracker

The new 3D Camera Tracker effect automatically analyzes the motion present in 2D footage; computes the position, orientation, and field of view of the real camera that shot the scene; and creates a new 3D camera in After Effects to match. It also overlays 3D track points onto the 2D footage, making it easy and intuitive for you to attach new 3D After Effects layers onto the original footage.

As a result, these 3D layers have the same movement and perspective changes as the original footage, allowing you to insert new objects into existing scenes with relative ease—a boon both when augmenting reality with visual effects and when creating new realities with motion graphics. The 3D Camera Tracker effect even helps create "shadow catchers," so your new 3D layers can cast realistic shadows onto flat surfaces in the existing footage.

The 3D Camera Tracker can make intelligent decisions to analyze your footage unassisted, or you can enter data about the original shot for even more precise results. Based on an approach similar to that of the Warp Stabilizer introduced in After Effects CS5.5, this analysis takes place in the background while you continue working, further increasing your productivity for what used to be a very labor-intensive task.
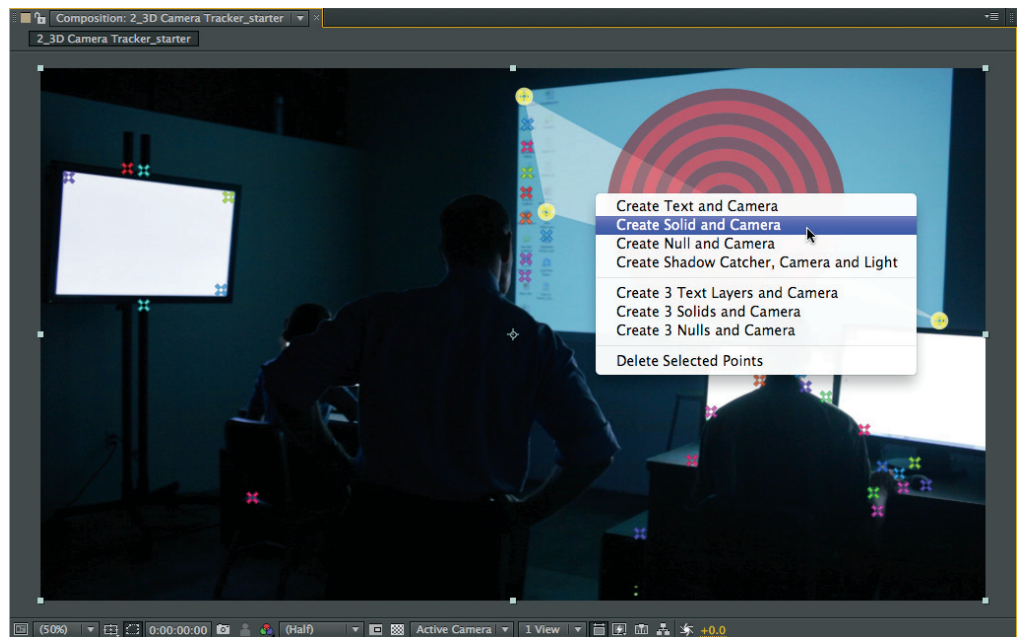
The 3D Camera Tracker greatly simplifies previously labor-intensive visual effects tasks such as replacing multiple data screens arranged at multiple angles, shot with a handheld camera.

Fully ray-traced, extruded text and shapes

After Effects CS6 introduces a new ray-traced 3D rendering engine, allowing you to simply and quickly design fully ray-traced, geometric text and shape layers in 3D space. These enhanced 3D capabilities include:

- Beveled and extruded text and shape layers, adding depth to graphic designs without compromising animations

- Bending of footage and composition layers, adding dimension and yielding more interesting lighting effects for otherwise flat content

- Environment map support, for photorealistic reflections of virtual imagery in addition to the layers included in a composition

- Additional material options, including reflection, transparency, and index of refraction to mimic light traveling through glass and other translucent materials

Accelerating ray-traced renders

After Effects CS6 renders ray-traced 3D images using your computer's CPU, employing all of its physical cores. Additionally, it may take advantage of NVIDIA OptiX™ for highly accelerated rendering. OptiX requires a supported NVIDIA GPU and 1024+ MB of texture memory. For a current list of supported GPUs, visit *www.adobe.com/products/ aftereffects/tech-specs.html*.

Using a qualified NVIDIA graphics card greatly accelerates rendering of ray-traced 3D compositions. Based on tests of an early pre-release version of After Effects CS6 performed by NVIDIA, their Quadro® graphics cards deliver impressive results. Compared to CPU-only rendering using a high-end six-core Intel i7 3960X processor running at 3.3 GHz, installing an entry-level NVIDIA Quadro 2000 improves performance by over a factor of ten, while a top-of-the-line Maximus™ system powered by a Quadro 6000 and Tesla™ C2075 is over 50 times faster. Results will vary depending on your specific projects and hardware configuration, but these preliminary results give an indication of the benefits of GPU acceleration of ray-traced rendering in After Effects CS6.
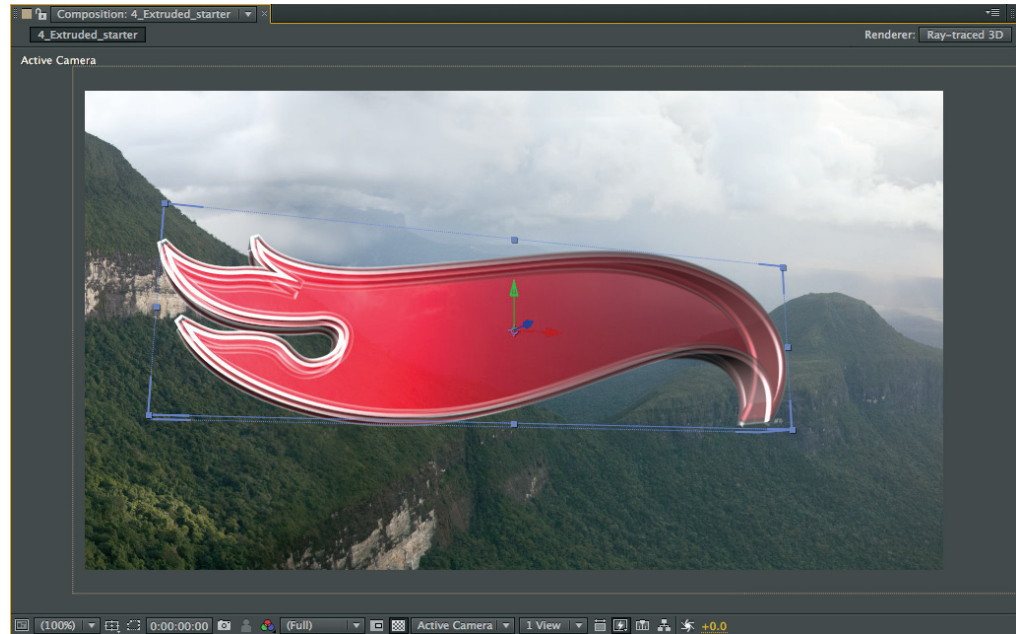
The ability to create translucent shapes and type is but one option provided by the ray-traced 3D renderer.

The new ray-traced renderer is available as an alternative to the scanline-based Classic 3D composition renderer that has been available for several versions. In addition to the new capabilities mentioned above, existing capabilities like soft shadows, motion blur, depth-of-field blur, intra-character shadowing, projection of an image onto a surface with any light type, and intersection of layers are also supported in the new ray tracer. 2D layer backdrops at the bottom of the stacking order are visible, and you can look through translucent objects to see those layers. By using a ray tracer to render the scene, the result is now also more physically accurate, including improved soft shadows and depth-of-field blur, plus sharper light transmission for video projection and effects such as light streaming through a stained glass window.

In addition to a new Geometry Options section, the ray-traced 3D renderer features Material Options for Reflection, Transparency, and Refraction.
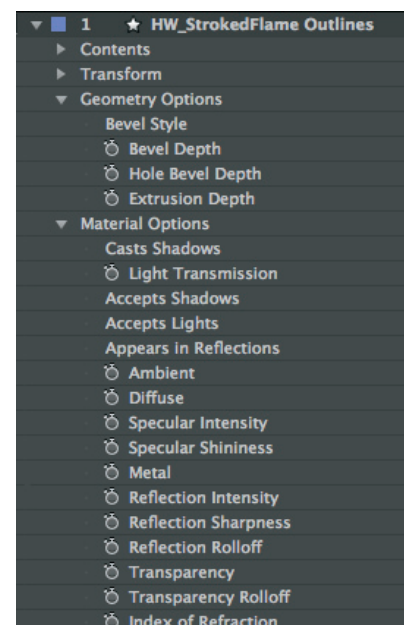
Variable Mask Feathering

With Variable Mask Feathering, you can work precisely and create the exact shape you want with the proper degree of softness at the edges, yielding more realistic composites as well as opening creative possibilities.

After Effects has long had the ability to add a "feathered" soft edge to masked shapes, but in previous versions the width of the feather was the same around the entire mask. After Effects CS6 contains a new Mask Feather tool that lets you define a virtually infinite number of points along a closed mask, and define the width of the feather at each of these points. This means some sections such as hard metallic edges can remain sharp, while other sections that are out of focus or otherwise blurred may have a softer outline. These points are not tied to the underlying mask vertices, which makes After Effects more flexible than other systems that allow the feather to be defined only on a per-vertex basis. Two different feather falloff options—Smooth and Linear—are also available.
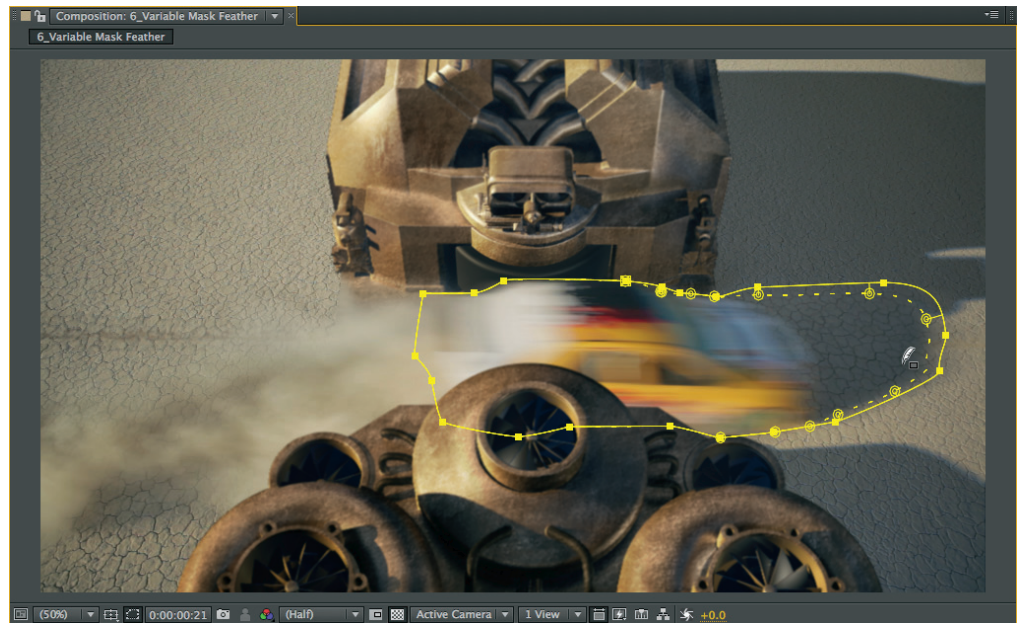
Variable Mask Feathering makes it possible to create more nuanced transparency with fewer masks.

Tight integration with Adobe Illustrator CS6

Adobe Illustrator software has long been a favorite for creating complex text layouts, logos, and other graphical elements. After Effects CS6 has a Create Shapes From Vector Layer command to convert any Illustrator vector-based artwork—including AI and EPS files—into After Effects shape layers. As a result, you can make changes as simple as tweaking the fill and stroke color or as complex as editing the shape's individual vertices without leaving After Effects. You can also apply shape operators inside After Effects, including the self-animating Wiggle Paths and Wiggle Transform operators.

And remember, shape layers may also be extruded and ray traced in After Effects CS6, making it fast and easy to create high-quality animated, dimensional logos from previously flat artwork.

Choosing Create Shapes From Vector Layer creates an editable and animatable shape layer based on your vector artwork, while leaving your original vector layer intact.
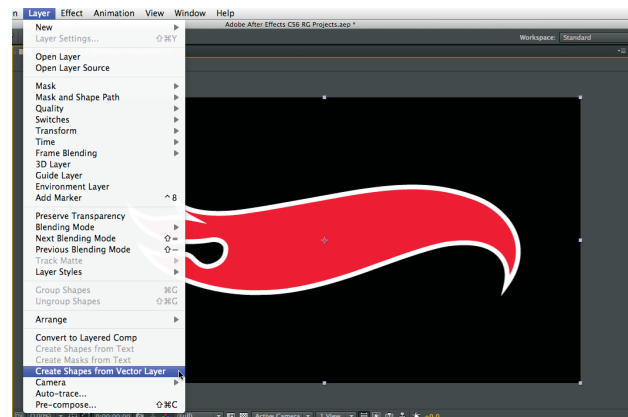
Rolling Shutter Repair

Digital cameras with CMOS sensors—including video-capable DSLRs, which are becoming increasingly popular for the creation of films, commercials, and television shows—typically have what is commonly known as a "rolling" shutter, which captures a frame of video one scan line at a time. Due to time lag between scan lines, not all parts of the image are recorded at exactly the same time, causing motion to ripple down the frame. If the camera or the subject is moving, the rolling shutter can cause distortions, such as leaning buildings and other skewed images. Dealing with this footage can cause headaches, especially when attempting to composite the footage with nondistorted images, such as 3D layers and text.

After Effects CS6 includes an advanced Rolling Shutter Repair effect that contains two different user-selectable algorithms to help fix problematic footage.

This skewed image is typical of scenes with fast movement shot with a digital camera employing a CMOS sensor. Notice how it appears to lean slightly to the left as a result.

This corrected image shows the results of applying Rolling Shutter Repair in After Effects CS6. In particular, the sticker on the tailgate is now a clean rectangle, making it much easier to replace in post-production.

Enhanced effects

After Effects CS6 makes it easier to enhance the production value of your projects, with over 80 new and updated built-in effects.

The cornerstone of this bonanza for artists is the inclusion of the CycoreFX HD Suite. In contrast to the 8-bit-per-channel CycoreFX previously bundled with After Effects, all 73 of the HD plug-ins—including such popular effects as CC Sphere and CC Gradient Wipe—support 16-bit-per-channel color; 35 of them support 32-bit floating point for maximum dynamic range. Among the many benefits of increased color depth is reduced banding and other types of image degradation, especially while applying color correction.

The CycoreFX HD Suite can be used in high-end visual effects and motion graphics jobs without concern about image quality. Here, CC Sphere is used to animate a still image to create a dynamic background for this shot.

The CycoreFX HD Suite also includes effects not previously bundled with After Effects, such as Cross Blur, Color Neutralizer, Kernel, Threads, Environment, Rainfall, Snowfall, Block Load, Plastic, Line Sweep, WarpoMatic, and Overbrights, as well as enhancements such as support for motion blur and a composition's 3D lights in the relevant CycoreFX effects.

Additionally, a number of Adobe effects have also been rewritten to support 32-bit floating point color, including Drop Shadow, Spill Suppressor, Timewarp, Transform, Set Matte, Photo Filter, and Fill, and transitions such as Linear, Iris, and Radial Wipe. Floating point color is essential for the preservation of highlights and the ability to recover shadow detail, especially when working with high dynamic range footage such as ARRIRAW files—another new addition in After Effects CS6.
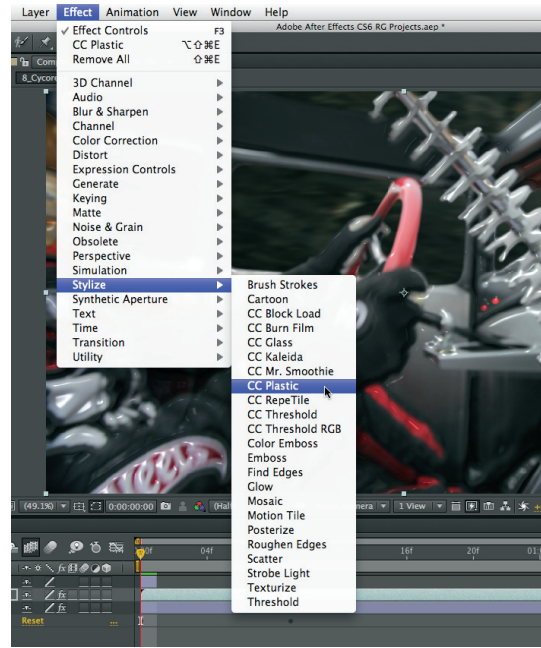
Newly bundled CycoreFX HD effects include CC Plastic.

Pro Import After Effects

Pro Import After Effects is an industry-leading integration solution that lets you easily import into After Effects and work with Avid Media Composer and Symphony AAF/OMF files, as well as with XML files from Apple Final Cut Pro 7 or earlier versions. Many effects and parameters from supported Avid and Apple files are translated into After Effects, including position, scale, rotation, keyframes, composite modes, titles, speed changes, and more.

Previously available as a separate product from Automatic Duck, Pro Import After Effects is included with After Effects CS6. In addition to the already-excellent integration with Adobe Premiere Pro CS6 software inside the Adobe Creative Suite 6 Production Premium and Master Collection editions, the inclusion of Pro Import After Effects plugs After Effects solidly into any professional production workflow.


Pro Import After Effects converts sequences in popular editing software into After Effects compositions, greatly streamlining the workflow as you employ After Effects to increase the production value of your projects.
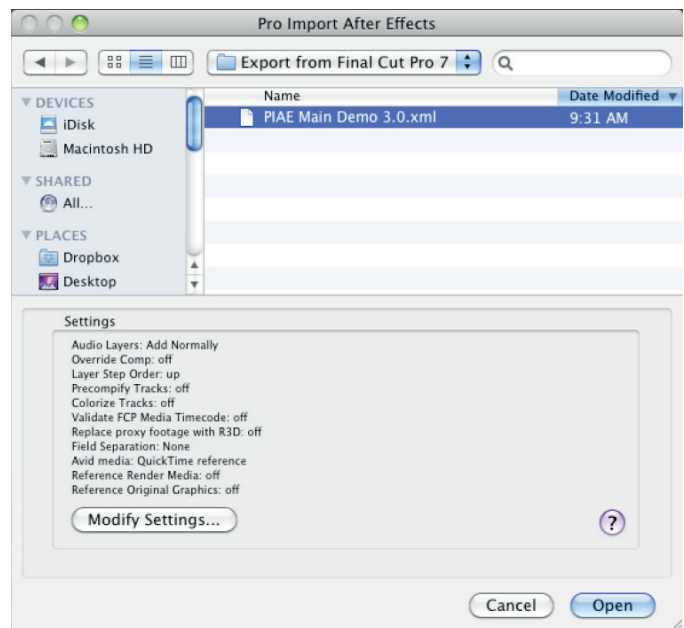
Improved mocha AE workflow

The professional 2.5D planar tracking and rotoscoping tool mocha AE from Imagineer Systems continues to be bundled with After Effects. This tool, combined with Adobe's own 3D Camera Tracker, Warp Stabilizer, and traditional 2D point tracker, fills out a full suite of tracking tools to take on whatever challenges your footage presents.

Additionally, After Effects CS6 now includes a Track In mocha AE menu command that lets you launch mocha AE directly from within After Effects, so you can immediately begin working with the per-vertex feathering and other masking tools available in mocha AE as well as in mocha shape.
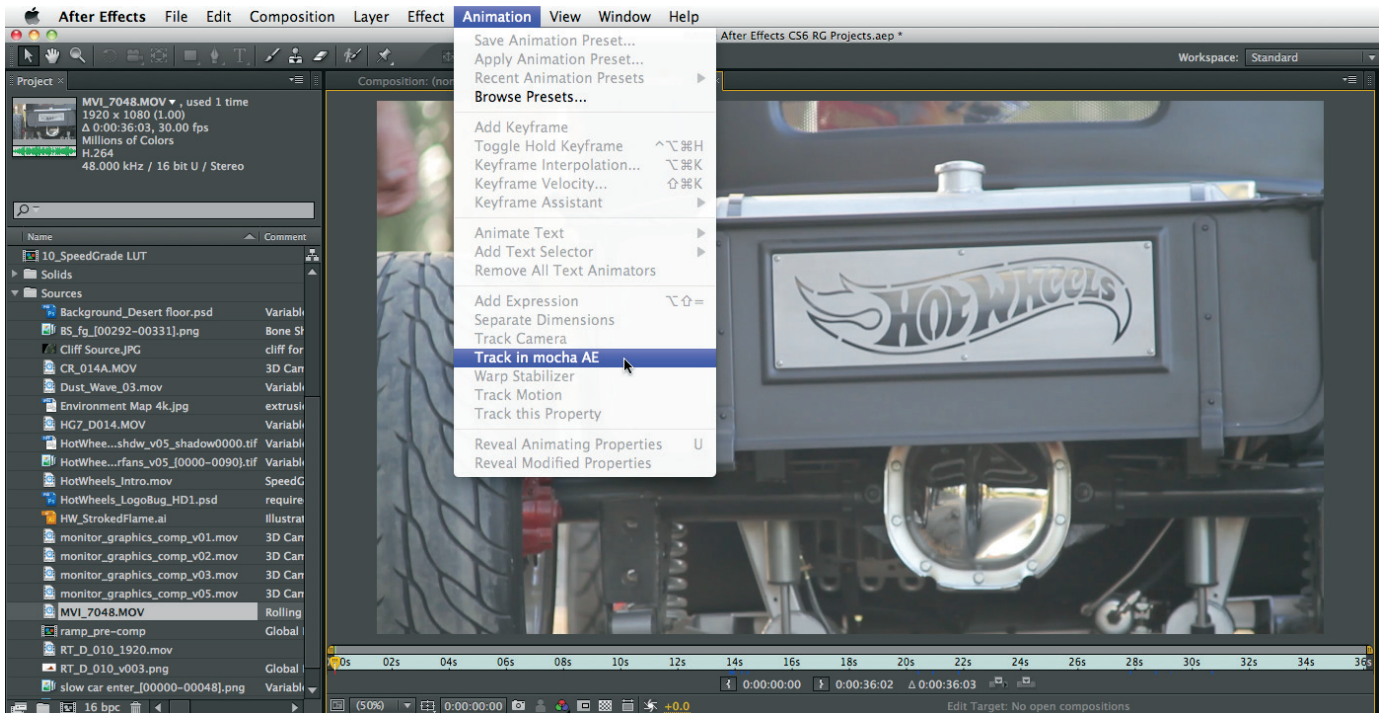
You can now select a footage item directly in the Project panel of After Effects CS6 and open it in mocha AE without needing to go through the Finder (Mac OS) or Explorer (Windows).

Additional enhancements

In every release, After Effects introduces dozens of new features as well as refinements to existing features. Among such features added in After Effects CS6 are:

- Re-engineered use of OpenGL for real-time interactive draft rendering, making After Effects even more responsive

- Finer control over composition objects via new bounding box controls. For example, to help visualize the 3D bounds for beveled, extruded, or curved layers in addition to "flat" layers, the bounding boxes for selected 3D layers now appear as dashed outlines with scaling handles.

- Numerous scripting language additions and improvements, including support for the new Variable Mask Feathering feature

- Ability to import ARRIRAW footage from ARRIFLEX D-21 or ALEXA digital cameras

- Native support for Adobe SpeedGrade .Look files, cineSpace .csp files, and overrange IRIDAS .cube files

About Adobe Systems Incorporated

Adobe is changing the world through digital experiences. For more information, visit *www.adobe.com.*

System requirements

Mac OS

- Multicore Intel® processor with 64-bit support
- Mac OS X v10.6.8 or v10.7
- 4GB of RAM (8GB recommended)
- 4GB of available hard-disk space for installation; additional free space required during installation (cannot install on a volume that uses a case-sensitive file system or on removable flash storage devices)

Additional disk space for disk cache; 10GB recommended

- 1280x900 display

OpenGL 2.0–capable system

DVD-ROM drive for installation from DVD media

- QuickTime 7.6.6 software required for QuickTime features
- Optional: Adobe-certified GPU card for GPU-accelerated ray-traced 3D renderer; visit *www.adobe.com/go/aftereffects_systemreqs* for the latest list of supported cards
- This software will not operate without activation. Broadband Internet connection and registration are required for software activation, validation of subscriptions, and access to online services.* Phone activation is not available.

For updates to system requirements and more detailed information about video hardware compatibility, visit *www.adobe.com/go/aftereffects_systemreqs.*

Windows

- Intel® Core™2 Duo or AMD Phenom® II processor; 64-bit support required
- Microsoft® Windows® 7 with Service Pack 1 (64 bit)
- 4GB of RAM (8GB recommended)
- 3GB of available hard-disk space; additional free space required during installation (cannot install on removable flash storage devices)

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- 1280x900 display

OpenGL 2.0–capable system

DVD-ROM drive for installation from DVD media

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Expected release date

Second quarter 2012

For more information

Product details:
www.adobe.com/aftereffects