Adobe After Effects CS5 is also available as a component of Adobe Creative Suite® 5 Production Premium and Adobe Creative Suite 5 Master Collection software.

Adobe Creative Suite 5 Production Premium combines:
• Adobe Premiere® Pro CS5
• Adobe After Effects CS5
• Adobe Photoshop® CS5 Extended
• Adobe Illustrator® CS5
• Adobe Flash® Catalyst™ CS5
• Adobe Flash Professional CS5
• Adobe Soundbooth® CS5
• Adobe OnLocation™ CS5
• Adobe Encore® CS5

Additional components:
• Adobe Dynamic Link
• Adobe Bridge CS5

Integrates with new Adobe CS Live online services*

Adobe® After Effects® CS5

Create motion graphics and visual effects with the industry standard

Adobe After Effects CS5 software delivers the outstanding performance and visual richness required to succeed in today's media culture. New native 64-bit support lets you tap more of your computer's power to work efficiently with complex HD, 2K, and 4K projects. Plus, a broad range of innovative features—from the revolutionary new Roto Brush to dozens of subtle but important changes that streamline your workflow—enable you to create amazing motion graphics and blockbuster visual effects while delivering your work to the widest possible variety of screens.

With Adobe After Effects CS5, you can:

Get 64-bit performance. Take advantage of all available RAM and processor cores to quickly craft complex 3D scenes and camera moves, work on large frames, preview long deeply-layered composites, and batch-render your results to a variety of output file formats.

Innovate visually. After Effects CS5 includes Mocha for After Effects CS5 v2 with the Mocha Shape plug-in, Color Finesse 3, and Digieffects FreeForm (note that these third-party plug-ins included with After Effects CS5 have a user interface that is English only). Combine this new power with the wide range of innovative 2D and 3D creation, compositing, and animation tools already in After Effects, and it's clear that CS5 is a must-have release that expands your creative horizons.

Composite efficiently. Execute post-production tasks faster than ever—at maximum bit depth, and at virtually any frame size—thanks to the revolutionary new Roto Brush, new support for color LUTs, and other breakthroughs. Efficient production pipelines, including support for XMP metadata, are increasingly important in complex digital production workflows—and After Effects CS5 delivers innovations across the board.

Deliver everywhere. Work with a wider range of media types—now including AVC-Intra and expanded RED camera support—and render your final results in formats from mobile media to feature films at maximum bit depth and resolution, using industry-unique color management and new custom Color Look-Up Table (LUT) support to help ensure accurate results across a variety of delivery platforms.

With the revolutionary new Roto Brush, one of the numerous innovations introduced in After Effects CS5, you can isolate moving foreground elements from their backgrounds in a fraction of the time it used to take.

*CS Live online services are complimentary for a limited time. See the last page of this document for details and limitations related to all Adobe online services.

Leading 64-bit OS support

In addition to After Effects, Adobe Premiere Pro CS5, Photoshop CS5 Extended, and Adobe Media Encoder CS5—all included in Adobe Production Premium CS5 software—are also native 64-bit applications, meaning you can enjoy enhanced performance when working on very large files across a variety of common video workflows. Adobe Premiere Pro includes the revolutionary Adobe Mercury Playback Engine, a native 64-bit, GPU-accelerated playback and rendering engine that provides rock-solid performance and stability at 4K resolution and beyond.

Note that Adobe Premiere Pro CS5, Adobe Media Encoder CS5, and After Effects CS5 all require a 64-bit operating system.

*CS Live online services are complimentary for a limited time. See the last page of this document for details and limitations related to all Adobe online services.

Who uses After Effects?

Motion graphics designers and visual effects artists use After Effects to produce highly 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 a broad range of animation and compositing tasks, and offers timesaving integration with other essential tools: Adobe Photoshop CS5 and Illustrator CS5 software, 3D modeling applications such as Maxon CINEMA 4D and Autodesk Maya, and the editing software Adobe Premiere Pro. A rich ecosystem of third-party plug-ins means highly specialized solutions are readily available.

Video editors and other types of 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 and templates, as well as the ability to refine virtually every aspect of every design element. After Effects is also used by video editors to create effects and to handle a wide variety of post-production tasks, including color correction, motion tracking and stabilization, and keying and rotoscoping.

Interactive designers are turning to After Effects in ever-greater numbers because it offers flexible tools they can use to prepare dynamic media for use in interactive projects. Whether they're creating videos with transparent backgrounds that can be composited with other elements in real time in Flash Player, designing snippets of persistent motion that add richness to an interactive experience, or creating visually distinctive text animations that stand out from the crowd, interactive designers benefit from tight integration between After Effects and Adobe Flash Professional.

Top new features of Adobe After Effects CS5

Native 64-bit application

One of the most significant advances in After Effects is that it is now a fully native 64-bit application. This yields numerous advantages, including the ability to fully use your computer's memory for dramatic improvements when working on high-resolution projects.

Just a few years ago, it was normal to work on standard-definition video at a color depth of 8 bits per channel (bpc). Today, it is common to work on high-definition video at a depth of 16 bpc. And while some artists have used After Effects on film projects since the earliest versions, digital cinema cameras such as the RED One are now commonly in use—making 4K images in 32-bit floating-point color increasingly common. And the memory demands don't stop there. For example, RED has announced cameras that sport 5K, 6K, 9K, and even 28K frame sizes. Native 64-bit OS support in After Effects CS5 means you can work on ever-higher-resolution projects with confidence.

4K

HD

SD

Format memory requirements

standard definition
720x486 pixels x 4 color channels* x 8 bpc = 1.33 megabytes/frame
10 seconds @ 29.97 fps = 398.6MB

high definition
1920x1080 pixels x 4 color channels* x 16 bpc = 15.82 megabytes/frame
10 seconds @ 23.976 fps = 3.7GB

digital cinema
4096x2304 pixels x 4 color channels* x 32 bpc = 144 megabytes/frame
10 seconds @ 24 fps =33.75GB

(4 color channels = red/green/blue/alpha)*

On 32-bit operating systems, the 2GB to 4GB memory restriction for each application sharply limit how many image frames can be held in RAM at the same time—which in turn constrains the length of full-motion previews and the complexity of projects overall. Even with disk caching and virtual memory, working with HD content using older versions of After Effects on 32-bit systems means you may be forced to wait while images are swapped in and out of RAM or re-rendered the next time they are needed. Resourceful artists have developed strategies to work around these limitations— such as working at lower resolutions or frame rates or using "proxies" of lower-quality sources— but these come with the trade-off of not seeing your composition in its final form while you work.

With After Effects CS5, these limitations no longer apply. Support for 64-bit operating systems means After Effects CS5 can access all of your computer's available RAM. This has a dramatic, positive effect on the type, size, and complexity of projects you can take on—as well as how fluidly you can work. With After Effects CS5 running on a 64-bit operating system with 32GB of RAM, you can preview a 30-second HD comp at full resolution and at 32 bpc. This enables you to preview your entire composition at maximum fidelity without interruption.
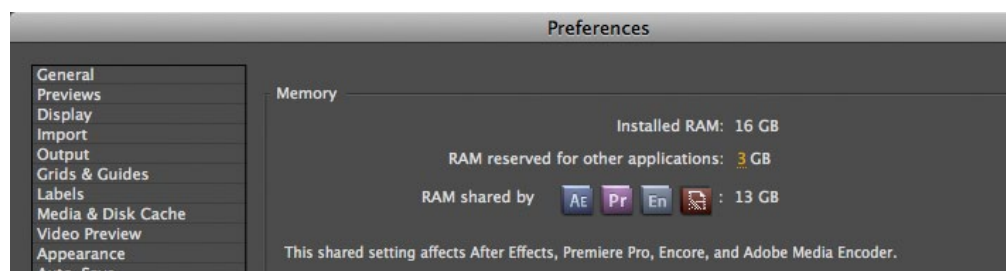

After Effects RAM preview examples

8GB system RAM
1280x720 pixels @ 25 fps, 16 bpc

| CS4 | 9.7 secs |
| CS5 | 25 secs |

16GB system RAM
1920x1080 pixels @ 29.97 fps, 16 bpc

| CS4 | 3.6 secs |
| CS5 | 24.8 secs |

32GB system RAM
1920x1080 pixels @ 23.976 fps, 32 bpc

| CS4 | 2.3 secs |
| CS5 | 34.9 secs |

Real-time RAM Preview durations are dramatically increased by the 64-bit support in After Effects CS5. (Preview times are approximate, with no other software or tasks currently running.)

Beyond being able to preview longer continuous stretches of your project, rendered image frames are more likely to be kept in memory, allowing you to move around a project's timeline or between compositions without losing already-rendered frames. Additionally, memory buffer errors due to RAM constraints are virtually eliminated. These improvements increase productivity, which in turn facilitates creativity.

Integrated memory management

In Adobe Creative Suite 5 Production Premium, you can coordinate RAM allocation for After Effects, Adobe Premiere Pro , Adobe Encore, and Adobe Media Encoder thanks to cross-component memory management. This allows you to make the most of your system resources without learning complex memory-management settings.

You can manage memory allocations across 64-bit Production Premium from inside After Effects.

Complete your production toolset
Integrate your entire workflow with Adobe Creative Suite 5 Production Premium, and get more creative power at an appealing price. In addition to After Effects, CS5 Production Premium offers the latest versions of Photoshop Extended, Adobe Premiere Pro, Illustrator, and Flash Professional, as well as Adobe Flash Catalyst, Encore, OnLocation®, and Soundbooth®.

Move up to Production Premium to:

Get breakthrough performance with other Production Premium components. Complete projects faster with the new Mercury Playback Engine in Adobe Premiere Pro and 64-bit performance and GPU acceleration in Photoshop Extended. Faster Dynamic Link between After Effects and Adobe Premiere Pro means you can iterate projects more quickly without intermediate rendering.

Create eye-popping 2D and 3D assets. Easily create 3D assets and expressive digital paintings, and efficiently remove unwanted objects, with new 3D and painting tools and Content Aware Fill in Photoshop Extended.

Integrate tapeless formats. Widen your options with the industry's best tapeless support in Adobe Premiere Pro. Edit natively with formats such as RED, AVCHD, AVC-Intra, and video from DSLR cameras.

Roundtrip with other NLEs. Apply the timesaving benefits of Production Premium to Final Cut Pro and Avid Media Composer workflows by easily moving projects and media back and forth between Adobe Premiere Pro and these NLEs.

For more information, see *Adobe Creative Suite 5 Production Premium What's New.*

Roto Brush

Many shots require separating a foreground object—such as an actor—from its current live action background so that the object may be placed in a completely new environment. The revolutionary new Roto Brush provides a fast, efficient solution for isolating these foreground elements in complex scenes. In the past, this kind of work was time-consuming and expensive, and as a result, the technique was often reserved for big-budget projects. The new Roto Brush is so fast that After Effects artists can now perform rotoscoping on virtually any project—from previsualization to final composites—with greatly reduced concern about project budgets or deadlines.

To use the new Roto Brush, just draw simple paint strokes inside the foreground object, and let After Effects calculate where the rest of the foreground object is. If the foreground and background are similar, you can draw additional paint strokes to teach After Effects which elements are in the background. After Effects determines where the foreground and background are on subsequent frames; you can refine results with additional strokes. The process is fast and intuitive—and because After Effects does the hard work of finding the edges, Roto Brush eliminates the tedium traditionally associated with the task.

Once you've defined the foreground and background areas, you can control the quality of the edges between the two using options for smoothing, feathering, or choking (spreading inside or outside of the original edge). After Effects can calculate motion blur for fast-moving portions of the edge to deliver photo-realistic, professional results with minimal effort. "Edge chatter" from frame to frame is automatically reduced, and in addition you can remove background color from semitransparent edges of the foreground object. And if the resulting alpha channel still requires additional refinement, you can use the paint tools already built into After Effects to further tweak your results.
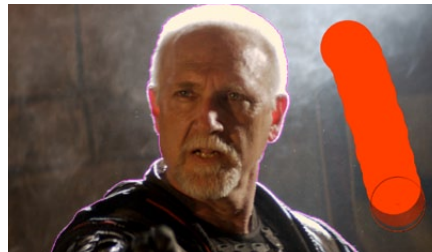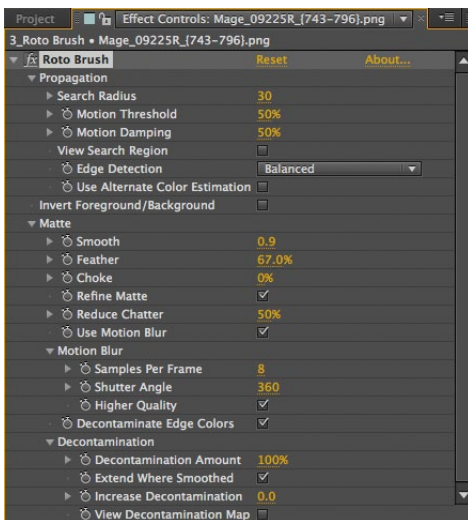
The revolutionary new Roto Brush enables you to separate foreground elements from complex backgrounds in a fraction of the time it would take using traditional rotoscoping techniques. Teach it how to process one frame, and Roto Brush automatically tracks the footage and applies the same criteria across multiple frames.

The Roto Brush expands your creative options by enabling you to offer results that require sophisticated rotoscoping—on virtually any project. Professional-quality results can be realized dramatically faster and with far less tedium: artists are already reporting that the process of rotoscoping is taking a fraction of the time it required in the past. This means you can accomplish creative treatments that previously were feasible exclusively on big-budget projects—from isolating elements for targeted color enhancement to placing design elements such as text or logos between actors and their backgrounds.
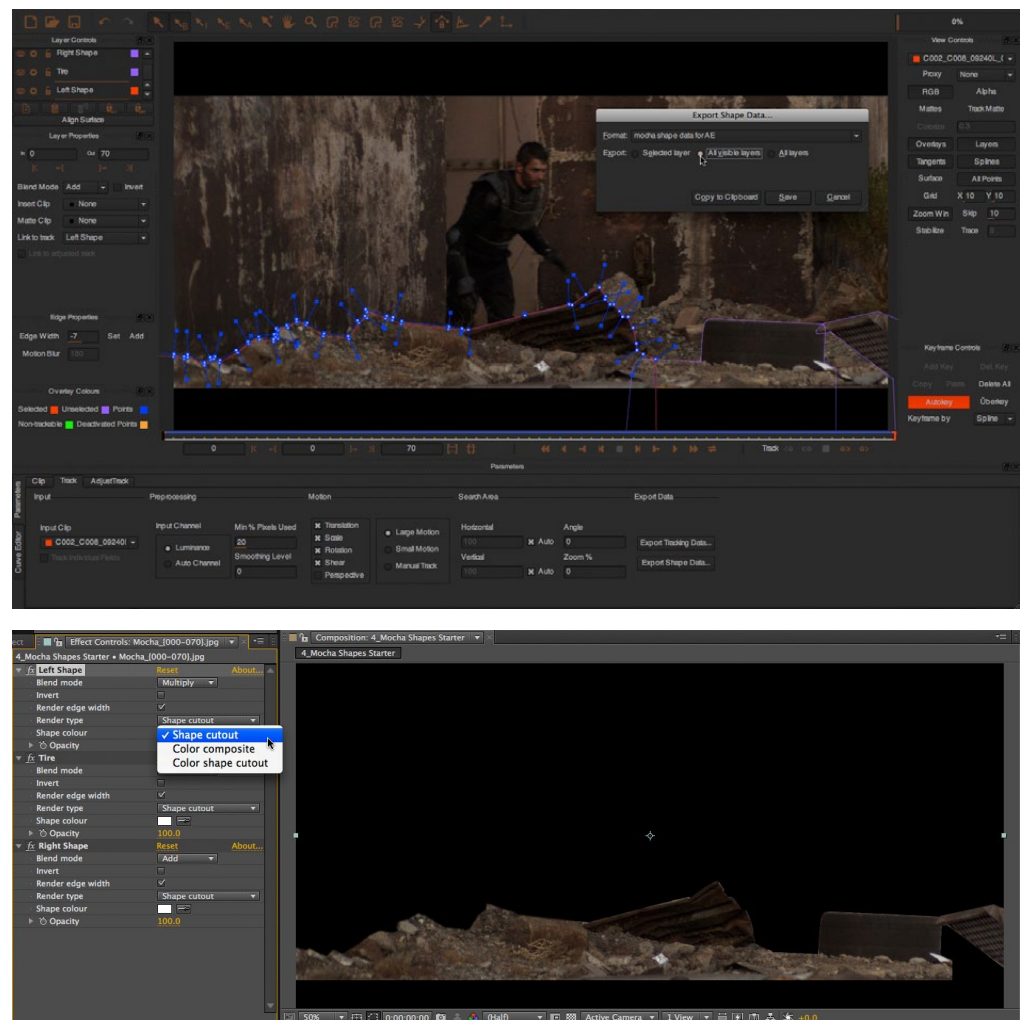
mocha for After Effects CS5

Real-world projects typically require motion tracking, and many shots present tracking challenges such as elements that go partially out of frame or include motion blur. mocha for After Effects CS5—an updated version of the software included with After Effects CS5—has a unique planar tracker that makes it easy to handle even the most difficult tracking and stabilization tasks. Also included in this release is the mocha shape plug-in, which enables you to use tracking data in new ways. stabilization tasks. (mocha for After Effects CS5 and mocha shape have user interfaces that are English only.)

This updated release of mocha includes the ability to apply motion tracking to hand-drawn masks, which is a significant time-saver. In addition, motion-blurred or semitransparent areas are easily handled with new support for varible-width mask feathers. And like After Effects CS5, mocha for After Effects CS5 is a native 64-bit application.

Included for the first time in After Effects CS5, the mocha shape plug-in enables you to copy and paste multiple motion-tracked masks from mocha to any After Effects layer, fully preserving all their qualities, including any variable-width mask feather settings. This is particularly useful for shots that contain camera movements or moving objects that require masking.

One of the other new features you will find useful is that Bezier or X-spline animated roto shapes created in mocha may be converted into mask shapes in After Effects, where they can be further refined and manipulated without requiring a trip back into mocha. Also with mocha for After Effects CS5, motion blur data is now included in the exported tracking data. This enables you to re-create the motion blur that occurred in the original footage.

You can outline and track complex objects in mocha for After Effects CS5 (top), export the tracked shapes, and apply them to your footage using the mocha shape effect in After Effects CS5 (above). Motion blur and variable-width per-point mask feathering are maintained to help create the more realistic composites.
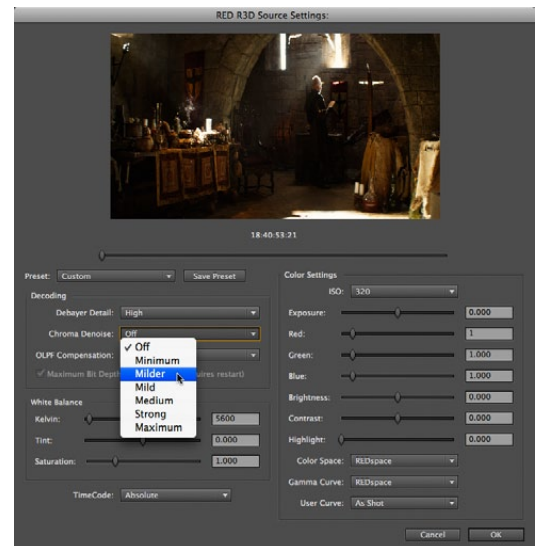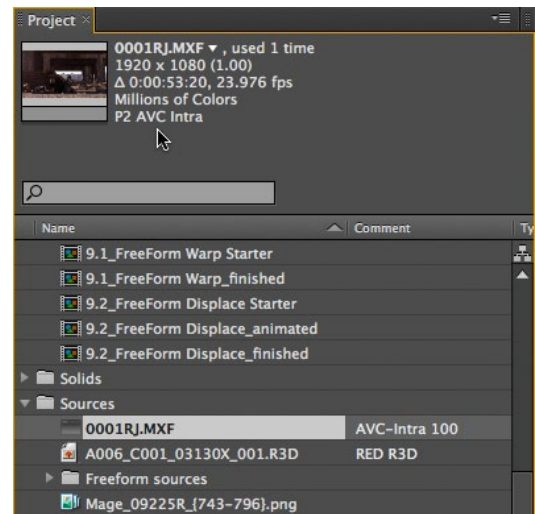
AVC-Intra support and expanded RED camera support

After Effects CS5 includes native support for the new AVC-Intra 50 and AVC-Intra 100 codecs, as well as expanded native support for footage from RED cameras.

AVC-Intra is used by high-quality Panasonic cameras like the AJ-HPX300, AJ-HPX3700 VariCam, and AJ-HPX2700 VariCam, as well as recorders like the AJ-HPM110. According to Panasonic documents, AVC-Intra 100 is the highest recording quality available in a one-piece camcorder—comparable to mastering video quality—and is explicitly designed and optimized for broadcast and production. Adobe Premiere Pro CS5 also supports AVC-Intra, so there's no barrier to integrating After Effects with Adobe Premiere Pro projects if you want to use AVC-Intra.

After Effects CS5, like Adobe Premiere Pro CS5, provides full native support for RED R3D files, allowing you to import them directly without transcoding, rewrapping, or installing additional software. Because the files you import contain raw sensor data, you edit footage that is as close to what the camera captured as possible, enabling you to work nondestructively on the color and look of your projects. This includes the ability to edit enhanced parameters such as Debayer Detail, Chroma Denoise, White Balance, ISO settings, and more.
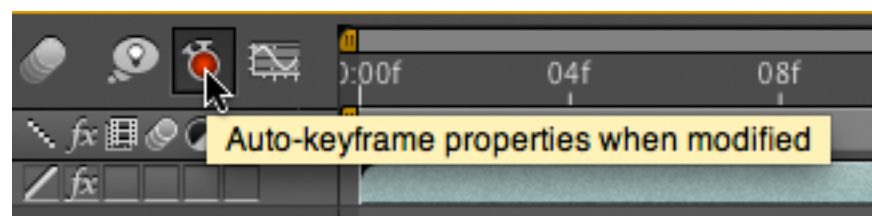

With After Effects CS5, you can work with content in all common RED R3D file permutations, including 2K, 3K, 4K, 4K HD, 16x9, and 2x1, using a number of different frame rates.

Multi-channel DPX

After Effects CS5 also supports multi-channel DPX files, such as those generated by the Northlight film scanner. DPX has rapidly become the preferred file format of the visual effects community in high-end production workflows.

Auto-keyframe mode

After Effects has long featured powerful, flexible keyframing. However, artists new to After Effects have expressed a wish for an automatic way to begin keyframing their animations.

To assist these artists, After Effects CS5 offers an Auto-keyframe mode. When Auto-keyframe mode is on, modifying a property automatically turns its stopwatch on and adds a keyframe at the current time. This prevents you from working with a layer's properties only to realize later that After Effects did not capture any of your changes. Parameters that can be automatically keyframed include position, rotation, shape properties, mask properties, effect point controls, and camera manipulation.

Auto-keyframe mode simplifies the keyframing process, and can help beginners avoid mistakes such as forgetting to enable keyframing for certain properties.

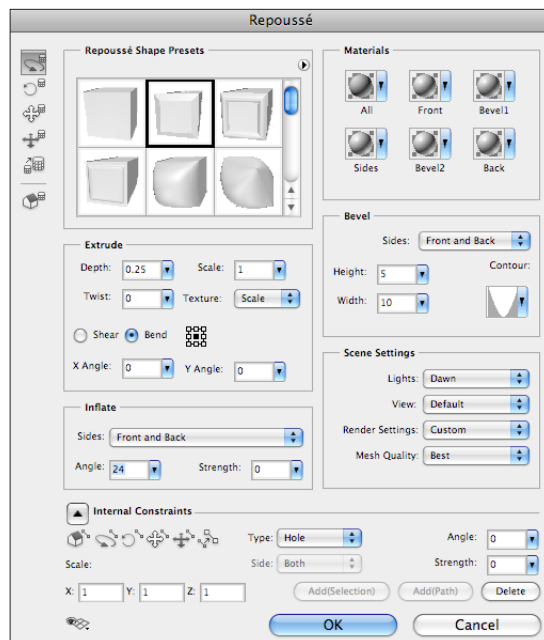## New Refine Matte effect and dozens of other enhancements

In every release, After Effects introduces dozens of refinements to popular features. Experienced professionals know that while individually these changes may seem subtle, collectively they make the day-in and day-out experience of working with After Effects smoother and more intuitive. Among many such features added in After Effects CS5 are:

- The new Refine Matte effect that allows you to take advantage of the intelligent edge tracking, dechattering, and motion blurring capabilities found in Roto Brush and apply them to any layer with a problematic alpha channel, such as keyed footage

- New options that allow you to align layers to a composition's boundaries, making it easier to precisely center objects and clean up the layout of your image frame overall

You may align layers to other layers or the composition.

- Enhanced support for Photoshop adjustment layer types, including Selective Color, Black & White, and Vibrance; you can also apply these color correction effects to any layer

- A new option for per-character 3D text animation that allows each character to orient toward the camera around its own anchor point, further enhancing the illusion of 3D

- A new Type option in the Camera Settings dialog box that allows you to easily specify if the camera is a one-node or two-node camera, adapting to your preferred approach for aiming and animating 3D cameras

- The ability to import layered PSD files which include extruded 3D layers created with the new Adobe Repoussé feature inPhotoshop CS5 Extended.

- A new keyboard shortcut to point the camera to either selected layers or all layers, along with many other improvements to camera tools and settings

- New options to color-code panel tabs with the composition, footage item, or layer's label color, making it easier to identify elements at a glance in a complex project

- Rendered Output Modules can now be dragged to a folder in the Project panel, resulting in the import of the output files into that folder for quick inclusion of rendered elements

- New keyboard shortcuts and mouse functionality to quickly move between viewing the entire timeline and returning to your previous zoom level

Adobe Repoussé in Photoshop CS5 Extended allows advanced extrusion possibilities including bevels, frames, inflations, and twists. The results may be imported into After Effects CS5.

Better media management with Adobe Bridge CS5

Whether you are a designer, photographer, or cross-media creative, you can now manage your content more efficiently with these new or enhanced features in Bridge CS5, included with After Effects CS5:

- Flexible batch renaming, including savable presets of regularly used settings
- Advanced text and image-based watermark options when outputting PDF documents
- Conversion of any file to JPEG format for easy sharing of files via websites and galleries
- Faster navigation between open folders with an improved Path bar
- Precise adjustment of the size and quality of images in the Web Gallery
- Support for drag-and-drop actions between Bridge CS5 and After Effects
- A Publish panel with simple options to output files to disc and upload images to popular sharing sites

- An enhanced Levels effect Histogram display showing individual color channel strengths

- New options for specifying the size of Bezier direction handles and vertices for masks and shapes as well as direction handles for motion paths, making them easier to see on today's larger monitors

- Tooltips added for each vertex in the Graph Editor, which display the layer name, property name, time, and value of the keyframe, making it easier to precisely check values at a glance

- Numerous enhancements to scripting, including the ability to access parameters for adaptive motion blur, text tracking, label attributes, and per-character auto-orientation
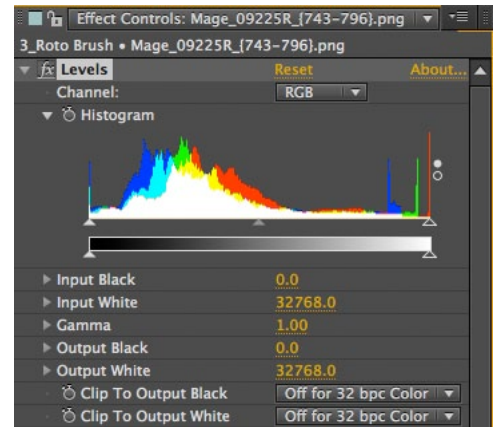
The updated Histogram display makes it easier to visualize and edit individual color channels. This display also makes it possible to spot problems, such as where editing the overall image may cause an individual channel to clip.

Color management

In addition to providing new support for LUTs, After Effects also offers robust, ICC-based color management support on input, output, and for display simulation.

Color Look-Up Table support

After Effects CS5 adds support for custom color look-up tables (LUTs) in the popular 3DL and CUBE file formats, which may be loaded into the new Apply Color LUT effect. This makes it possible, for example, to receive from a film output facility a custom LUT that reflects the specific color correction they are performing on a project, and simulate within After Effects what the result would look like on a specific piece of footage or final composite. You can also use this new feature to predict how your images will look through an unusual output chain such as displaying through a certain projector at a trade show or site-specific installation. In short, Color LUT support gives you confidence that the creative and technical decisions you make will translate properly to final output in an even wider variety of situations than before, and help ensure color consistency across multiple devices.


Support for custom color LUTs makes it possible to preview within After Effects the result of film output color correction (top = original image; above = color-corrected image).

Color Finesse 3 LE

After Effects CS5 includes an updated version of one of the most powerful desktop color correction tools available: Synthetic Aperture's Color Finesse 3 LE. (Color Finesse has a user interface that is English only.) The latest release of this versatile tool introduces numerous refinements, providing you with new ways to perfect your images. New features in Color Finesse 3 LE include:

- Hue and saturation curve controls, yielding finer control over your color corrections

- A new vibrance control that works in a way similar to the one in Adobe Lightroom® software, providing a more subtle alternative to altering saturation

- Auto Color and Auto Exposure buttons for instant corrections

- New highlight-recovery feature, meaning you lose less image detail when you have to conform high dynamic range footage to the limitations of video

- Improved handling of non-square pixels

- A simplified plug-in user interface for improved ease of use

Color Finesse LE is also capable of exporting your "looks" as color look-up tables, which can then be applied in After Effects CS5 using its new Apply Color LUT effect. Plus, Color Finesse 3 LE has been updated to natively support 64-bit operating systems.
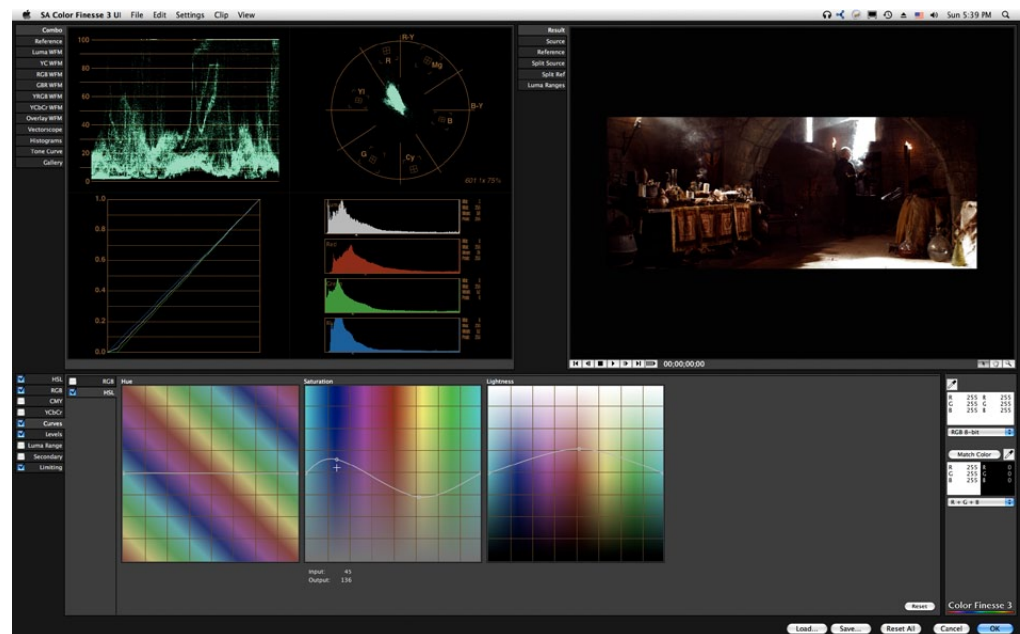
Color Finesse 3 LE has been significantly updated, including vibrance control, highlight recovery, and HSL curves.

Digieffects FreeForm

Digieffects FreeForm—included with After Effects for the first time in Creative Suite 5—vastly increases your 3D design options, allowing you to do more in After Effects, such as creating flags, bending floating video panels, and extruding layers without requiring a side trip into dedicated 3D software. FreeForm automatically responds to 3D cameras and lights in After Effects, making it easy to integrate the results of this effect into any 3D scene. (FreeForm has a user interface that is English only.)

This powerful plug-in allows you to bend or warp any layer in 3D space, using either an adjustable mesh of points or another layer as a displacement map.


FreeForm allows you to warp or extrude any After Effects layer in 3D space.

Work with collaborative online services

Users of After Effects CS5 may also enhance their workflow on large After Effects projects by accessing Adobe CS Live online services*, available separately, including:

• Adobe Story, the innovative new online service for crafting scripts. Story allows you to capture metadata in the writing phase, and use that metadata to plan your shoot more efficiently in Adobe OnLocation and help produce a preliminary rough cut in Adobe Premiere Pro.

• Adobe CS Review, an online service that enables peers and clients to take part in the review of page layouts, image comps, illustrations, and video sequences.

• Acrobat.com, a set of online services for creative professionals who need to accelerate discussion and information exchange with colleagues and clients.

For more information about these and other CS Live services, visit *www.adobe.com/go/CSLive*.
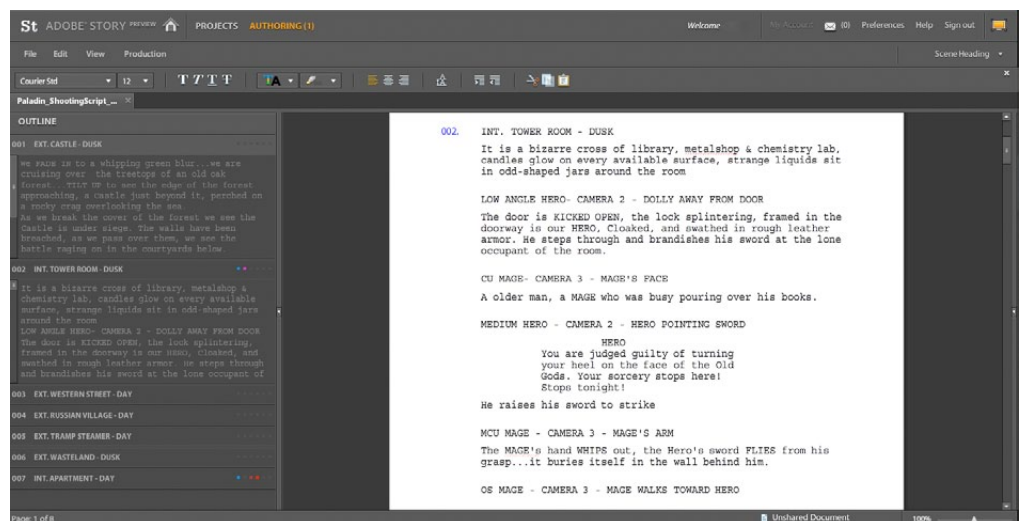
CS Live online services including Adobe Story enhance your workflow from script to final output, including the ability for you to collaborate with remote team members and clients during the scripting phase of a project.

*CS Live online services are complimentary for a limited time. See the last page of this document for details and limitations related to all Adobe online services.

System requirements

Windows

- Intel® Pentium® 4 or AMD Athlon® 64 processor (Intel Core™2 Duo or AMD Phenom® II recommended); 64-bit support required
- 64-bit operating system required: Microsoft® Windows® Vista® Home Premium, Business, Ultimate, or Enterprise with Service Pack 1 or Windows® 7
- 2GB of RAM
- 3GB of available hard-disk space plus 2GB of space for optional content; additional free space required during installation (cannot install on removable flash-based storage devices)
- 1280x1024 display with OpenGL 2.0-compatible graphics card
- DVD-ROM drive
- QuickTime 7.6.2 software required for QuickTime features
- Broadband Internet connection required for online services*

Mac OS

- Multicore Intel® processor with 64-bit support
- Mac OS X v10.5.7 or v10.6
- 2GB of RAM
- 4GB of available hard-disk space plus 2GB of space for optional content; additional free space required during installation (cannot install on a volume that uses a case-sensitive file system or on removable flash-based storage devices)
- 1280x900 display with OpenGL 2.0-compatible graphics card
- DVD-ROM drive
- QuickTime 7.6.2 software required for QuickTime features
- Broadband Internet connection required for online services*

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

Expected ship date

Second quarter 2010

For more information

Product details:
www.adobe.com/aftereffects

Still using After Effects CS3?

For those still using After Effects CS3, upgrading to After Effects CS5 also gives you the chance to catch up on all the great features added in After Effects CS4. These features greatly enhance your productivity, as well as provide groundbreaking integration with other Adobe software. Some of these features include:

- **Searchable timelines and projects**. Search projects for specific footage items or properties. Save time by searching timelines by layer names, properties, comments or expressions, effect names or parameters, and more.

- **Independent XYZ position keyframes**. Keyframe X-, Y-, and Z-position properties separately, greatly easing the crafting of complex animation moves in 3D space.

- **Photoshop 3D layer support**. Place 3D objects on layers in Photoshop (including the new Adobe Repoussé layers introduced in Photoshop CS5 Extended), paint them using its industry-standard tools, import them into After Effects, and animate them alongside your other 3D layers.

- **C**a**rtoon effect**. Create new looks for your video or other animated imagery, instantly applying the appearance of cel animation or watercolor paintings to live action or to computer-generated 3D imagery.

- **After Effects to Flash**. Export After Effects compositions as layered projects which can be imported into Flash CS5 Professional.

About Adobe Systems Incorporated

Adobe is the world's leading provider of software solutions to create, manage, and deliver high-impact, reliable digital content. For more information, visit *www.adobe.com*.