

Using **ADOBE® PREMIERE® PRO CS4** with RED Digital Cinema content



What's included:

- Adobe Premiere Pro CS4
- Adobe Encore CS4
- Adobe OnLocation CS4
- Adobe Device Central CS4
- Adobe Bridge CS4
- Professionally designed templates

Adobe Premiere Pro CS4 is also available as a component of:

- Adobe Creative Suite 4 Production Premium
- Adobe Creative Suite 4 Master Collection

Adobe Systems Incorporated and RED Digital Cinema Camera Company have collaborated to bring a truly native, color-rich, 4K tapeless workflow to Adobe Creative Suite® 4 software, allowing filmmakers to harness the full potential of high-resolution raw digital cinematography on the desktop.

Adobe Premiere Pro CS4 software provides native support for content created on RED Digital Cinema cameras, with broad delivery options, fast importing, flexible real-time editing, and no transcoding. This document describes the benefits of using Adobe Premiere Pro with content from RED Digital Cinema cameras.

RED Digital Cinema enables high-resolution tapeless cinematography through cameras that capture images with four times the resolution of the best HD cameras—yet cost a fraction of what HD cameras cost. The combination of RED cameras with Adobe Premiere Pro creates a 4K production and post-production workflow that is within reach of a wide range of digital cinema productions, and robust enough for the most demanding projects.

The first RED Digital Cinema camera model, RED ONE, uses a CMOS sensor with the same size as a frame of Super 35mm film (approx. 24x14 mm) to capture and record images at resolutions up to 4096x2304 pixels. (Upcoming RED cameras will support even higher resolutions.) The images are stored as wavelet-compressed RAW data in the RED file format, R3D. The ultra-high resolution of the images captured by this camera yield a depth of field equivalent to that of Super 35mm film cameras, a distinct benefit for cinematography. However, this high resolution also generates very large files—a distinct challenge for post-production.

Adobe Premiere Pro preserves the high resolution and high quality RED R3D images, while providing a powerful, flexible, and accessible means of editing, grading, and delivering those images.

Advantages of using Adobe Premiere Pro CS4

Adobe Premiere Pro CS4, when augmented with a special plug-in available for download at www.red.com/support, provides several specific benefits that make editing, finishing, and delivering RED R3D media easier, more flexible, and more efficient.

Real-time native editing

Adobe Premiere Pro supports RED R3D content in its native form, eliminating time-consuming file transcoding. By selecting an appropriate RED R3D sequence preset, users can immediately start editing RED R3D with the real-time and robust Adobe Premiere Pro tool-

set. Playback performance can be dynamically adjusted to provide either greater responsiveness or higher quality, depending on the user's needs.

Broad RED R3D format support

Through Adobe Premiere Pro, users can edit and finish content in all common RED R3D file permutations, including 2K, 3K, 4K, 4k HD, 16x9, and 2x1, using a number of different frame rates. After a quick import into Adobe Premiere Pro CS4, RED R3D files are ready to use in your project and sequence.

Mixed formats in sequences

Adobe Premiere Pro users can combine a wide range of sources in a single sequence without complex format conversions. For example, users can add XDCAM EX, DVCRPO HD, and HDV clips to a RED R3D sequence. And they can add RED R3D clips to a sequence created with presets for another format. Most mixed-format timelines can be edited in real time, with formats that don't match the sequence settings requiring rendering only at the time of final output.

Editing workflow

Adobe Premiere Pro enables an accessible, powerful, and comprehensive workflow for editing, grading, and delivering content created on RED Digital Cinema cameras. For the user, editing RED R3D content is like editing any other tapeless format supported by Adobe Premiere Pro. You select an appropriate project preset, quickly import files in their native format, edit and finish those native files with the robust Adobe Premiere Pro toolset, and then deliver to a wide variety of formats. Your delivery options become even wider when you get Adobe Premiere Pro as a component of Adobe Creative Suite 4 Production Premium software, expanding to include DPX output in After Effects for D.I or Filmout via RED-CINE, Scratch, or Color.

Production Premium offers broad delivery options, so you can deliver your RED content virtually everywhere.



The essential challenge with editing content created on RED cameras involves making the extremely high-resolution and high-quality RED R3D files easily editable on standard computers and workstations. Working together, Adobe Systems and RED Digital Cinema Camera Company have met the technical challenge. That leaves users free to focus on crafting those images into compelling and visually stunning stories.

Install updates

Adobe Premiere Pro helps enable real-time editing of RED R3D content on computers running either Mac OS or Windows operating systems. Both modern high-end notebook

System requirements

Minimum Desktop System Requirements for editing RED R3D content with Adobe Premiere Pro:

- 3GHz quad-core CPU
- 8GB or more of RAM
- Microsoft 64-bit Windows Vista with Service Pack 2 (Service Pack 3 recommended) or Mac OS X v 10.5
- Hard drive with 40MBps sustained throughput; striped disk array storage (RAID 0) recommended
- Adobe Premiere Pro CS4 4.1 update
- Adobe After Effects CS4 9.0.1 update
- REDCODE importer plug-in, available at www.red.com/support

Note: Many high-end notebook computers with 4GB of RAM and a fast 7200rpm hard drive or external RAID 0 system should support real-time editing when using RED R3D 512 sequence settings.

computers and mid-range desktop computers can provide enough power to support realtime RED R3D editing. (See “System Requirements” at left.)

Working with RED R3D content in Adobe Premiere Pro CS4 requires downloading and installing the Adobe Premiere Pro CS4 4.1 update, along with the REDCODE importer plug-in (available at www.red.com/support). Additionally, since Adobe After Effects CS4 serves an integral role in the workflow, the latest After Effects CS4 update (version 9.0.1 or later) should also be installed. For Adobe product updates, go to www.adobe.com/downloads/updates.

Select a sequence preset

After you create a new project, Adobe Premiere Pro software prompts you to select a sequence preset. Adobe Premiere Pro provides presets for all common permutations of RED R3D resolutions, aspect ratios, and frame rates.

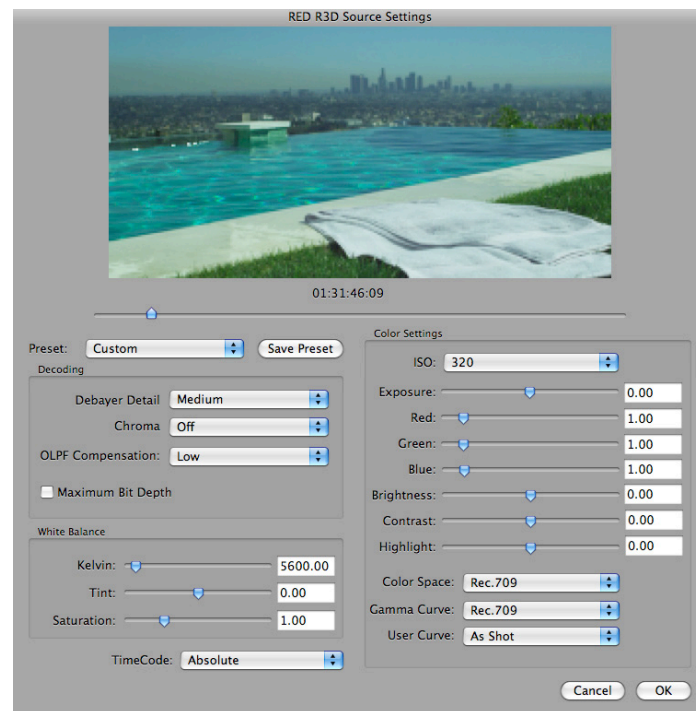
Import clips

Use the Media Browser to navigate to and select your RED R3D media. Because Adobe Premiere Pro software natively supports R3D, the files import in a few seconds.

The Media Browser panel also treats spanned clips as a single clip. If you drag and drop a RED clip from the Media Browser to the Project panel, you’ll see a single clip representing all the spanned media.

Adjust the look

Adjust parameters such as White Balance, Color Space, and Color Matrix to achieve the desired look for any selection of clips in your sequence. To access settings for RED media, select one or more RED clip(s) in the Project panel, right-click, and in the contextual menu that appears, choose Source Settings. (The Source Settings command is also available in the Clip menu.)



The Source Settings dialog box provides access to a wide range of controls for adjusting selected images.

Modify playback settings

At any time after initial setup, you can easily switch among resolutions for playback, choosing the one most appropriate for the task at hand, be it editing, trying effects, or viewing final results. You can choose a lower resolution for greater speed during editing, a

mid-level resolution for grading or effects, and full resolution for final preview. To adjust playback resolution, simply right click on the Source panel, and in the contextual menu that appears, choose from Full Resolution, Half Resolution, Quarter Resolution, Eighth Resolution, or Sixteenth Resolution.

The approach is somewhat analogous to offline editing, but without the need to recapture content at a higher resolution for online editing and finishing. Regardless of the sequence preset you choose, your RED R3D source files maintain their full resolution, and are not effected as you change playback resolution to suit your current task—from rough editing to finishing and export. You only need to import the RED R3D media once.

Edit in the timeline

Once the RED R3D clips are part of your project, you can edit them with the full toolset available for any other supported format in Adobe Premiere Pro. And remember that you can mix formats in any sequence and then work with and preview these varied clips without any rendering required until you're ready for final output.

Deliver through Adobe After Effects

Currently, the best method of outputting Adobe Premiere Pro sequences with RED R3D content is to export through Adobe After Effects. After Effects supports 2K and 4K output, high bit-depth formats such as Cineon and DPX, and also exports to formats such as Blu-ray Disc, H.264, and FLV (video for Adobe Flash® Player software).

With Adobe Dynamic Link, the export process is easy. For example, after editing a 4K project at a high performance playback resolution such as 1K (e.g., 1024x576 pixels), set the playback resolution to Full and all other settings to their highest-quality options. All 4K RED media will then appear at its full native resolution. (If you need to free up RAM before using After Effects with RED content, you can exit Adobe Premiere Pro now.)

Open After Effects. Choose File > Adobe Dynamic Link > Import Premiere Pro Sequence. Navigate to your Adobe Premiere Pro project and select the sequence you want to import. Place the imported sequence into a Composition, then choose Composition > Add Composition to Render Queue. Define your output settings, and finally click on the Render button. By using Adobe Dynamic Link, all transitions and effects set in Adobe Premiere Pro are preserved in After Effects.

Adobe Dynamic Link between After Effects and Adobe Premiere Pro is only available as part of Adobe Creative Suite 4 Production Premium or Master Collection editions—as is Dynamic Link between both of them and Adobe Soundbooth® CS4 software. Dynamic Link between Adobe Premiere Pro CS4 and Adobe Encore CS4 is included in Adobe Premiere Pro as a stand-alone product, as well as in both Production Premium and Master Collection.

If you don't have Production Premium or Master Collection, you can still import an Adobe Premiere Pro sequence directly into After Effects. Importing into After Effects does not preserve all transitions and effects set in Adobe Premiere Pro, but it does use less memory and may provide a good exporting alternative for long cuts-only edits.

Summary

Through native, comprehensive, and flexible support for RED R3D files, Adobe Premiere Pro provides fast import of RED content without file transcoding or rewrapping images to another format, preserves image quality, and allows users to adjust playback resolution to meet the performance and image-quality needs of every post-production task. Native format support together with powerful real-time editing tools make Adobe Premiere Pro the hub of comprehensive, efficient, and flexible RED Digital Cinema workflows.

For more information

For more details about Adobe Premiere Pro CS4, visit www.adobe.com/premiere.



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