

Adobe After Effects CC 2015 Panel SDK

Version History

| Date | Author | Description |
|---------------|---------|--|
| Aug 6, 2015 | Zac Lam | After Effects CC 2015 |
| Sept 16, 2014 | Zac Lam | September 2014 release of After Effects CC |
| June 18, 2014 | Zac Lam | Initial release |

*Some links may not work properly in Preview on Mac, which cannot handle links that span more than one line.

Intro to HTML5 Panels

What are HTML5 Panels?

Panels are accessed in After Effects from Window > Extensions > (your panel name). Panels can be resized and docked just like any other panel in After Effects. They are supported in After Effects CC 2014 and later.

What technologies are needed to write HTML5 Panels?

- ExtendScript DOM for deep control of After Effects, documented here:
<http://download.macromedia.com/pub/developer/aftereffects/scripting/After-Effects-CS6-Scripting-Guide.pdf>
Some additions to the Scripting DOM post-CS6 maybe be found among the changes listed here:
<http://blogs.adobe.com/aftereffects/2014/03/scripting-changes-in-after-effects-cc-12-0-12-2.html>,
<http://blogs.adobe.com/aftereffects/2014/04/new-changed-after-effects-cc-2014.html>,
<http://blogs.adobe.com/aftereffects/2014/09/after-effects-cc-2014-1-13-1.html>, and
<http://blogs.adobe.com/aftereffects/2014/12/after-effects-cc-2014-2-13-2.html>
- JavaScript for general programming
- HTML5 for UI. Extensions are hosted in an embedded version of Chromium. That means that nearly everything you can do in Google Chrome, you can also do in an extension.
- A small bit of XML that is interpreted by the panel hosting code to determine which applications and versions the panel should be loaded by.

What panels have already been developed?

Panels are brand new to the 2014 release of After Effects CC, but have been supported in Premiere Pro since 2011. Developers often create PPro panels to allow editors to work with their Media Asset Management systems without leaving the application. In AE, the potential is huge to automate repetitive tasks using scripting, using a panel for a polished UI.

Some examples, and demonstrations on AdobeTV:

CatDV – <http://tv.adobe.com/watch/broadcast-partner-workflow/catdv-integration-with-adobe-premiere-pro/>

EditShare – <http://tv.adobe.com/watch/broadcast-partner-workflow/editshare-shared-storage-and-asset-management-integration-with-adobe-premiere-pro/>

MOG MXF SpeedRail – <http://tv.adobe.com/watch/broadcast-partner-workflow/mog-mxfspeedrail-panel-integration-with-adobe-premiere-pro-cs6/>

What is the advantage of the panel SDK over ScriptUI or AEGP panels?

True, After Effects has already supported various ways to develop panels. However, HTML5 is both more flexible than ScriptUI, and faster to develop than AEGP panels. We anticipate HTML5 will be the sweet spot many developers are looking for, and it will enable more direct integration with many existing video tools.

Can the same panel be compatible with multiple hosts?

Yes, however, the underlying scripting DOM will likely differ, so you may need to implement the same functionality in different ways for different hosts.

What's New in After Effects CC 2015?

Fixed a problem on Windows with initial drawing of panel that had been opened on previous launch of AE. (3809627)

What's New in the September 2014 release of After Effects CC?

Drag and drop UI interaction is now supported. A panel can contain items that can be dragged and dropped into the Project panel. And items from the Project panel can be dragged and dropped back into the HTML5 panel. Even items from the file system (Explorer on Windows, Finder on MacOS) can be dragged and dropped into the panel.

Starting Development

Setting up Your Development Environment

On Mac:

In /Library/Application Support/Adobe/, if it doesn't already exist, create a new folder "CEP". Create a subfolder called "extensions", and place your extension(s) there.

In ~/Library/Preferences/, make a copy of the file "com.adobe.CSXS.5.plist", and rename it to "com.adobe.CSXS.6.plist".

In terminal, type "defaults write com.adobe.CSXS.6.plist PlayerDebugMode 1"

On Win:

In %APPDATA%\Adobe\, create a new folder "CEP". Create a subfolder called "extensions", and place your extension(s) there.

In the registry, HKEY_CURRENT_USER\Software\Adobe\CSXS.6, create a New string value, of Value name: PlayerDebugMode, and Value data: 1

Sample Panels

Barebones – Shows up, but doesn't do anything. Ship it!

iframe Sample – Also very simple. Provides a window into a website, in this case our favorite website: adobe.com/devnet/aftereffects.

Simple Script – This includes the support libraries to use scripting. To keep it simple, it provides a button that pops an alert using scripting.

Generate Complex Comp – This demonstrates more of what can be done via scripting, generating a complex composition. It may take a few seconds to complete, so be patient.

More sample panels can be found here:

<https://github.com/Adobe-CEP/Samples>

Customizing Your Own Panel

Changing the Panel Name

In the CSXS folder, open the manifest.xml file. In <DispatchInfoList>, edit the <Menu> tag. You'll also want to modify the ExtensionBundleId, the ExtensionBundleName, the Extension Id (referenced twice), all in the manifest.xml file.

Changing the UI

The HTML and CSS (if any) are what determine the UI.

Changing the Script

Implement/modify any functions in files the jsx folder. Reference any top-level function names you want to call from the index.html file. When you modify an existing script, be sure to close and reopen the panel to reload the latest changes. Closing and reopening After Effects may not reload the latest changes.

Troubleshooting

Does your plug-in load in a previous version of After Effects, but not in the latest version?

Check the following:

- 1) Have you set up your development environment for the latest version, as described above?
- 2) Have you updated the manifest.xml file to include the latest application version?

Known Issues

CSXS Events DocumentAfterActivate and DocumentAfterDeactivate not yet supported (3857044)

Manifest property StartOn/applicationActivate not yet supported (3983662)

For Further Information

Hungry for more information on HTML5 panel development? Need info on debugging, packaging, and distributing your panels? Head here:

<http://www.adobe.com/devnet/creativesuite/articles/a-short-guide-to-HTML5-extensions.html>

For any questions on panel development, please bring your questions to the After Effects SDK forums here:

https://forums.adobe.com/community/aftereffects_general_discussion/aftereffects_sdk

For questions on scripting with AE, see the AE Scripting forums here:

https://forums.adobe.com/community/aftereffects_general_discussion/ae_scripting

Panel development resources for many other Adobe products, on GitHub:

<https://github.com/Adobe-CEP>

You may also find helpful panel information here:

https://forums.adobe.com/community/creativesuites/cs_sdk