

ADOBE® ILLUSTRATOR® CC 2014

**ADOBE ILLUSTRATOR CC
2014
PORTING GUIDE**



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Adobe Illustrator CC 2014 Porting Guide

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Adobe Illustrator CC 2014 Porting Guide

This document describes how to update your SDK plug-in code and development environments for Adobe® Illustrator® CC 2014. It details changes in the public API and other aspects of the SDK since the previous release.

Introduction

Download the Illustrator CC 2014 SDK from <http://www.adobe.com/devnet/illustrator/>, along with installation instructions and documentation.

The Creative Cloud™ 2014 version requires a different development environment from previous releases; this means that you must recompile plug-ins built with an earlier version of the Illustrator SDK in order for them to run in Illustrator CC 2014. See [“Development environment” on page 4](#).

SDK organization

The SDK contains these folders and files (locations are relative to the download location, `<SDK>`):

<code>docs/</code>	<p>Documentation, including:</p> <ul style="list-style-type: none">▶ <i>Adobe Illustrator CC 2014 Programmer’s Guide</i> (<code>guides/programmers-guide.pdf</code>)▶ <i>Porting Guide</i> (this document)▶ <i>Getting Started with Illustrator CC 2014 Development</i> (<code>guides/getting-started-guide.pdf</code>)▶ <i>Using the Adobe Text Engine</i> (<code>guides/using-adobe-text-engine.pdf</code>)▶ <i>API Reference</i> <p>This document is provided in two formats:</p> <ul style="list-style-type: none">▷ <code>references/index.chm</code> — This compiled HTML file allows text searches to be performed on the content. See the <i>Getting Started with Illustrator CC 2014 Development</i> for details.▷ <code>references/sdkdocs.tar.gz</code> — This file contains the <i>API Reference</i> in HTML format. To view the contents, decompress the archive, then open <code>index.html</code> in your browser. <ul style="list-style-type: none">▶ <i>API Advisor</i> (<code>references/apiadvisor-ai16-vs-ai17.html</code>)
<code>legalnotices/</code>	Licenses.
<code>illustratorapi</code>	The Illustrator API header files.
<code>samplecode/</code>	A set of samples for learning about the API. See “Illustrator SDK changes” on page 6 .

Changes in this release

These are the major changes between this release and the previous release.

Development environment

The version of Visual Studio has changed. When you open an older solution or project file in the new version of Visual Studio, you are prompted to update the file.

This release supports these platforms for Illustrator plug-in development.

Platform	Component	Note
Windows	Windows 7 SP1 32-bit or higher	
	Illustrator CC 2014	
	Visual Studio 2012 SP4	
	Visual Studio 2010 replaced the <code>_SECURE_SCL</code> and <code>_HAS_ITERATOR_DEBUGGING</code> flags with an <code>_ITERATOR_DEBUG_LEVEL</code> macro. Illustrator defines <code>_ITERATOR_DEBUG_LEVEL=0</code> for Release, and <code>_ITERATOR_DEBUG_LEVEL=2</code> for Debug. We recommend that developers do the same in Visual Studio 2012.	
Mac OS®	Mac OS X 10.7 or higher	Deployment target should be Mac OS X 10.7
	Apple 10.7 SDK	
	Xcode 4.5.2	Xcode can be downloaded from http://developer.apple.com/tools/download/
	LLVM Clang	

Resource handling

In Illustrator release 17.1 and later, all resources are kept in raw format. The change was necessary because the resource-handling API in Mac OS SDK 10.8 and later has been deprecated.

This change requires that you make some changes in how you provide resources, according to the target platform. You must provide resource mapping files that identify the file type of each resource, and if needed, map the resource ID to the resource file name.

Resource handling in Mac OS

You must add a post-build step to your Xcode project to store resources according to their file types, and map resource IDs to file names if needed.

1. Select the **Target**
2. Select the **Build Phases** tab.
3. Click **Add Build Phase** (the + icon at the bottom) and choose **Add Run Script**.
4. In the new script, copy your resource files to sub-folders of `plugin.aip/Contents/Resources/`. (There is an example of such a script in the Annotator sample.)

- ▷ Keep each type of file in a folder named for the file extension. For example, PNG files go into `plugin.aip/Contents/Resources/png/`.
- 5. If your code uses any resource ID that is different from the actual file name, you must create a mapping file called `IDToFile.txt`. This file is itself a text resource, and your post-build script must copy it into the folder `plugin.aip/Contents/Resources/txt/`.
- 6. For each file that has a resource ID different from the name, add an entry to `IDToFile.txt` that maps the resource ID to the file name. For example, if you have a resource file `AnnotatorTool.png` and you use `16501.png` as resource ID in your code, the `IDToFile.txt` must have this line:

```
16501.png          AnnotatorTool.png
```

You do not need separate mapping entries for the additional high-definition icons. Resources for the high-definition icons are loaded automatically based on the standard icon name.

Resource handling in Windows

In a Windows Visual C++ plug-in project, the project contains a resource file named `plugin_name.rc`. You must add an entry to this file for each resource that identifies the file type.

1. For each resource file, add an entry to the RC file in the format:

```
resource_name    file_type    file_name
```

For example, to use a PNG image resource `AnnotatorTool.png`:

```
AnnotatorTool    png          AnnotatorTool.png
```

2. If your code uses any resource ID that is different from the actual file name, you must create a mapping file called `IDToFile.txt`. This mapping file is itself a text resource, and requires a line in the RC file:

```
AnnotatorTool    png          AnnotatorTool.png
IDToFile          txt          IDToFile.txt
```

3. Add a line to the mapping file for each resource ID that maps the ID to the file name. For example:

```
16501.png          AnnotatorTool.png
```

You do not need separate mapping entries for the additional high-definition icons. Resources for the high-definition icons are loaded automatically based on the standard icon name.

For examples, see SDK samples that contain resources, such as `AnnotatorTool` and `MultiArrowTool`.

HiDPI icon resources

In Illustrator 17.1 and later, any plug-in that creates a tool must supply additional icon resources to support high-definition (HiDPI) icons for all platforms.

A tool plug-in must provide three resource files for each icon: one for the standard icon definition of each tool icon, one for the 200% (2x) HiDPI version, and one for the 150% (1.5x) HiDPI version.

The resource files should follow these naming conventions:

```
ResourceName.png for standard image definitions
ResourceName@2x.png for HiDPI image 2x definitions
ResourceName@3to2x.png for HiDPI image 1.5x definitions
```

All three resource files for each icon must be added to project as appropriate for the platform:

- ▶ In Mac OS, copy the PNG files into the `plugin.aip/Contents/Resources/png/` folder in the post-build step. For example:

```
AnnotatorTool.png           //to specify standard icon
AnnotatorTool@2x.png        //to specify 200% icon
AnnotatorTool@3to2x.png     //to specify 150% icon
```

- ▶ In Windows, add an entry for each PNG file in the `plugin_name.rc` resource file. The file names for the HiDPI icons must be enclosed in quotes. For example:

```
AnnotatorTool           png           AnnotatorTool.png
AnnotatorTool_at_2x     png           "AnnotatorTool@2x.png"
AnnotatorTool_at_3to2x  png           "AnnotatorTool@3to2x.png"
```

If you have a mapping file for the resource ID (`IDToFile.txt`), you do not need separate mapping entries for the additional high-definition icons. Resources for the high-definition icons are loaded automatically based on the standard icon name.

Examples of the resource files for high-definition icons are provided with the sample tool plug-ins, such as `AnnotatorTool` and `MultiArrowTool`.

New features in API

This section describes new features that have been added to Adobe Illustrator CC 2014 which are supported in the SDK.

- ▶ New Live Shape preference keys added in `AIPreferenceKeys.h`
- ▶ Enumeration `kTransferLiveShapeProperties` added to `AIArt.h` for specifying Live Shape information.
- ▶ New functions for GPU Preview mode added in `AIDocumentView.h` (in Windows only):

```
AI_API AI_Boolean (*IsGPUPreviewModeOn)(const AIDocumentViewHandle view);
AI_API AI_Error (*GetGPUPixel)(AIWindowRef window, AIPoint location, AI_Color& color);
```

- ▶ New notifiers:
 - ▷ `kAICSXSExtensionUnloadNotifier` added to `AICSXSExtension.h` (for CEP extension unload event)
 - ▷ `EffectiveToolChangedNotifier` added to `AITool.h`

Illustrator API changes

This section summarizes the important changes to the API since the prior release. A detailed change list is provided with the SDK, in the API Advisor page, `apiadvisor-report.html`.

Illustrator SDK changes

All Flash®-based extensions have been removed from the SDK and replaced with HTML/JavaScript versions, in order to support the new CC Extension model. See the *Adobe Illustrator CC 2014 Programmer's Guide*.