ADOBE® ILLUSTRATOR® CS6

ADOBE ILLUSTRATOR CS6 PORTING GUIDE

revision 2

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Adobe Illustrator CS6 Porting Guide (revision 2)

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Adobe Illustrator CS6 Porting Guide

This document describes how to update your SDK plug-in code and development environments for Adobe® Illustrator® CS6. It details changes in the public API and other aspects of the SDK since the previous release.

Introduction

Download the Illustrator CS6 SDK from http://www.adobe.com/devnet/illustrator/, along with installation instructions and documentation.

Creative Suite 6 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 CS6. See "Development environment" on page 5.

SDK organization

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

`docs/`	Documentation, including: ▶ *Adobe Illustrator CS6 Programmer's Guide* (`guides/programmers-guide.pdf`) ▶ *Porting Guide* (this document) ▶ *Getting Started with Illustrator CS6 Development* (`guides/getting-started-guide.pdf`) ▶ *Using the Adobe Text Engine* (`guides/using-adobe-text-engine.pdf`) ▶ *API Reference* This document is provided in two formats: ▷ `references/index.chm` — This compiled HTML file allows text searches to be performed on the content. See the *Getting Started with Illustrator CS6 Development* for details. ▷ `references/sdkdocs.tar.gz` — This file contains the *API Reference* in HTML format. To view the contents, decompress the archive, then open `index.html` in your browser. ▶ *API Advisor* (`references/apiadvisor-ai15-vs-ai16.html`)
`legalnotices/`	Licenses.
`illustratorapi`	The Illustrator API header files.

`samplecode/`	A set of samples for learning about the API. See "Illustrator SDK changes" on page 8.

Changes in this release

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

Development environment

The development environment has changed for both platforms, and plug-ins must be recompiled to run in this release. New project templates are included in the SDK.

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

Platform	Component	Note
Windows	Windows XP Service Pack 3 or higher	
	Illustrator CS6	
	Visual Studio 2010 SP1	
Visual Studio 2010 has replaced the `_SECURE_SCL` and `_HAS_ITERATOR_DEBUGGING` flags with an `_ITERATOR_DEBUG_LEVEL` macro. Illustrator defines `_ITERATOR_DEBUG_LEVEL=0` for Release, and `_ITERATOR_DEBUG_LEVEL=2` for Debug. We recommend that developers do the same.		
Mac OS®	Mac OS 10.6.4 or higher	
	Apple 10.6 SDK	You must remove any API functions that are not supported by this version.
	Xcode 3.2.5	Xcode can be downloaded from http://developer.apple.com/tools/download/
Illustrator no longer supports Mac OS 10.4, 10.5, or PPC processors.		

ADM removed

Adobe Dialog Manager (ADM), the UI framework that was used for the Illustrator UI before CS5, was previously deprecated and is no longer supported. The ADM header files and sample plug-in have been removed from the SDK.

If you have any existing plug-ins that use ADM, they will have compilation errors. Although you can compile such a plug-in by explicitly including the header files from the previous release, the ADM functionality is not available, and the plug-in will not run in the current release.

In order for your UI to work with this release, you must remove any usage of ADM from your plug-in and replace it with another UI framework of your choice. You can use any 3rd-party or platform-specific UI framework, or one of the UI frameworks provided by Adobe, such as Flash®/Flex®-based controls. Adobe can provide support only for Adobe products.

Note that in Mac OS, ADM used the older Carbon framework, while the UI now uses the newer Cocoa framework. For more information about how to make this transition, see:
https://developer.apple.com/technologies/mac/cocoa.html

Data types updated

Throughout the SDK, data types have been updated to be more specific and to support both 32-bit and 64-bit architecture. For example:

```
long             ai:int32
short            ai:int16
unsigned short   ai:uint16
ASInt32          ai:int32
int              ai:int16, ai:int32
```

Count and buffer size values are now reported using the `size_t` data type.

Memory allocation automatic

Memory allocation in this release is completely compatible with platform usage. Developers are no longer required to explicitly allocate and release memory.

Sample plug-ins recompiled and reworked

All of the samples in this release have been updated to reflect the new data types that are now in use throughout the API, and the interfaces have been reworked to remove the use of ADM. All samples have been compiled in the currently supported development environments.

If you have any projects from the previous release, you must similarly convert them to use them with this release. See "Porting existing plug-ins" on page 9.

New features

This section describes new features that have been added to Adobe Illustrator CS6, and their support in the SDK.

- Pattern creation

  This release updates and simplifies pattern creation. The SDK samples have been updated to use the new API and creation techniques.

- Live Trace enhancements

  Tracing functionality has been updated to use vectorization, and the `AITracingSuite` has been replaced by the `AIVectorizationSuite`. New versions of the tracing snippets (LiveTrace and LiveColor) in the SnippetRunner SDK sample demonstrate the use of the new suite and techniques.

- Gradients on strokes

  The ability to apply gradients to strokes is demonstrated by a new snippet (SnpGradient) in the SnippetRunner SDK sample.

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-ai15-vs-ai16.html`.

API changes

- The obsolete ADM classes and header files have been removed.
- Legacy header files for versions earlier than CS5 (AI 15) have been removed.
- Access to AGM ports, which was previously available through ADM, is now available through the `AIDrawArtSuite`. An example of usage is provided by the new DrawArt SDK sample.
- These header files and classes are no longer included:

```
AICropArea.h
AICropAreaRange.h
AIDataStack.h
AITracing.h ( replaced by AIVectorizeSuite)
AIUIUtils.h
ASLib.h
ASMemory.cpp
IAIUnicodeStringUtils
IAIUserInput
```

- `AIToolIconDict` has been removed and replaced by types added to `AIAddToolDataSuite`. See examples in SDK samples Annotator, MarkedObjects, and Tutorial.
- Many functions have changed parameter types to accommodate the removal of ADM and type changes such as `long` to `ai::int32` or `size_t`. See details in the API Advisor page.
- New functions have been added in existing suites (see details in API Advisor page):

```
AIAnnotatorDrawerSuite
AIAppContextSuite
AIArtSuite
AIBeautifulStrokesSuite
AICharacterEncodingSuite
AICommandManagerSuite
AIDictionarySuite
AIDocumentViewSuite
AIDrawArtSuite
AIFontSuite
AIIsolationModeSuite
AIMeshSuite
AIOverrideColorConversionSuite
AIPatternSuite
AIPreferencesSuite
AIUserSuite
ATE::CharFeaturesSuite, ATE::AICharInspectorSuite
ATE::ParaFeaturesSuite, ATE::ParaInspectorSuite
SPFilesSuite
```

- New suites have been added to support new features and functionality:

```
AIControlBarSuite
AICSXSExtensionSuite
AIPanelSuite
AIPanelFlyoutMenuSuite
AIUIThemeSuite
AIVectorizeSuite (replaces AITracingSuite)
ATE::ArrayKashidaWidthSuite
```

- New classes include:

```
IAIPointImpl
IAIRectImpl
ATE::IArrayKashidaWidth
```

- New files include:

```
AIBasicUtilities.h
AIControlBar.h
AICSXS.h, AICSXSExtension.h
AIModalParent
AIPanel.h
AIScriptMessage.h
AITransformTypes.h
AIUITheme.h
AIVectorize.h
AIWinDef.h
IAIPoint.h
IAIRect.h
```

Illustrator SDK changes

This section summarizes changes to the organization and content of the SDK since the prior release.

Outdated plug-in samples removed

The Shell plug-in framework and Adobe Dialog Manager are no longer supported, and the corresponding samples, `Shell` and `ADMNonModalDialog`, have been removed from the SDK in this release.

Samples updated for new types

All samples have been updated to use the new data types and to remove ADM interfaces.

Samples updated to use new techniques and suites

- The new ScriptMessage sample demonstrates the use of the new `AIScriptMessage` structure.
- The MarkedObjects and ScriptMessage samples demonstrate the new control of application theme colors provided by the new `AIUIThemeSuite`.
- The MultiArrowTool sample demonstrates how to make a tool icon that works with both light and dark themes. All samples that use tools use the new tool types.

- The new EmptyPanel sample demonstrates how to create panels and control bars with the new `AIPanelSuite` and `AIControlBarSuite`, and how to combine these with controls implemented with native Windows and Mac OS components.
- The SnippetRunner sample has been updated with snippets that demonstrate new features and techniques, including gradients on strokes (SnpGradient) and the new tracing mechanism (LiveTrace and LiveColor).

Porting existing plug-ins

In order to run existing plug-ins in Illustrator CS6, you must port them to the currently supported development environment for your platform.

In Windows If you have existing plug-ins in a Windows development environment, you must port them to Visual Studio 2010 (VC++ 10).

To convert plug-in projects:

1. Launch Visual Studio 2010(VC++ 10.0).
2. Open your plug-in's project file (`.vcproj`).

   Visual Studio 2010 launches the Conversion Wizard.
3. Follow the Wizard instructions to finish the conversion.
4. Check the conversion log to see if there are any errors.

Project files for VS2010 have the extension `.vcxproj`.

In Mac OS If you have existing plug-ins in a Mac OS development environment, you can simply open them in Xcode 3.2.5.