Xcode Release Notes

This document contains release notes for Xcode 5 developer preview 5. It discusses new features and issues present in Xcode 5 developer preview 5 and issues resolved from earlier Xcode releases.

About Xcode 5 developer preview 5

Supported Configurations

Xcode 5 developer preview 5 requires OS X 10.8.4 or later. It does not run on earlier versions of OS X. Xcode supports development for iOS 7, OS X 10.9, and OS X 10.8.

Installation

This release of Xcode is distributed as a single application bundle, Xcode5-DP5.app. To install it, double-click to open the downloaded DMG file, and drag the Xcode5-DP5.app file to your Applications folder.

Within Xcode, you can launch additional developer tools, such as Instruments and FileMerge, via the menu item Xcode > Open Developer Tool. You can then keep the tool in your Dock for access when Xcode is not running.

Installing Xcode on OS X Server

To ensure that OS X Server can use Xcode developer preview 5, follow these steps to install Xcode:

1) Open the App Store and update OS X Mavericks
2) Download Xcode 5 developer preview 5 and OS X Server developer preview
3) Quit Xcode and Server
4) Copy Xcode 5 developer preview 5
5) Install OS X Server
6) Open Server
7) Select the Xcode service, then click Choose and select Xcode 5 developer preview 5

Technical Support and Learning Resources

Apple offers a number of resources where you can get Xcode development support:

- **http://developer.apple.com**: The Apple Developer website is the best source for up-to-date technical documentation on Xcode, iOS, and OS X.

- **http://developer.apple.com/xcode**: The Xcode home page on the Apple Developer website which provides information on acquiring the latest version of Xcode.
• [http://devforums.apple.com](http://devforums.apple.com): Interact with other members of the community, as well as Apple engineers, in a moderated web forum that also offers email notifications. The Developer Forums feature a dedicated topic for Xcode developer previews.

Use [http://bugreport.apple.com](http://bugreport.apple.com) to report issues to Apple. Include detailed information of the issue, including the system and developer tools version information, and any relevant crash logs or console messages.
New Features in Xcode 5

Note: For a full description of new features in Xcode 5, see the What’s New in Xcode document.

User Experience Improvements
- Cleaner UI with more working space for your content
- Faster and more compact interface for Open Quickly
- A refined search navigator that is easier to use

Automatic Configuration
- New Accounts preferences pane for managing Apple IDs, repositories, and continuous integration servers
- New Capabilities settings in the project editor for configuring platform features
- Ability to choose the signing identity using target editor
- Automatic creation of provisioning profiles

Testing
- New test navigator for ease of adding, editing and running individually selected tests
- New test categories in the assistant editor, for editing code and tests side-by-side
- New XCTest testing framework with support for iOS and OS X projects
- Support for command-line testing using xcodebuild

Continuous Integration
- Ability to create bots to build, analyze, test, and archive projects on OS X Server, shared by the development team
- Use bots to launch integrations on every commit to your source repository or at defined intervals
- Ability to immediately see when anyone on the team breaks a build or starts failing tests
- Viewing of bot integration results in Xcode, drilling into build and test failures to find and fix the problem

Debugger
- Debug gauges showing real-time memory, CPU, energy use, iCloud and OpenGL data
- Refined UI for the variables view and data tips
- In Quick Look, ability to see a graphical display of variable values
- XPC Debugging on OS X

Interface Builder
- Support for iOS 7 user experience
- Flexible Auto Layout editor when designing interfaces
- With the assistant editor, previewing of alternate views of the interface as you edit
- Asset catalog, for managing images and icons in multiple resolutions

Source Control and Version Editor
- Project-centric workflow design
- Branch management improvements
- SVN upgraded to version 1.7.9, with Xcode migration workflow

Compiler
- New Auto Vectorizer for automatic optimization of computational loops
- Modules for system frameworks to speed up build time
- Auto Link frameworks imported by code modules
Instruments
- Support for Zombies instrument on devices running iOS 7
- Allocations instrument now includes virtual memory mappings
- Retain-release pairing for tracking down imbalanced retain counts

Documentation
- New separate documentation window with support for tabs
- Table of contents presentation integrated with document window contents
- Support for storing bookmarks and sharing via Mail, Messages, and others
- Documentation snippets presented in code completion and quick help
- The code completion window and Quick Help now display documentation from Doxygen or HeaderDoc formatted comments from your own headers. (4756139)

Sprite Kit Support
- Build system support for Sprite Kit texture maps
- Editor for particle effects

iOS Simulator
- Ability to access iCloud data for testing when running in iOS Simulator
- Support for Sina Weibo and Tencent Weibo font systems
Issues Resolved in Xcode 5 developer preview 5

Continuous Integration with OS X Server

You can now switch a repository’s access controls from authenticated users to all users. You also now switch an access entry to read only. (14078718)

Anonymous repository access is now available. (14008630)

Group permissions for bot management are now supported. (14045004)

Authentication is now supported against server-hosted repositories. (14476005)
Known Issues in Xcode 5 developer preview 5

**Simulator**

iCloud does not work in the iOS Simulator. (14551254)

After switching the minimum deployment target of an application from iOS 7.0 to a release prior to iOS 7.0, building and running the application may fail with the message "iOS Simulator failed to install the application." (13917023)
   *Workaround:* To resolve this issue go to the iOS home screen and remove the application by clicking and holding the application icon and choosing to delete the application by tapping the hovering "X" button.

The Mac hardware keyboard may not work on the first launch of the Simulator. (13315258)
   *Workaround:* Relaunch the Simulator.

When playing video via the Quick Look framework on an iPhone Simulator, the video view appears black, but audio continues to play fine. (13871109)

StoreKit (In-App purchases) do not work in the iOS Simulator. (13962338)

**Compiler**

Building a project from inside VMWare that is accessible via a VMWare shared folder can cause the compiler to crash. (14251948)
   *Workaround:* Use AFP to share files instead.

**Instruments**

The Allocations instrument can only attach to processes on devices running iOS 7. Processes must be started by Instruments for prior versions of iOS. (14065257)

The Counters instrument comes preloaded with CPU events that may not be available for your architecture. To workaround this issue, remove the existing events and add events using the gear button as normal.

Scripts running under the AutomationInstrument sometimes fail to detect applications running inside the iOS 6 simulator environment. (14447965)
   *Workaround:* Relaunch the simulator application and run the script again.

**Interface Builder**

After importing images from a project into a image catalog, storyboards and xib files have broken image references. (14042186)
   *Workaround:* The image names in Interface Builder are listed as *image-name.png* and should be shortened to *image-name* to repair the broken reference.
You cannot drag a Placeholder object from the library into the outline. (13731313)  
   **Workaround:** Drag the Placeholder object into the canvas background.

In some cases, Update Frames does not resize top level views or windows. (13716892)  
   **Workaround:** Use the Update All Frames menu item.

**Source Control**

Xcode may have trouble connecting to repositories if credential information has changed after the repository was added in Accounts preference. In certain cases, Xcode displays a failure when connecting to a repository while it is actually attempting to connect in the background. (13955597)  
   **Workaround:** If you encounter a repository connection problem, remove and re-add the repository with the updated credential information. This will restore access to the repository.

**Templates**

New application targets created in Xcode 5 will crash on launch on iOS 5. (13979280)  
   **Workaround:** Turn off base localization if your app targets iOS 5.

**XCTest**

XCTest does not support iOS 6 destinations. Xcode does not prevent you from using XCTest with iOS 6 destinations, resulting in undefined behavior. (14075515)

**Continuous Integration with OS X Server**

**General**

User authentication for Active Directory and third party LDAP servers is not supported for the Xcode service with this seed.

**Bots for iOS**

Disable pass codes on devices that you will use with the Xcode service. (14042206)

**Repository Access**

When using the Xcode new project assistant and choosing to create a Git repository hosted by OS X Server, the repository can only be setup using SSH authentication. The Remote Login service must be enabled on the server to complete the setup. (14087855)

Remote repositories with SSH key authentication must be configured using Server. You cannot import existing keys for authentication with remote repositories and must use the public key provided by OS X Server for SSH key authentication. (13799320)

To use Xcode and the git command line tool with an HTTPS Git repository hosted by Xcode service, apply one of the following workarounds (14072274):  
   **Workarounds:**
- Use a certificate signed by a publicly trusted Certificate Authority for the server’s HTTPS website
- Access OS X Server-hosted Git repositories using SSH or HTTP
- For the git command line tool, disable HTTPS certificate validation checking by entering at the command line:
  git config --global http.sslVerify false
Other Notes

Organizer

The provisioning profiles list in the Organizer is now located in the Accounts tab of Xcode's preferences. To view them, select the relevant Apple ID account and tap View Details. (13950944)

Documentation

Xcode 5 does not support downloading additional doc sets.

Additional doc sets can be added manually by installing them at ~/Library/Developer/Shared/Documentation/DocSets/

Once installed, doc sets are found and loaded by Xcode 5. If Xcode is running while the doc set is installed, quit and relaunch Xcode.

Continuous Integration with OS X Server

Reporting Bugs

When reporting a Continuous Integration bug, enter the following command in Terminal, then attach the output to the bug report.

    sudo /Applications/Server.app/Contents/ServerRoot/usr/sbin/serverloggather

Communication between Xcode and Server

Communication between Xcode and the Xcode service is currently over HTTP port 80.

For accessing local Git repositories hosted by the Xcode service:

    Git+SSH: 22
    HTTP: 80
    HTTPS: 443

For accessing remote SVN or Git repositories not hosted by the Xcode service:

    Git: 9418
    Git+SSH: 22
    SVN: 3690 (anonymous access only)
    SVN+SSH: 22
    HTTP (Git + SVN): 80
    HTTPS (Git + SVN): 443

For joining a server to an Apple Developer team:

    HTTPS (SSL): 443
**Other Notes**

Archives produced by bot integrations may appear to be unnamed and zero KB in size when viewed in Xcode. Archives can still be downloaded from within either Xcode or the Server web interface. (14328005)

Before creating a bot for an iOS project, ensure that you have a provisioning profile and a code signing identity set in your project’s application target that matches the Apple Developer account you configured on the server. Any changes for these settings should be checked into the repository hosting the project before the bot is created. (14247042)

**Deprecations and Removals**

Xcode 5 does not support use of the LLVM-GCC compiler and the GDB debugger.

SenTestingKit and OCUnit are deprecated. Use the migrator to move to XCTest.

The CPlusTest unit testing framework has been removed from Xcode 5. To write unit tests for C++ code, use the new XCTest framework and create Objective-C++ (.mm) test case subclasses. (8273037)

The CVS and RCS source control tools have been removed from Xcode 5. (11968433)

**Command Line Developer Tools**

Command line shims are included with OS X Mavericks. If Xcode is installed, the shims use the tools within Xcode. Otherwise, the tools delivered in the Command Line Developer Tools package are used. The Command Line Developer Tools package can be installed on demand using `xcode-select --install` or by trying to use any command line developer tool in Terminal.

On OS X Mavericks, Command Line Developer Tools are updated using Software Update. On OS X Mountain Lion, continue to use the Downloads preferences in Xcode.

On OS X Mavericks, `xcode-select` provides the `--reset` flag to revert to using the default search paths.

The Command Line Developer tools package has been updated to include `xcrun`. `xcrun` has added support for the following:

- The `--show-sdk-path` option queries SDK paths
- Improved `xcrun` performance
- More robust support for the DEVELOPER_DIR environment variable
  - Set DEVELOPER_DIR to either a copy of Xcode or /Library/Developer/CommandLineTools when Command Line Tools for OS X Mavericks is installed
- `xcrun` passes the SDK provided to subcommands in the SDKROOT environment variable, when used with `--sdk`