Xcode User Default Reference

Tools & Languages: IDEs

2009-07-14

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Introduction

The Mac OS X user defaults system allows you to specify the values of program settings through your shell command editor instead of the program's user interface (such as in the Preferences window). This facility allows program developers to give users access to features in early development or that may require particular knowledge to use properly. You use the `defaults` command to access these settings. The Xcode application has several of these settings, which are also known as *expert preferences* or *expert settings*.

This document describes the Xcode user defaults.

You should read this document when you need to customize an aspect of Xcode behavior in a way that the Xcode Preferences window doesn't facilitate.

Organization of This Document

This document contains one chapter, "Xcode User Defaults" (page 7), which describes the Xcode user defaults.

Software Version

The content of this document applies the software described in this table:

Application	Version
Xcode	3.1

See Also

Before using the Xcode user defaults to modify Xcode's behavior, you should consult the following documents to find out whether Xcode provides a mechanism to accomplish the behavior you want.

- *Xcode Project Management Guide*. Explains how to use the Xcode application to develop software on Mac OS X.
- *Xcode Build Setting Reference*. Describes the build settings used in the Xcode build system to compile source code and produce binary files.

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Introduction

See Also

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Xcode User Defaults

Xcode User Default Overview

Xcode lets you customize its behavior through the Xcode Preferences window, which includes settings to handle the most common customizations. However, Xcode also lets you perform customizations to settings that are not present in the user interface. Xcode uses user defaults to let you change the value of these settings. **User defaults** is a Mac OS X subsystem that lets you customize the behavior of applications using the `defaults` command.

The `defaults` command takes a command and a domain. The user domain for Xcode is `com.apple.Xcode`. The most-used commands are `write` (to set the value of a user default) and `read` (to get the value of a user default). Here's the format of the command invocation to set the value of an Xcode user default:

```
> defaults write com.apple.Xcode <key> <value>
```

- `key`: The name of the Xcode user default to set.
- `value`: The new value for the user default.

This the invocation used to get the value of a user default:

```
> defaults read com.apple.Xcode <key>
```

The user-defaults system lets you override the built-in values of settings used in Xcode. The built-in default value of a setting is encoded in the application, not in the Xcode user-defaults domain. Therefore, when a particular setting is not present in the Xcode user-defaults domain, its default value may vary depending on the Xcode release you're using.

The Xcode user-defaults domain applies to all instances of Xcode installed on your computer. Therefore, when setting user-default values, you must ensure that all the releases of Xcode you're using support that user-default and its new value.

To learn about using multiple Xcode releases in one computer, see *Xcode Installation Guide*.

The following sections list and describe the Xcode user defaults.

General User Defaults

NSDragAndDropTextDelay

Description	Specifies the period (in milliseconds) after text is selected that a click-and-drag event on the selected text is processed as the beginning of a drag-and-drop operation.

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Value	A positive value defines the drag-and-drop period. A negative value or zero deactivates text drag and drop.

NSRecentDocumentsLimit

Description	Specifies the maximum number of items to show in the File > Recent Projects menu.
Value	Positive integer. Default: `10`.

PBExtraPlugInFolders

Description	Specifies extra paths in which to look for Xcode plug-ins beyond the standard `<domain>/Library/Application Support/Apple/Developer Tools/Plug-ins` directories.
Value	Set of strings. Default: None.

PBXCustomTemplateMacroDefinitions

Description	Dictionary of extra macros for use in project and file templates.
Keys	`ORGANIZATIONNAME`: The name of your organization. Default: `__MyCompanyName__`.

PBXDontWarnIfProjectSaveFails

Description	Specifies whether Xcode displays a warning when it is unable to save a project package. Useful for developers using an SCM system that makes project packages nonwritable.
Value	`YES` to display the warning dialog. Default: `NO`.

XCAutoClearRunDebugStdIOLogs

Description	Specifies whether output in the Console window is cleared after each session.
Value	`YES` to clear the console automatically. Default: `NO`.

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XCOpenProjectFilesInsideFolders

Description	Specifies whether Xcode opens the first Xcode project inside the selected folder in an Open panel when the user clicks the Open button. Using this feature may cause problems with keyboard-based navigation of Open panels.
Value	`YES` to automatically open the first Xcode project inside an opened folder. Default: `NO`.

Source Code Editing User Defaults

Encodings

Description	Specifies the list of encodings shown in Encodings menus. This list uses the same format as the encodings list in the TextEdit user defaults. You can copy that list from `~/Library/Preferences/com.apple.TextEdit.plist` to `~/Library/Preferences/com.apple.Xcode.plist` using a text editor.
Value	Array. Default: None.

PBXBeepOnNoMatchingBrace

Description	Specifies whether the text editor beeps when a closing brace (`}`) is typed or double-clicked without a corresponding opening brace (`{`).
Value	`YES` to activate beeping. Default: `NO`.

PBXEmacsPath

Description	Specifies the path to the `emacs` binary. Use only when you want to use a custom-built Emacs editor.
Value	Pathname. Default: `<Xcode>/usr/bin/emacs`.

PBXPipeShellPath

Description	Specifies the path to the shell editor to use in Worksheet windows (which combine a full-featured shell and a text editor).
Value	Pathname. Default: `/bin/sh`.

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PBXXEmacsPath

Description	Specifies the path to the `xemacs` binary.
Value	Pathname. Default: `<Xcode>/usr/bin/xemacs`.

PBXMethodPopupIncludeClassDeclarationsDefault

Description	Specifies whether the declarations menu in the text editor shows class declarations.
Value	`YES` to show class declarations. Default: `YES`.

PBXMethodPopupIncludeClassDefinitionsDefault

Description	Specifies whether the declarations menu in the text editor shows class definitions.
Value	`YES` to show class definitions. Default: `YES`.

PBXMethodPopupIncludeDefinesDefault

Description	Specifies whether the declarations menu in the text editor shows `#define` statements.
Value	`YES` to show `#define` statements. Default: `YES`.

PBXMethodPopupIncludeFunctionDeclarationsDefault

Description	Specifies whether the declarations menu in the text editor shows function declarations.
Value	`YES` to show function declarations. Default: `YES`.

PBXMethodPopupIncludeFunctionDefinitionsDefault

Description	Specifies whether the declarations menu in the text editor shows function definitions.
Value	`YES` to show function definitions. Default: `YES`.

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PBXMethodPopupIncludeMethodDeclarationsDefault

Description	Specifies whether the declarations menu in the text editor shows method declarations.
Value	`YES` to show method declarations. Default: `YES`.

PBXMethodPopupIncludeMethodDefinitionsDefault

Description	Specifies whether the declarations menu in the text editor shows method definitions.
Value	`YES` to show method definitions. Default: `YES`.

PBXMethodPopupIncludeTypesDefault

Description	Specifies whether the declarations menu in the text editor shows type definitions.
Value	`YES` to show type definitions. Default: `YES`.

PBXMethodPopupIncludeMarksDefault

Description	Specifies whether the declarations menu in the text editor shows `??<mark_label>??` marks.
Value	`YES` to show marks. Default: `YES`.

PBXMethodPopupIncludeWarningsDefault

Description	Specifies whether the declarations menu in the text editor shows `??<warning_label>??` warnings.
Value	`YES` to show warnings. Default: `NO`.

PBXPreservePosixPermissionsOnSave

Description	Specifies whether Xcode attempts to preserve POSIX file permissions when saving a file.
Value	`YES` to attempt permission preservation. Default: `YES`.

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XCScrollToEndOfMatchingBrace

Description	Specifies whether double-clicking a quotation mark, brace, or parenthesis causes the text editor to scroll to the opposite end of the resulting selection.
Value	`YES` to scroll on brace double click. Default: `YES`.

PBXShowMatchingBrace

Description	Specifies whether the text editor highlights the corresponding scope delimiter (parentheses, bracket, or brace) as one is typed.
Value	`YES` to highlight corresponding delimiter after typing. Default: `YES`.

XCCodeSenseAllowAutoCompletionInPlainFiles

Description	Specifies whether the text editor uses code completion in plain text, nonsource files. When active in these files, code completion processes only the words present in the file, along with language keywords and text macros defined for the file's type.
Value	`YES` to activate code completion in nonsource files. Default: `NO`.

XCSelectToInsideMatchingQuotes

Description	Specifies whether the text editor selects text inside quotation marks when double-clicking quotation marks (' or ").
Prerequisite	Selection to matching brace is active (Xcode Preferences > Text Editing).
Value	`YES` to select quoted text on quotation-mark double click. Default: `YES`.

XCShowUndoPastSaveWarning

Description	Specifies whether Xcode displays a warning when an undo operation on an open file would take it to a state prior to the file's last save operation.
Value	`YES` to warn about past-save undo operations. Default: `YES`.

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XCSmartInsertDeleteEnabled

Description	Specifies whether the text editor manages spaces when inserting and deleting spaces around words when text is inserted or deleted.
Value	`YES` to automanage spaces after insert or delete operations. Default: `NO`.

Source Code Formatting User Defaults

PBXIndentOnPaste

Description	Specifies whether the text editor reindents source code that is pasted when syntax-aware indenting (Xcode Preferences > Indentation) is active.
Value	`YES` to reindent pasted code. Default: `YES`.

XCCodeSenseFormattingOptions

This user default is a dictionary that specifies the whitespace Xcode applies in code completion and text-macro expansion.

To specify or add `XCCodeSenseFormattingOptions` keys to the Xcode user defaults database, use the `-dict` and `-dict-add` options of the `defaults` command. For example:

```
> defaults write com.apple.Xcode XCCodeSenseFormattingOptions -dict
PreExpressionsSpacing  "" PreCommaSpacing " "
```

The following table describes the `XCCodeSenseFormattingOptions` keys you can define to override the default values.

Key	Value
PreExpressionsSpacing	Whitespace between an `if`, `for`, and `while` keyword and the opening parenthesis. Default: `" "`.
InExpressionsSpacing	Whitespace inside a parenthesized expression—after the opening parenthesis and the closing parenthesis. Default: `""`.
PreFunctionArgsSpacing	Whitespace between a function name and the opening parenthesis. Default: `""`.

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Key	Value
InFunctionArgsSpacing	Whitespace inside a parenthesized function argument list—after the opening parenthesis and the closing parenthesis. Default value: `" "`.
PreCommaSpacing	Whitespace before a comma inside a function argument list. Default: `""`.
PostCommaSpacing	Whitespace after a comma inside a function argument list. Default: `" "`.
PreMethodTypeSpacing	Whitespace before the parenthesized return type in an Objective-C method declaration. Default: `" "`.
PreMethodDeclSpacing	Whitespace between the parenthesized return type and the method name in an Objective-C method declaration. Default: `" "`.
InMessageSpacing	Whitespace inside an Objective-C message expression—after the opening bracket and before the closing bracket. Default: `""`.
PreColonSpacing	Whitespace before a colon in an Objective-C method name or message expression. Default: `""`.
PostColonSpacing	Whitespace after a colon in an Objective-C method name or message expression. Default: `""`.
MessageArgSpacing	Whitespace between the parenthesized type and argument name in an Objective-C method declaration. Default: `""`.
CaseStatementSpacing	Relative indentation of a case keyword inside a switch block. A tab (`'\t'`) character indents by the tab indentation width. Default: `"\t"`.
BlockSeparator	Whitespace after the parenthesized expression of an `if`, `for`, or `while` statement and its opening brace. Default: `" "`.
PostBlockSeparator	Whitespace after the closing brace of a block. Default: `"\n"`.
FunctionBlockSeparator	Whitespace after a method or function name and argument-list declarations and its body. Default: `"\n"`.

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XCColorUnknownLanguages

Description	Specifies whether the text editor performs syntax coloring on files containing source code in languages unknown to Xcode. Syntax coloring on unknown languages follows these rules: ■ Lines beginning with # are treated as comment lines. ■ Text within /* and */ is treated as a comment. ■ URLs inside comments are behave as hyperlinks. ■ Text within double quotation marks (") is treated as a string.
Value	YES to perform syntax coloring on unknown languages. Default: NO.

XCMatchIndentWithLineAbove

Description	Specifies whether the text editor aligns new lines (after pressing Return) with the previous line when syntax-aware indenting (Xcode Preferences > Indentation) is unavailable for the current file, either because it's inactive or because the type of the current file doesn't support it.
Value	YES to align new lines with their predecessors. Default: YES.

XCShowControlCharacters

Description	Specifies whether the text editor identifies control characters using an inverted question mark (¿).
Value	YES to identify control characters. Default: YES.

XCShowNonBreakingSpace

Description	Specifies whether the text editor identifies nonbreaking space characters (Unicode 0xA0) as a middle dot (•).
Value	YES to identify nonbreaking space characters. Default: YES.

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Source Code Indexing User Defaults

XCCodeSenseIndexBasePath

Description	Specifies the location at which to save the source code index, instead of the standard location.
Value	Pathname (absolute or relative to the project directory). Default: `OBJROOT/<project_name>.pbxindex`.
See	"OBJROOT (Intermediate Build Files Path)" in *Xcode Build Setting Reference*.

Building User Defaults

BuildSystemCacheSizeInMegabytes

Description	Specifies the desired maximum size (in megabytes) of the precompiled header (PCH) cache. Xcode obtains the size of the cache on launch and at the end of each build. If the cache size is greater than the desired maximum, Xcode attempts to bring the cache size below the maximum by removing the oldest precompiled-header files from the cache.
Value	Positive integer. Default: `1024`.
See	"BuildSystemCacheMinimumRemovalAgeInHours" (page 16)

BuildSystemCacheMinimumRemovalAgeInHours

Description	Specifies the minimum age (in hours) a precompiled-header file must be in order for it to be a candidate for removal during a cache-size reduction operation.
Value	Positive integer. Default: `24`.
See	"BuildSystemCacheSizeInMegabytes" (page 16)

PBXNumberOfParallelBuildSubtasks

Description	Specifies the desired number of parallel tasks Xcode uses during builds.
Value	Positive integer. Default: Number of CPU cores on the build host.

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UsePerConfigurationBuildLocations

Description	Specifies whether the built products and intermediate build files are grouped by build configuration.
Value	`YES` to group build files by build configuration. Default: `YES`.

PredictiveCompilationDelay

Description	Specifies the period (in seconds) to wait after a source file is edited before Xcode starts a predictive compile.
Prerequisite	Predictive compilation is active (Xcode Preferences > Building).
Value	Positive integer greater than `10`. Default: `30`.
Important	When specified, Xcode enforces a minimum value of `10`.

PBXBuildFailureSound

Description	Identifies the build failure sound.
Value	Pathname to a sound file. Default: None.

PBXBuildSuccessSound

Description	Identifies the build success sound. Pathname to a sound file.
Value	Pathname to a sound file. Default: None.

Shared Workgroup Builds User Defaults

DistributedBuildsLogLevel

Description	Specifies the log level of the shared-workgroup-build manager.
Value	`0`: No logging. `1`: Partial logging. `2`: Full logging. Default: `0`.

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XCDistributedBuildsVerboseLogging

Description	Specifies whether shared workgroup builds produce verbose logging.
Value	`YES` to generate verbose shared-workgroup-builds logging. Default: `NO`.

XCMaxNumberOfDistributedTasks

Description	Specifies the maximum number of concurrent shared-workgroup-build tasks.
Value	Positive integer. Default: `25`.

Debugging User Defaults

PBXGDBPath

Description	Identifies the `gdb` binary Xcode uses for debugging.
Value	Absolute pathname. Default: `<Xcode>/usr/bin/gdb` for local debugging and `/usr/bin/ssh` for remote debugging.

PBXGDBDebuggerLogToFile

Description	Specifies whether Xcode logs its communications with GDB to a file. This file can be sent to Apple when reporting problems with the debugger.
Value	`YES` to log interactions. Default: `NO`.
Important	Logging Xcode/GDB interactions reduces the debugger's stepping performance.
See	"PBXGDBDebuggerLogFileName" (page 18).

PBXGDBDebuggerLogFileName

Description	Specifies the file to which Xcode/GDB communication is logged when Xcode/GDB–communication logging is active. This file is rewritten for every debugging session.
Value	Absolute pathname. Default: `/var/tmp/folders.<uid>/Temporary Items/XCGDB-<program_name>-<Xcode_pid>`.

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See	"PBXGDBDebuggerLogToFile" (page 18).

SCM and Snapshots User Defaults

XCSnapshotDiskImagePath

Description	Specifies the location of the snapshot repository.
Value	Pathname. Default: `~Library/Application Support/Developer/Shared/SnapshotRepository.sparseimage`.

XCSCMLogSize

Description	Specifies the maximum size (in kilobytes) of the SCM log.
Value	Positive integer. Default: `500`.

PBXPerforceToolPath

Description	Identifies the `p4` binary.
Value	Absolute pathname. Default: `/usr/local/bin/p4`.

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Document Revision History

This table describes the changes to *Xcode User Default Reference*.

Date	Notes
2009-07-14	Updated for Xcode 3.2.
2009-01-06	Added and updated defaults information.
	Added "XCSnapshotDiskImagePath" (page 19).
	Udocumented `PBXCVSToolPath`.
2008-11-19	Added information about source code formatting user default.
	Added "XCCodeSenseFormattingOptions" (page 13).
2008-10-15	Updated for Xcode 3.1 and fixed cross-references.
	Added "Xcode User Default Overview" (page 7).
	Added "PBXShowMatchingBrace" (page 12).
	Changed "PBXIndentOnPaste" (page 13) built-in defalult value to `YES`.
	Undocumented `XCSubversionToolPath`.
2008-05-30	Made corrections.
	Corrected spelling of the `NSRecentDocumentsLimit` user default.
2007-05-11	New document that describes the user defaults developers can use to customize Xcode behavior.

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Document Revision History

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