
Java 1.4 Info.plist Java Dictionary Keys

Cross Platform: Java



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Introduction to Java 1.4 Info.plist Java Dictionary Keys

This document discusses the settings for the Info.plist Java Dictionary for Java 1.4 developers. Although the information is specific to Java 1.4.2, most of the information is also applicable for Java 1.4.1 (Java 1.4.1 is provided by default in Mac OS X version 10.3 and is an optional installation in Mac OS X version 10.2). Note that Java 1.4.2 is an optional installation for Mac OS X version 10.3. You customers can download it through Mac OS X's Software Update mechanism.

What is an Info.plist Java Dictionary Key?

The `Info.plist` file is an XML property list file in a native Mac OS X application bundle. It defines certain attributes of the application for use by the operating system. The `Info.plist` file for a Java application wrapped as a Mac OS X application bundle contains a Java dictionary. This dictionary is just a subset of the `Info.plist` file that begins with:

```
<key>Java</key>
  <dict>
```

and ends with

```
</dict>
```

The Java dictionary allows you to set certain Java-specific attributes of your Mac OS X application.

Inside this Java dictionary you can have `key` and `string` combinations or `key` and `dictionary` combinations as illustrated in [Listing 1-1](#) (page 7).

Listing I-1 Sample Info.plist Java dictionary

```
<key>Java</key>
  <dict>
    <key>JVMVersion</key>
    <string>1.4*</string>
    <key>MainClass</key>
    <string>com.yourCompanyName.YourApplication</string>
    <key>Properties</key>
    <dict>
      <key>apple.laf.useScreenMenuBar</key>
      <string>>true</string>
      <key>apple.awt.showGrowBox</key>
      <string>>true</string>
    </dict>
    <key>VMOptions</key>
    <string>-Xmx512m</string>
  </dict>
```

INTRODUCTION

Introduction to Java 1.4 Info.plist Java Dictionary Keys

Note that each `key` tag has a corresponding `string` or `dict` tag. Each `dict` tag surrounds other `key/string` or `key/dict` combinations.

Organization of This Document

- [“Available Variables”](#) (page 9) provides information on variables that are valid within the context of the Java dictionary of the Info.plist file.
- [“Keys and Values”](#) (page 11) lists the keys and their valid settings for the Java dictionary of the Info.plist file.

See Also

For more information on application property lists in general, see *Mac OS X Developer Release Notes: Information Property List* and *Inside Mac OS X: System Overview*.

Available Variables

The strings used to designate the values for the keys in the Java dictionary can use two special variables to simplify specifying path names. These variables should be used only in the Java dictionary of the `Info.plist` file. They are:

`$JAVAROOT`

The default Java root directory for an application bundle is `Contents/Resources/Java`. Use this variable to refer to that directory. If you want to change the Java root directory for the application bundle, add `$JAVAROOT` directory to the JNI search path

`$APP_PACKAGE`

This variable expands into the path to the root directory of the application bundle.

Keys and Values

MainClass

This is a required key. It designates the name of the class containing the application's `main` method. If the classes are included in your application as a JAR file, you can use the `com.companyname.classname` addressing scheme to locate the main class within the JAR file.

JVMVersion

This key is recommended in any `Info.plist` file. It determines which version of Java the application is run with. Table 3-1 (page 11) lists valid strings for the `JVMVersion` key along with a description of which version of Java is used. Without this key set, your application may not launch with the version of Java you intend—make sure to set it. With the Java 1.4.2 release, specifying a minor version of Java has been deprecated; instead use the asterisks (*) or plus (+) symbols with a major version. For example use `1.4+` instead of `1.4.2`.

Note: If you do not set the `JVMVersion` key in a double clickable application, it will run in Java 1.3.1.

Table 2-1 Values to specify the Java version in Mac OS X

String	Java version used	Notes
1.3.1	1.3.1	Specifies an exact version of Java. It is not recommended that you do not use this key unless absolutely necessary.
1.3*	1.3.1	Requests the highest version of Java 1.3 available. Note that if Java 1.3 is updated in future releases of Mac OS X, the latest version of Java 1.3 will be used.
1.3+	1.4.2	Requests the highest version of Java above 1.3. Note that if Java is updated in future releases of Mac OS X, the latest version of Java will be used.
1.4.1	1.4.2	If Java 1.4.2 is installed, Java 1.4.1 is no longer used. For compatibility, applications that specify 1.4.1 will run in Java 1.4.2. You should update these applications to specify 1.4* or 1.4+ as appropriate.
1.4*	1.4.2	Specifies the highest version of the Java 1.4 available. Note that if Java 1.4 is updated in future releases of Mac OS X, the latest version of Java 1.4 will be used.
1.4+	1.4.2	Specifies the highest version of Java above 1.4. Note that if Java is updated in future releases of Mac OS X, the latest version of Java will be used.

ClassPath

Allows you to explicitly set the path for required directories or JAR files. If you do not set this, the default class path is the root of the application bundle (`$APP_PACKAGE`).

WorkingDirectory

Allows you to modify the current working directory for the application from the default working directory at the root of the application bundle (`$APP_PACKAGE`).

Arguments

A string or array of strings where each string is a space-separated list of arguments to pass to `main` as `String[]`. This is useful if your application expects to receive arguments passed in from the command line.

Properties

`Properties` is a subdictionary of the Java dictionary. Valid keys for the `Properties` dictionary are system properties that you might pass into `java` from the command line with the `-D` flag. A list of valid properties is available in *Java 1.4: Runtime System Properties*.

Since the `Properties` key designates a dictionary, make sure to begin and end it with the `dict` keyword. [Listing 1-1](#) (page 7) shows an example of how to use the `Properties` dictionary.

VMOptions

Space-separated list of strings, or an array of strings where each string is an options for the Java virtual machine. For example:

```
<key>VMOptions</key>
<string>-Xms512m -Xmx1024m</string>
```

is equivalent to

```
<key>VMOptions</key>
<string>{"-Xms512m", "-Xmx1024m"}</string>
```

Document Revision History

This table describes the changes to *Java 1.4 Info.plist Java Dictionary Keys*.

Date	Notes
2004-10-05	Revised the <code>VMOptions</code> key description.
2004-02-26	Minor changes to <code>JVMVersion</code> key description to emphasize not specifying a minor version of Java.
	Minor grammatical revisions.
2004-01-08	Changed title to <i>Java 1.4 Info.plist Java Dictionary Keys</i> .
	Updated for Java 1.4.2 to include new values used to specify particular versions of Java.
	Added introductory material and reformatted document.
2003-06-23	Released as a standalone document with minor revisions in the <code>JavaVMVersion</code> key description to designate which version of Java is invoked when the value of 1.3+ is passed in.
2003-05-15	Released as an appendix to <i>Java 1.4.1 Development for Mac OS X</i> .

REVISION HISTORY

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