# Download and Installation Instructions for Android SDK and Android Development Tools (ADT) on Mac OS X

Updated September, 2013

This document will describe how to download and install the Android SDK and Android Development Tools (ADT) into your programming environment.

Before continuing, be sure that your computer already has the JDK and Eclipse software installed. You can find instructional documentation for these steps if needed from your Student Menu or in our online Java Installation page.

The *TeenCoder<sup>TM</sup>: Android Programming* course adds two pieces of free software to your existing JDK and Eclipse development environment: the **Android Software Development Kit (Android SDK)** and the **Android Development Tools (ADT)** for Eclipse. These pieces of software will enable you to write and test Android applications without any Android hardware!

This software is required for students in order to complete the course. Teachers who wish to view activity solutions or projects on their own computer are also encouraged to install this software.

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## Let's Get Started!

You will need access to the Internet in order to complete the installation process. Some downloads are very large (100MB+) so plan time based on the speed of your Internet connection. Note that all red highlights below are added for emphasis and are not present on the actual screens.

Android components are evolving rapidly! This course is based on the Eclipse ADT version 22, Android SDK version 17, and the Android Platform version 4.2 (17). Newer software levels are likely available by the time you begin this course, but **we recommend for the smoothest possible learning experience that you stick with our original component versions**.

Should you choose to instead obtain the latest Android versions, be aware that some screen shots may no longer match our examples exactly, and some Android functions we describe in the course may change over time. You will be responsible for understanding and overcoming those differences if you choose the latest Android versions!

## **Downloading the Original Course Android Bundles**

We have created ZIP "bundles" of the Android components at the original course versions that you can download from our website. This procedure replaces a standard Eclipse-based approach that will only allow you to download the very latest Android software components.

To begin, Mac OS Finder and create a folder on your hard drive where the Android SDK and other components will be installed. We recommend the directory named "android-sdk" in your user home directory, though you may choose another location.



Next, launch your web browser (Safari) and download the following two ZIP files. You can type these addresses directly into your web browser, or navigate to the online links from your Student Menu "Software Install Instructions" tab.

http://www.homeschoolprogramming.com/downloads/ADT-22.0.1.zip (approx. 16 MB)



http://www.homeschoolprogramming.com/downloads/android-sdk17-macosx.zip (approx. 284 MB)



Depending on your configuration, you may be prompted for a target download location on your local hard drive, or the ZIP file may be automatically saved to a download folder. Choose your newly created "android-sdk" as your target folder if possible. If the ZIP files are automatically saved to some other folder, then simply copy them over to "android-sdk" when the download is complete.

When the downloads are complete you should have the "android-sdk17-macosx.zip" and "ADT-22.0.1.zip" files in your "android-sdk" directory

00	🚞 and	roid-sdk
		<b>☆</b> ▼
FAVORITES	🚞 android-sdk	ADT-22.0.1.zip
All My Files	Applications	android-sdk17-macosx.zip
A LuDura	🔲 Desktop	▶
AirDrop	Documents	•
Applications	Downloads	•
Desktop	Movies	4
	💷 Music	P
Documents	Pictures	P
Downloads	Public	P
Movies	TeenCoder	►
111 A.A. A.		

Next, un-zip the "android-sdk17-macosx.zip" package to the same directory. To unzip the Android SDK on Mac OS X, you can simply double-click on the file in Finder and it should automatically un-zip the file and create a new folder called "android-sdk17-macosx".

000	🚞 android-sdk-macos	5X
		r) (Q,
FAVORITES	ADT-22.0.1.zip	add-ons 🕨
All My Files	android-sdk17-macosx	📄 platform-tools 🛛 🖻
Ala Dana	📳 android-sdk17-macosx.zip	■ platforms
AirDrop		SDK Readme.txt
Applications		i tools
🔜 Desktop		
🖻 Documents		
Ownloads		
Movies		
E Musia		

## **Installing the Eclipse ADT Version 22**

To install the Eclipse Android Development Tools, open your Eclipse software and click on the "Help" menu item at the top of the screen. In the Help menu, find and click on the item called "Install New Software".

Once you click on the "Install New Software" item, you will see the Installation screen for available software.

000	Ins	tall
Available Softwar Select a site or ent	re ter the location of a site.	
Work with: type of	or select a site Find more s	• Add oftware by working with the <u>"Available Software Sites</u> " preferences.
type filter text		
Name		Version
Select All Details	Deselect All	
Show only the la	test versions of available software	Hide items that are already installed
Group items by o	category	What is <u>already installed</u> ?
Show only software	are applicable to target environment	
☑ Contact all upda	te sites during install to find required software	
?		< Back Next > Cancel Finish

On this screen, you will need to click on the "Add" button that is circled in the upper-right corner of the screen.

This will bring up the "Add Repository" screen seen below. Here, you will enter the name "Android

Add	Repository	ADT" the	and click on "Archive"
Name: Android ADT	Local	button.	
Location: http://	Archive		
?	Cancel OK		

Browse to your "android-sdk" folder, select the "ADT-22.0.1.zip" file, and click "Open".

000	Repository	archive	
	💷 📖 📰 🔻 🚞 andre	oid-sdk 🗘 🔍	
FAVORITES	<ul> <li>.adobe</li> <li>.CFUserTextEncoding</li> <li>.DS_Store</li> <li>Trash</li> </ul>	ADT-22.0.1.zip	Þ
<ul> <li>Desktop</li> <li>Documents</li> <li>Downloads</li> </ul>	android-sdk Applications Desktop Documents	▲	
Movies Music Pictures Student	Downloads     Downloads     Library     Movies     Music     Pictures	4 4 4	Last
SHARED	Public TeenCoder	4	
New Folder	*.jar;*.zip	÷ Cancel Ope	n

Your Add Repository dialog should now have a complete Location path to your local ZIP file, so click "OK" to continue.

000	Add Repository
Name:	Android ADT Local
Location:	jar:file:/Users/student/android-sdk/ADT-22.0.1.zip!/ Archive
?	Cancel

The next screen will show you the "Available Software" items for the ADT plug-in. Make sure there is a check mark in the "Developer Tools" box and then click on "Next".

00	Install		
Available Software Check the items that you wish to install.			
Work with: Android ADT - jar:file:/Users/	student/android-sdk/ADT-22.0.1.zip!/  Find more software by working with the <u>"Available Software Sites"</u> preferences.		
type filter text	)		
Name	Version		
	22.0.1.v201305230001685705 22.0.1.v201305230001685705 22.0.1.v201305230001685705 22.0.1.v201305230001685705 22.0.1.v201305230001685705		
Details			
Show only the latest versions of available	software 🗹 Hide items that are already installed		
Group items by category	What is <u>already installed</u> ?		
Show only software applicable to target environment			
Contact all update sites during install to find required software			
?	< Back Next > Cancel Finish		

The next screen will display a list of items that the Eclipse system is about to install. You should see items similar to the list seen below. To continue the installation, just click on the "Next" button at the bottom of the screen.

00	Install	
Install Details Review the items to be installed.		
Name	Version	Id
Android DDMS	22.0.1.v201305230001685705	com.android.ide.eclipse.ddr
Android Development Tools	22.0.1.v201305230001685705	com.android.ide.eclipse.adt
Android Hierarchy Viewer	22.0.1.v201305230001685705	com.android.ide.eclipse.hie
► Android Native Development Tools	22.0.1.v201305230001685705	com.android.ide.eclipse.ndl
Android Traceview	22.0.1.v201305230001685705	com.android.ide.eclipse.trac
Reference for OpenGL ES	22.0.1.v201305230001685705	com.android.ide.eclipse.gld
Size: Unknown		
Details		
?	< Back Next > C	ancel Finish

At this point, you are given an opportunity to review the license agreement for using the ADT software. You can review this agreement if you wish, and then choose the radio button that says "I accept the terms of the license agreements" and click on the "Finish" button at the bottom.

000 Install	
Review Licenses Licenses must be reviewed and accepted before the software can be i	installed.
Licenses:	License text:
▶ Apache License Note: jcommon-1.0.12.jar is under the BSD license rather than the Note: kxml2-2.3.0.jar is under the BSD license rather than the EPL.	Apache License Version 2.0, January 2004 http://www.apache.org/licenses/ TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION 1. Definitions. "License" shall mean the terms and conditions for I accept the terms of the license agreements I do not accept the terms of the license agreements
? < Back	Next > Cancel Finish

Now the ADT software will begin to install from your local "ADT-22.0.1.zip" file. This process can take a few minutes.

000	Installing Software	
Installing Software		
Downloading com.android.ide.eclipse.traceview		
Always run in background		
	Cancel Details >>	Run in Background

At some point in the download and installation, you may see a warning window like this one:



If you do see this message, you can just click on "OK" and continue the download and installation.

Once the download and installation is complete, you will see the following message:

00	O Software Updates	
You will need to restart Eclipse for the installation changes to take effect. You may try to apply the changes without restarting, but this may cause errors.		
	Not Now Apply Changes Now Restart Now	

Click "Restart Now". This will restart just the Eclipse software, not your whole computer!

You have completed the installation of the Eclipse Android Development Tools (ADT). After restarting Eclipse you can continue to the next step: Configuring the Android SDK.

#### **Configuring the Android SDK after Restart**

When restarting Eclipse after installing the Android ADT, you should be presented with a Welcome dialog that allows you to install or configure the Android SDK. Since we have already downloaded and unzipped the android SDK, we simply need to point Eclipse to that directory. Click on "Use existing SDKs" and browse to the "android-sdk/android-sdk17-macosx" folder that you created earlier. This address should then appear in the Location field. Then click "Next".

000	Welcome to Android Development	
Welcome to Android Configure SDK	Development	0
To develop for Androic against. You may also	d, you need an Android SDK, and at least one version of the Android APIs want additional versions of Android to test with.	to compile
🔘 Install new SDK		
🗹 Install the lates	st available version of Android APIs (supports all the latest features)	
🗌 Install Android	2.1, a version which is supported by ~97% phones and tablets	
(You can add a	dditional platforms using the SDK Manager.)	
Target Location:	/Users/student/android-sdks	Browse
• Use existing SDKs Existing Location:	/Users/student/android-sdk/android-sdk17-macosx	Browse
?	< Back Next > Cancel	Finish

If you do not see this welcome dialog, or you receive a warning dialog that says the location of the Android SDK has not been setup in the preferences, please skip to the next section titled "Configuring the Android SDK Location Manually".

The final screen may ask if you wish to contribute usage statistics to Google. You can select "No" and then click on "Finish".

000	Welcome to Android Development
Contribute Usage We know you just	e Statistics? want to get started but please read this first.
By choosing to sen usage statistics let versions of the SDI not associated with maintained in acco	d certain usage statistics to Google, you can help us improve the Android SDK. These s us measure things like active usage of the SDK, and let us know things like which Care in use and which tools are the most popular with developers. This limited data is a personal information about you, and is examined on an aggregate basis, and is rdance with the Google Privacy Policy.
Send usage statisti O Yes O No	cs to Google?
If you later decide	to change this setting, you can do so in the options panel under Android > Usage Stats <u>Google Privacy Policy</u>
?	< Back Next > Cancel Finish

Congratulations! You have completed the installation for the Android ADT, Android SDK, and supporting components. You are now ready to begin your Android development.

You do not need to continue to the next section.

## **Configuring the Android SDK Location Manually**

If you do not see the "Welcome" dialog when restarting Eclipse, or you are notified that you need to configure a valid Android SDK path, you can configure the Android SDK location manually. To do this, from Eclipse, select the "Eclipse  $\rightarrow$  Preferences" option from the menu, and then click on the "Android" entry in the left pane. Enter or Browse to your target SDK path "android-sdk/android-sdk17-macosx" in the top field and click "OK".

Preferences							
type filter text	Android			¢	• ⇒ • ▼		
General     Android	Android Preferences						
► Ant ►C/C++	SDK Location: //Users/student/android-sdk/android-sdk17-macos Browse						
Data Management	Data Management Note: The list of SDK Targets below is only reloaded once you hit 'Apply' or 'OK'.						
▶ Install/Update	Target Name	Vendor		Platform	API Leve		
▶Java	Android 4.2.2	Android Open Sou	rce Project	4.2.2	17		
▶Java EE							
▶Java Persistence							
▶ JavaScript							
▶ Maven	Standard Android platform 4.2.2						
▶Mylyn							
Plug-in Development			Restore D	efaults	Apply		
Remote Systems							
?			Can	cel	ОК		

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