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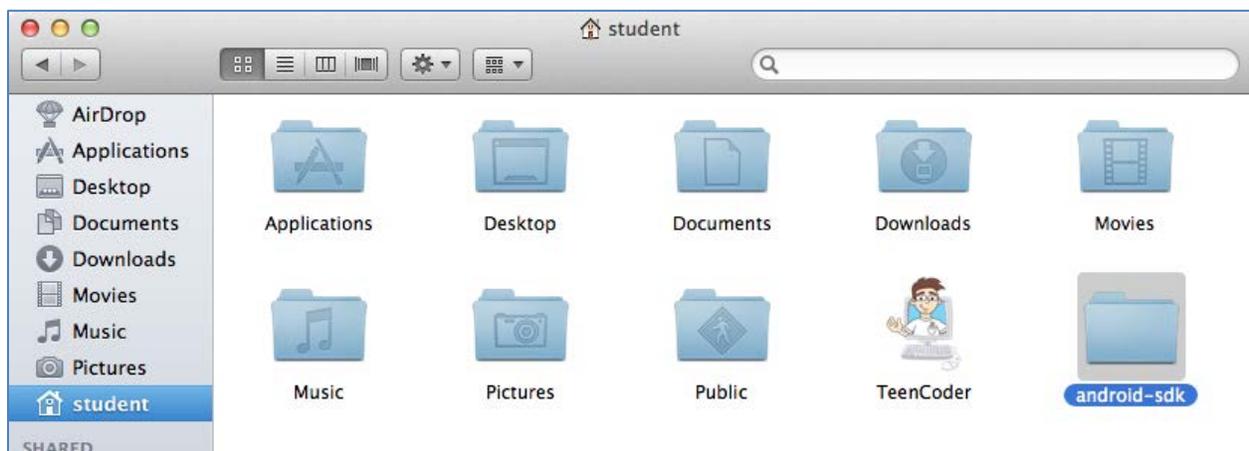
Next, launch your web browser (Safari) and download the following two ZIP files. You can type these addresses directly into your web browser, or navigate to the online links from your Student Menu "Software Install Instructions" tab.

http://www.homeschoolprogramming.com/downloads/ADT-22.0.1.zip (approx. 16 MB)
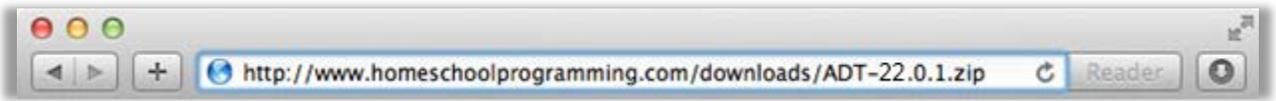
http://www.homeschoolprogramming.com/downloads/android-sdk17-macosx.zip (approx. 284 MB)

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
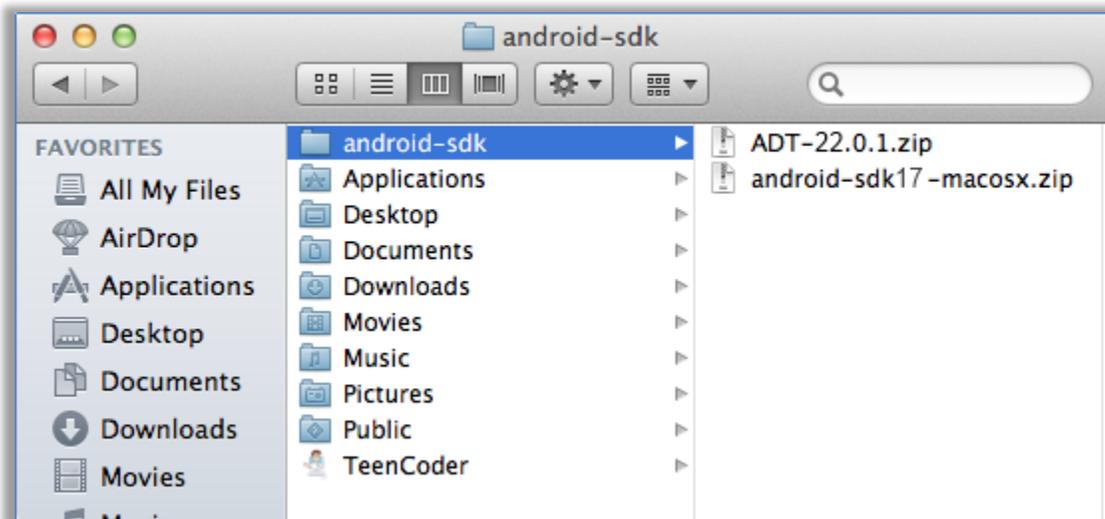
Next, un-zip the "android-sdk17-macosx.zip" package to the same directory. To unzip the Android SDK on Mac OS X, you can simply double-click on the file in Finder and it should automatically un-zip the file and create a new folder called "android-sdk17-macosx".
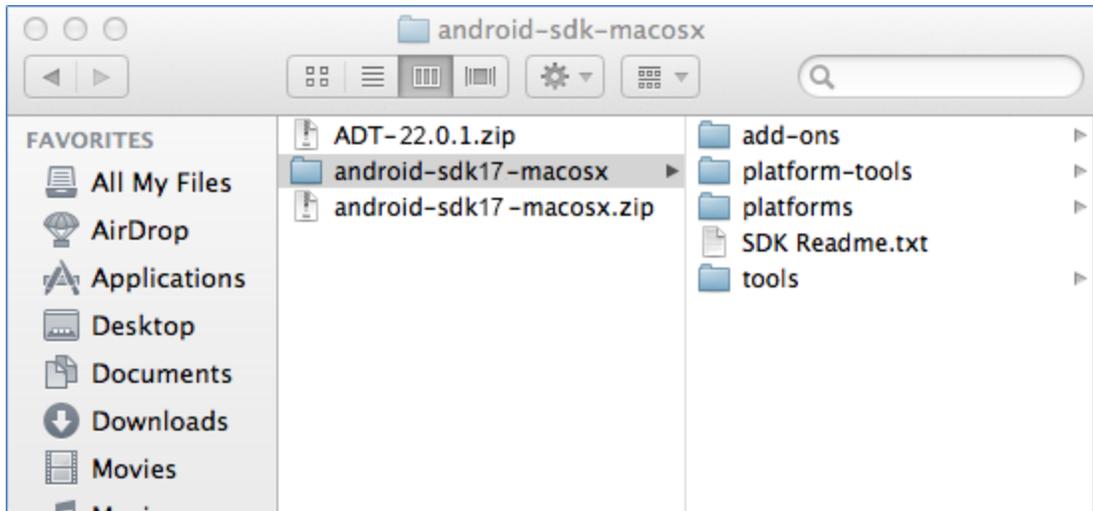
Installing the Eclipse ADT Version 22

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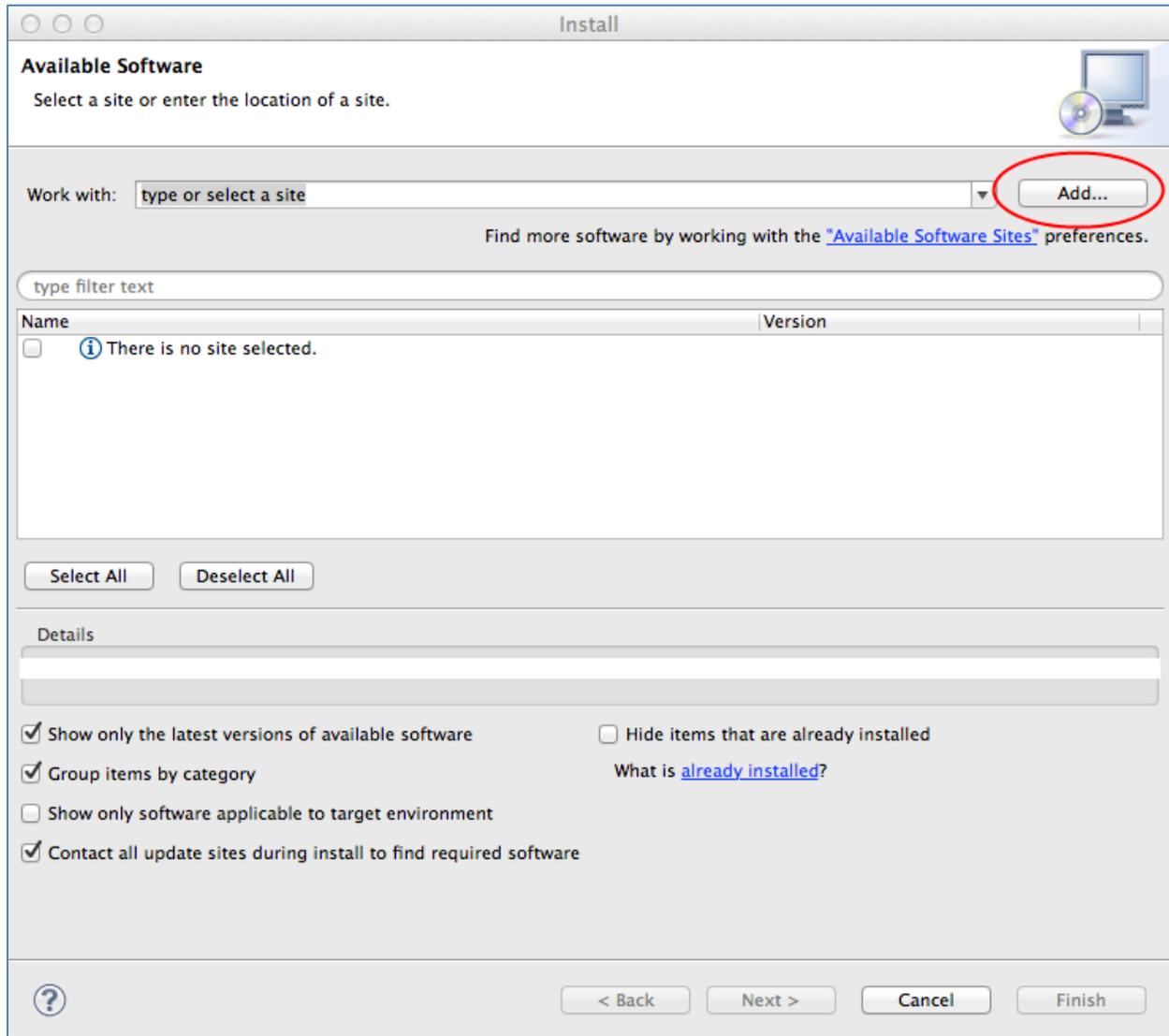
On this screen, you will need to click on the "Add" button that is circled in the upper-right corner of the screen.

This will bring up the "Add Repository" screen seen below. Here, you will enter the name "Android ADT" and click on the "Archive…" button.
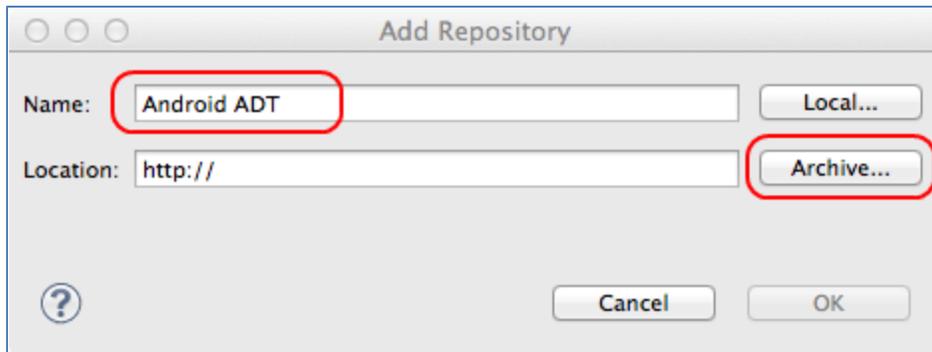
Browse to your "android-sdk" folder, select the "ADT-22.0.1.zip" file, and click "Open".
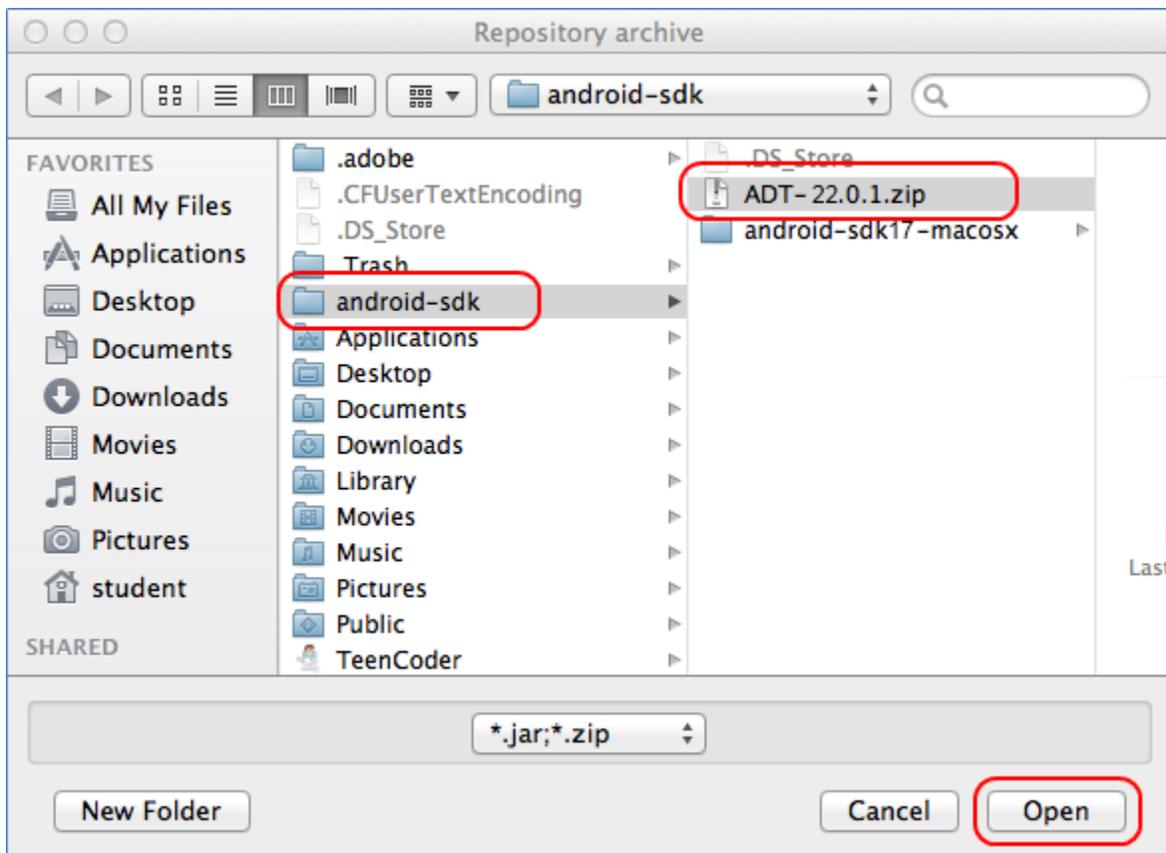
Your Add Repository dialog should now have a complete Location path to your local ZIP file, so click "OK" to continue.
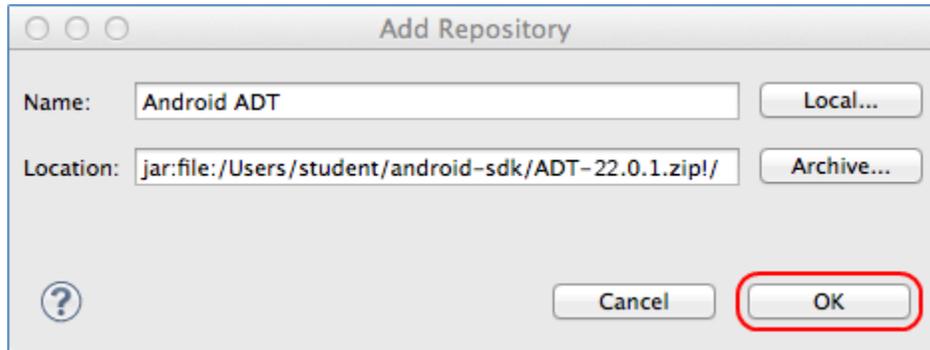
The next screen will show you the "Available Software" items for the ADT plug-in. Make sure there is a check mark in the "Developer Tools" box and then click on "Next".
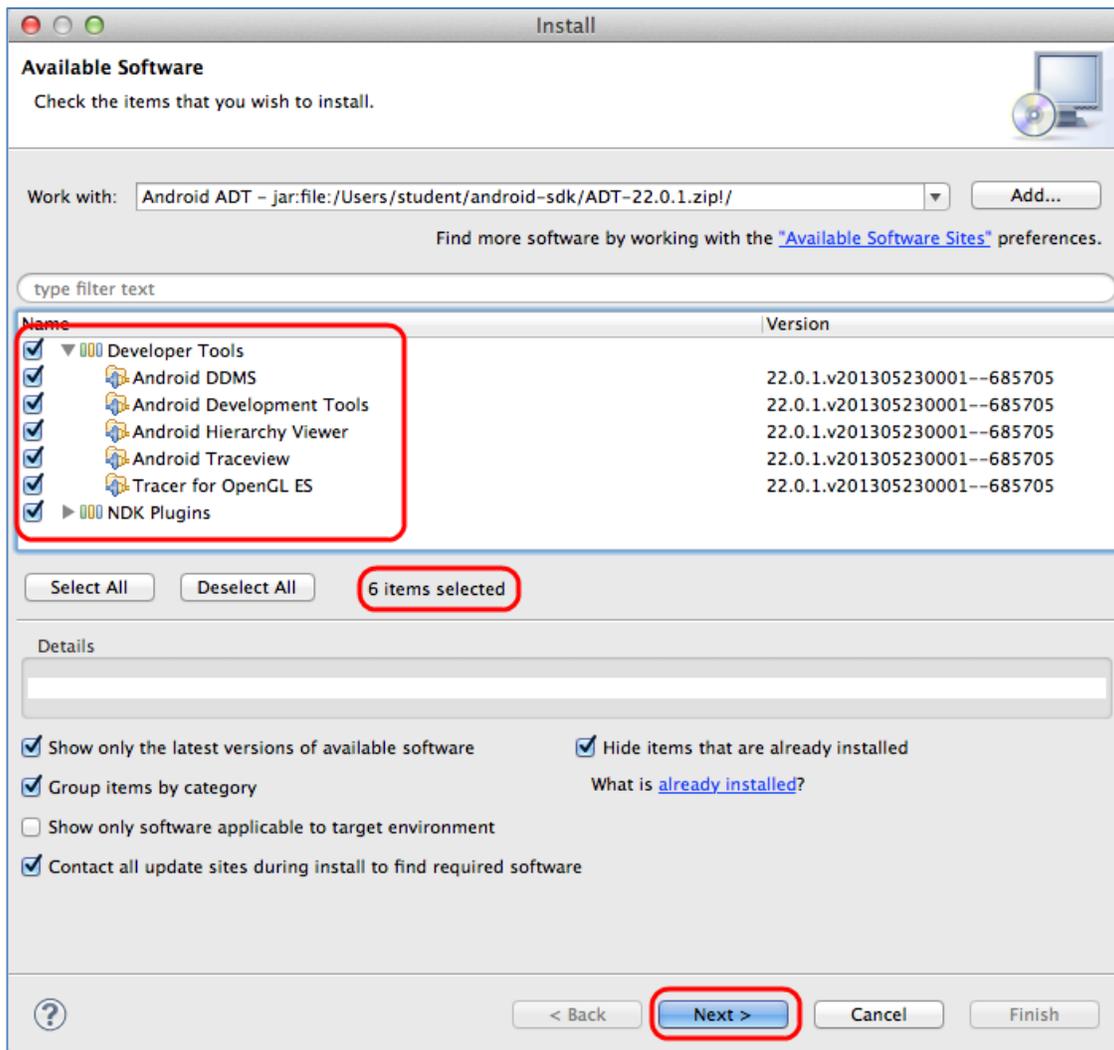
The next screen will display a list of items that the Eclipse system is about to install. You should see items similar to the list seen below. To continue the installation, just click on the "Next" button at the bottom of the screen.
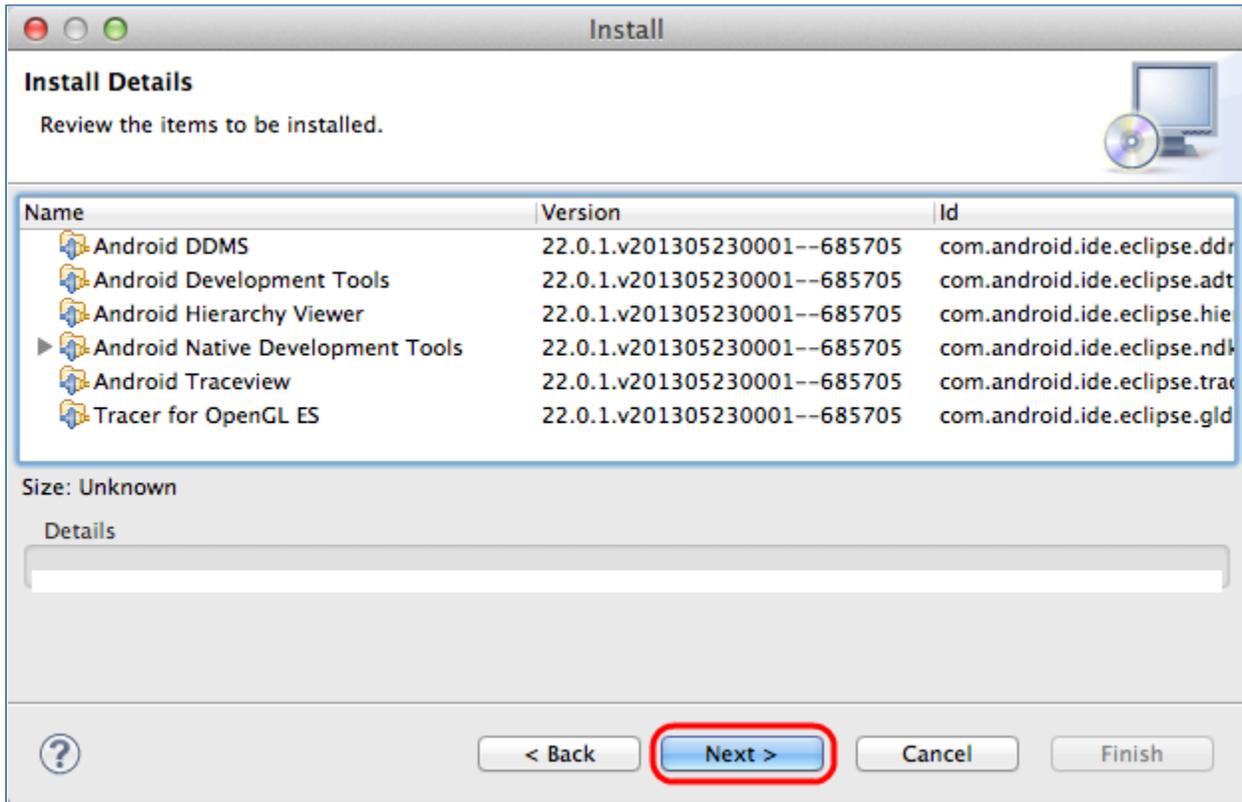
At this point, you are given an opportunity to review the license agreement for using the ADT software. You can review this agreement if you wish, and then choose the radio button that says "I accept the terms of the license agreements" and click on the "Finish" button at the bottom.
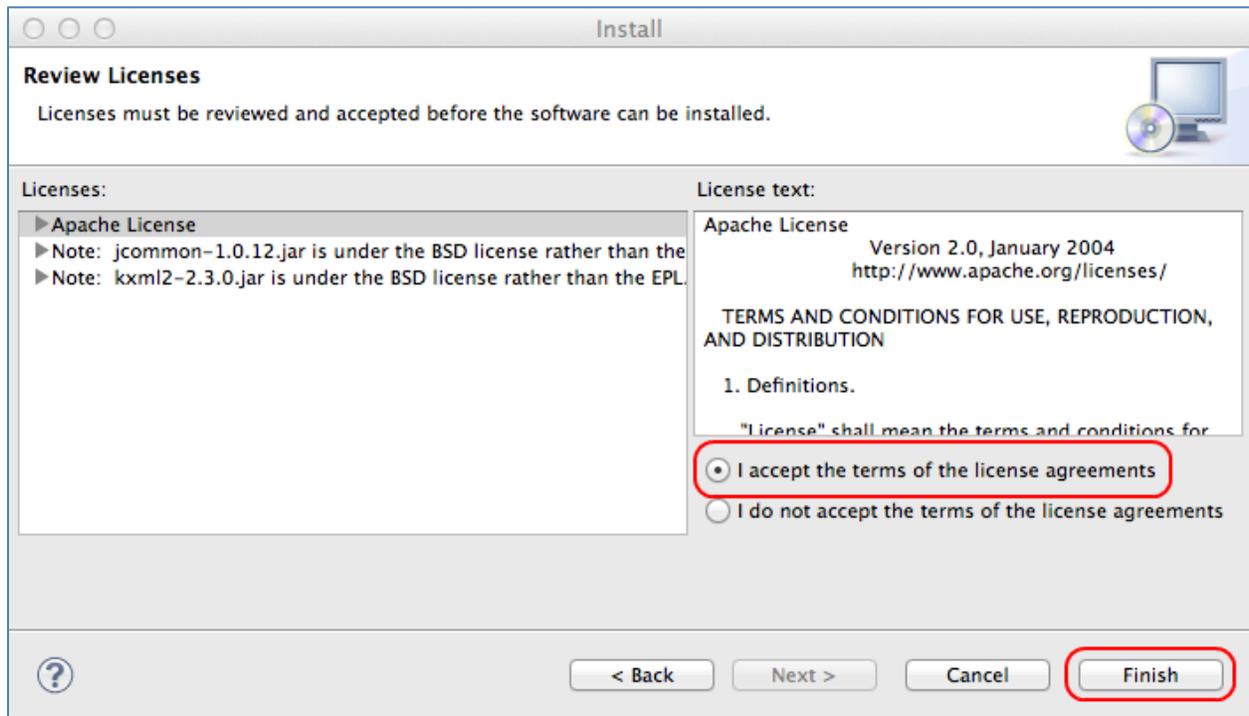
Now the ADT software will begin to install from your local "ADT-22.0.1.zip" file. This process can take a few minutes.
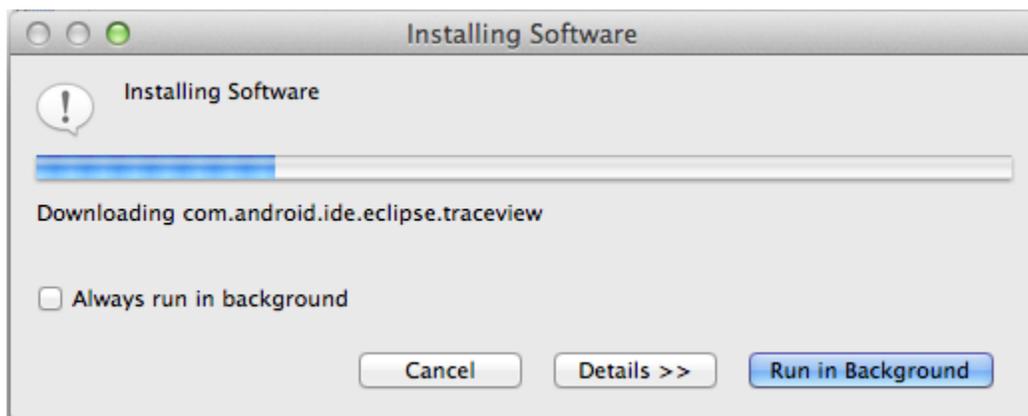
At some point in the download and installation, you may see a warning window like this one:

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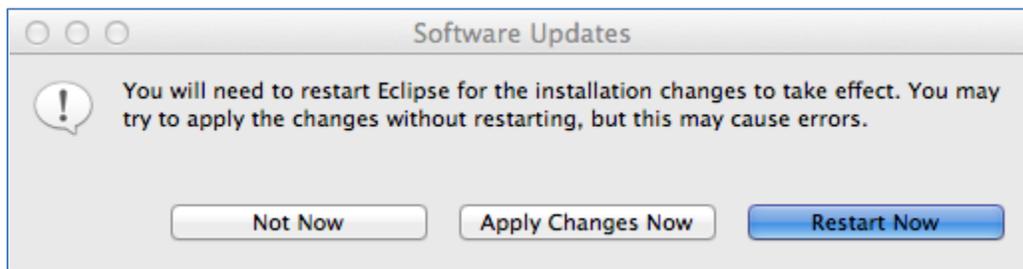
Click "Restart Now". *This will restart just the Eclipse software, not your whole computer!*

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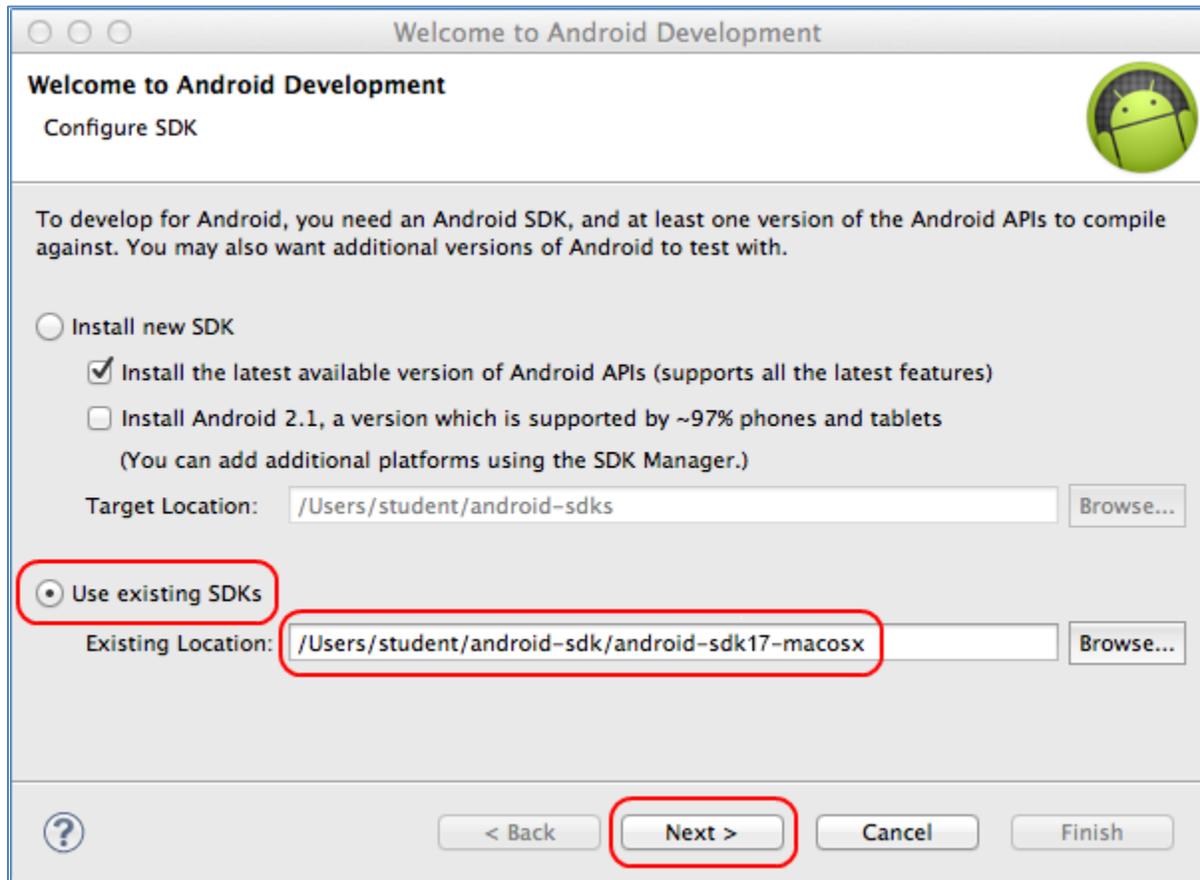
If you do not see this welcome dialog, or you receive a warning dialog that says the location of the Android SDK has not been setup in the preferences, please skip to the next section titled "Configuring the Android SDK Location Manually".

The final screen may ask if you wish to contribute usage statistics to Google. You can select "No" and then click on "Finish".
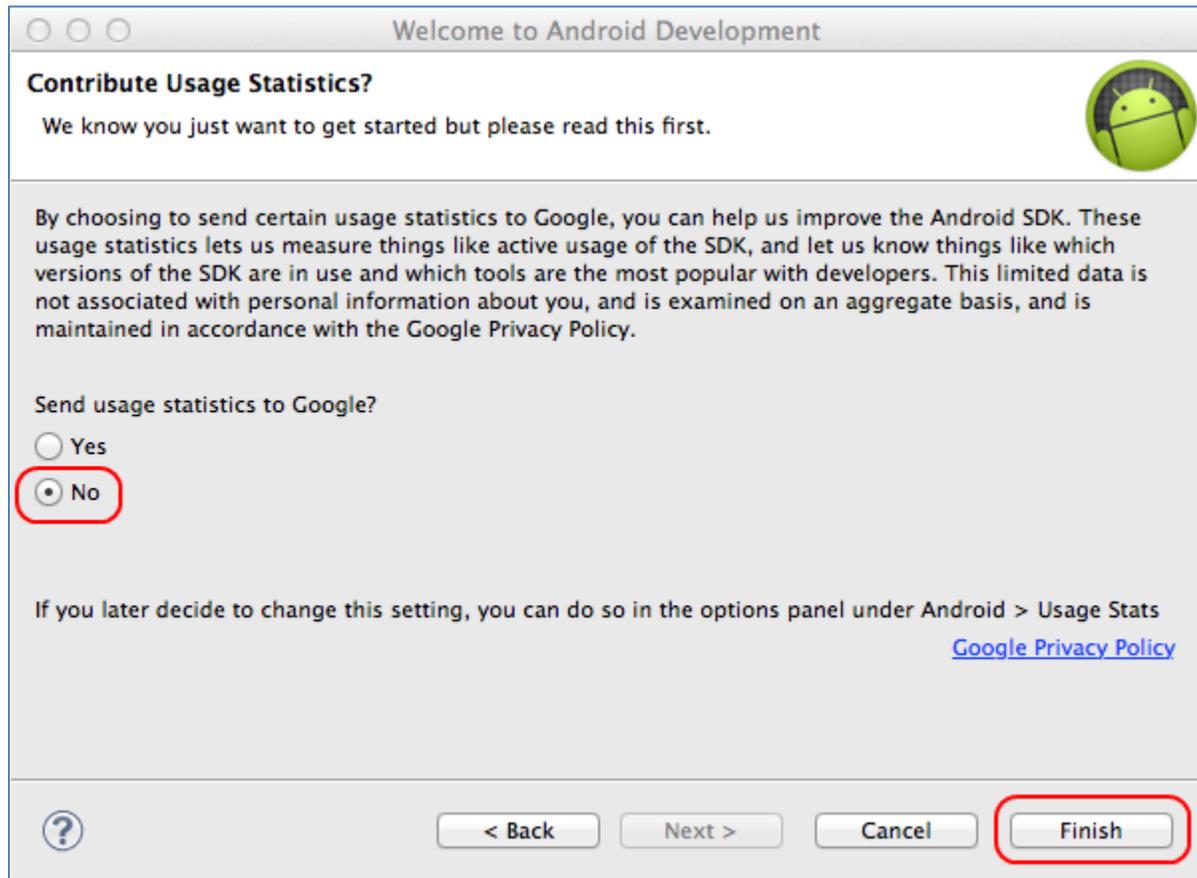
Congratulations! You have completed the installation for the Android ADT, Android SDK, and supporting components. You are now ready to begin your Android development.

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 → 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".

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