

# Difference Between Android Studio and Eclipse

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## Key Difference - Android Studio vs Eclipse

When developing a [software](#), there are many files and it is hard only to use the [command line](#). Therefore, an Integrated Development Environment (IDE) can be used. An IDE is a software application that provides comprehensive facilities for developers to build software applications. It contains code editor, build automation tool and debugger. They provide a complete project structure that makes it easy to arrange every file necessary for the project. [Android](#) Studio and Eclipse are two such IDEs. The **key difference** between Android Studio and Eclipse is that **Android Studio is an Integrated Development Environment(IDE) specifically developed for Android applications while Eclipse is an integrated development environment that is widely used for Java-based application development**. Android Studio is specifically designed to build Android applications but Eclipse is useful for building android as well as other [web](#) and desktop applications. It supports android through Google ADT plug-in.

## What is Android Studio?

Android Studio is an Integrated Development Environment (IDE) for Google's Android [Operating Systems](#). An IDE is a tool that makes programming much easier. When developing a complex software project it is necessary to use an IDE because it helps to organize all files. Working with the command line is not an effective method. Android Studio has features such as code completion and refactoring that makes developing the project easier without consuming much time. Android Studio can be downloaded on [Windows](#), [Linux](#) and Mac operating systems. It was first released on May 16, 2013. New features were added and the IDE was improved from beta version to stable version. Google released the Android stable version on December 08, 2014 with advanced features. This IDE is based on IntelliJ IDEA.



**Figure 01: Android Studio**

Android Studio is designed specifically for Android application development. The IDE consists of a robust code editor and new build system based on Gradle. It is easy to create new projects, add necessary modules to support Android TV, Android Wear and Google cloud backend using Android Studio. To add these modules, the programmer just needs to open the provided wizards and select the modules to be added. With code templates, it is easy to start coding right away. Overall, it is a free development environment to build effective android applications.

## **What is Eclipse?**

Eclipse is an IDE containing a base workspace and an extensible plug-in system. It is primarily used for Java applications but can also be used for applications using other programming languages through plug-ins. Some languages include [C](#), [C++](#), [C#](#), Perl, PHP, [Python](#) and Ruby. It can also be used for developing packages for the software "Mathematica". It is a mathematical computation software used in technical and scientific fields.

Many developers prefer Eclipse IDE as it provides a number of features to make the software development easier. It uses a software updating mechanism. Updates can be done using a simple dialog box. Developers do not want to concentrate on dependencies. The main advantage of Eclipse IDE is that it can be used to develop Java Enterprise Edition (JEE) applications. The server view allows controlling the

server in web development. Another feature is perspectives. Available perspectives depend on the installation. The default perspective is Java but one can change it to another perspective such as Debug.



**Figure 02: Eclipse**

Eclipse arranges the project structure methodically. The workspace is storing project source files, images, and other artifacts. Eclipse is suitable for developing mobile, desktop and web applications. Overall, Eclipse Software development kit is a free and open source software to build robust and efficient applications.

## **What are the Similarities Between Android Studio and Eclipse?**

- Both are Integrated Development Environments.
- Both provide a flattened representation of the project structure giving quick access to code, resources and build files.
- Both provide better Graphical User Interface (GUI)
- Both provide code auto completion facilities.
- Helps to write clean and error-free code.

## **What is the Difference Between Android Studio and Eclipse?**

Android Studio vs Eclipse

Android Studio is the official Integrated Development Environment(IDE) for Google's Android operating system designed specifically for Android development.	Eclipse is an Integrated Development Environment(IDE) that is widely used for Java-based application development.
<b>Android Support</b>	
Android Studio supports android.	Eclipse supports android through extension Google ADT.
<b>Build Tool</b>	
Android studio has Gradle build tool.	Eclipse has ANT build tools by default. It is outdated than Gradle.
<b>Updates for Android</b>	
Android studio gets updates frequently for android development.	Eclipse is not updated frequently for android development.
<b>Supporting Programming Languages</b>	
Android Studio supports Java.	Eclipse supports C, C++, C#, Java, JavaScript, Perl, PHP, Python and many other languages.
<b>Developer</b>	
Android Studio was developed by Google.	Eclipse was developed by Eclipse Foundation.
<b>Applications</b>	
Android Studio is specifically designed for android development.	Eclipse is designed to develop a variety of applications.

## Summary - Android Studio vs Eclipse

Android Studio and Eclipse are popular Integrated Development Environment. These IDE provide sophisticated tools to build effective software applications. Android Studio is used by the developers specifically for android application development. Eclipse can be used by developers who are not just limited to android development. Selecting either Android Studio or Eclipse depends on the application. The difference between Android Studio and Eclipse is that Android Studio is an Integrated Development Environment(IDE) specifically developed for Android applications while Eclipse is an integrated development environment that is widely used for Java-based application development. They can be web, mobile or desktop applications.

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