INTRODUCTION TO ANDROID DEVELOPMENT

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ANOTATSION

This article provides information about the entry into the development of android, as well as about modern technologies. Scientific information is provided about the rapid innovation of android technology in the developing zamunda

Keywords; Android, Google, Open Handset Alliance, Google OS, Phone, platforms, operating system, application, industry scale.

What is Android? Android is an open source mobile operating system that combines and builds upon parts of many different open source projects. What does this mean to you as a developer? You have access to the source code of the platform that is running on the phone. This can help you better understand how interface controls and the various other pieces work. If you happen to find a bug, you can also submit a patch for the issue, though this is a more advanced practice. Google has also pulled together a largegroup of companies (called the Open Handset Alliance) that both contribute to and use the Android OS in their hardware devices. This means that there is industry-wide support for Google's OS, promising wide adoption across well-known vendors.

Why Android? There are many advantages to developing for the Android platform:

• **Zero startup costs to begin development.** The development tools for the platform are free to download, and Google only charges a small fee to distribute applications on the Android Market.

• **Freedom to innovate.** The Android OS is an open-source platform based on the Linux kernel and multiple open-source libraries. In addition to building applications to run on Android devices, developers are free to contribute to or extend the platform as well.

• **Freedom to collaborate.** Android developers are not required to sign an NDA and are encouraged to collaborate and share source code with each other. According to a survey by Black Duck Software, the number of open source mobile apps and libraries grew at a rate of 168% from 2008 to 2009, faster on Android than any other platform. This means more code that you can reuse in your own projects to bring them to market much faster.

• **Open distribution model.** Very few restrictions are placed on the content or functionality allowed in Google's Android Market, and developers are free to distribute their applications through other distribution channels as well.

• **Multi-platform support.** There are a wide variety of hardware devices powered by the Android OS, including many different phones and tablet computers. Development for the platform can occur on Windows, Mac OS or Linux.

- **Multi-carrier support.** A large number of telecom carriers currently offer Android powered phones.

Prerequisites before continuing with this article include:

- You must download and install the Eclipse IDE. Choose the "Eclipse IDE for Java Developers" option.
- You must download and install the Android SDK.
- Install the Android Development Tools (ADT) Eclipse plugin.

The Java Perspective. The Java perspective is the default perspective in Eclipse, and it is where you will probably spend most of your time.

Among the most important views in this perspective is the Package Explorer view, by default located on the left hand column of the workbench. This view is an overview of your entire project. It also shows the states of individual files with regard to compile issues, version control, etc.

Another important view in the Java perspective is the Problems view, by default located in the bottom center panel of the workbench. This is where you will find compile warnings and errors listed. You can double-click an item to be taken directly to the error in the Java or XML file.

The DDMS Perspective

DDMS is short for Dalvik Debug Monitor Server, which communicates with the low-level services of a device or emulator. Switch to the DDMS perspective now by selecting **Window > Open Perspective > DDMS**.

The Devices view, located in the left column of the workbench, is where you will see any Android devices available to your computer. This includes both phones attached to your machine and running emulators. Under each device, you will see all the running processes. There are toolbar buttons on the view for launching the debugger on a process, getting information about heaps and threads, stopping processes, and taking screenshots.

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Android operatsion tizimi qurilmani Google tomonidan ishlab chiqilgan kutubxonalari orqali boshqariladigan Java ilovalarini ishga tushirish imkonini beradi. Android Native Development Kit sizga C va boshqa dasturlash tillarida yozilgan kutubxonalar va dastur komponentlari bilan ishlash imkonini beradi.

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