IAC-I.MX6-KIT Android Development Environment Set-up Manual

Version:1.0

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Preface

Thanks to use i.mx6 mainboards from Zhejiang Qiyang Intelligent Technology Co.,Ltd.

This manual mainly describe how to set up the Android development environment.

Please ready carefully before starts.

Ⅰ.Preparation

Pre-Installed Linux OS(Ubuntu or other Linux distributor) on your computer, this manual introduces the computer runs Ubuntu 12.04. We suggest the version higher than 12.04.

The hard disk space should more than 50GB. The specific installation ,please refer to *Ubuntu Installation for Virtual Machine Manual.*

Notice: The ubuntu is 64bit.

Ⅱ.ubuntu Environment Configuration

1.Java Environment Configuration

Need to install JDK on the ubuntu (64 bit),select the version [jdk1.6.0_45]. The installed name is [jdk-6u45-linux-x64.bin](It is 64 bit).

Copy [jdk-6u45-linux-x64.bin] to[/usr/local/java],if there is no java folder in directory[/usr/local]. You need to create java folder.

Install [jdk].

```
virtual-machine:/usr/local/java# ./jdk-6u45-linux-x64.bin
```

If it hints no permission, you need to modify [jdk-6u32-linux-x64.bin]permission.

```
virtual-machine:/usr/local/java# chmod 777 jdk-6u45-linux-x64.bin
```

After modified the permission, re-execute jdk installation command.

As the above picture shown, it means jdk has been installed successfully.

After jdk is installed successfully, there is a folder called [jdk1.6.0_45]appeared in the directory [/usr/local/java].

Configure environment variables

Open environment variables file[/etc/profile]

Add JAVA environments configurations in [/etc/profile]

export JAVA_HOME=/usr/local/java/jdk1.6.0_45
export JRE_HOME=/usr/local/java/jdk1.6.0_45/jre
export CLASSPATH=.$JAVA_HOME/lib:$JRE_HOME/lib:$CLASSPATH
export PATH=$JAVA_HOME/bin:$JRE_HOME/bin:$JAVA_HOME:$PATH

Save environment variables file, use the following command to make it effective [source /etc/profile].

Check java environment variables whether it is configured successfully.[java –version]

```
root@wangwx-virtual-machine:/usr/local/java# java -version
java version "1.6.0_45"
Java(TM) SE Runtime Environment (build 1.6.0_45-b06)
Java HotSpot(TM) 64-Bit Server VM (build 20.45-b01, mixed mode)
root@wangwx-virtual-machine:/usr/local/java#
```

Till now, the JAVA environment in Ubuntu is installed ok.

Ⅲ.Compile Android Image File

1.You should install some source code package into Ubuntu system before compiling Android image file.

```
sudo apt-get install uuid uuid-dev
sudo apt-get install zlib1g-dev liblz-dev
sudo apt-get install liblzo2-2 liblzo2-dev
sudo apt-get install liblzo2-dev:i386
sudo apt-get install uuid-dev:i386
sudo apt-get install bison
sudo apt-get install libc6-dev-i386
sudo apt-get install libstdc++6:i386
sudo apt-get install lib32z1
sudo apt-get install flex
sudo apt-get install git gnupg flex bison gperf build-essential zip curl
libc6-dev   libncurses5-dev:i386   x11proto-core-dev   libx11-dev:i386
libreadline6-dev:i386      libgl1-mesa-glx:i386      libgl1-mesa-dev
g++-multilib mingw32 tofrodos python-markdown libxml2-utils xsltproc
zlib1g-dev:i386
```

2. There is configured compilation file in Android source file.
3. Compile Android Image
```
tar xzvf qiyang-android442.XXXX.tar.gz
cd qiyang-android442
```
4.Execute compiling command
```
source build/envsetup.sh
```（Initialize the compilation environment）
```
lunch qiyang_6dq-user
```（Select the version which need to be compiled.）
```
make
```
It needs some hours for the compilation process. The compiled image file will be located at [out/target/product/qiyang_6dq/].
5.You should re-execute it for every compilation.
```
source build/envsetup.sh
lunch qiyang_6dq-user
make
```

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