

TI-Android-Éclair-DevKit-V1 UserGuide



TI Android Eclair DevKit V1 User Guide

User Guide - July 30, 2010

About this manual

This document describes how to install and work with Texas Instruments' Android Éclair DevKit release for OMAP35x, AM37x, AM35x platforms running Android. This release package provides a stable Android distribution with integrated SGX (3D graphics) drivers, TI hardware abstraction for video overlay and standard applications from Android. The package also includes Linux Android kernel, tools and documentation to ease development, deployment and execution of Android based systems. The product forms the basis for all Android application development on OMAP35x, AM37x, AM35x platforms. In this context, the document contains instructions to:

- Install the release
- Setting up the hardware
- Steps to use pre-built binaries in the package
- Running Android on the supported platforms
- Setting up the Android debugger “adb” with the hardware platform
- Installing and executing Android (out of market) applications hardware platforms

Installation

This section describes the list of Software and Hardware requirements to evaluate the DevKit release.

Hardware Requirements

This release of Android DevKit V1 is evaluated on the below given list of platforms. This package should be easily portable on other platforms on similar TI devices.

TI Device	Platform Supported	Version	Other Accessories
OMAP35x			
	OMAP35x EVM ^[1]	Rev G	DVI Monitor, USB HUB, USB Keyboard, USB Mouse, Ethernet, UART Cable, Audio Speakers, MMC/SD Card (2GB min)
	Beagleboard ^[2]	Rev Cx	DVI Monitor, USB HUB, USB Keyboard, USB Mouse, Ethernet, UART Cable, Audio Speakers, MMC/SD Card (2GB min)
AM35x			
	AM3517 Evaluation Module ^[3]	Rev C	DVI Monitor, USB HUB, USB Keyboard, USB Mouse, Ethernet, UART Cable, Audio Speakers, MMC/SD Card (2GB min)
AM37x			
	AM37x Evaluation Module ^[4]	Rev C	DVI Monitor, USB HUB, USB Keyboard, USB Mouse, Ethernet, UART Cable, Audio Speakers, MMC/SD Card (2GB min)

	BeagleBoard ^[2]	XM	DVI Monitor, USB HUB, USB Keyboard, USB Mouse, Ethernet, UART Cable, Audio Speakers, MMC/SD Card (2GB min)
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Software Host Requirements

If you are a Android application developer or would like to use Android SDK Tools then refer to <http://developer.android.com/sdk/requirements.html> for Host PC requirements.

To evaluate this release we recommend you to have a Linux "Ubuntu 8.04 or above" Host machine, See Ubuntu Linux installation notes ^[5]

Package Content

```

TI_Android_Eclair_DevKit-V1
|-- Android_Source_Manifest
|   |-- TI-Android-Eclair-DevKit-V1.xml
|-- Docs
|   |-- CTS_Report.tar.gz
|   |-- TI-Android-DevKit-FS-Manifest.doc
|   |-- TI-Android-DevKit-Software-Manifest.doc
|   |-- TI-Android-Eclair-DevKit-V1_UserGuide.pdf
|-- Filesystem
|   |-- rootfs_am35x.tar.bz2
|   |-- rootfs_am37x.tar.bz2
|   |-- rootfs_omap35x.tar.bz2
|-- OMAP35x_Android_SGX_SDK.tar.gz
|-- Prebuilt_Images
|   |-- AM35x_EVM
|   |   |-- MLO
|   |   |-- boot.scr
|   |   |-- u-boot.bin
|   |   |-- uImage
|   |   |-- x-load.bin.ift
|   |-- OMAP35x_AM37x_EVM
|   |   |-- MLO
|   |   |-- boot.scr
|   |   |-- u-boot.bin
|   |   |-- uImage
|   |   |-- x-load.bin.ift
|   |-- beagleboard
|   |   |-- MLO
|   |   |-- boot.scr
|   |   |-- u-boot.bin
|   |   |-- uImage
|   |   |-- x-load.bin.ift
|-- Sources
|   |-- Android_Linux_Kernel_2_6_32.tar.gz
|   |-- boot-strap
|   |   |-- x-loader-03.00.02.07.tar.gz

```

```

|   `-- u-boot
|       `-- u-boot-03.00.02.07.tar.gz
|-- TI-Android-Eclair-DevKit-V1_ReleaseNotes.pdf
`-- Tools
    |-- flash-utility.tar.gz
    |-- mk-bootscr
    |   |-- README
    |   |-- mkbootscr
    |   `-- mkimage
    |-- mk-mmc
    |   |-- README
    |   `-- mkmmc-android.sh
    |-- pinmux-utility.tar.gz
    `-- signGP
        |-- signGP
        `-- signGP.c

```

Android Booting Procedure

Booting Android on any TI platform requires following software components

- Kernel Image (uImage)
- Bootloader (u-boot.bin)
- Bootstrapping (x-load.bin.ift for NAND or MLO for MMC)
- Filesystem (rootfs)

The above listed software components or images can be populated by

- Building sources from this package
- Using the pre-built images in this package

NOTE:

- To build software components using sources require "ARM cross compiler tool chain".
- The ARM tool chain can be downloaded from Android pre-built repository. Tool Chain ^[6]

Software Integration

This section describes the procedure to compile and integrate all the required software components to boot Android on TI platforms.

Toolchain

Download the tool chain and export it in the default Linux Path.

Example:

```

#> export PATH=<tool chain install
path>/linux-x86/toolchain/arm-eabi-4.4.0/bin/:${PATH}

```

Kernel

Untar the kernel source located in the sources directory

```
#> tar -xzvf Android_Linux_Kernel_2_6_32.tar.gz
```

Execute the following commands to the kernel sources

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- distclean
```

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- <default  
config>
```

Where default config is

omap3_evm_android_defconfig	: For OMAP35x, AM37x EVM
am3517_evm_android_defconfig	: For AM35x EVM
omap3_beagle_android_defconfig	: For Beagleboard Rev Cx, XM

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- uImage
```

This command will build the Linux Kernel Image in arch/arm/boot
"uImage"

u-boot

Untar the u-boot sources located in the sources directory

```
#> tar -xzvf u-boot-03.00.02.07.tar.gz
```

Execute the following commands to the kernel sources

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- distclean
```

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- <default  
config>
```

Where default config is

omap3_evm_config	: For OMAP35x, AM37x EVM
am3517_evm_config	: For AM35x EVM
omap3_beagle_config	: For Beagleboard Rev Cx, XM

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi-
```

This command will build the u-boot Image "u-boot.bin"

x-loader

Untar the x-loader sources located in the sources directory

```
#> tar -xzvf x-loader-03.00.02.07.tar.gz
```

Execute the following commands to the kernel sources

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- distclean
```

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi- <default  
config>
```

Where default config is

```
omap3evm_config      : For OMAP35x, AM37x EVM
am3517evm_config     : For AM35x EVM
omap3beagle_config   : For Beagleboard Rev Cx, XM
```

```
#> make CROSS_COMPILE=arm-none-linux-gnueabi-
```

This command will build the u-boot Image "u-boot.bin"

NOTE:

- The Pre-built images are provided in this package to help users boot android without building the sources

Setting up Hardware

This DevKit release supports five different platforms, OMAP35x EVM, AM37x EVM, AM35x EVM, Beagleboard Rev Cx, Beagleboard XM. While they are different devices the hardware setup will almost remain the same.

- Connect the UART port of the platform to the Host PC and have a Terminal software like TeraTerm, Minicom or Hyperterminal.
- Connect the Ethernet (on Beagle Rev C4 we don't have an Ethernet port)
- Connect Audio Speakers
- For Beagle boards you need to connect DVI Monitor through HDMI connector.
- Use self powered USB port and connect it to USB Host port of the platform, mainly for Beagle and AM35x EVM. For AM37x and OMAP35x EVM the onboard keypad can be used
- Connect a USB keyboard and USB Mouse to the USB HUB

NOTE:

- The AM35x EVM and Beagleboard have no keypad mappings, user is recommended to use USB Keyboard over a

- Self powered USB HUB connected to the Host port of AM35x EVM or Beagleboard.

- Select Appropriate DIP Switch settings on EVM(s) to boot over MMC/SD

For MMC/SD boot - On OMAP35x and AM37x EVM the DIP switch SW4 should be set as shown below

Switch	1	2	3	4	5	6	7	8
--------	---	---	---	---	---	---	---	---

State	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
-------	-----	----	----	----	-----	-----	-----	-----

For MMC/SD boot - On AM35x EVM the DIP switch S7 should be set as shown below

Switch	1	2	3	4	5	6	7	8
State	ON	OFF	OFF	ON	OFF	OFF	OFF	ON

Booting Android

TI platforms (Beagle or EVM) can be booted over MMC or NAND or UART. We follow and prefer MMC based booting of platforms.

Procedure to populate MMC/SD Card

Use the mk-mmc utility provided in the tools folder of this package to populate the SD Card. This utility helps users create a MMC/SD Card with required Images to boot Android on any given TI platform.

Execute the following command

Example:

```
#> ./mkmmc-android /dev/sdc MLO u-boot.bin uImage boot.scr
rootfs.tar.bz2
```

This populates the SD/MMC card with all the images.

Procedure to add Video, Audio and other media

To play media after booting Android on any platform, the content must be included in the MMC/SD card's FAT32 partition.

Example:

```
#> sudo mount /dev/sdd1 /mnt
#> sudo cp <all media files> /mnt
#> sudo umount /mnt
```

NOTE:

- This release supports all the standard Android media formats, listed here <http://developer.android.com/guide/appendix/media-formats.html>

Booting the platform

Booting over MMC using boot.scr

NOTE:

- If the board has bootargs configured already, then the board will not boot for Android automatically,
- It is suggested to either delete the bootargs or use the following commands on u-boot prompt through UART console.

```
#> mmc init
#> fatload mmc 0 0x82000000 boot.scr
#> source 0x82000000
```

If the board is not configured for bootargs, then it automatically boots.

Keypad mappings

The below table lists the keypad and USB Keyboard mappings to Android UI functionality.

Functionality	USB Keyboard/Mouse	Keypad on EVM
Home Screen	Home	R3C2
Left	Left Arrow	R2C1
Right	Right Arrow	R0C2
Up	Up Arrow	R1C3
Down	Down Arrow	R2C0
Volume Up	Volume Up	R1C2
Volume Down	Volume Down	R0C1
Contacts	F3	
Select	Enter	R3C1
Back	Mouse right	R2C3
Menu	F1	R3C3

Using DVI Monitor

On OMAP35x, AM37x and AM35x EVMs the on board LCD is used as output device by default. User is allowed to configure DVI port as output device, by changing the boot arguments as shown below.

Append the boot arguments with following text

```
omapfb.mode=dvi:1280x720MR-16 omapdss.def_disp="dvi"
```

Example:

To boot over MMC and use DVI at resolution 1024x768 on OMAP35x EVM, the complete bootargs would be,

```
setenv bootargs init=/init console=ttyS0,115200n8 ip=dhcp rw
root=/dev/mmcblk0p2 rw init=/init rootwait mem=256M
androidboot.console=ttyS0 omapfb.mode=dvi:1024x768MR-16
omapdss.def_disp="dvi"
```

NOTE:

- On beagleboard the DVI port is configured as default output device.

Using Network Filesystem

Android filesystem can be mounted over network, the bootargs for doing the same should include below text instead of MMC

```
ip=dhcp rw root=/dev/nfs nfsroot=<your NFS server
ipaddr>:/home/USER/FILESYSTEM_DIR,nolock noinitrd
```

Example: Complete bootargs for OMAP35x board using NFS and LCD output

```
setenv bootargs init=/init console=ttyS0,115200n8 ip=dhcp rw
root=/dev/nfs nfsroot=192.168.133.01:/home/user/targetfs,nolock
mem=256M noinitrd androidboot.console=ttyS0
```

Building Android Sources

Android sources (filesystem) can be built by following the instructions documented here <http://code.google.com/p/rowboat/wiki/ConfigureAndBuild>

NOTE:

- The "TI-Android-Eclair-DevKit-V1.xml" manifest file should be used to clone/pull the sources of the rootfs provided in this package.

Few Important steps are given below

- Clone the Sources:

```
#> mkdir rowboat-android
#> cd rowboat-android
#> repo init -u git://gitorious.org/rowboat/manifest.git -m
TI-Android-Eclair-DevKit-V1.xml
#> repo sync
```

- Build the root file system for OMAP35x and AM37x

```
#> make TARGET_PRODUCT=omap3evm TARGET_BUILD_VARIANT=tests -j8
```

TARGET_PRODUCT should be am3517evm for AM35x.

- Install the SGX (Open GL drivers) libraries and package into filesystem

Follow the instructions provided here to install SGX (OpenGL) package into the filesystem

http://code.google.com/p/rowboat/wiki/ConfigureAndBuild#Install_the_Android_Graphics_SGX_SDK_on_Host_Machine

- Prepare the root filesystem

Follow the steps below to populate the Android filesystem.

```
#> sudo ../../../../build/tools/mktarball.sh
../../../../../host/linux-x86/bin/fs_get_stats android_rootfs . rootfs
```



```
rootfs.tar.bz2
```

The rootfs.tar.bz2 is the android filesystem, it can be put on a SD/MMC Card or used our NFS.

ADB Android Debugger & Downloader

Android Debug Bridge (adb) is a versatile tool lets you manage the state of the Android-powered device. For more information about what is possible with adb, see Android Debug Bridge page at <http://developer.android.com/guide/developing/tools/adb.html>. The ADB tool can be used to

- Download an application from a host machine, install & run it on the target board.
- Start a remote shell in the target instance.
- Debug applications running on the device using the debugging tool DDMS (Dalvik Debug Monitor Server) which runs on top of adb connection.
- Copy files to and from the board to host machine

Downloading "ADB" & Host setup

The adb tool is a part of Android SDK package located at <http://developer.android.com/sdk/index.html>. For an overview of how to install and set up the Android SDK, follow download & setup instructions from <http://developer.android.com/sdk/index.html>. Once you install Android SDK, the directory contents look like this.

```
add-ons/  
docs/  
platforms/  
  <platform>/  
    data/  
    images/  
    skins/  
    templates/  
    tools/  
    android.jar  
samples/  
tools/  
SDK Readme.txt
```

The adb tool is located in tools/ directory under the Android SDK installation. Export the tools directory path as shown below.

```
$> export PATH=${PATH}:<your_sdk_dir>/tools
```

Connecting Host machine & board through adb

This release of DevKit has been tested for three different methods of connecting a given board with host machine

- adb over USB
- adb over USB Ethernet
- adb over Ethernet

The below sections describe each of these methods and provides necessary instructions for the same.

adb over USB

- Make sure that the mini-usb cable is connected between the host usb port and the target's USB OTG port
- Turn on "USB Debugging" on your board. On the board (UI screen)-
 - Go to home screen, press MENU,
 - Select Applications, select Development, then enable USB debugging.
 - Alternatively, you can navigate to Settings->Applications->Development and then enable the "USB debugging" option.
- Setup host machine to detect the board. On Ubuntu Linux host machines this is done by adding a rules file to configure device vendor ID of on-board OMAP device.
- For the EVMs and Boards covered here, the vendor ID is "18d1".
 - Log in as root and create this file: **/etc/udev/rules.d/51-android.rules**

```
For Gusty/Hardy, edit the file to read:
SUBSYSTEM=="usb", SYSFS{idVendor}=="18d1", MODE="0666"
```

```
For Dapper, edit the file to read:
SUBSYSTEM=="usb_device", SYSFS{idVendor}=="18d1", MODE="0666"
```

- Execute the following to change the user mode for the rules file.

```
$> chmod a+r /etc/udev/rules.d/51-android.rules
```

- Verify the adb connectivity between host and target board

```
$> adb devices
```

If device is connected, then output on screen should list the device, example:

```
List of devices attached
20100720    device
```

adb over USB Ethernet (Ethernet over USB)

- Make sure that the mini-usb cable is connected between the host usb port and the target's USB OTG port.
- Configure the Linux kernel to use Ethernet gadget. Enable USB support, configure the Inventra controller, and add USB gadget support.

IMPORTANT NOTE: Inventra configuration must occur in two places as shown in non-highlighted lines of the screen shots below.

```
#> make ARCH=arm CROSS_COMPILE=arm-eabi- menuconfig
```

Device Drivers --- USB Support

```

--- USB support
< >   ISP1362 HCD support
< >   OHCI HCD support
< >   SL811HS HCD support
< >   R8A66597 HCD support
< >   Host Wire Adapter (HWA) driver (EXPERIMENTAL)
<*>   Inventra Highspeed Dual Role Controller (TI, ADI, ...)
      *** OMAP 343x high speed USB support ***
[ ]   Driver Mode (Both host and peripheral: USB OTG (On The Go))
[ ]   Disable DMA (always use PIO)

```

Device Drivers --- USB Support --- USB Gadget Support

```

--- USB Gadget Support
[*]   Debugging messages (DEVELOPMENT)
[*]   Debugging information files (DEVELOPMENT)
[ ]   Debugging information files in debugfs (DEVELOPMENT)
(2)   Maximum VBUS Power usage (2-500 mA)
[ ]   USB Peripheral Controller (Inventra HDRC USB Peripheral (TI))
<*>   USB Gadget Drivers (Ethernet Gadget (with CDC Ethernet support)
      Ethernet Gadget (with CDC Ethernet support)
[*]   RNDIS support
[ ]   Ethernet Emulation Model (EEM) support

```

Device Drivers --- USB Support --- USB Gadget Support --- Enable Gadget Ethernet support

```

--- USB Gadget Support
[*]   Debugging messages (DEVELOPMENT)
[*]   Debugging information files (DEVELOPMENT)
[ ]   Debugging information files in debugfs (DEVELOPMENT)
(2)   Maximum VBUS Power usage (2-500 mA)
[ ]   USB Peripheral Controller (Inventra HDRC USB Peripheral (TI))
<*>   USB Gadget Drivers (Ethernet Gadget (with CDC Ethernet support)
      Ethernet Gadget (with CDC Ethernet support)
[*]   RNDIS support
[ ]   Ethernet Emulation Model (EEM) support

```

- Build the Kernel with the above configuration changes and use the uImage to boot the board. Refer to Kernel compiling instructions above.
- Establish network connection
 - Assign an IP address to the usb ethernet adapter.

The USB network gadget `g_ether` is named `usb0` (instead of `eth0` or other network interface names). The normal set of Ethernet configuration tools should work, such as `ifconfig`, `netstat`, and `route`.

For example, the following commands will assign the network address 192.168.194.2 to the target. Run this on the target:

```
$> ifconfig usb0 192.168.194.2 netmask 255.255.255.224 up
```

On Host machine, run the following commands to establish the connection to the target:

```
$> sudo ifconfig usb0 192.168.194.1 netmask 255.255.255.224 up
$> sudo route add 192.168.194.2 dev usb0
```

The target and the host machine should be connected, run ping command to test the same:

```
$ ping -c 3 192.168.194.2
PING 192.168.194.2 (192.168.194.2) 56(84) bytes of data.
64 bytes from 192.168.194.2: icmp_seq=1 ttl=64 time=6.08 ms
64 bytes from 192.168.194.2: icmp_seq=2 ttl=64 time=0.511 ms
64 bytes from 192.168.194.2: icmp_seq=3 ttl=64 time=0.485 ms
--- 192.168.194.2 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2000ms
rtt min/avg/max/mdev = 0.485/2.361/6.089/2.636 ms
```

- Establish ADB connection

On the host machine execute following commands to establish adb connection

```
$ export ADBHOST=<target's ip address>
$ adb kill-server
$ adb start-server
```

Verify the connection by executing

```
$ adb devices
```

If connected, device name should be listed as a "emulator"

```
$ adb devices
List of devices attached
emulator-5554    device
$ adb shell
```

adb over Ethernet

- Make sure Ethernet port on board and host machine are connected to the network
- Check Ethernet configuration for the board

```
target #> netcfg

lo          UP      127.0.0.1      255.0.0.0      0x00000049

eth0        UP      172.24.190.59  255.255.252.0  0x00001043
```

- If Ethernet was not configured, configure Ethernet of the board using ifconfig/netcfg as shown below.

```
target #> netcfg eth0 dhcp
```

- If network is configured successfully (above steps) then Restart service adbd on the target,

```
target #> stop adbd
target #> start adbd
```

- On the host machine use following commands to establish adb connection

```
$> export ADBHOST=<target's ip address>
$> adb kill-server
$> adb start-server
```

- Verify for device connectivity, by executing the following commands

```
$> adb devices If connected, you'll see the device name listed
as a "emulator"
```

```
$> adb devices
```

```
If connected, find the device name listed as a "emulator"
```

```
List of devices attached
emulator-5554      device
$ adb shell
```

For more information about adb commands, see Android Debug Bridge page at <http://developer.android.com/guide/developing/tools/adb.html>

Running Applications

The root File System provided in this DevKit releases contains only standard Android components and applications. User might be interested to download & run android applications (.apk) available in the market. The below procedure gives the steps to be followed to download any .apk file to the board and run it on the platform.

Installing (.apk files) application on Target Platform

- From the host: You can use adb tool for package installation.

```
$> adb install <package>.apk.
```

NOTE: Use -s option with the adb tool, to install the package on external storage.

On successful installation adb tool will report SUCCESS on host terminal, and the application would be listed on the android main menu.

Un-installing applications (.apk) using adb

- To un-install non-default components (that were installed later)
 - Method 1: On the host machine execute the following

```
$> adb uninstall <package>.apk
```

- Method 2: On target:

```
Main menu -> Menu -> Settings -> Applications -> Manage
applications -> Find the package
Tap on it -> Uninstall -> OK -> OK
```

- On successful removal, the application would have been removed from the android main menu. All the short-cuts to the application also removed.
 - To un-install default components, use the following commands from abd on host machine

```
$ adb shell
#rm /system/app/app.apk
```

On successful removal, the application would have been removed from the android main menu.

Setup ADB for application Debugging

ADB and Eclipse, with ADT(Android Development Tools plug-in) allow users to create and debug Android applications. Follow Developing In Eclipse, with ADT at [http:// developer. android. com/ guide/ developing/ eclipse-adt.html](http://developer.android.com/guide/developing/eclipse-adt.html)

Steps to connect Eclipse to the board.

- Setup the adb connection with the board by following the instructions given above in connecting board ...

```
Verify the connectivity by executing
$ adb devices
```

- Open Eclipse IDE. Eclipse, with ADT plugin enable users to
 - Create an android project.
 - Build and Run the project on a connected board.
 - Debug the project using the Debug perspective.
 - Use DDMS (Dalvik Debug Monitor Server) to monitor the connected board.

For more detailed and complete information on the above follow Developing In Eclipse, with ADT at [http:// developer. android. com/ guide/ developing/ eclipse-adt.html](http://developer.android.com/guide/developing/eclipse-adt.html)

- Open DDMS(Dalvik Debug Monitor Server) perspective. This DDMS perspective can be opened from the eclipse menu via:

```
Window -> Open Perspective -> Other -> DDMS;
Click on OK
```

- DDMS provides port-forwarding services, screen capture on the device, thread and heap information on the device, logcat, process, and radio state information, incoming call and SMS spoofing, location data spoofing, and more.
- For more information on DDMS and to use it, follow Using the Dalvik Debug Monitor page at [http://developer. android. com/ guide/ developing/ tools/ ddms. html](http://developer.android.com/guide/developing/tools/ddms.html)

Copy any files to and from the board

- Using the adb commands "pull" and "push" user can copy files to and from the board.
- Unlike the install command, which only copies an .apk file to a specific location, the pull and push commands let you copy arbitrary directories and files to any location on the board.
- To copy a file or directory (recursively) from the board, use

```
adb pull <remote> <local>
```

- To copy a file or directory (recursively) to the board, use

```
adb push <local> <remote>
```

In the commands, <local> and <remote> refer to the paths to the file or directory on your development host (local) and on the target instance (remote).

```
Here's an example:
adb push foo.txt /sdcard/foo.txt
```

Configuring Android Applications

Browser Configuration

To browse web pages user should configure the Internet connection as given below.

```
#> netcfg eth0 dhcp
#> setprop net.dns1 <your_dns_server_ip>
```

NOTE: If network is behind a proxy, in this DevKit release, we have NOT found a method to set the proxy server. We tried using "setprop net.eth0.http-proxy hostname:port" and "setprop net.gprs.http-proxy hostname:port", but neither could get us through the proxy. Also, the option of adding an entry of (99,'http_proxy','hostname:port') to the 'system' and 'secure' tables in the /data/data/com.android.providers.settings/databases/settings.db database has also been tried, but failed.

Versioning

This is Release DevKit-V1

Technical Support and Product Updates

For further information or to report any problems, contact <http://e2e.ti.com> "Android" or <http://support.ti.com>.

For community support join <http://groups.google.com/group/rowboat>

For IRC #rowboat on irc.freenode.net

References

- [1] <http://focus.ti.com/docs/toolsw/folders/print/tmdsevm3530.html>
- [2] <http://beagleboard.org>
- [3] http://focus.ti.com/docs/toolsw/folders/print/tmdxevm3517.html?DCMP=dsps_arm_102109&HQS=Other+OT+sitara-prtools
- [4] http://focus.ti.com/docs/toolsw/folders/print/tmdxevm3715.html?DCMP=am37x_060710&HQS=Other+OT+am37xprtf
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