

Release Note of Android (v1.7)

Summary

Release Date	Jul/17/2015 KST
Release Type	Regular release
Release Files	Self-installation Image (MD5SUM:df412dee3b2baf5fd1bcc98883f5290a)

New updates

- New to support **boot.ini** for boot configuration as ODROID-C1 Ubuntu release do
 - ODROID-C1 user can modify this once Android self installation is done, click [this](#) for more detail
- New to support Frame Rate Automation
 - Silky video playback with 23.976fps media contents
 - Dynamic TV refresh rate switching based on fps of video when using Kodi
 - You could experience more smooth video playback
- Kodi Isengard daily build is included as pre-installed package
 - ODROID-C1 user can enjoy the improved Kodi features
 - Kodi Isengard can run directly as soon as Android is completely installed
 - Read [this](#) for more detail about Kodi Isengard setup
- Fixed randomly stretched UI / picture on boot issue
- **/system/etc/wifi_id_list.txt** is enhanced to support various **WiFi** USB dongles based on Realtek 8188CUS chipset by default, click [this](#) for more detail

Update Instruction

Self Installation

You can install the release to your [MicroSD](#) or eMMC with the tool **dd** in Linux or **Win32DiskImager** in Windows. Please refer [this](#) for more detail.

We've reported that some of users can not watch Android logo on their TV while installing even though installation is proceeded. So please wait for 5 minutes since power on and red and blue LED is on. If blue led is started blinking then installation is proceeding, ODROID-C1 will reboot when finished.

Fastboot Update

Your can update the release by **fastboot** if you have [MicroSD](#) or eMMC already Android installed. If

you have **USB-Serial kit**, you can enter to **Fastboot** mode when you execute the command **fastboot** on U-boot command line. Or if you run execute **reboot fastboot** from Android shell command line, your **ODROID-C1** will reboot and get into **fastboot** mode immediately. You can check if your **ODROID-C1** is attached via USB with the command **fastboot devices** in your desktop.

```
$ sudo fastboot flash bootloader u-boot.bin
$ sudo fastboot flash dtb meson8b_odroidc.dtb
$ sudo fastboot flash boot kernel
$ sudo fastboot flash recovery recovery.img
$ sudo fastboot flash logo hardkernel-720.bmp
$ sudo fastboot flash system rootsystem.img
$ sudo fastboot flash userdata userdata.img
$ sudo fastboot flash cache cache.img
$ sudo fastboot reboot
```

How to checkout

You can checkout Android source tree, please refer [this page](#) for more detail. **Please note, Android source tree is uploading and would be completed in 1-2 days.**

Android

```
$ mkdir odroid-c1
$ cd odroid-c1
$ repo init -u https://github.com/hardkernel/android.git -b
s805_4.4.2_master
$ repo sync
$ repo start s805_4.4.2_master --all
```

ODROID Utility

```
$ git clone --depth 1
https://github.com/codewalkerster/android_packages_apps_Utility.git -b
s805_4.4.2_dev_master
```

Using boot.ini

We've started to support **boot.ini** by default from Android release v1.7. So this does mean ODROID-C1 user can easily configure the boot set up as ODROID-C1 Ubuntu users do. You also can easily modify this file from your desktop or laptop with a text editor when you attach the [MicroSD](#) or eMMC Android is installed. Or some of boot set up can be modified by **ODROID Utility**, display resolution or overscan offset. From Android, you can access this from **/mnt/sdcard/boot.ini**.



If you remove **boot.ini** by mistake, for example if you format the FAT partition, Android will boot with the default boot configuration in boot loader. Once the boot is done, **boot.ini** will be created with default boot set up, **/system/etc/boot.ini.template**.

boot.ini

ODROIDC-UBOOT-CONFIG

```
# Resolution Configuration
# 'hdmimode' must be one of below to configure display resolution
within
# supported by your TV or monitor.
#   Symbol          | Resolution
# -----+-----
#   "vga"           | 640x480
#   "480p"          | 720x480
#   "576p"          | 720x576
#   "800x480p60hz"  | 800x480
#   "800x600p60hz" | 800x600
#   "1024x600p60hz" | 1024x600
#   "1024x768p60hz" | 1024x768
#   "1080i50hz"     | 1080I@50Hz
#   "1080p24hz"     | 1080P@24Hz
#   "1080p50hz"     | 1080P@50Hz
#   "1080p"         | 1080P@60Hz
#   "720p"          | 1280x720
#   "800p"          | 1280x800
#   "sxga"          | 1280x1024
#   "1360x768p60hz" | 1360x768
#   "1366x768p60hz" | 1366x768
#   "1440x900p60hz" | 1440x900
#   "1600x900p60hz" | 1600x900
#   "1680x1050p60hz" | 1680x1050
#   "1920x1200"     | 1920x1200
setenv hdmimode "720p"

# HDMI/DVI Mode Configuration
# This will enforce the singal type of display
# "hdmi" - For HDMI interface
# "dvi" - For DVI interface
setenv vout_mode "hdmi"

# Overscan offset configuration
# All offsets are zero and can be tuned by manual or ODROID Utility
setenv top "0"
setenv left "0"
setenv bottom "0"
setenv right "0"
```

```

# UHS Card Configuration
# Uncomment the line below to __DISABLE__ UHS-1 MicroSD support
# This might break boot for some brand/models of cards.
#setenv disableuhs "disableuhs"

# CEC Configuration
setenv ceconfig "cecf"

# Booting
setenv bootargs "root=/dev/mmcblk0p2 rw console=ttyS0,115200n8
no_console_suspend vdacfg=${vdac_config}
logo=osd1,loaded,${fb_addr},${outputmode},full hdmimode=${hdmimode}
cvbmode=${cvbmode} hdmity=${ceconfig} vout=${vout_mode}
${disableuhs} overscan_top=${top} overscan_left=${left}
overscan_bottom=${bottom} overscan_right=${right}
androidboot.serialno=${fbt_id#}"
setenv bootcmd "movi read boot 0 0x12000000; movi read dtb 0
0x12800000; bootm 0x12000000 - 0x12800000"
run bootcmd

```

Enhanced "/system/etc/wifi_id_list.txt"

Many ODRROID-C1 user use USB [WiFi](#) dongle with RTL8188CUS chipset purchased from their local electronic store. And we were asked how they can use their [WiFi](#) dongle on ODRROID-C1 and answered to add a like with below at the end of **wifi_id_list.txt** with their [WiFi](#) dongle's VID & PID. From Android release v1.7, we've added many USB [WiFi](#) dongles known product by default to the file, **wifi_id_list**. These list are collected from the driver source code itself supported and we shipped the driver, **8192cu.ko**.

[wifi_id_list.txt](#)

```

148f 5572 compat /system/lib/modules/backports/compat.ko
148f 5572 cfg80211 /system/lib/modules/backports/cfg80211.ko
148f 5572 mac80211 /system/lib/modules/backports/mac80211.ko
148f 5572 rt2x00lib /system/lib/modules/backports/rt2x00lib.ko
148f 5572 rt2x00usb /system/lib/modules/backports/rt2x00usb.ko
148f 5572 rt2800lib /system/lib/modules/backports/rt2800lib.ko
148f 5572 rt2800usb /system/lib/modules/backports/rt2800usb.ko
0bda 8176 8192cu /system/lib/modules/8192cu.ko /* 8188cu 1*1 dongle */
0bda 8170 8192cu /system/lib/modules/8192cu.ko /* 8188CE-VAU USB
minCard */
0bda 817e 8192cu /system/lib/modules/8192cu.ko /* 8188CE-VAU USB
minCard */
0bda 817a 8192cu /system/lib/modules/8192cu.ko /* 8188cu Slim Solo */
0bda 817b 8192cu /system/lib/modules/8192cu.ko /* 8188cu Slim Combo */
0bda 817d 8192cu /system/lib/modules/8192cu.ko /* 8188RU High-power USB
Dongle */

```

```

0bda 8754 8192cu /system/lib/modules/8192cu.ko /* 8188 Combo for BC4 */
0bda 817f 8192cu /system/lib/modules/8192cu.ko /* 8188RU */
0bda 818a 8192cu /system/lib/modules/8192cu.ko /* RTL8188CUS-VL */
0bda 018a 8192cu /system/lib/modules/8192cu.ko /* RTL8188CTV */
0bda 17c0 8192cu /system/lib/modules/8192cu.ko /* RTK demoboard - USB-
N10E */
0bda 8177 8192cu /system/lib/modules/8192cu.ko /* 8191cu 1*2 */
0bda 8178 8192cu /system/lib/modules/8192cu.ko /* 8192cu 2*2 */
0bda 817c 8192cu /system/lib/modules/8192cu.ko /* 8192CE-VAU USB
minCard */
0bda 8191 8192cu /system/lib/modules/8192cu.ko /* 8192CU 2*2 */
1058 0631 8192cu /system/lib/modules/8192cu.ko /* Alpha, 8192CU */
2019 ed17 8192cu /system/lib/modules/8192cu.ko /* PCI - Edimax */
0df6 0052 8192cu /system/lib/modules/8192cu.ko /* Sitecom - Edimax */
7392 7811 8192cu /system/lib/modules/8192cu.ko /* Edimax - Edimax */
07b8 8189 8192cu /system/lib/modules/8192cu.ko /* Abocom - Abocom */
0eb0 9071 8192cu /system/lib/modules/8192cu.ko /* NO Brand - Etop */
06f8 e033 8192cu /system/lib/modules/8192cu.ko /* Hercules - Edimax */
103c 1629 8192cu /system/lib/modules/8192cu.ko /* HP - Lite-On ,8188CUS
Slim Combo */
2001 3308 8192cu /system/lib/modules/8192cu.ko /* D-Link - Alpha */
050d 1102 8192cu /system/lib/modules/8192cu.ko /* Belkin - Edimax */
2019 ab2a 8192cu /system/lib/modules/8192cu.ko /* Planex - Abocom */
20f4 648b 8192cu /system/lib/modules/8192cu.ko /* TRENDnet - Cameo */
4855 0090 8192cu /system/lib/modules/8192cu.ko /* - Feixun */
13d3 3357 8192cu /system/lib/modules/8192cu.ko /* - AzureWave
*/
0df6 005c 8192cu /system/lib/modules/8192cu.ko /* Sitecom - Edimax */
0bda 5088 8192cu /system/lib/modules/8192cu.ko /* Thinkware - CC&C */
4856 0091 8192cu /system/lib/modules/8192cu.ko /* NetweeN - Feixun */
0846 9041 8192cu /system/lib/modules/8192cu.ko /* Netgear - Cameo */
2019 4902 8192cu /system/lib/modules/8192cu.ko /* Planex - Etop */
2019 ab2e 8192cu /system/lib/modules/8192cu.ko /* SW-WF02-AD15 -Abocom
*/
2001 330b 8192cu /system/lib/modules/8192cu.ko /* D-LINK - T&W */
cdab 8010 8192cu /system/lib/modules/8192cu.ko /* - - compare */
0b05 17ba 8192cu /system/lib/modules/8192cu.ko /* ASUS - Edimax */
0bda 1e1e 8192cu /system/lib/modules/8192cu.ko /* Intel - - */
04bb 094c 8192cu /system/lib/modules/8192cu.ko /* I-O DATA - Edimax */
cdab 8011 8192cu /system/lib/modules/8192cu.ko /* - - compare */
0bda 0a8a 8192cu /system/lib/modules/8192cu.ko /* Sony - Foxconn */
0bda 317f 8192cu /system/lib/modules/8192cu.ko /* Netcore,Netcore */
13d3 3359 8192cu /system/lib/modules/8192cu.ko /* - Azwave */
13d3 3358 8192cu /system/lib/modules/8192cu.ko /* - Azwave */
04f2 aff7 8192cu /system/lib/modules/8192cu.ko /* XAVI - XAVI */
04f2 aff9 8192cu /system/lib/modules/8192cu.ko /* XAVI - XAVI */
04f2 affa 8192cu /system/lib/modules/8192cu.ko /* XAVI - XAVI */
04f2 aff8 8192cu /system/lib/modules/8192cu.ko /* XAVI - XAVI */
04f2 affb 8192cu /system/lib/modules/8192cu.ko /* XAVI - XAVI */
04f2 affc 8192cu /system/lib/modules/8192cu.ko /* XAVI - XAVI */
2019 1201 8192cu /system/lib/modules/8192cu.ko /* Planex - Vencer */

```

```
2001 3307 8192cu /system/lib/modules/8192cu.ko /* D-Link - Cameo */
2001 330a 8192cu /system/lib/modules/8192cu.ko /* D-Link - Alpha */
2001 3309 8192cu /system/lib/modules/8192cu.ko /* D-Link - Alpha */
0586 341f 8192cu /system/lib/modules/8192cu.ko /* Zyxel - Abocom */
7392 7822 8192cu /system/lib/modules/8192cu.ko /* Edimax - Edimax */
2019 ab2b 8192cu /system/lib/modules/8192cu.ko /* Planex - Abocom */
07b8 8178 8192cu /system/lib/modules/8192cu.ko /* Abocom - Abocom */
07aa 0056 8192cu /system/lib/modules/8192cu.ko /* ATKK - Gemtek */
4855 0091 8192cu /system/lib/modules/8192cu.ko /* - Feixun */
050d 2102 8192cu /system/lib/modules/8192cu.ko /* Belkin - Sercomm */
050d 2103 8192cu /system/lib/modules/8192cu.ko /* Belkin - Edimax */
20f4 624d 8192cu /system/lib/modules/8192cu.ko /* TRENDnet */
0df6 0061 8192cu /system/lib/modules/8192cu.ko /* Sitecom - Edimax */
0b05 17ab 8192cu /system/lib/modules/8192cu.ko /* ASUS - Edimax */
0846 9021 8192cu /system/lib/modules/8192cu.ko /* Netgear - Sercomm */
0846 f001 8192cu /system/lib/modules/8192cu.ko /* Netgear - Sercomm */
0e66 0019 8192cu /system/lib/modules/8192cu.ko /* Hawking,Edimax */
0e66 0020 8192cu /system/lib/modules/8192cu.ko /* Hawking - Edimax */
050d 1004 8192cu /system/lib/modules/8192cu.ko /* Belkin - Edimax */
0bda 2e2e 8192cu /system/lib/modules/8192cu.ko /* Intel - - */
2357 0100 8192cu /system/lib/modules/8192cu.ko /* TP-Link - TP-Link */
06f8 e035 8192cu /system/lib/modules/8192cu.ko /* Hercules - Edimax */
04bb 0950 8192cu /system/lib/modules/8192cu.ko /* IO-DATA - Edimax */
0df6 0070 8192cu /system/lib/modules/8192cu.ko /* Sitecom - Edimax */
0789 016d 8192cu /system/lib/modules/8192cu.ko /* LOGITEC - Edimax */
0bda 8186 8192cu /system/lib/modules/8192cu.ko /* Intel-Xavi( Azwave)
*/
```

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