

Release Note of Android (v3.3)

Summary

Release Date	Dec/22/2015
Release Type	Regular release
Release Files	update.zip (MD5SUM:d910b331cda165ce76ab6799417323e0)

New updates

- Add 32Mhz of HDMI PHY CLOCK to support 800X480P at 60Hz (Actual frequency is 65Hz).
- Support Ralink RT5370 WiFi chipset (VID:PID 148F:5370)
- Support USB-IO board for the motion sensor and Joypads. More information will be disclosed in the middle of January 2016.
- U-boot:Add get_mmc_size command to detect the size of boot storage.
- Add a few requested USB-Multitouch VID/PID.
<http://forum.odroid.com/viewtopic.php?f=51&t=15495>

```
#define USB_VENDOR_ID_IRTOUCHSYSTEMS    0x6615
#define USB_DEVICE_ID_IRTOUCH_INFRARED_USB  0x0070
#define USB_DEVICE_ID_IRTOUCH_TOUCH  0x0001

/* Xenarc 700CSH */
#define USB_DEVICE_ID_700CSH_TOUCH  0x7200
/* D_WAV Scientific Co.,Ltd */
#define USB_DEVICE_ID_AT070TN90_TOUCH  0x0001
/* Chalkboard Electronics 14" */
#define USB_DEVICE_ID_CHALKBOARD_14_TOUCH  0xA107
/* IEI EGLAX 21" */
#define USB_DEVICE_ID_IEI_EGLAX_21_TOUCH  0x7382

/* Dell P2314T USB capacitive Screen */
#define USB_VENDOR_ID_DELL    0x2149
#define USB_DEVICE_ID_P2314T_TOUCH  0x2316
```

Notes for the ODROID-VU7

If you use the low resolution screen like the ODROID-VU7, you need to edit the `lcd_density` value manually to show the navigation bar properly.

Change "`ro.sf.lcd_density=160`" to "`ro.sf.lcd_density=120`" in `build.prop` file.

```
$ su
# mount -o rw,remount /system
# vi /system/build.prop
```

```
# reboot
```

Known issue

- The boot-animation is not correctly working in the portrait mode

Check your Firmware/kernel version to confirm whether the update was done correctly or not

```
shell@odroidxu3:/ $ getprop | grep ro.build.version.incremental
[ro.build.version.incremental]: [eng.jenkins.20151222.163420]
shell@odroidxu3:/ $ uname -a
Linux localhost 3.10.9-g06eaefa #35 SMP PREEMPT Tue Dec 22 16:33:12 KST 2015
armv7l GNU/Linux
shell@odroidxu3:/ $
```

How to download the source code

```
$ repo init -u https://github.com/hardkernel/android.git -b
5422_4.4.4_master
$ repo sync
$ repo start 5422_4.4.4_master --all
```

Linux Kernel

We've merged the Kernel source into the Android repo. Android build-script also includes the Kernel compile.

Android Source

```
$ ./build.sh odroidxu3
```

Reference boot.ini

800 X 480P(ODROID-VU7) No-EDID No-HPD

[boot.ini](#)

```
ODROIDXU-UBOOT-CONFIG

# setenv fb_x_res "640"
```

```
# setenv fb_x_res "480"  
# setenv hdmi_phy_res "480p60hz"  
  
# setenv fb_x_res "720"  
# setenv fb_y_res "489"  
# setenv hdmi_phy_res "480p59.45"  
  
# setenv fb_x_res "720"  
# setenv fb_y_res "576"  
# setenv hdmi_phy_res "576p50hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "480"  
# setenv hdmi_phy_res "800x480p54hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "600"  
# setenv hdmi_phy_res "600p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p50hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "768"  
# setenv hdmi_phy_res "768p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "800"  
# setenv hdmi_phy_res "800p59hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "960"  
# setenv hdmi_phy_res "960p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "1024"  
# setenv hdmi_phy_res "1024p60hz"
```

```
# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080i50hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080i60hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p30hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p50hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p60hz"

setenv fb_x_res "800"
setenv fb_y_res "480"
setenv hdmi_phy_res "800x480p54hz"

setenv edid "0"

setenv hpd "0"

setenv led_blink "1"

setenv bootcmd "movi read kernel 0 40008000;bootz 40008000"

setenv bootargs "fb_x_res=${fb_x_res} fb_y_res=${fb_y_res}
hdmi_phy_res=${hdmi_phy_res} edid=${edid} hpd=${hpd}
led_blink=${led_blink}"
boot
```

No-EDID 1080P

[boot.ini](#)

```
ODROIDXU-UBOOT-CONFIG

# setenv fb_x_res "640"
# setenv fb_y_res "480"
# setenv hdmi_phy_res "480p60hz"

# setenv fb_x_res "720"
```

```
# setenv fb_x_res "489"  
# setenv hdmi_phy_res "480p59.45"  
  
# setenv fb_x_res "720"  
# setenv fb_y_res "576"  
# setenv hdmi_phy_res "576p50hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "480"  
# setenv hdmi_phy_res "800x480p54hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "600"  
# setenv hdmi_phy_res "600p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p50hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "768"  
# setenv hdmi_phy_res "768p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "800"  
# setenv hdmi_phy_res "800p59hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "960"  
# setenv hdmi_phy_res "960p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "1024"  
# setenv hdmi_phy_res "1024p60hz"  
  
# setenv fb_x_res "1920"  
# setenv fb_y_res "1080"  
# setenv hdmi_phy_res "1080i50hz"
```

```
# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080i60hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p30hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p50hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p60hz"

setenv fb_x_res "1920"
setenv fb_y_res "1080"
setenv hdmi_phy_res "1080p60hz"

setenv edid "0"

setenv hpd "1"

setenv led_blink "1"

setenv bootcmd "movi read kernel 0 40008000;bootz 40008000"

setenv bootargs "fb_x_res=${fb_x_res} fb_y_res=${fb_y_res}
hdmi_phy_res=${hdmi_phy_res} edid=${edid} hpd=${hpd}
led_blink=${led_blink}"
boot
```

DVI 1280 x 1024

[boot.ini](#)

```
ODROIDXU-UBOOT-CONFIG

# setenv fb_x_res "640"
# setenv fb_y_res "480"
# setenv hdmi_phy_res "480p60hz"

# setenv fb_x_res "720"
# setenv fb_y_res "489"
# setenv hdmi_phy_res "480p59.45"

# setenv fb_x_res "720"
```

```
# setenv fb_y_res "576"  
# setenv hdmi_phy_res "576p50hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "480"  
# setenv hdmi_phy_res "800x480p54hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "600"  
# setenv hdmi_phy_res "600p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p50hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "768"  
# setenv hdmi_phy_res "768p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "800"  
# setenv hdmi_phy_res "800p59hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "960"  
# setenv hdmi_phy_res "960p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "1024"  
# setenv hdmi_phy_res "1024p60hz"  
  
# setenv fb_x_res "1920"  
# setenv fb_y_res "1080"  
# setenv hdmi_phy_res "1080i50hz"  
  
# setenv fb_x_res "1920"  
# setenv fb_y_res "1080"  
# setenv hdmi_phy_res "1080i60hz"
```

```
# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p30hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p50hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p60hz"

setenv fb_x_res "1280"
setenv fb_y_res "1024"
setenv hdmi_phy_res "1024p60hz"

setenv edid "0"

setenv hpd "1"

setenv led_blink "1"

setenv bootcmd "movi read kernel 0 40008000;bootz 40008000"

setenv bootargs "fb_x_res=${fb_x_res} fb_y_res=${fb_y_res}
hdmi_phy_res=${hdmi_phy_res} edid=${edid} hpd=${hpd}
led_blink=${led_blink}"
boot
```

No-EDID 1080P / Disable HPD

[boot.ini](#)

```
ODROIDXU-UBOOT-CONFIG

# setenv fb_x_res "640"
# setenv fb_y_res "480"
# setenv hdmi_phy_res "480p60hz"

# setenv fb_x_res "720"
# setenv fb_y_res "489"
# setenv hdmi_phy_res "480p59.45"

# setenv fb_x_res "720"
# setenv fb_y_res "576"
# setenv hdmi_phy_res "576p50hz"

# setenv fb_x_res "800"
```



```
# setenv fb_x_res "480"  
# setenv hdmi_phy_res "800x480p54hz"  
  
# setenv fb_x_res "800"  
# setenv fb_y_res "600"  
# setenv hdmi_phy_res "600p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p50hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "720"  
# setenv hdmi_phy_res "720p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "768"  
# setenv hdmi_phy_res "768p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "800"  
# setenv hdmi_phy_res "800p59hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "960"  
# setenv hdmi_phy_res "960p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1440"  
# setenv fb_y_res "900"  
# setenv hdmi_phy_res "900p60hz"  
  
# setenv fb_x_res "1280"  
# setenv fb_y_res "1024"  
# setenv hdmi_phy_res "1024p60hz"  
  
# setenv fb_x_res "1920"  
# setenv fb_y_res "1080"  
# setenv hdmi_phy_res "1080i50hz"  
  
# setenv fb_x_res "1920"  
# setenv fb_y_res "1080"  
# setenv hdmi_phy_res "1080i60hz"  
  
# setenv fb_x_res "1920"  
# setenv fb_y_res "1080"  
# setenv hdmi_phy_res "1080p30hz"
```

```
# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p50hz"

# setenv fb_x_res "1920"
# setenv fb_y_res "1080"
# setenv hdmi_phy_res "1080p60hz"

setenv fb_x_res "1920"
setenv fb_y_res "1080"
setenv hdmi_phy_res "1080p60hz"

setenv edid "0"

setenv hpd "0"

setenv led_blink "1"

setenv bootcmd "movi read kernel 0 40008000;bootz 40008000"

setenv bootargs "fb_x_res=${fb_x_res} fb_y_res=${fb_y_res}
hdmi_phy_res=${hdmi_phy_res} edid=${edid} hpd=${hpd}
led_blink=${led_blink}"
boot
```

Improve the WiFi dongle compatibility via editing "/system/etc/wifi_id_list.txt"

Many ODRROID-XU3/4 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-XU3/4 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 v2.4, 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

```
0bda 8172 r8712u /system/lib/modules/r8712u.ko
148f 3070 compat /system/lib/modules/backports/compat.ko
148f 3070 cfg80211 /system/lib/modules/backports/cfg80211.ko
148f 3070 mac80211 /system/lib/modules/backports/mac80211.ko
148f 3070 rt2x00lib /system/lib/modules/backports/rt2x00lib.ko
148f 3070 rt2x00usb /system/lib/modules/backports/rt2x00usb.ko
148f 3070 rt2800lib /system/lib/modules/backports/rt2800lib.ko
148f 3070 rt2800usb /system/lib/modules/backports/rt2800usb.ko
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
148f 5370 compat /system/lib/modules/backports/compat.ko
148f 5370 cfg80211 /system/lib/modules/backports/cfg80211.ko
148f 5370 mac80211 /system/lib/modules/backports/mac80211.ko
148f 5370 rt2x00lib /system/lib/modules/backports/rt2x00lib.ko
148f 5370 rt2x00usb /system/lib/modules/backports/rt2x00usb.ko
148f 5370 rt2800lib /system/lib/modules/backports/rt2800lib.ko
148f 5370 rt2800usb /system/lib/modules/backports/rt2800usb.ko
0bda 8176 8192cu /system/lib/modules/8192cu.ko /* 8188cu 1*1 dongole */
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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