

Android Developer Options

What can those toggles do for me?



Andrea Falcone

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Twitter / Fabric / Fastlane

 @asfalcone

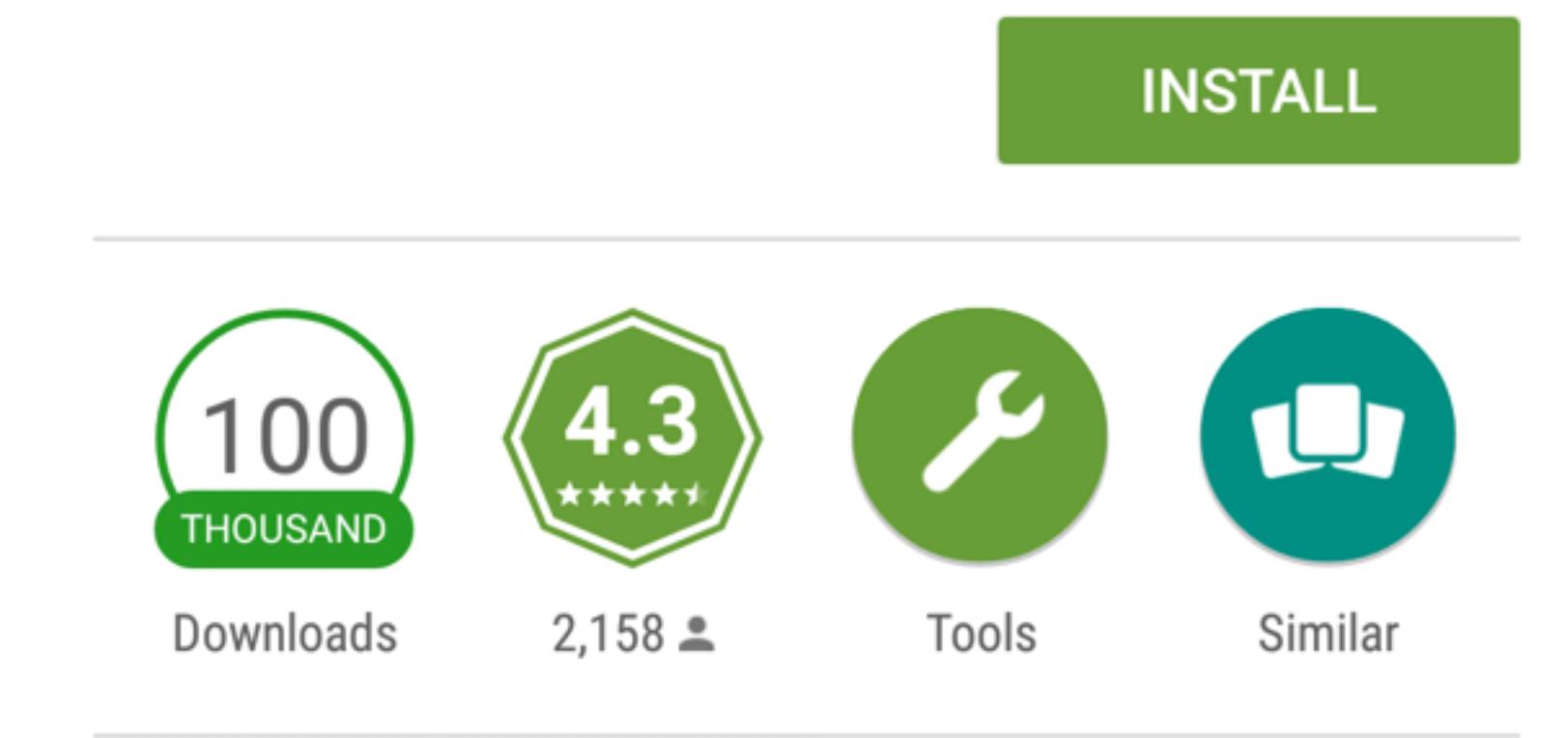
Developer options

You are now a developer!

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Shortcut

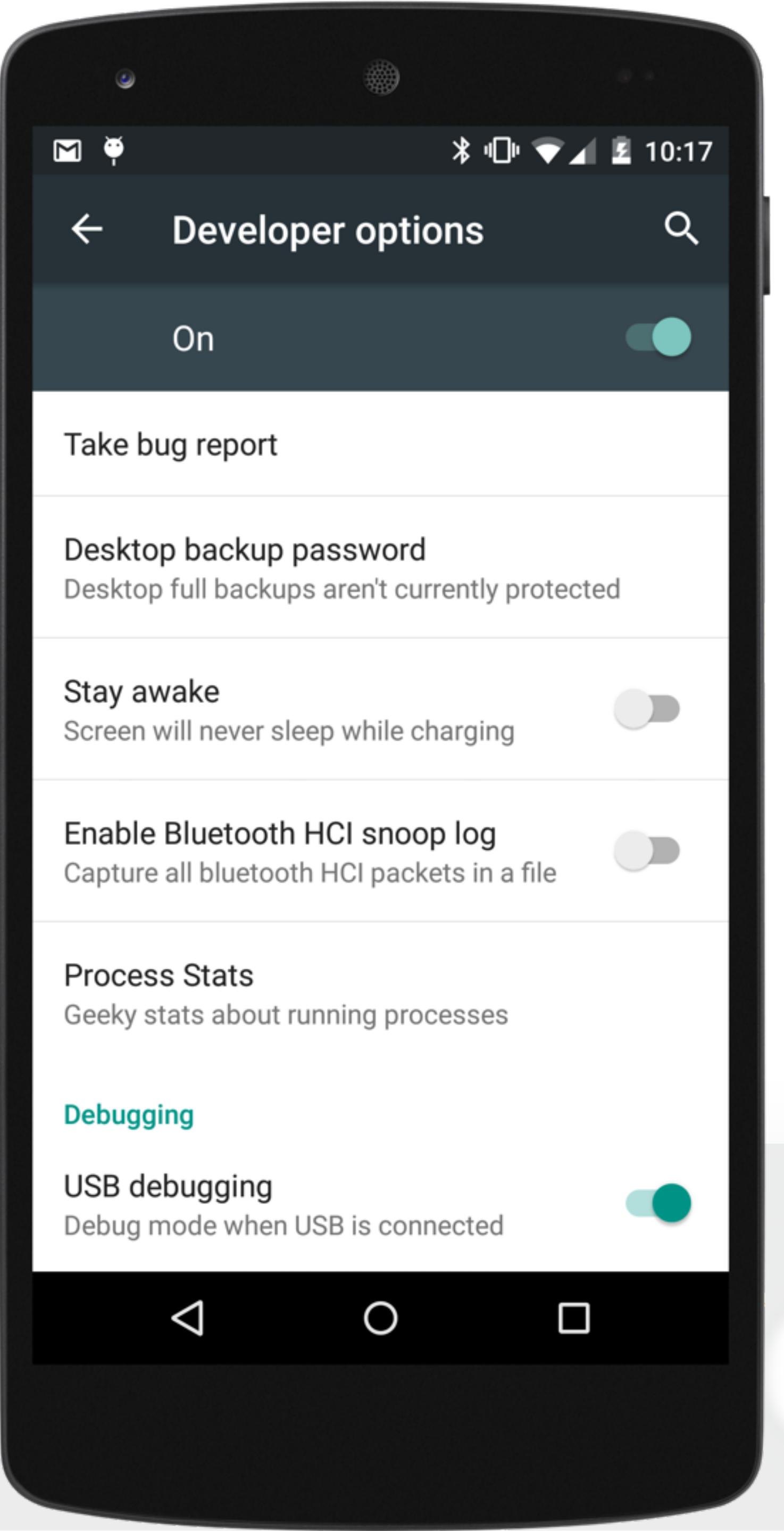


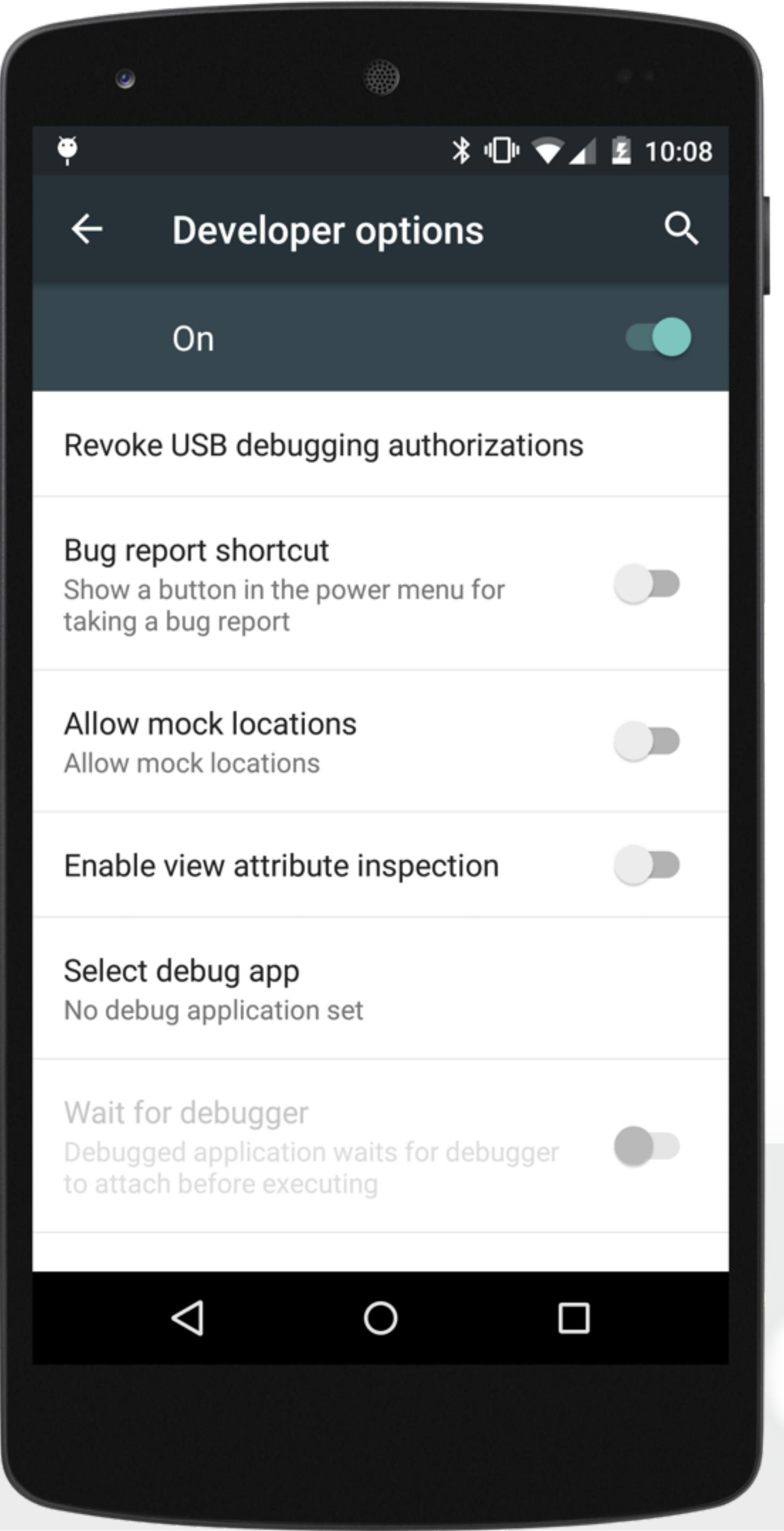
Developer options shortcut

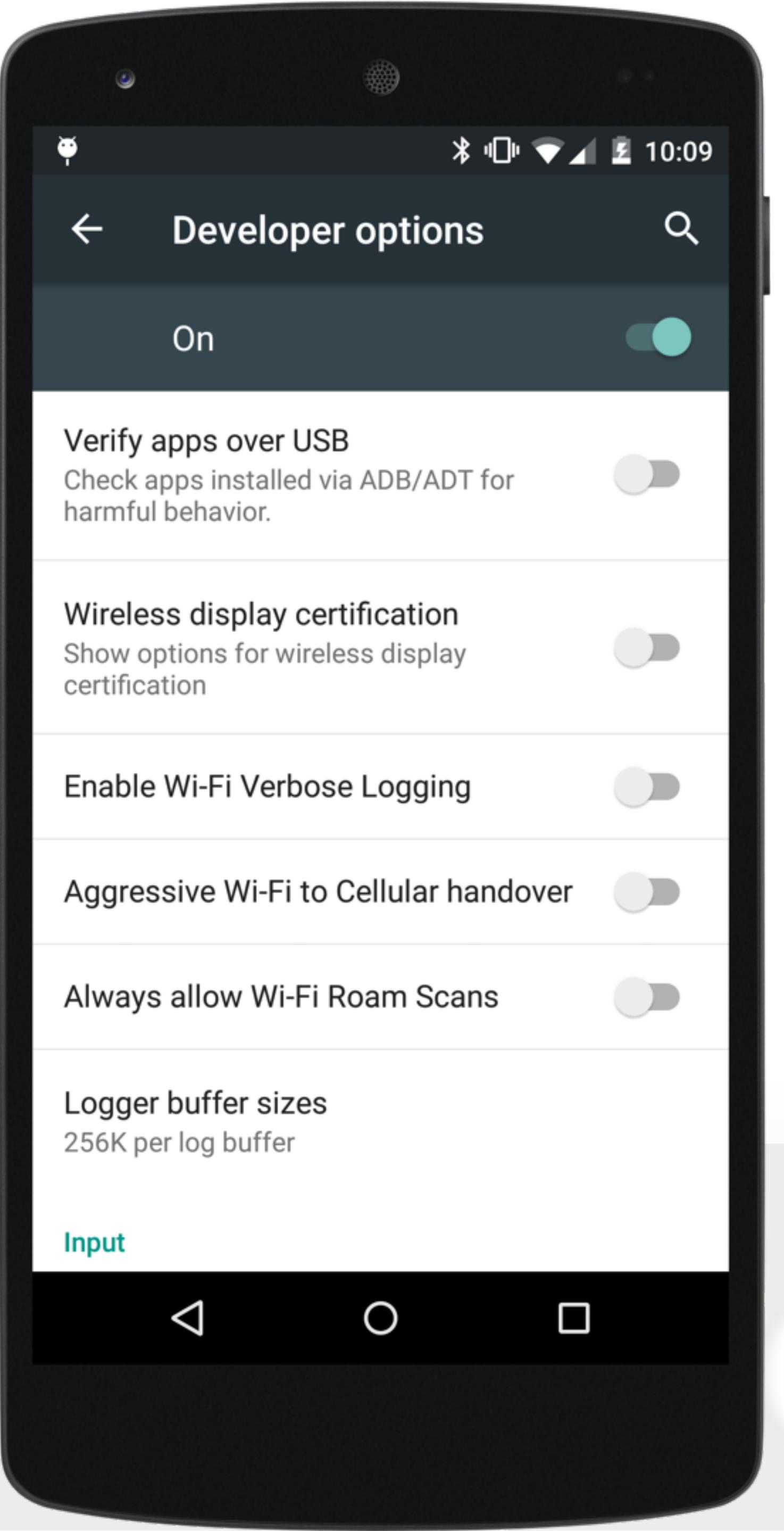
[READ MORE](#)

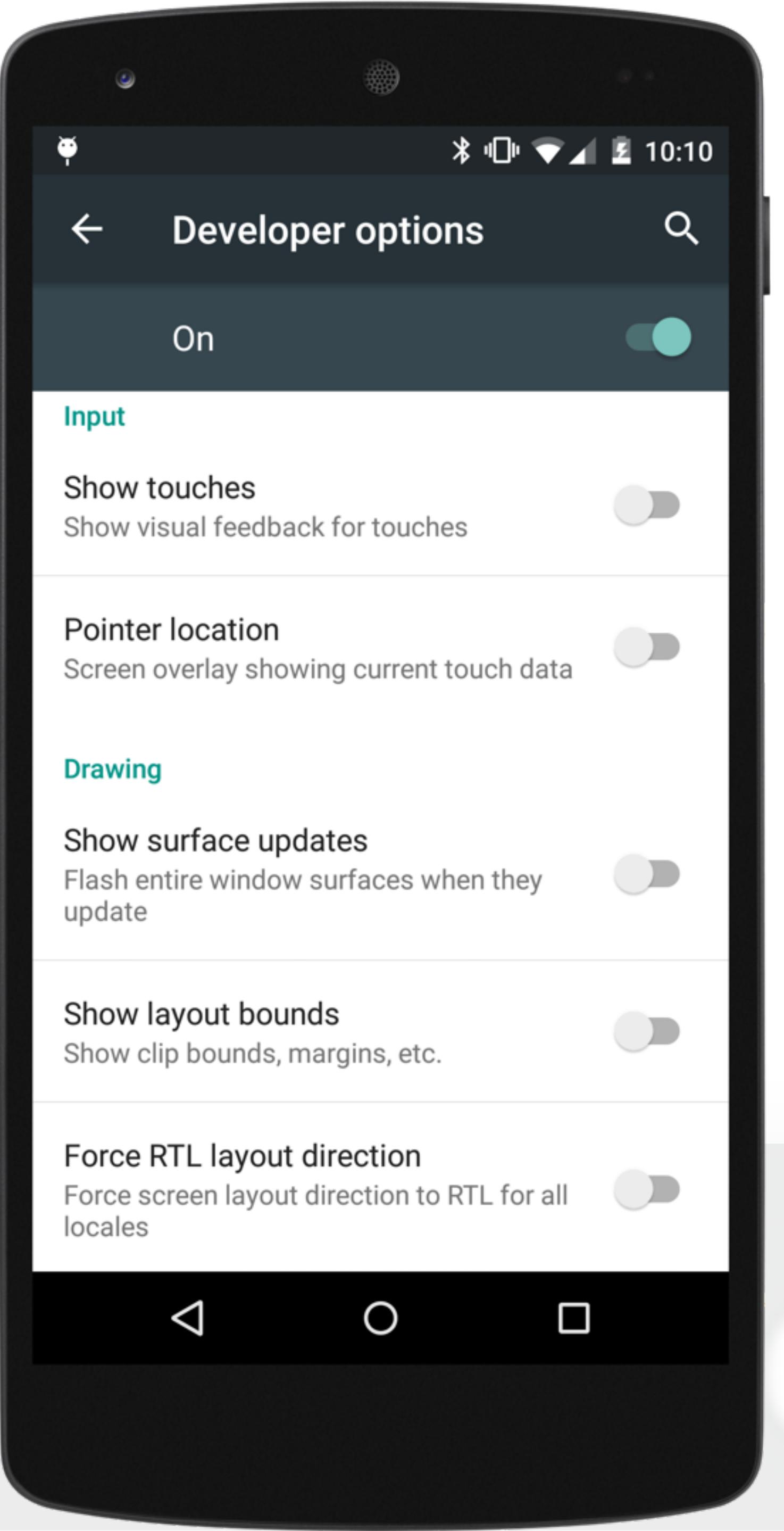


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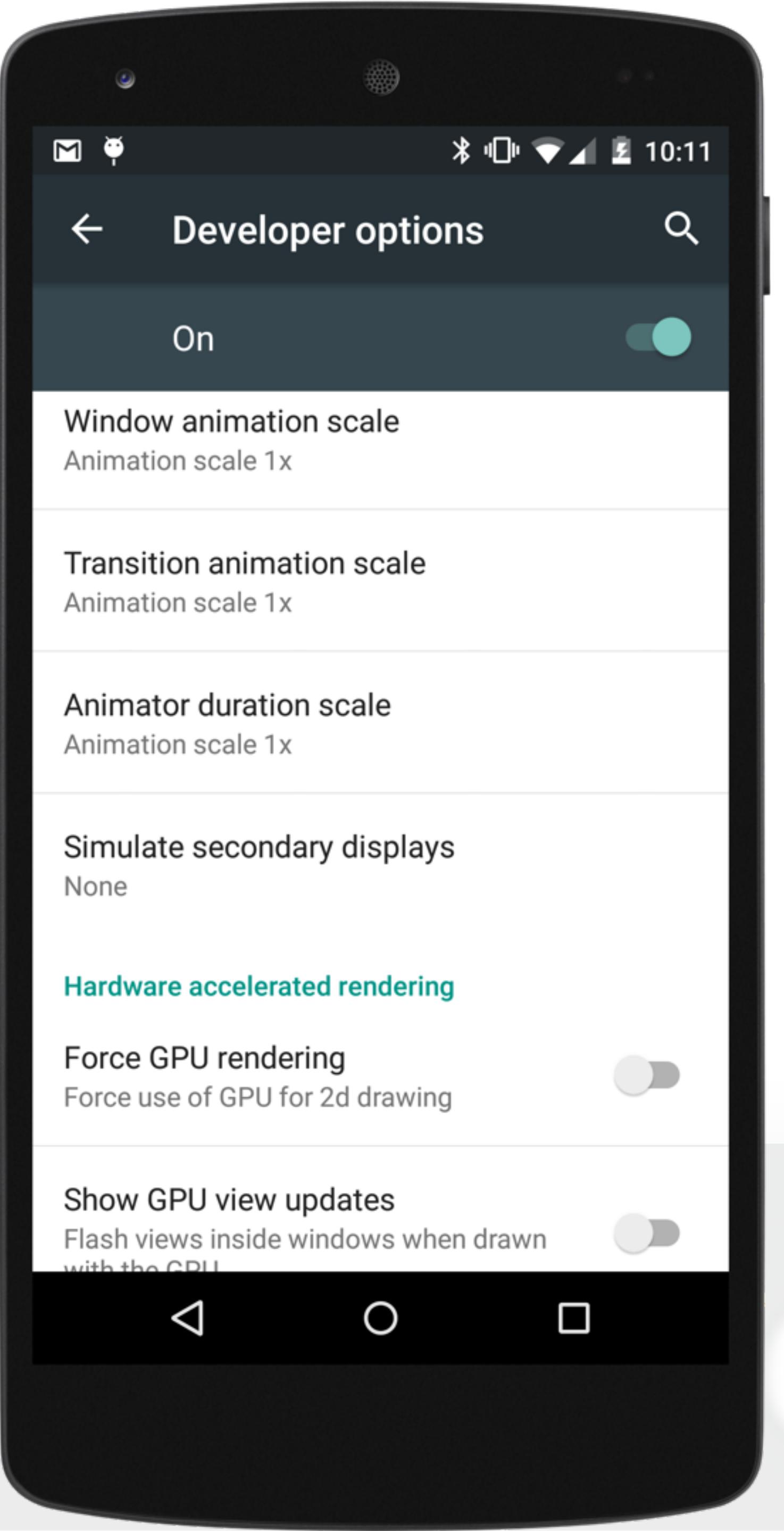


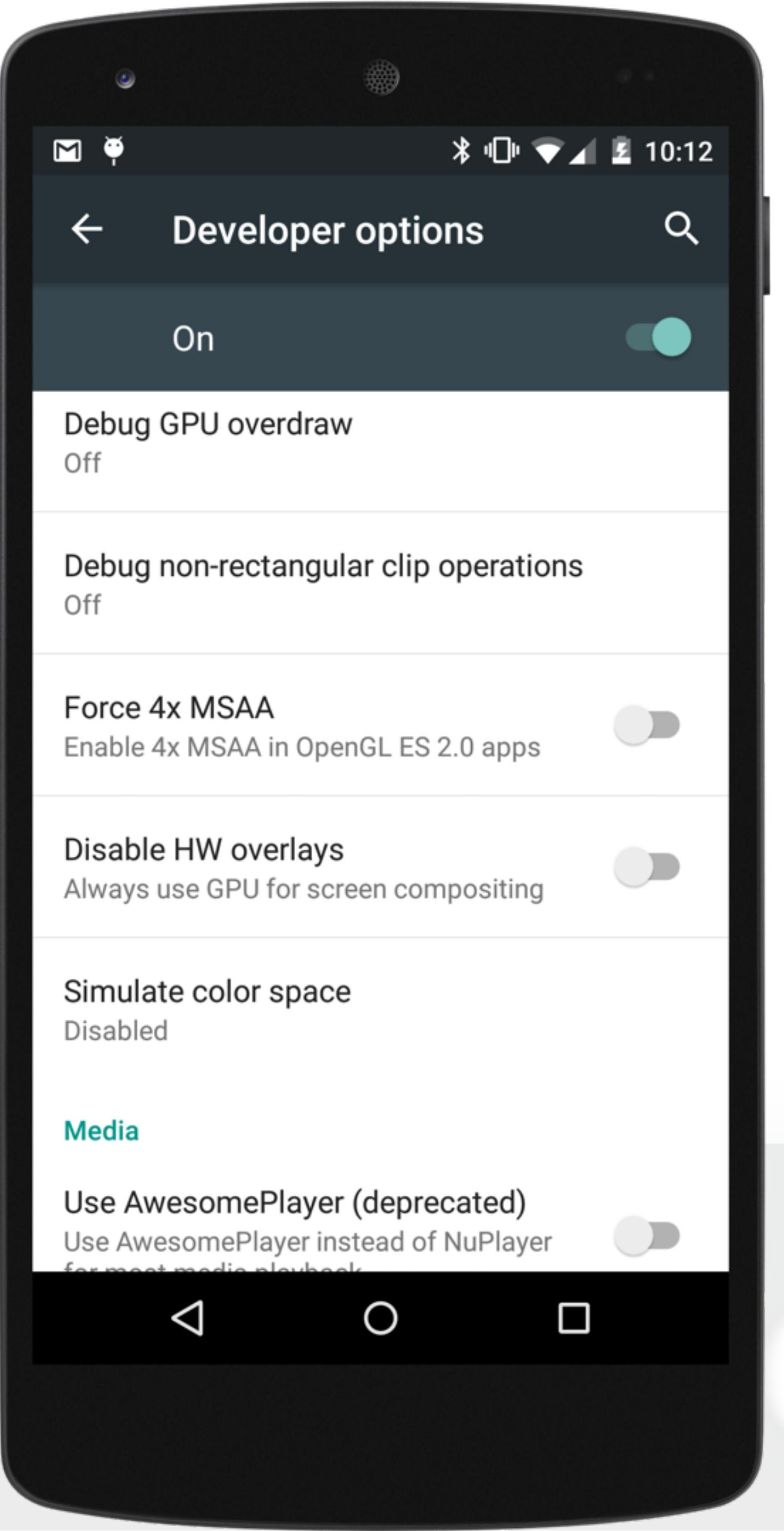


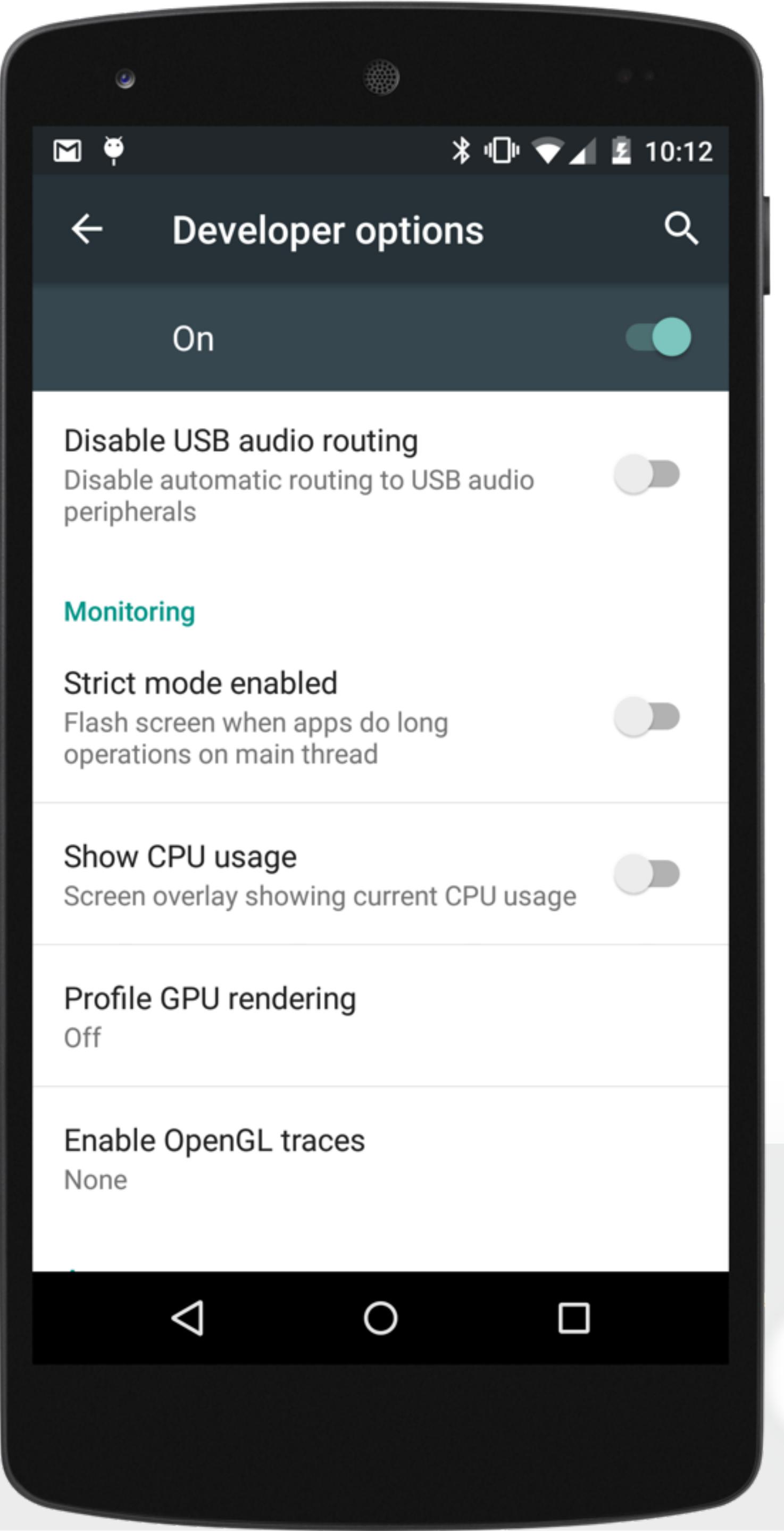




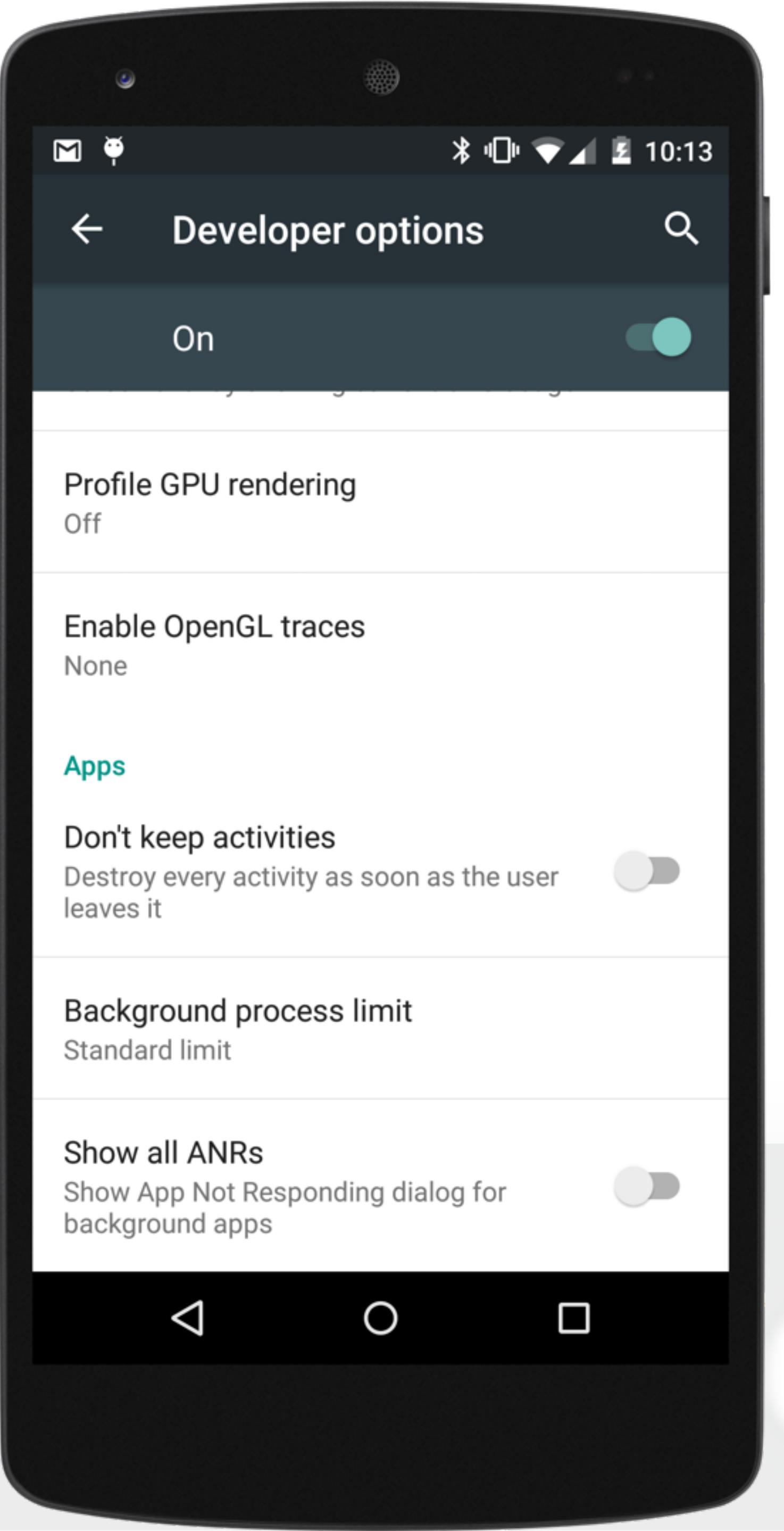
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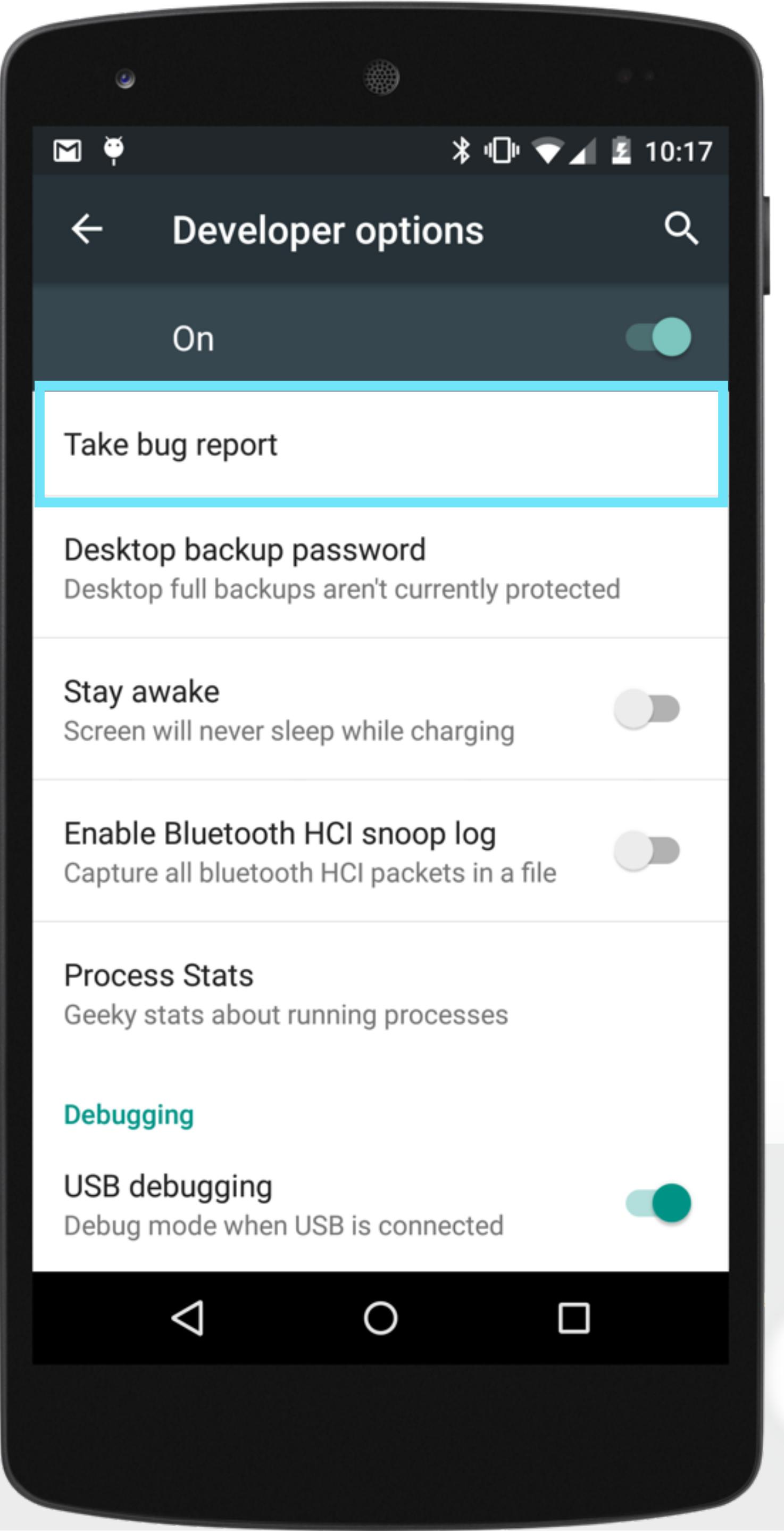






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Developer options



On



Take bug report

Take bug report

This will collect information about your current device state, to send as an e-mail message. It will take a little time from starting the bug report until it is ready to be sent; please be patient.

[CANCEL](#)[REPORT](#)**Process Stats**

Geeky stats about running processes

Debugging**USB debugging**

Debug mode when USB is connected



```
$ adb bugreport
```

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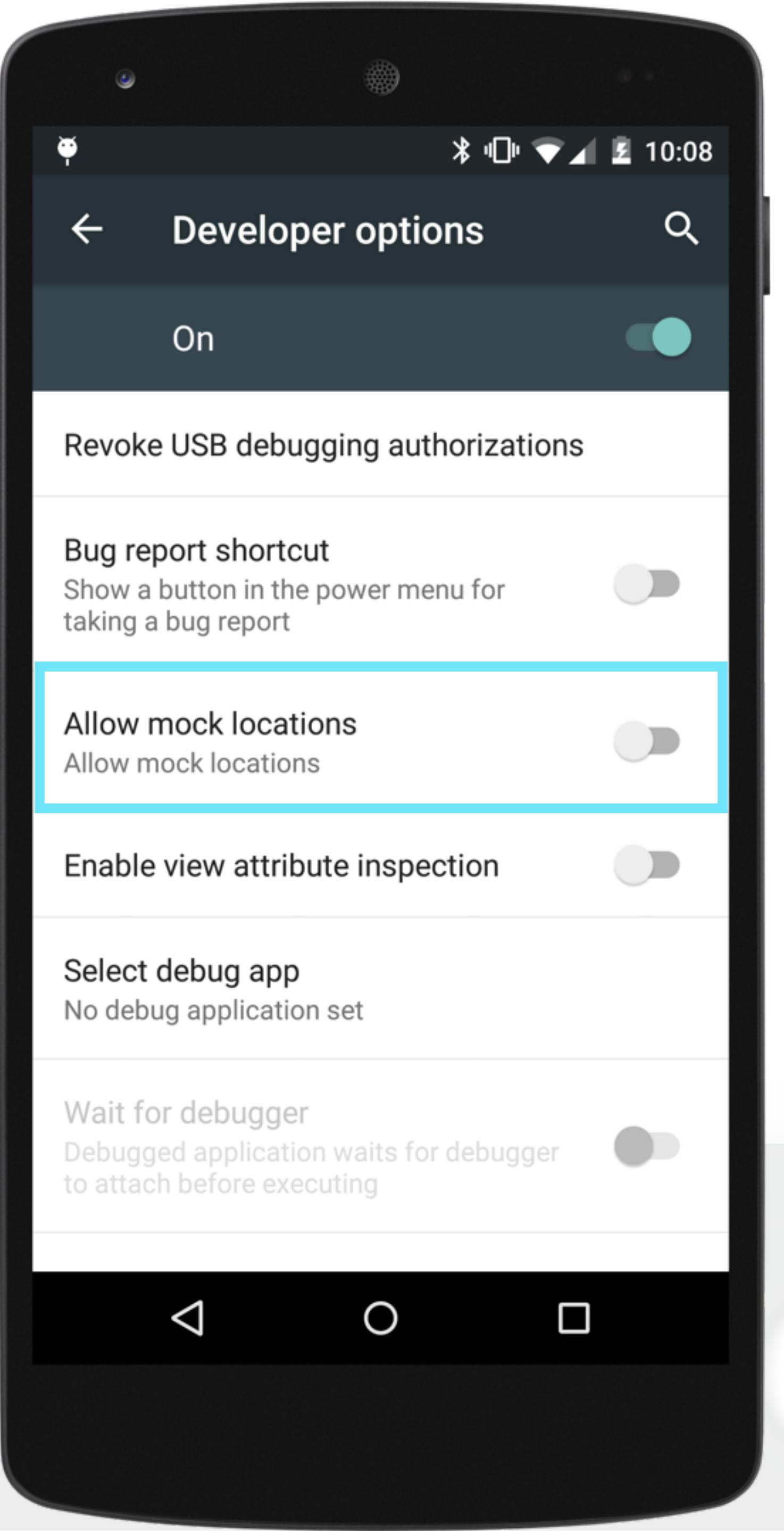
```
=====
== dumpstate: 2015-08-04 21:58:08
=====

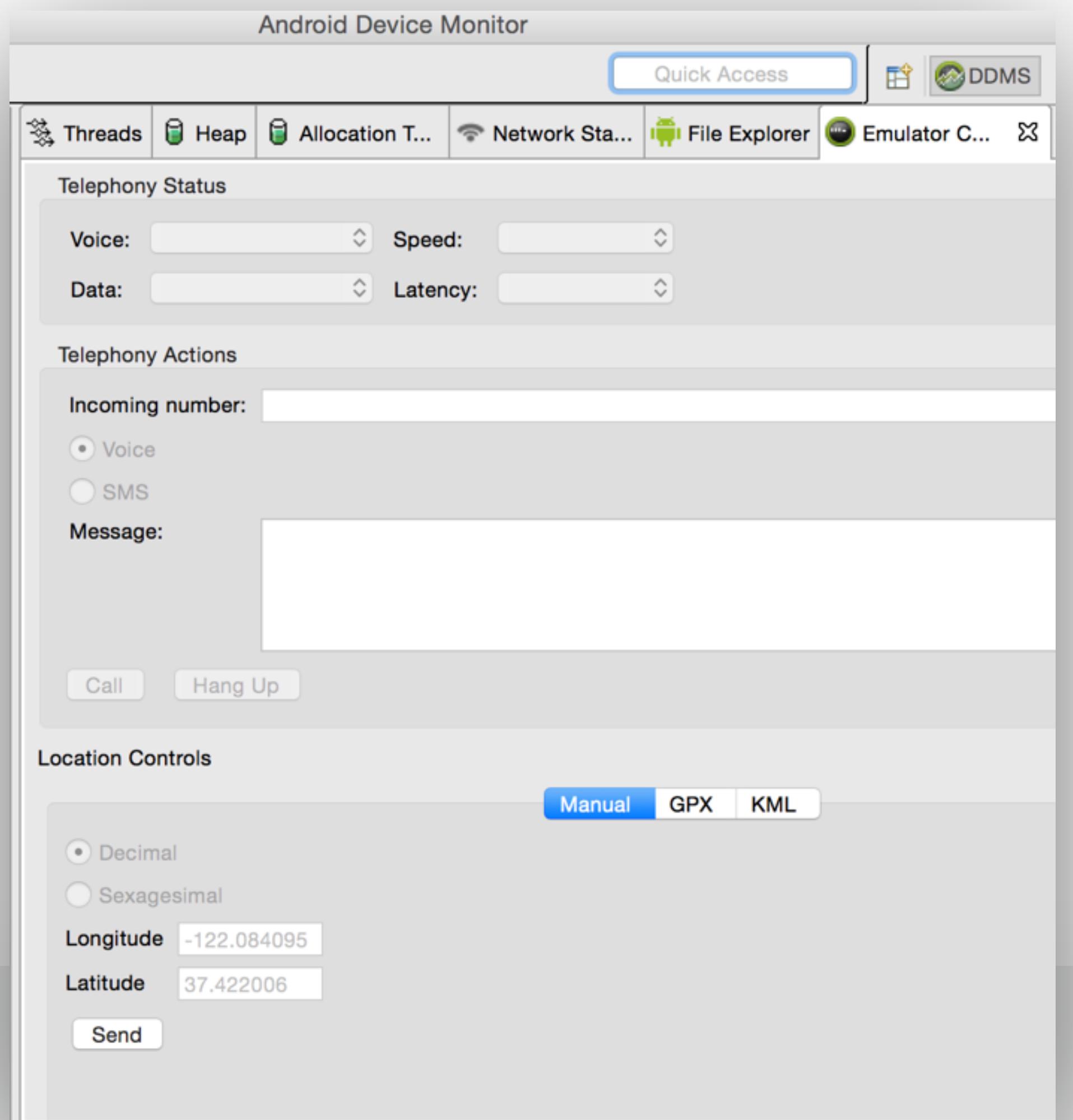
Build: LMY48B
Build fingerprint: 'google/hammerhead/hammerhead:5.1.1/LMY48B/1863243:user/release-keys'
Bootloader: HHZ12h
Radio: msm
Network: AT&T
Kernel: Linux version 3.4.0-gbebb36b (android-build@vpbs1.mtv.corp.google.com) (gcc version 4.7 (GCC) ) #1 SMP PREEMPT
Tue Mar 10 18:17:45 UTC 2015
Command line: console=ttyHSL0,115200,n8 androidboot.hardware=hammerhead user_debug=31 maxcpus=2 msm_watchdog_v2.enable=1
uart_console=enable gpt=enable lge.kcal=0|0|0|x lge.rev=rev_11 androidboot.laf androidboot.emmc=true
androidboot.serialno=02babba909118bc8 androidboot.bootloader=HHZ12h androidboot.baseband=msm bootreason=power_
androidboot.hardware.sku=D820 androidboot.hardware.ddr=hynix androidboot.hardware.display=orise

----- UPTIME (uptime) -----
up time: 12 days, 10:08:53, idle time: 3 days, 20:48:12, sleep time: 8 days, 20:53:05
[uptime: 0.100s elapsed]

----- MMC PERF (/sys/block/mmcblk0/stat) -----
16868066 2922795 1197503561 57465550 9632411 11145884 248751740 112926170 0 25330280 170363960

----- MEMORY INFO (/proc/meminfo) -----
MemTotal: 1900556 kB
MemFree: 336372 kB
Buffers: 6836 kB
Cached: 495724 kB
SwapCached: 0 kB
Active: 871836 kB
Inactive: 403068 kB
Active(anon): 775808 kB
Inactive(anon): 42756 kB
Active(file): 96028 kB
Inactive(file): 360312 kB
Unevictable: 1340 kB
Mlocked: 28 kB
HighTotal: 1158144 kB
HighFree: 62464 kB
```





telnet localhost 5554
geo fix -71.09 42.36

emulator
only



LocationManager

```
public void setTestProviderLocation (String provider, Location loc)
```

Added in API level 3

Sets a mock location for the given provider.

This location will be used in place of any actual location from the provider. The location object must have a minimum number of fields set to be considered a valid LocationProvider Location, as per documentation on [Location](#) class.

Parameters

provider the provider name

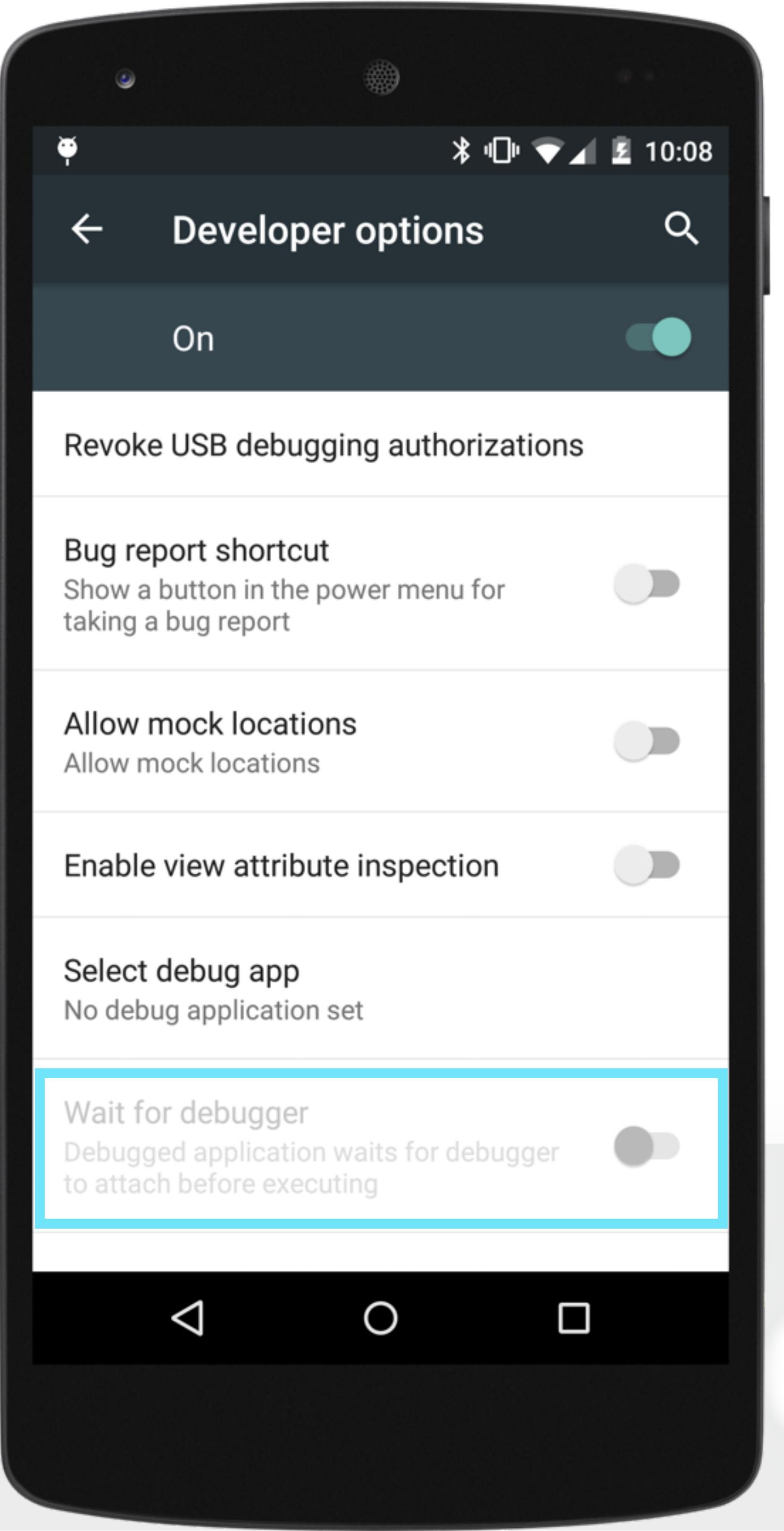
loc the mock location

Throws

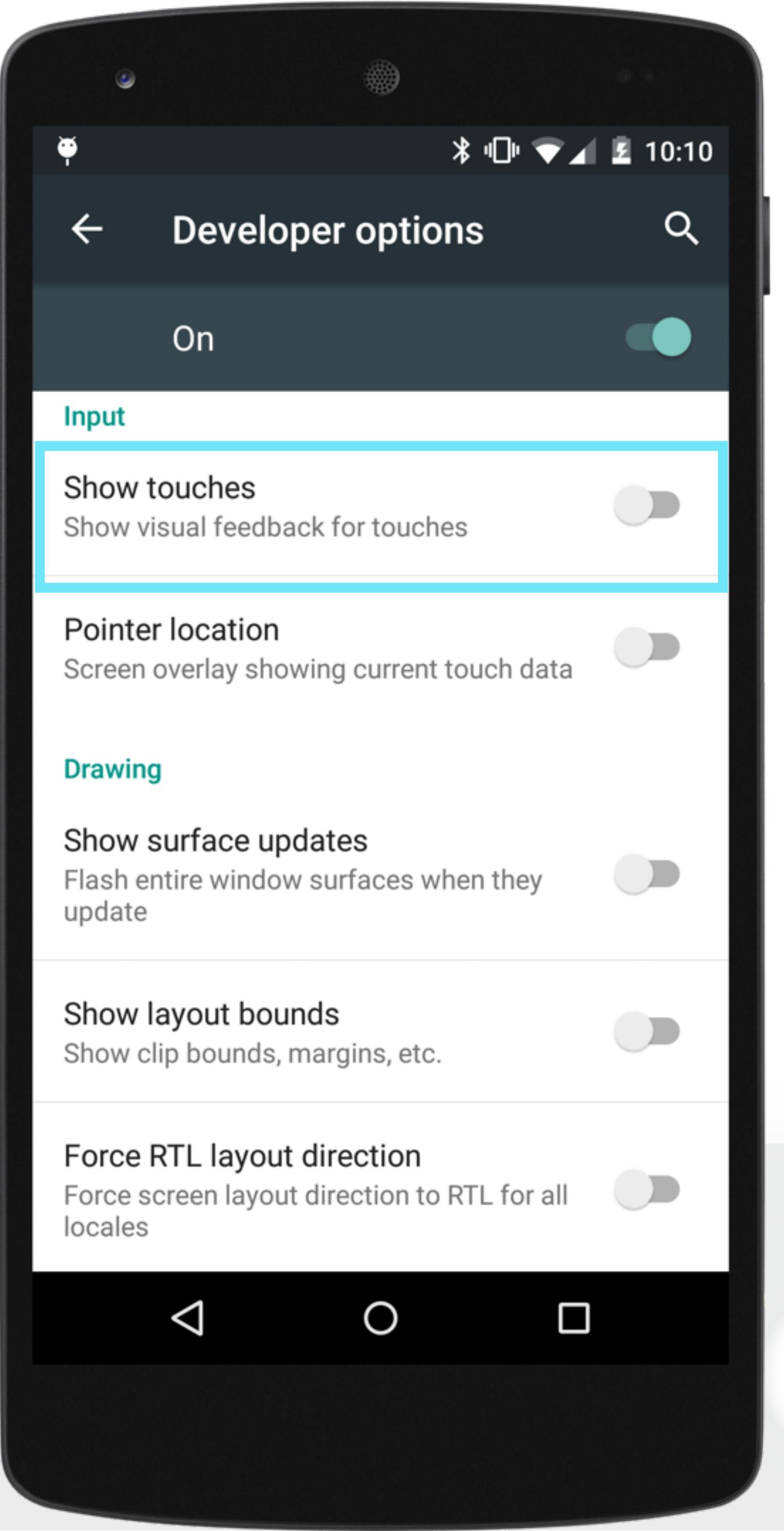
[SecurityException](#) if the ACCESS_MOCK_LOCATION permission is not present or the
[Settings.Secure.ALLOW_MOCK_LOCATION](#) } system setting is not enabled

[IllegalArgumentException](#) if no provider with the given name exists

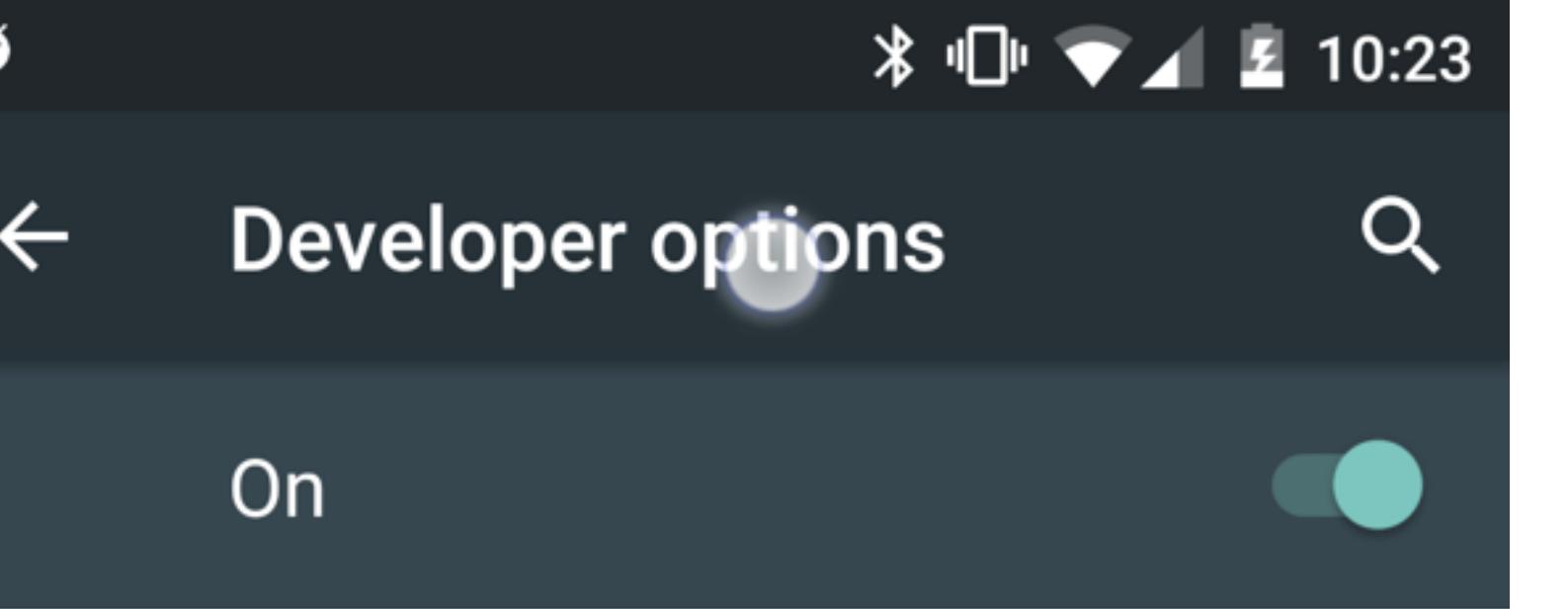
[IllegalArgumentException](#) if the location is incomplete



```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
  
    android.os.Debug.waitForDebugger();  
    ● int breakpoint = 1;  
}
```



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Logger buffer sizes
256K per log buffer

Input

Show touches
Show visual feedback for touches



Pointer location
Screen overlay showing current touch data



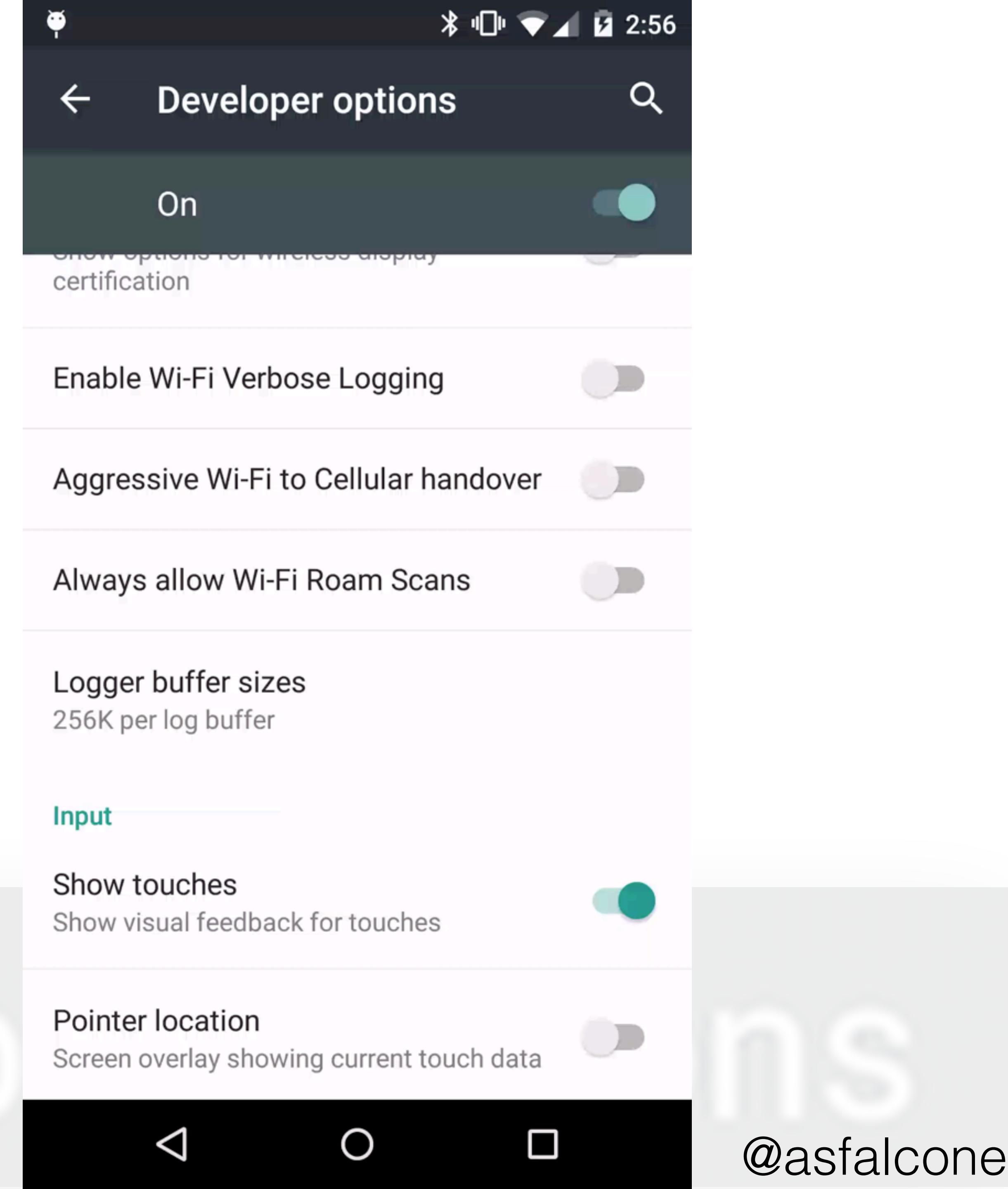
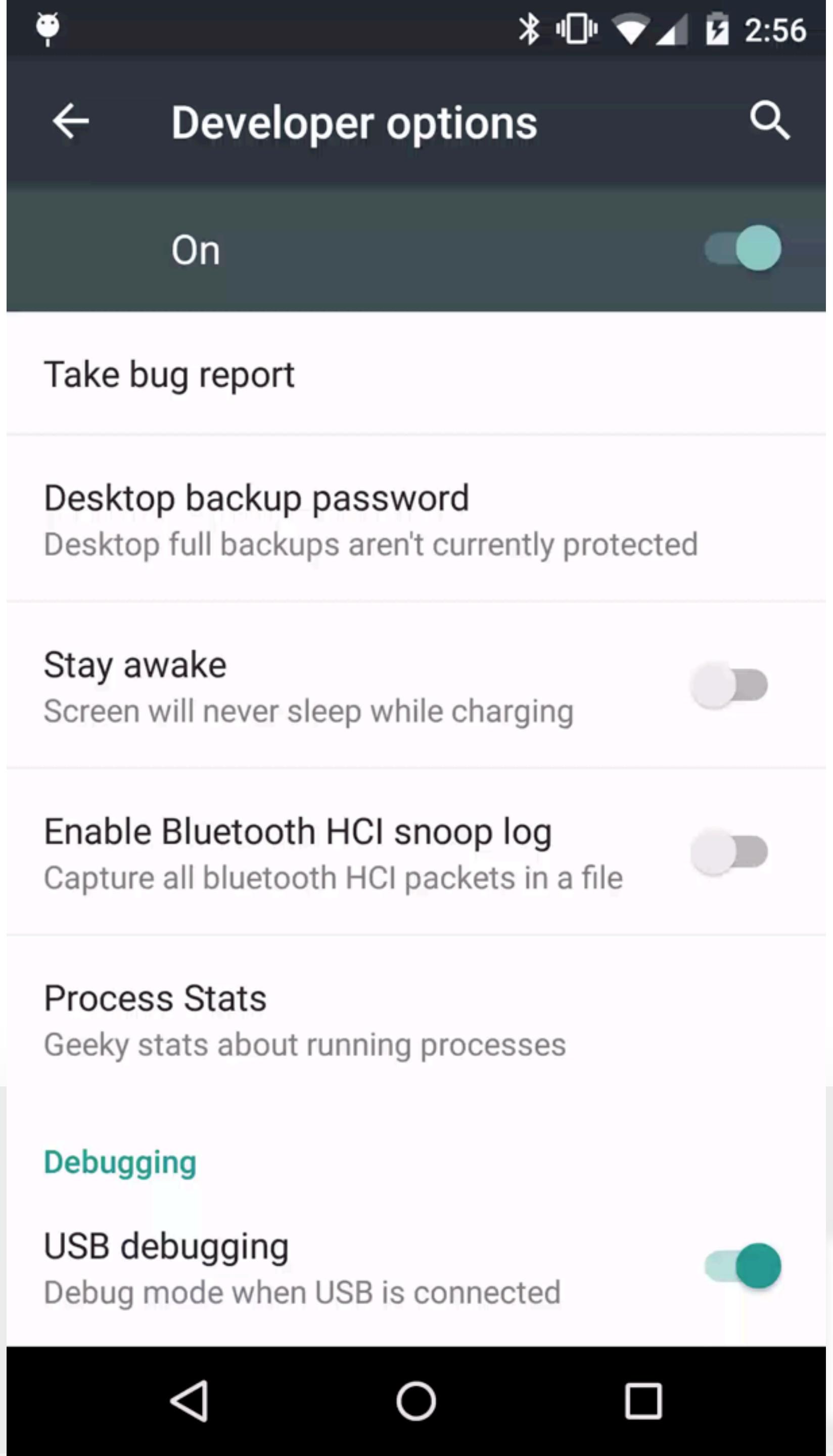
Drawing

Show surface updates
Flash entire window surfaces when they update

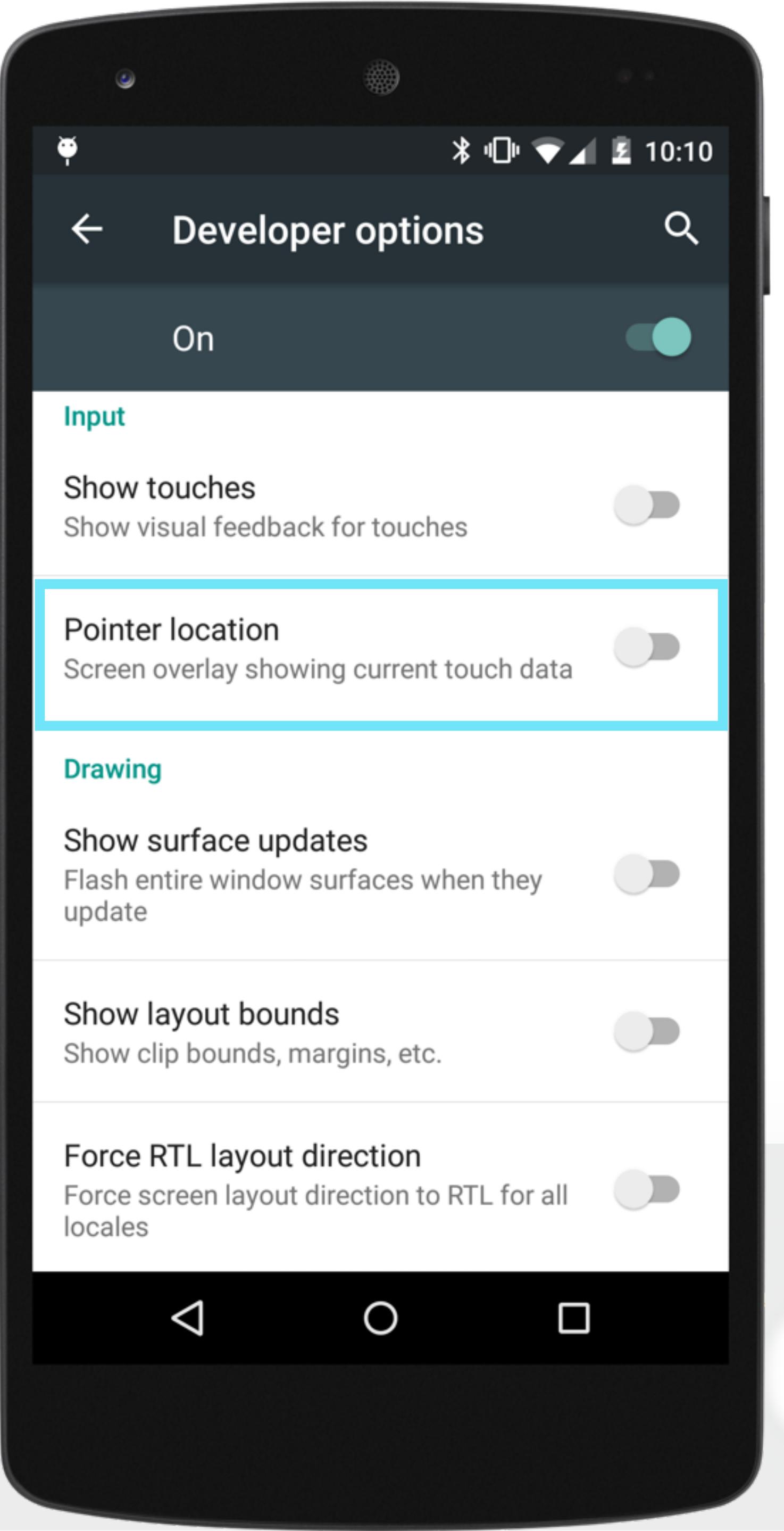


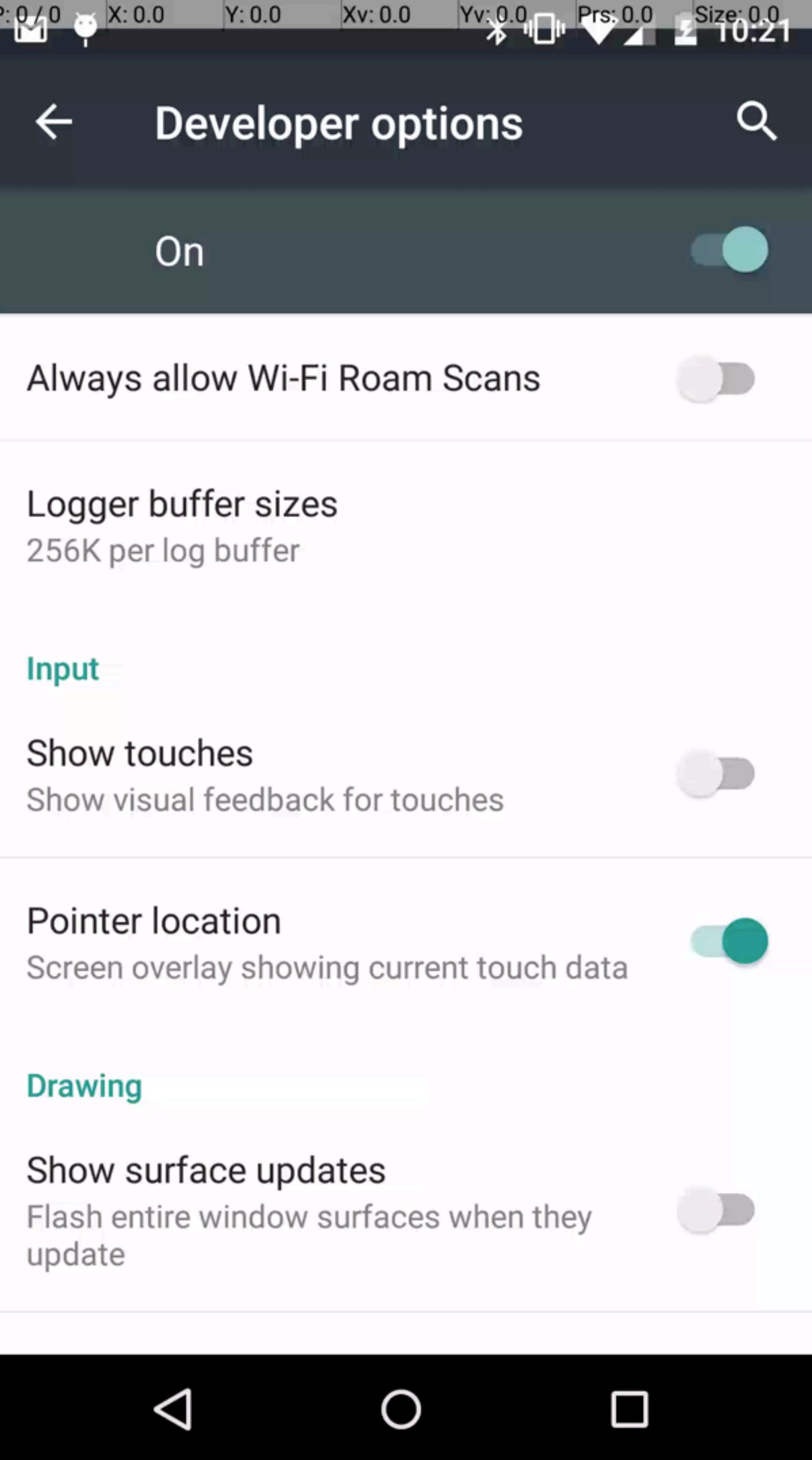
Show layout bounds
Show clip bounds, margins, etc.





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← Developer options



On



Always allow Wi-Fi Roam Scans



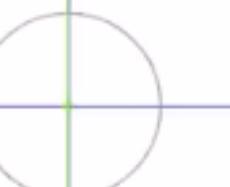
Logger buffer sizes

256K per log buffer

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← Developer options



On



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Show layout bounds

Show clip bounds, margins, etc.





Developer options



Show layout bounds

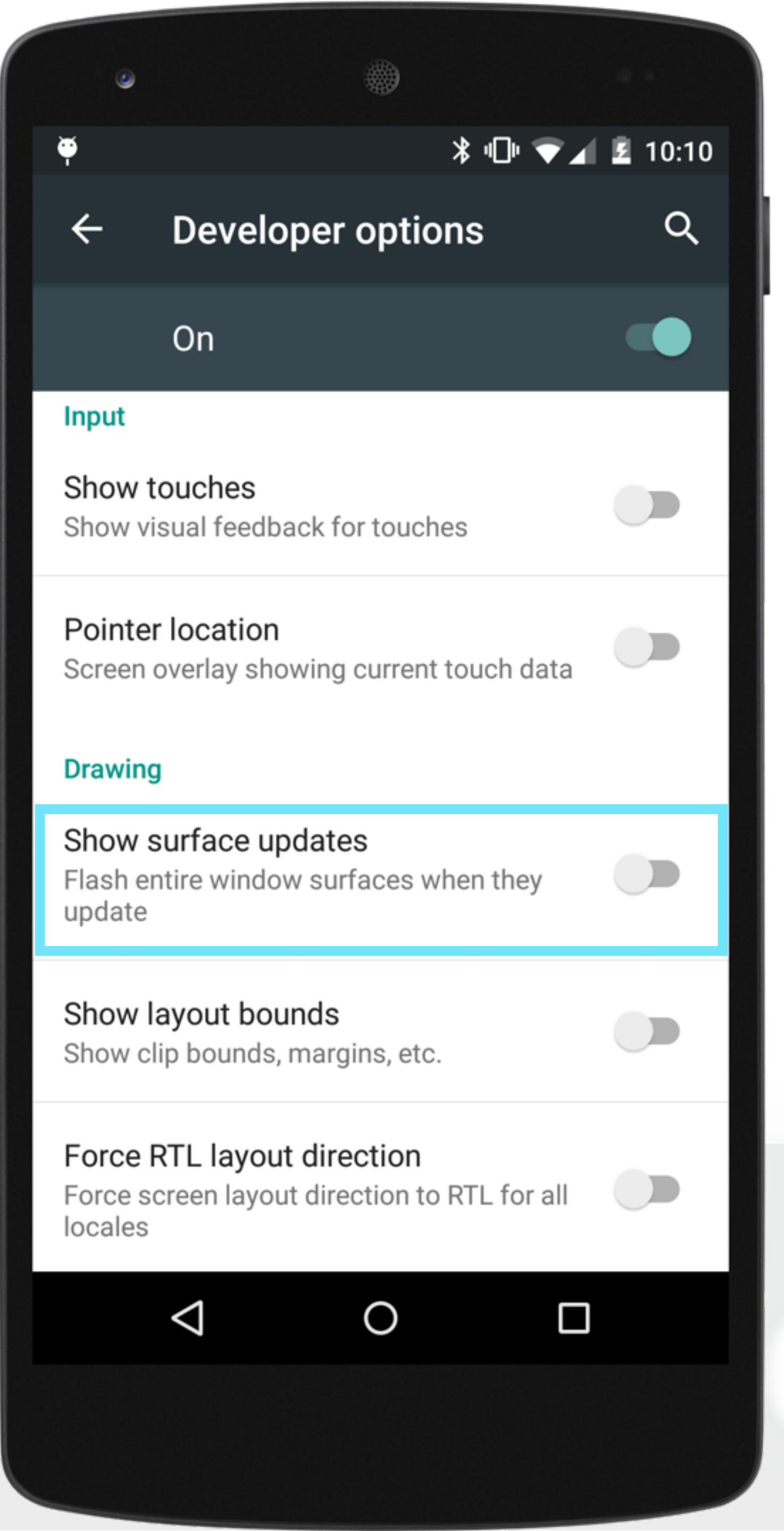
Show clip bounds, margins, etc.

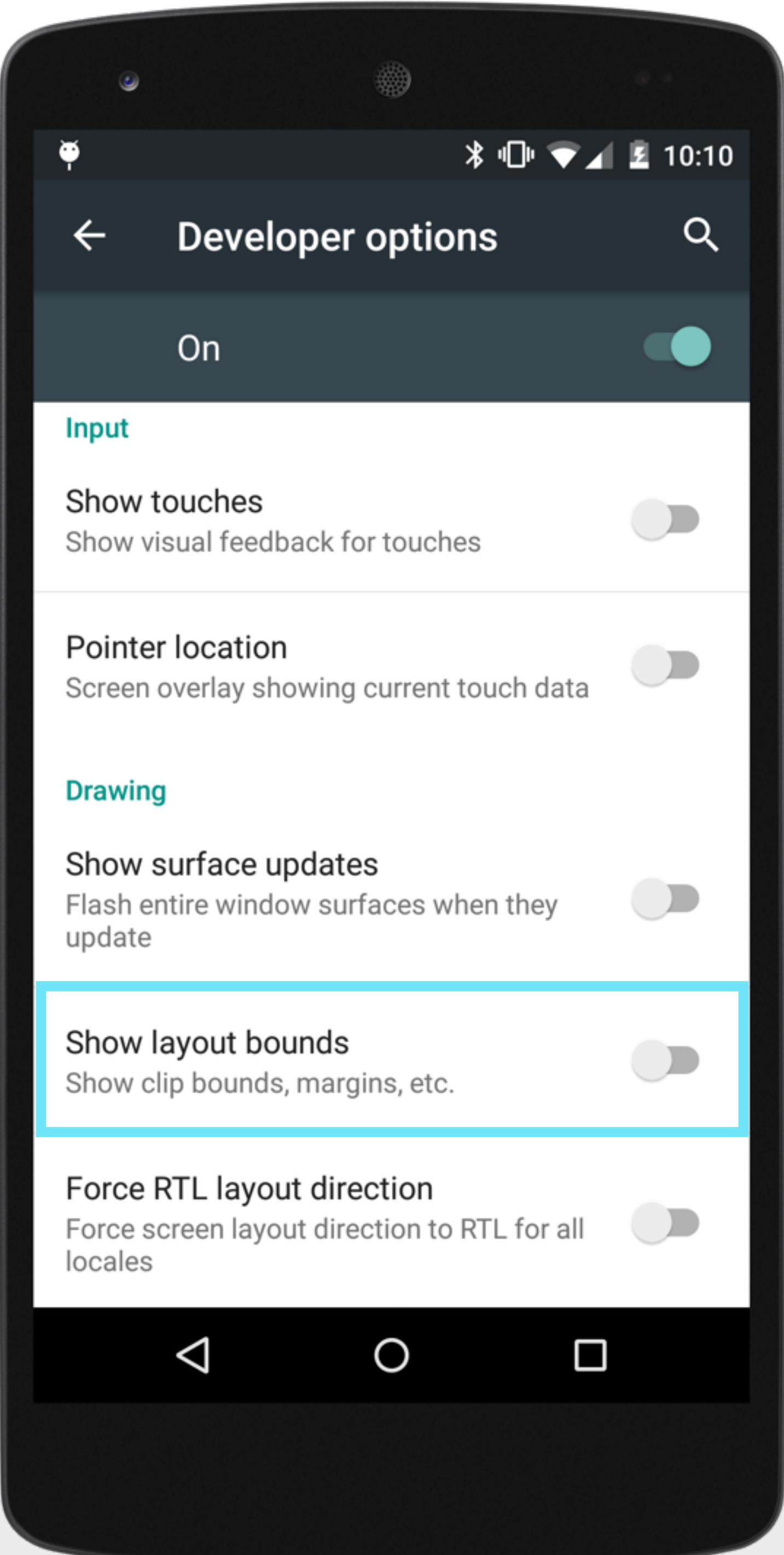


P: 0 / 1 | dX: -305.0 | dY: -16.0 | Xv: 0.890 | Yv: 0.735 | Prs: 0.60 | Size: 0.27
✉ 📱 ⚡ 10:21

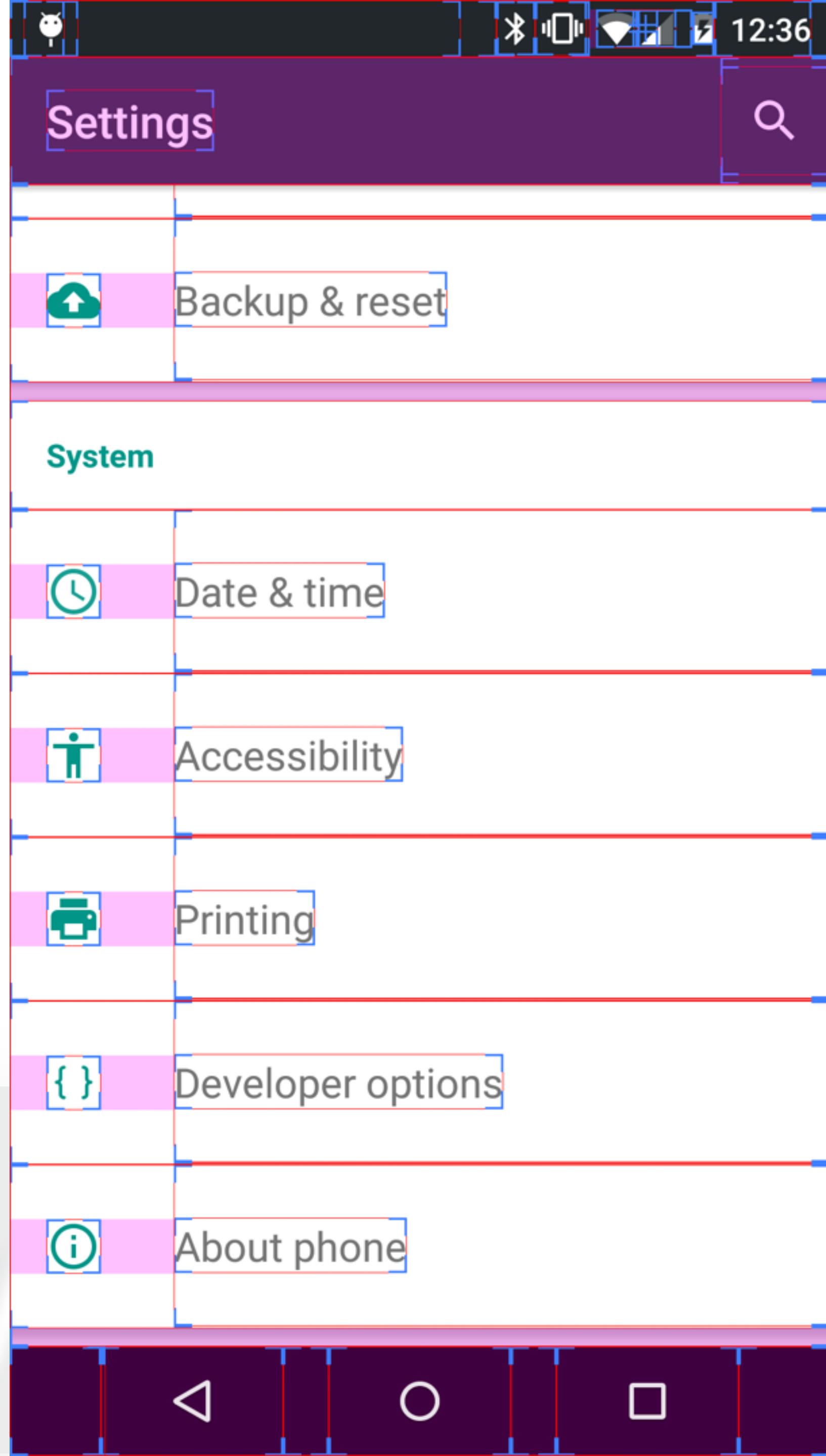
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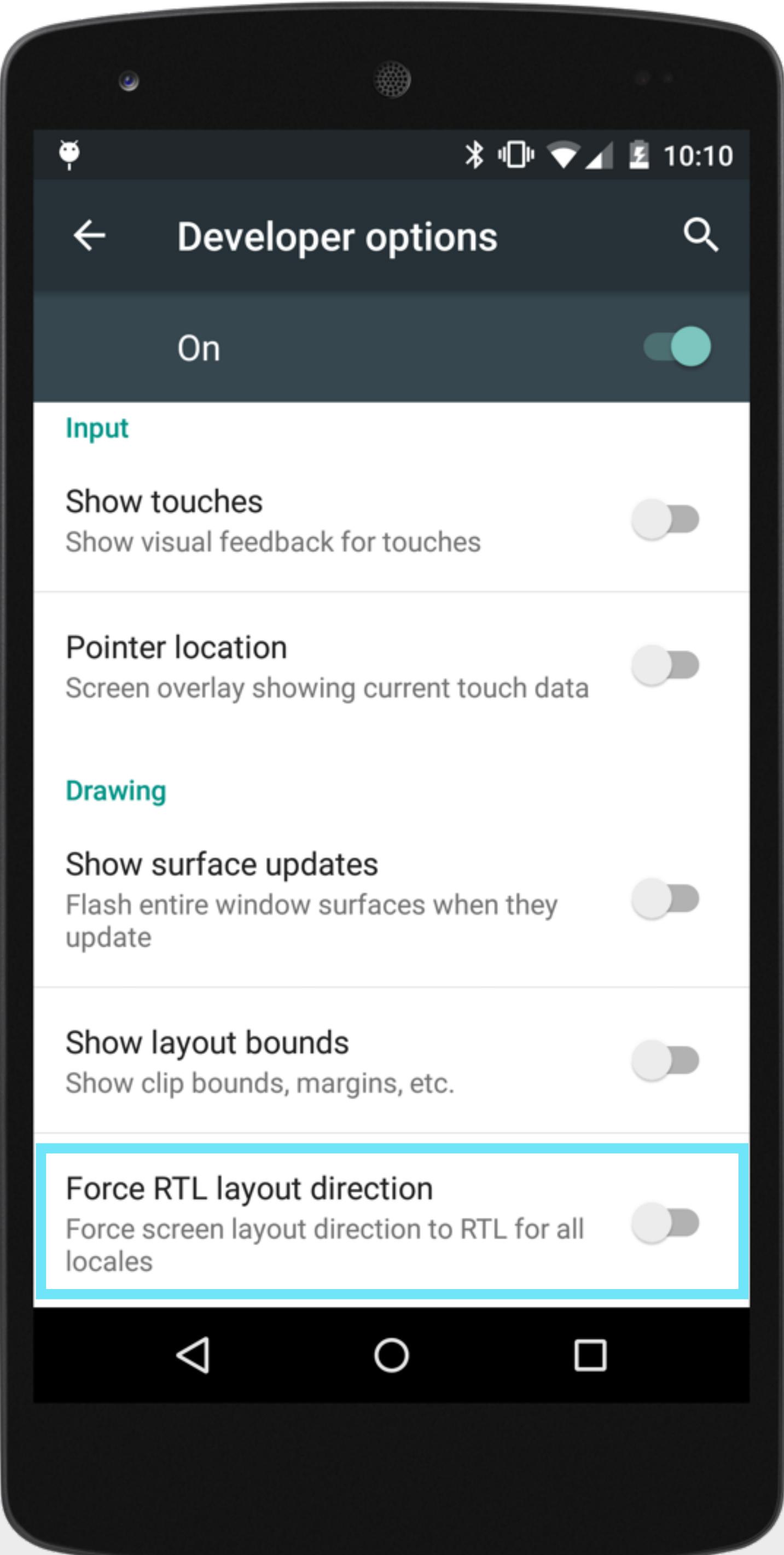
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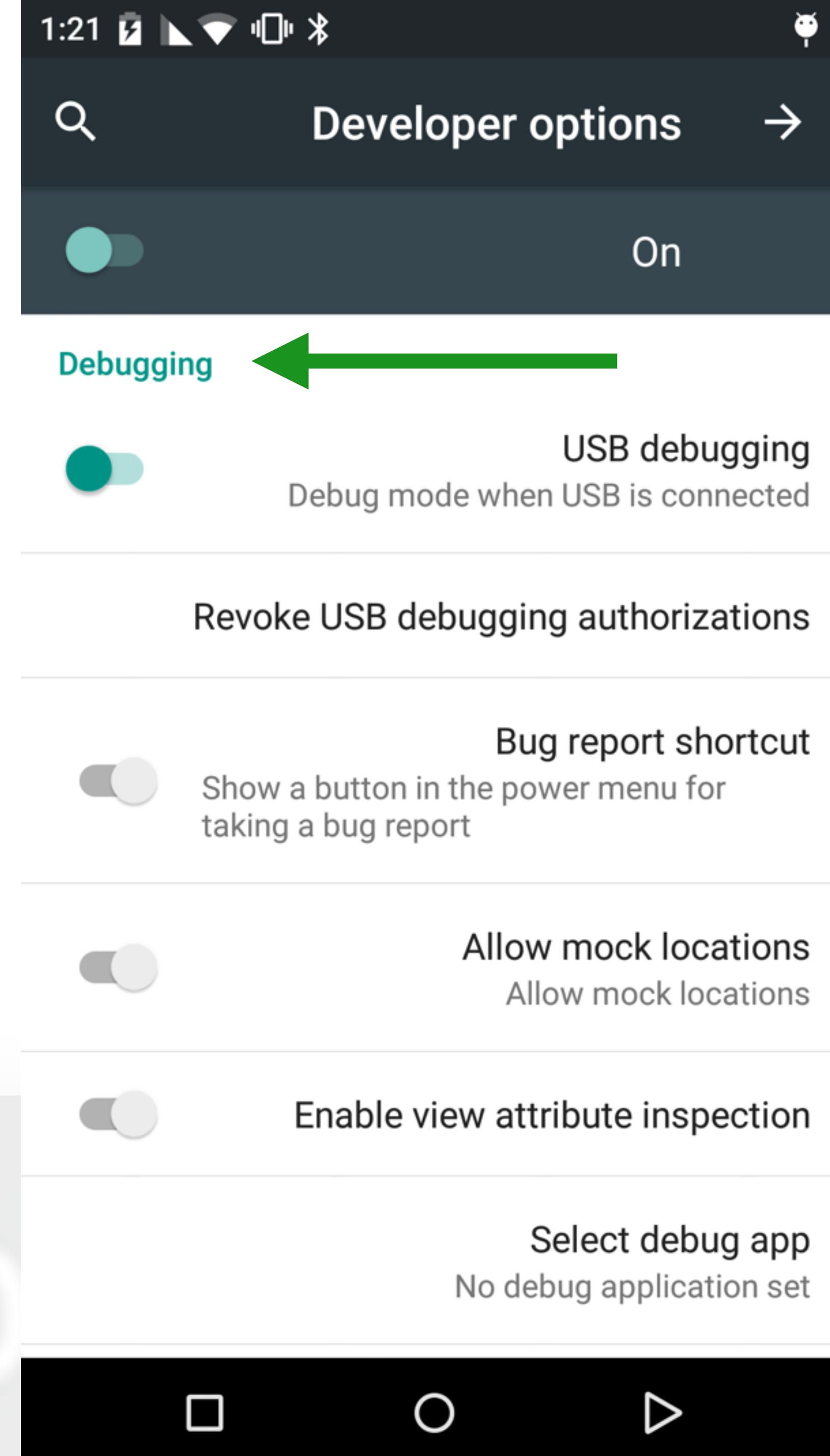
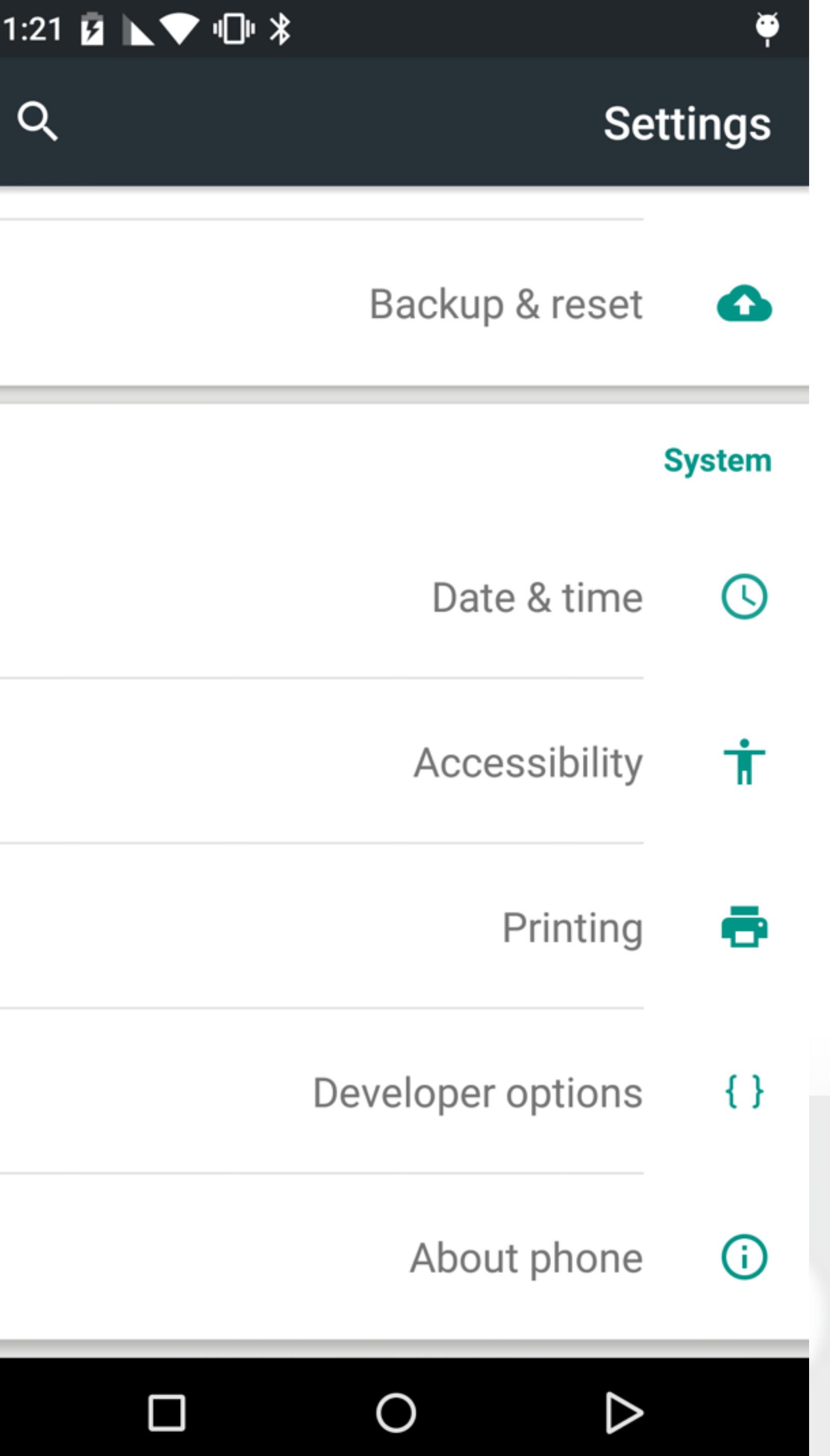


Margins

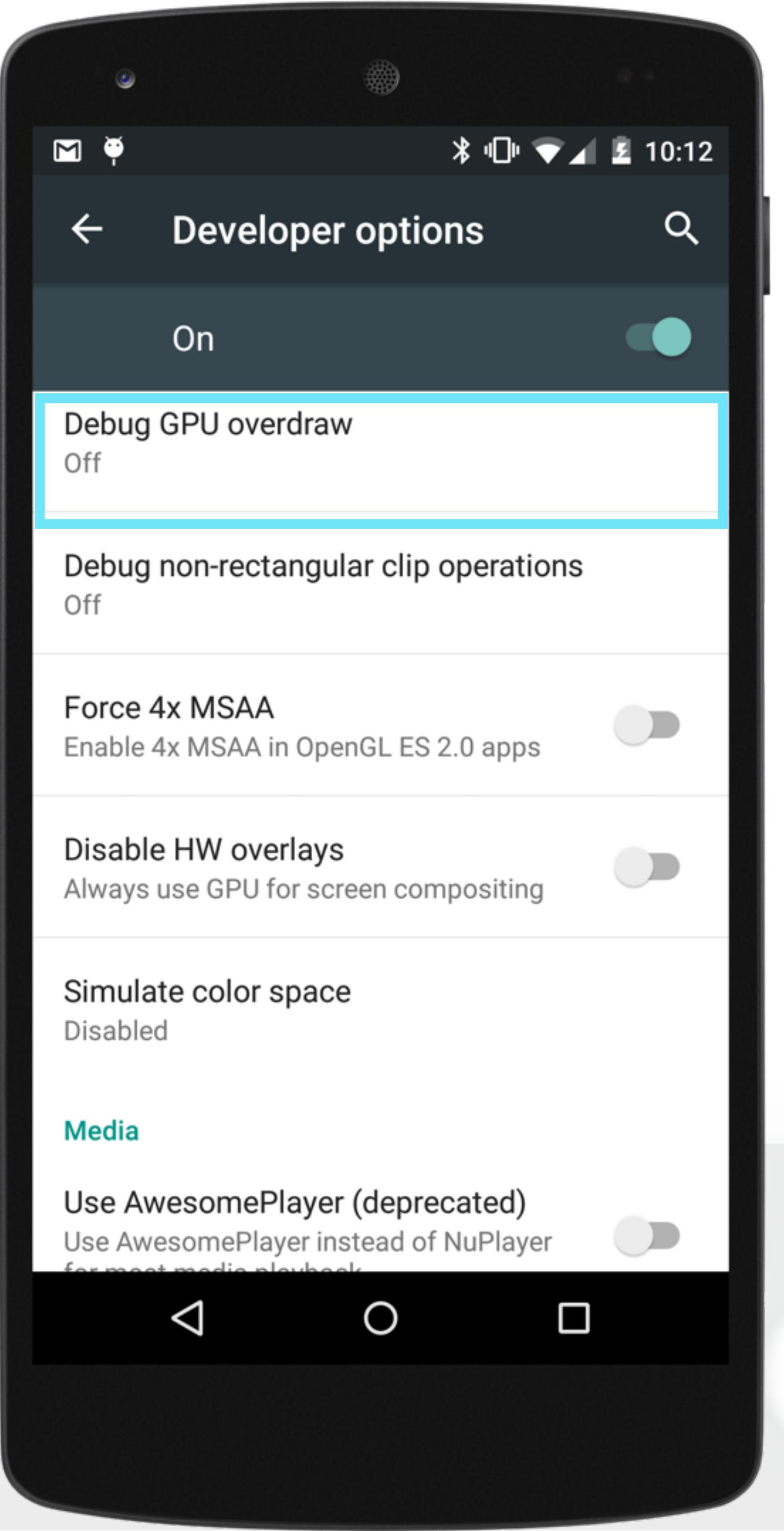
Optical bounds

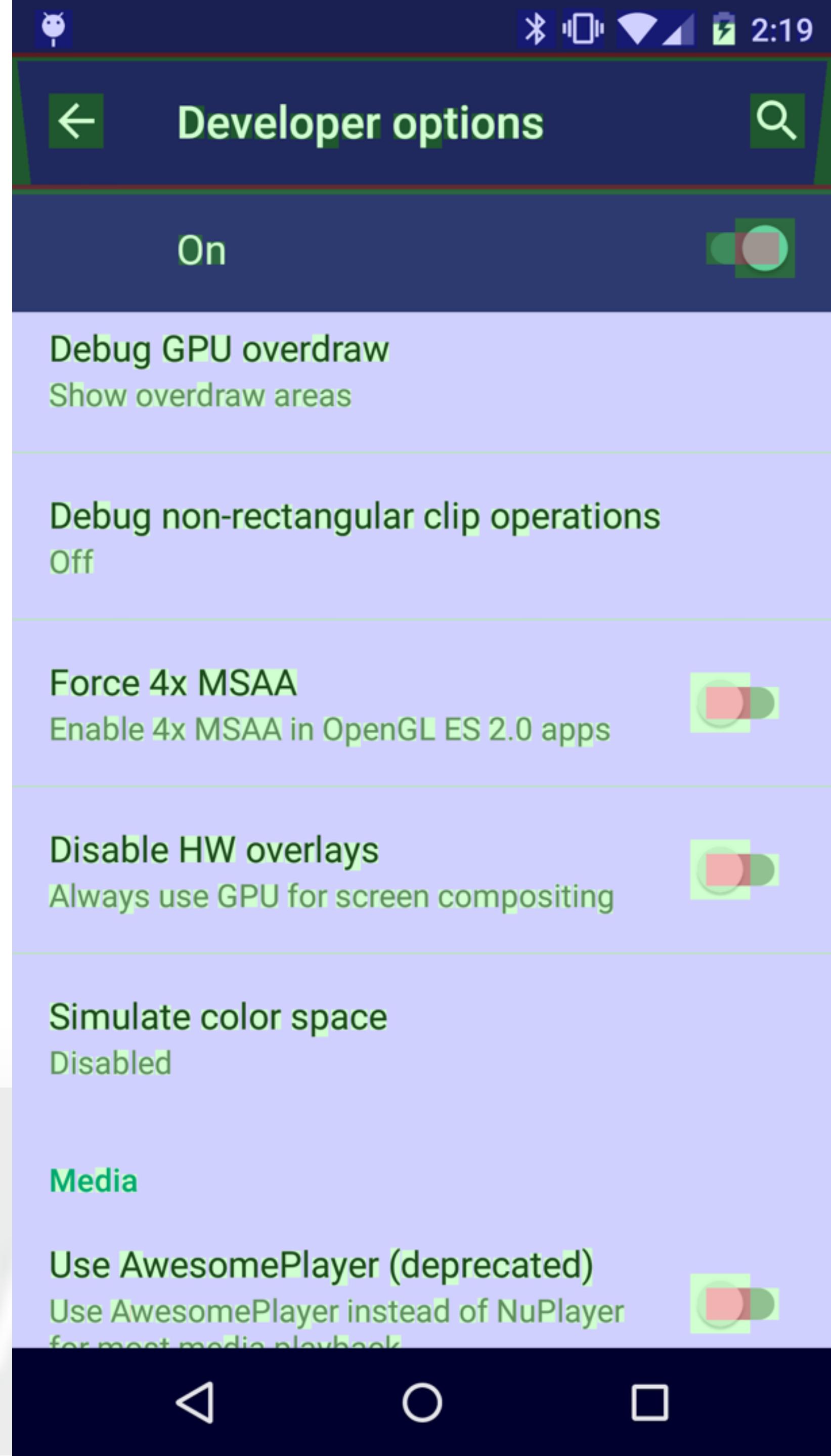
Clip bounds





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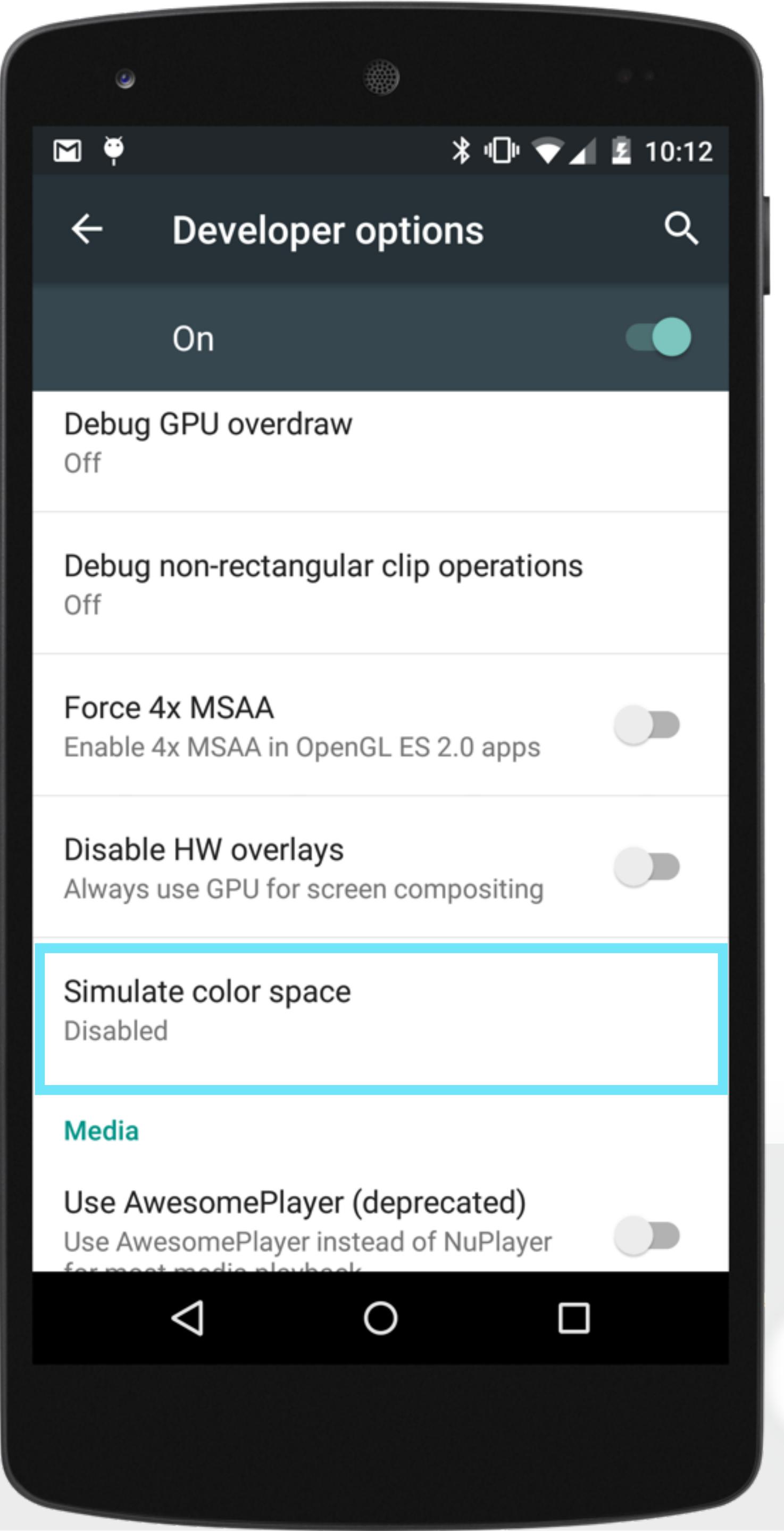
No overdraw

1x overdraw

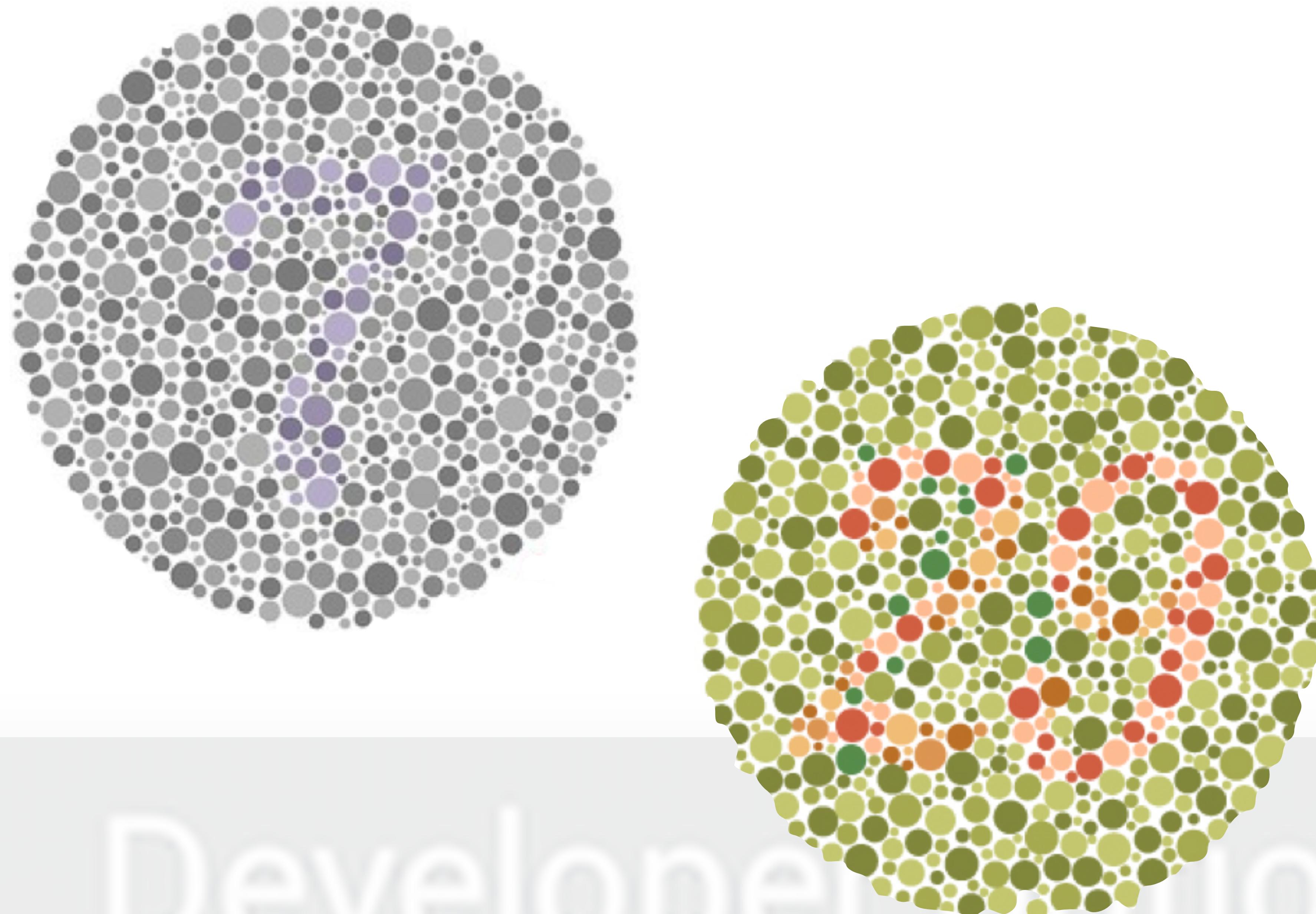
2x overdraw

3x overdraw

4+x overdraw

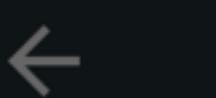


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Developer locations

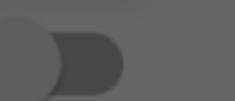
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On

**Simulate color space** Disabled Monochromacy Deuteranomaly (red-green) Protanomaly (red-green) Tritanomaly (blue-yellow)**CANCEL**

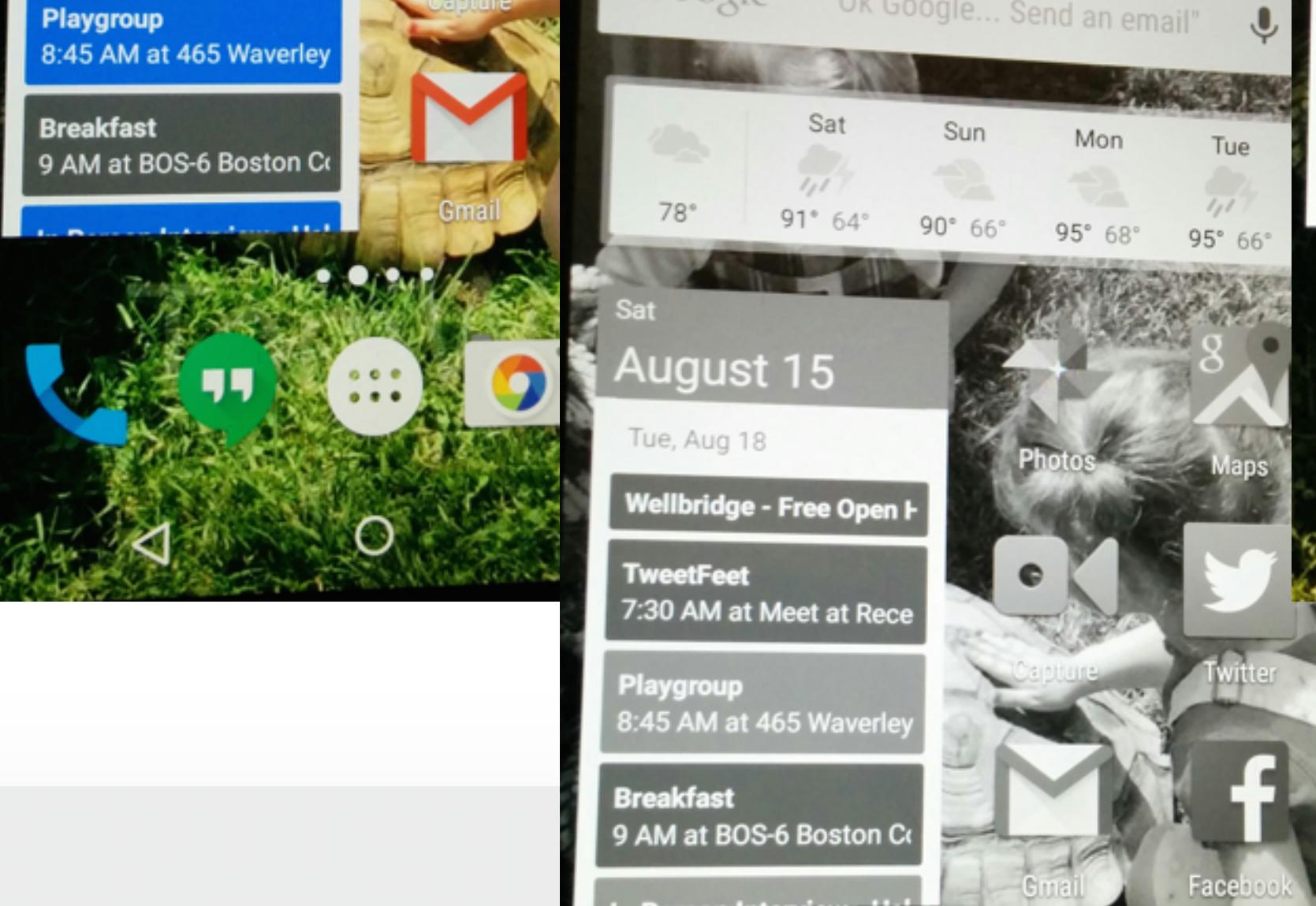
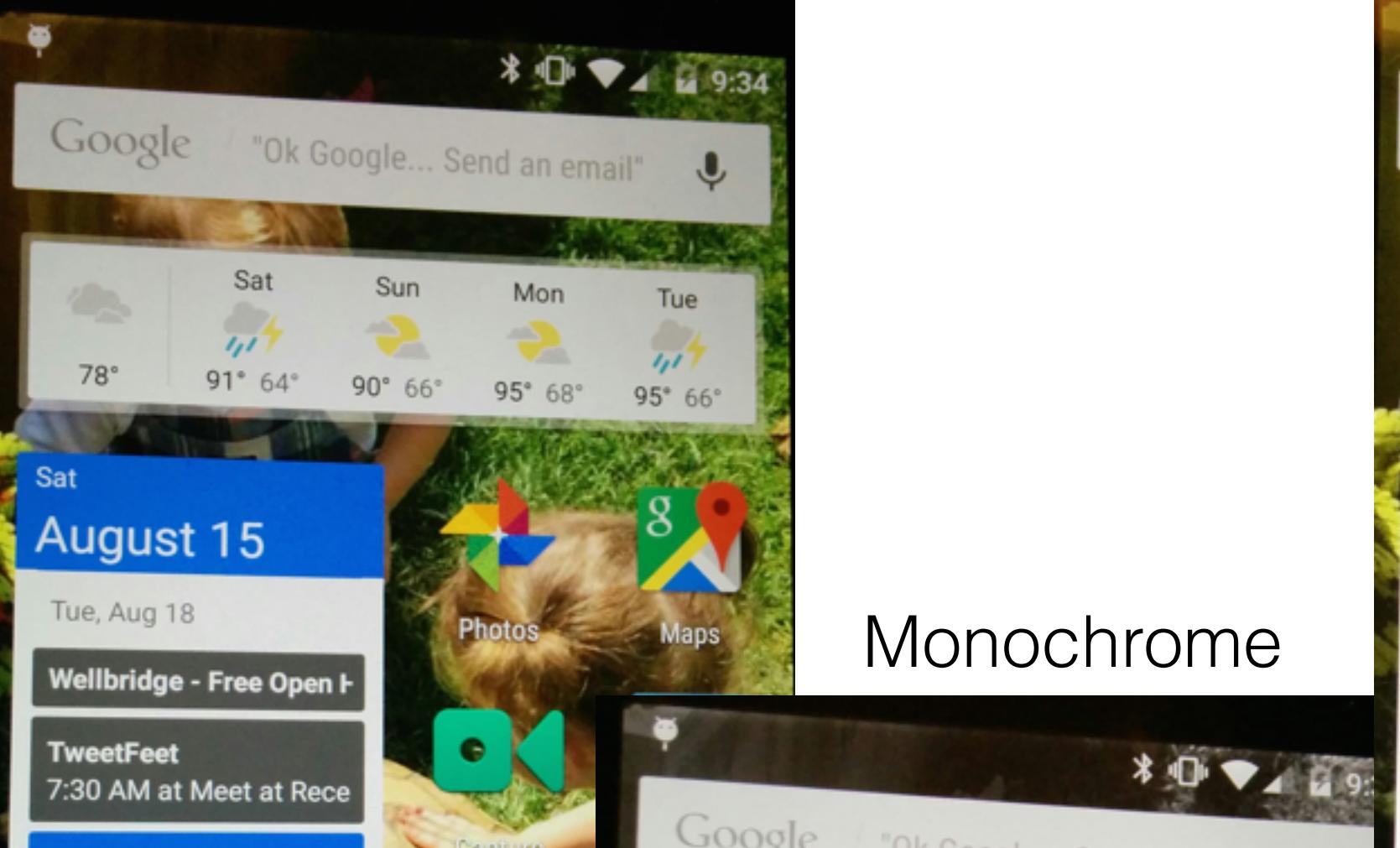
Strict mode enabled

Flash screen when apps do long
operations on main thread

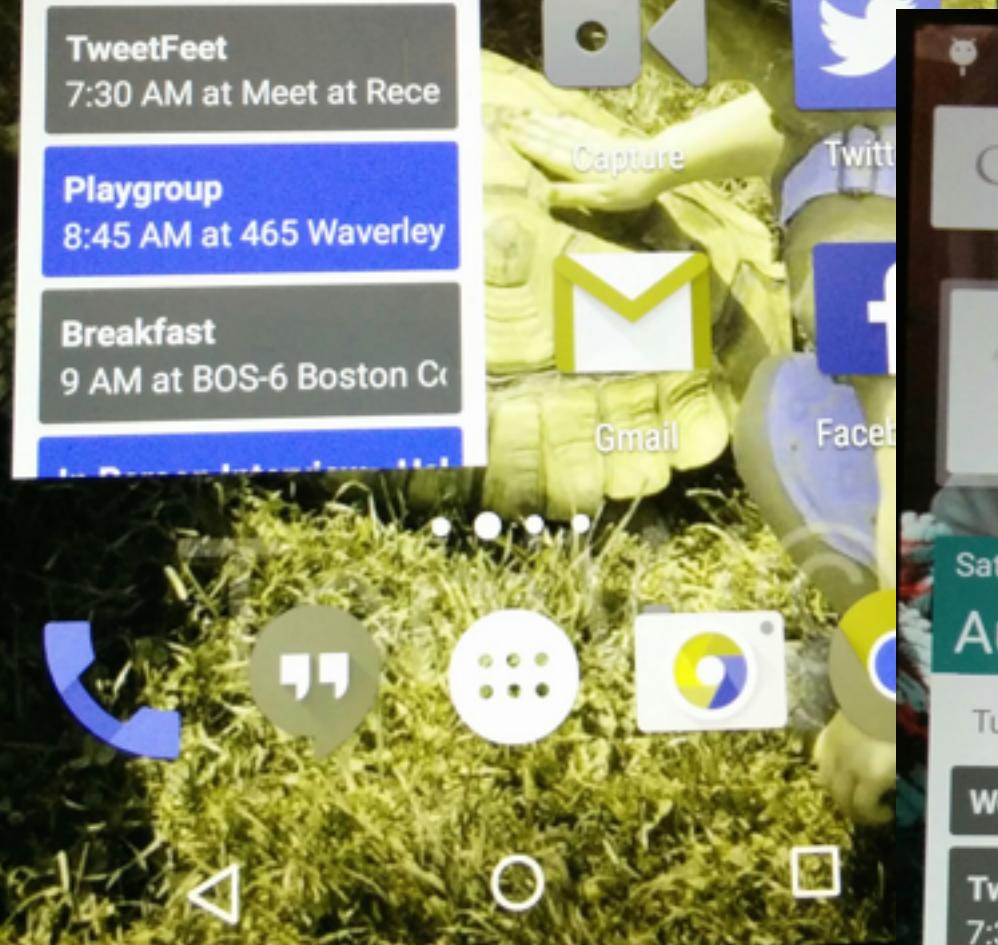
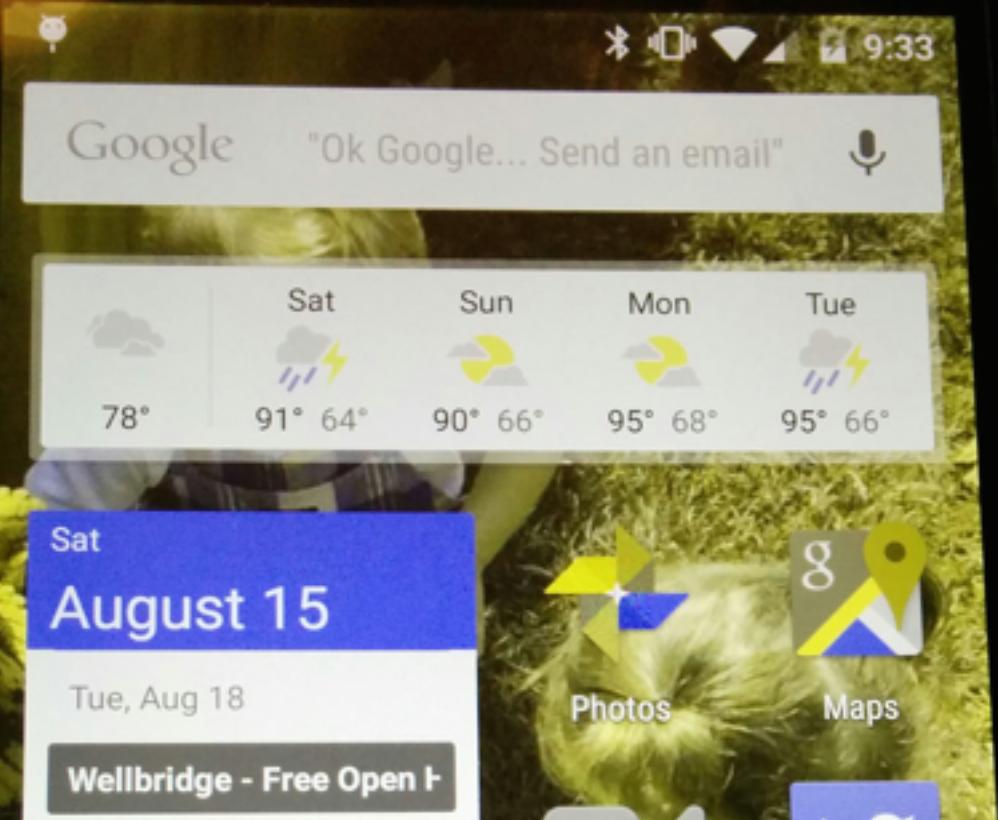
Show CPU usage



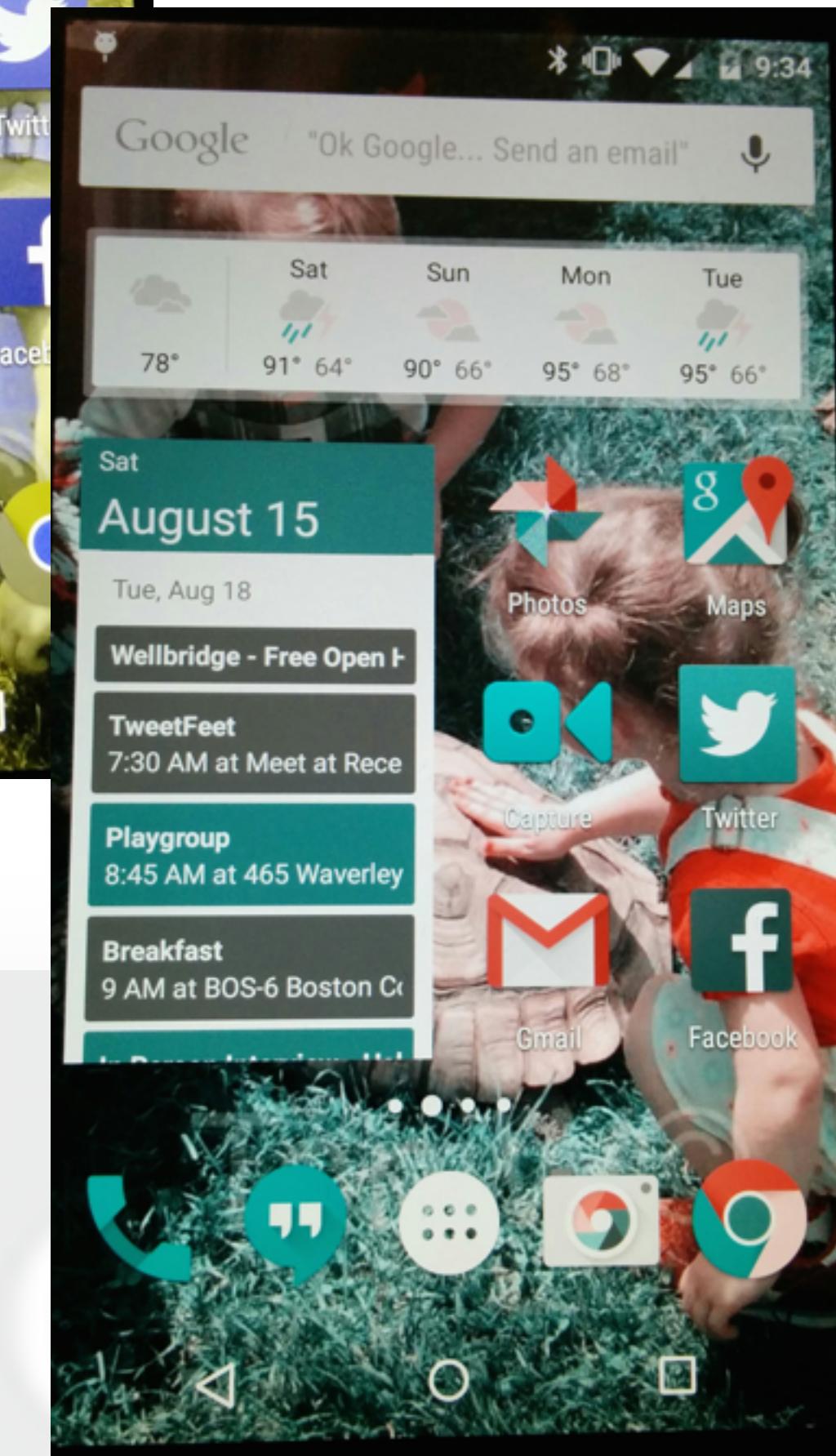
Original

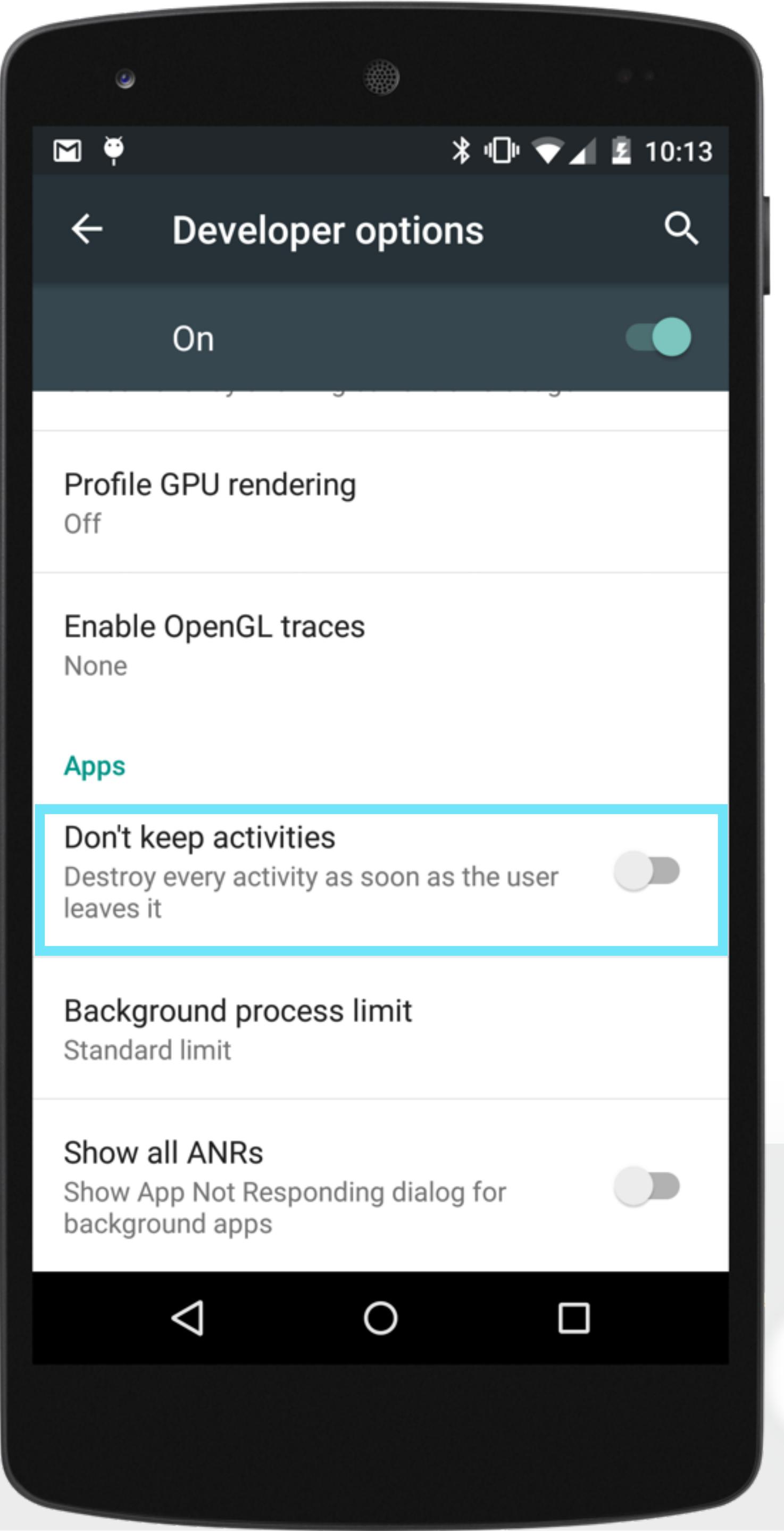


Deuteranomaly



Tritanomaly





```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);

    if (savedInstanceState != null) {
        // TODO: Find Bugs Here!
    } else {
        ...
    }
}

public void onSaveInstanceState(Bundle savedInstanceState) {
    // TODO: Find Bugs Here!
    ...

    super.onSaveInstanceState(savedInstanceState);
}

public void onRestoreInstanceState(Bundle savedInstanceState) {
    super.onRestoreInstanceState(savedInstanceState);

    // TODO: Find Bugs Here!
    ...
}
```



adb over wifi!

{ } Developer options

Connect device via usb

```
$ adb devices
```

List of devices attached
xxxxxx device

Start adb in tcpip mode - while connected via usb

```
$ adb tcpip 5555
```

restarting in TCP mode port: 5555

Get device IP address

IP address

```
fe80::bef5:acff:fee0:ab2  
192.168.1.6
```

Connect device via tcp

```
$ adb connect 192.168.1.6
```

```
connected to 192.168.1.6:5555
```

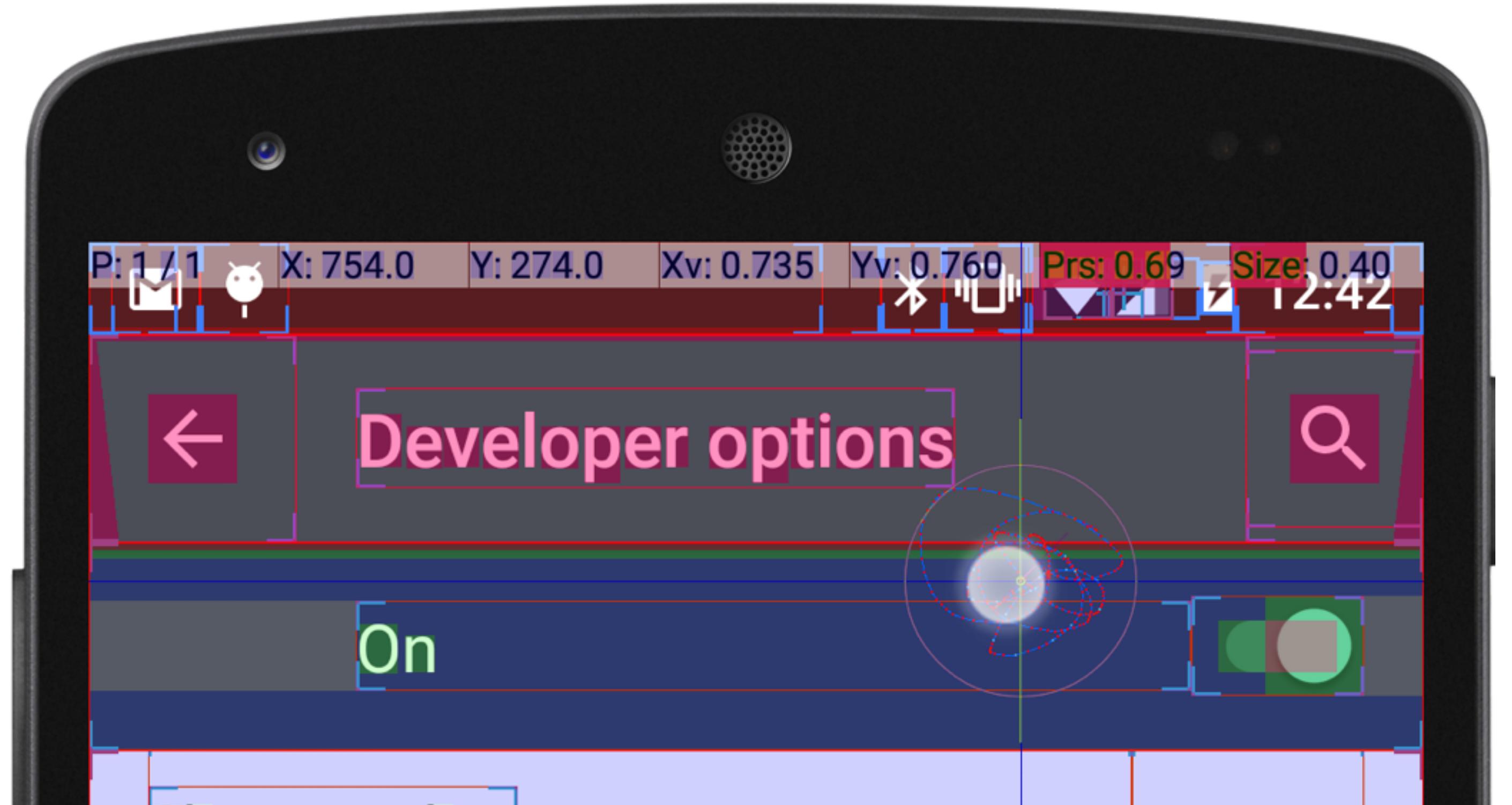
More debugging tools:

Traceview

DDMS

Hierarchy viewer

`$ adb shell`



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Thank you!

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