

Enable and Disable Android Accessibility Settings from the Command Line using ADB (Font scale, talkback, color blind)

change-accessibility-settings-with-adbRaw

Using ADB to control Accessibility settings for easier testing with Android Emulators + Real Devices

It's a lot easier to test accessibility on the fly using ADB. This gist attempts to make the days of navigating through the Android device settings UI to change Accessibility settings obsolete.

These ADB commands will hopefully encourage Android developers to test and use their apps with common Accessibility settings enabled.

Credit to [James Nitsch](#) for inspiring this, and for figuring out the `put` commands to enable these settings.

Font Scale (Font Size -- Testing Dynamic Text)

```
adb shell settings put system font_scale 0.85 (small)
adb shell settings put system font_scale 1.0 (default)
adb shell settings put system font_scale 1.15 (large)
adb shell settings put system font_scale 1.30 (largest)
adb shell settings put system font_scale 2.0 (sizes like this can only be achieved with custom adb setting, not from ui)
```

Talkback

disable talkback

```
adb shell settings put secure enabled_accessibility_services com.android.talkback/com.google.android.marvin.talkback.T
```

enable talkback

```
adb shell settings put secure enabled_accessibility_services com.google.android.marvin.talkback/com.google.android.mar
```

Color

Properties:

```
accessibility_display_daltonizer_enabled=1
accessibility_display_daltonizer=11
accessibility_display_daltonizer=12
accessibility_display_daltonizer=13
```

Examples:

```
adb shell settings put secure accessibility_display_daltonizer_enabled 1
adb shell settings put secure accessibility_display_daltonizer 0
adb shell settings put secure accessibility_display_daltonizer 11
adb shell settings put secure accessibility_display_daltonizer 12
adb shell settings put secure accessibility_display_daltonizer 13
```

```
0 == Monochromatic
11 is for Deuteranomaly (red-green)
12 is for Protanomaly (red-green)
13 is for Tritanomaly (blue-yellow)
```

Color Inversion

Property: `accessibility_display_inversion_enabled=1`

ADB Command: `adb shell settings put secure accessibility_display_inversion_enabled 1`

High Contrast Text

Property: `high_text_contrast_enabled=1`

ADB Command: `adb shell settings put secure high_text_contrast_enabled 1`

Magnification

Set: `adb shell settings put secure accessibility_display_magnification_scale 5.0`

Enable: `adb shell settings put secure accessibility_display_magnification_enabled 1`

Disable: `adb shell settings put secure accessibility_display_magnification_enabled 0`

List Existing Properties

```
adb shell settings list system
adb shell settings list global
adb shell settings list secure
```

Also, `adb shell getprop` is a great way to expose a lot of other properties you can change with the `adb shell setprop` functionality

Show Touches

```
adb shell settings put system show_touches 1
```

Pointer Location

```
adb shell settings put system pointer_location 1
```

<https://developer.android.com/reference/android/provider/Settings>



AndroidDeveloperLB commented on May 1, 2021

...

Are you sure enabling Accessibility is possible nowadays?
I've tried it, and it caused only issues. Tested on both Pixel 4 and emulator with Android R.
Also reported here about this:
<https://issuetracker.google.com/issues/186875374>



bhy commented on Oct 31, 2021

...

To enable accessibility menu:

```
adb shell settings put secure enabled_accessibility_services com.google.android.marvin.talkback/com.google.android.accessibility.acce:
```



AndroidDeveloperLB commented on Oct 31, 2021 • edited

...

To enable accessibility menu:

```
adb shell settings put secure enabled_accessibility_services com.google.android.marvin.talkback/com.google.android.accessibility.
```

Have you checked the link? Google said they've reproduced the issue and fixed it. Have you tried on Android 12 now?
I don't understand what's going on...



bhy commented on Oct 31, 2021

...

@AndroidDeveloperLB My phone don't have Android 12, so I have no idea about that.



msenyer commented on Dec 16, 2022 • edited

...

Hi, maybe this is not exactly related with what you posted but I thought you might be able to help me.
How would you disable the "TalkBack shortcut", on the TalkBack accessibility menu?
Thank you in advance
[@mrk-han](#)



mrk-han commented on Dec 16, 2022

Author

@msenyer Try launching the Settings app and then selecting Accessibility. Then tap selectTalkBack, and then toggle the talkback shortcut. It may depend on your OS level and what flavor of Android you're running.



msenyer commented on Dec 19, 2022

...

@mrk-han I meant using adb! I don't know if that is possible, though



mrk-han commented on Dec 19, 2022

Author

@msenyer There's a huge list of settings you can check out with a device attached

```
adb shell settings list secure
adb shell settings list system
adb shell settings list global
adb shell getprop
```

It might be in that list somewhere, but I haven't tried the specific thing you're talking about



mrk-han commented on Dec 19, 2022

Author

```
adb shell settings put secure enabled_accessibility_services PACKAGE_NAME/PROVIDER_NAME
```

 might work if you get the provider name

qbalsdon commented on Jan 20, 2023 • edited

...

This is a great list! However I have noticed issues when turning TalkBack off with

```
adb shell settings put secure enabled_accessibility_services com.android.talkback/com.google.android.marvin.talkback.TalkBackService
```

On some devices, like a Samsung S21, it really breaks my on screen keyboard experience. I have found that

```
adb shell settings put secure enabled_accessibility_services ""
```

Works great on all devices, including Pixel phones. I imagine it was some sort of "find and replace" magic they had in earlier versions of Android.

Also, it might be helpful to note that `enabled_accessibility_services` is a colon (:) separated list of services, so you can enable a few at the same time if you like. Voice Access, Switch Access, Accessibility Scanner, and your own A11yServices



mrk-han commented on Jan 20, 2023

Author

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adb shell settings put secure enabled_accessibility_services com.android.talkback/com.google.android.marvin.talkback.TalkBackServ
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@qbalsdon Thank you so much for your contribution! This is great info. 🙌

arendon1 commented on May 16, 2023 • edited

I'm sorry to asking such a dumb question.
I do not develop for android, but I do have an annoyance where a specific app I enjoy uses an accesibility service to be able to be able to server its purpose.

Android keeps disabling it constantly and idk how to tell it to stop doing that.

I do have locally enable it on the phone, and then extracted the `enabled_accessibility_services` string I need to fulfill my need. But I need to know how pass an `adb shell` command with multiple devices/emulators simultaneously connected. I know there's a `-s <serial>` flag, but I do seem to find how to structure the string for the command.

`adb shell -s <serial> settings...` did not work. Should it be after de `settings` key?

I'd appreciate some light on this, as I cannot find something that specific online.

Edit:
I found my issue. I was structuring the thing all wrong. But I'd appreciate in some process to avoid having to this each time. I want that specific service be **always** on.

qbalsdon commented on May 22, 2023 • edited

Hey @arendon1 - this annoys me too - I wrote something that isn't pretty, but will work:

```
function ADB_ALL {
  COMMAND="$1"
  COMMAND_RESULT=""
  adb devices | awk '{print $1}' | tail -n +2 | grep . | while read serial; do COMMAND_RESULT="$COMMAND_RESULT"adb -s $serial $COMMAND eval $COMMAND_RESULT
  unset COMMAND_RESULT
}

You can add this to your ~/.zshenv or ~/.bash_profile file. Usage would be:

# talkback on
ADB_ALL "shell settings put secure enabled_accessibility_services com.google.android.marvin.talkback/.TalkBackService"

# talkback off
ADB_ALL "shell settings put secure enabled_accessibility_services \\\\"
```

Note: I couldn't execute the commands inside the loop because it would exit after the first one. Happy for this to be improved

arendon1 commented on May 22, 2023

@qbalsdon you are so kind to give such an intricate solution!
I see the script you've made it's to use inside bash! Unfortunately as I'm on a Windows based workstation, I won't be able to reproduce that verbatim. But maybe I could try to port it to PowerShell core. It seems a pretty good base to start.

Thank you so much again for the time you've spent creating that!
<3 from Colombia!

qbalsdon commented on May 24, 2023 • edited

Ah shucks! Windows! My one weakness!

So if you install [cygwin](#) you can run `bash` and `sh` commands on Windows, but you do need to learn a bit there. I do have a Windows box I mess around on. I'll try come up with an equivalent. I'm really keen on scripting for Android!

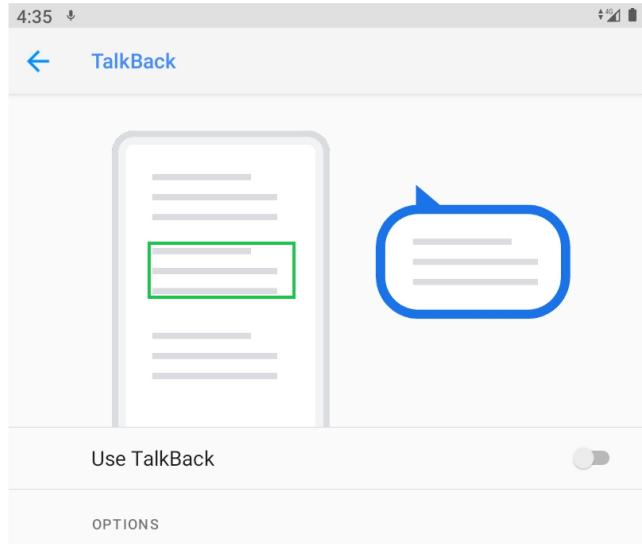
Hello from the UK! 🇬🇧

mseyner commented on Jul 11, 2023

Hi everyone! I just wanted to pass by to let you know I found what I was looking for, hope this may help someone in the future.
This was my problem:

Hi, maybe this is not exactly related with what you posted but I thought you might be able to help me. How would you disable the "TalkBack shortcut", on the TalkBack accessibility menu? Thank you in advance @mrk-han

And I wanted it to be solved with and adb command.



TalkBack shortcut

Hold volume keys



Settings

ABOUT TALKBACK

When Talkback is on, it provides spoken feedback so that you can use your device without looking at the screen. Talkback is intended for situations or people who have difficulty seeing the screen.

How to use Talkback

- Swipe right or left to move between items
- Double-tap to activate an item
- Drag 2 fingers to scroll

How to turn off Talkback

I needed this "talkback shortcut" to be programmatically turned off.

The command `adb shell settings put secure accessibility_shortcut_target_service null` does the job :)

Thank you all for your help in this process. I finally found it.



mrk-han commented on Jul 12, 2023

Author ...

@msenyer Thank you for the update! This is great info. Maybe when I find time I'll revise this document. Much appreciated.



artmrch commented on Aug 23, 2023

...

adb shell settings list secure

give me nothing



qbalsdon commented on Aug 23, 2023

...

@artmrch does the device appear when you use `adb devices`?

```
List of devices attached
[DEVICE_SERIAL_NUMBER] device
```

Note it must have 'device' next to it, if it says anything else (for example, 'unauthorized') then there are other steps you need to take

I'm not sure of your experience level, so I apologize if you have done these, but it's good to check:

1. Have you installed [adb](#)
2. Put adb on the path
3. Turned on [developer mode](#) on the phone and after plugging it in with a cable, opt in to trust the computer



artmrch commented on Aug 23, 2023

...

yes it shows

i did daltonizer color already
and its great
couldnt find any app to do it

but i cant check if there are more settings with

settings list



qbalsdon commented on Aug 23, 2023

...

Another thing you can try is:

1. `adb shell` [press enter to enter the phone shell]
2. `settings list secure` [while in the shell]
 - 2.1 `settings list global` [to see if you can get the global settings]
3. `exit` [when you're done]

If there is an error getting the secure settings, try getting the global settings. Also if there is another profile (for work or whatever) that may be preventing you from getting access



artmrch commented on Aug 23, 2023

...

no error, just nothing

how do i check that something preventing it
daltonizer, zoom, contrast work like a charm
i just got interested what else i can do

like remove all the shadows from layers and pop-up messages



mrk-han commented on Aug 25, 2023

Author ...

@artmrch Some of the settings are dependent on which device/emulator you are using.



artmrch commented on Sep 17, 2023

...

@artmrch Some of the settings are dependent on which device/emulator you are using.

flymeos 5.1.5.3G

it seems that settings command have no

```
'list' option ./

anyway, i have found some other great accessibility commands

-- accelerometer_rotation --

adb shell settings put system accelerometer_rotation 0

adb shell settings put system user_rotation 0,1,2,3

0 - portrait
1 - 90° (landscape)
2 - 180° (reverse portrait)
3 - 270° (reverse landscape)
```



Write Preview

H B I                     

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