

# **How to Remove Android Bloatware**

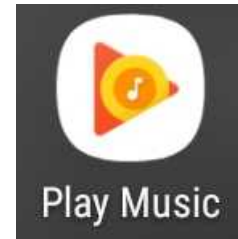
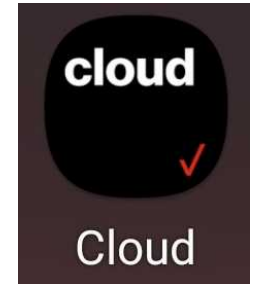
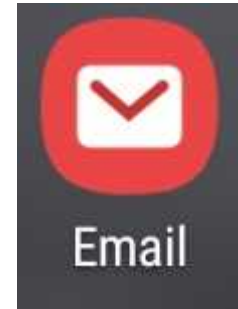
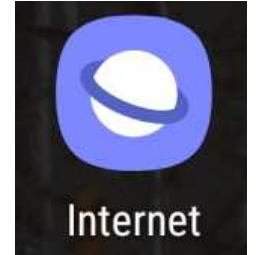
A presentation by John Krout  
For PATACS + OPCUG  
November 20, 2021

# What is Bloatware?

- Any unwanted app that you find on your newly acquired Android device.
- Often installed by Google or the device maker or seller.
- Can also be an app you installed but no longer use.
- Takes up storage space on your device, which is finite.
- Can make intensive use of your cellular data.
- Can track your phone use and location.
- Can charge you a subscription fee monthly for its use.

# Android Examples of Bloatware

- Samsung Internet (web browser) and Google Chrome; I use Firefox instead
- Samsung Email (very slow)
- Verizon Cloud (\$19.99/month)
- Google Play Music (disabled by Google)



# Why Remove Bloatware?

- To free up finite storage space on your device
- So you won't accidentally use it, possibly invoking a subscription fee payment or device tracking
- Because apps you can download and install will do a better job

# Preparation before removal

- Delete the **data** stored by the app
- Delete the **cache** stored by the app
- If you fail to do so, then the Android OS *preserves* the data and cache, in case you decide to re-install the same app later.

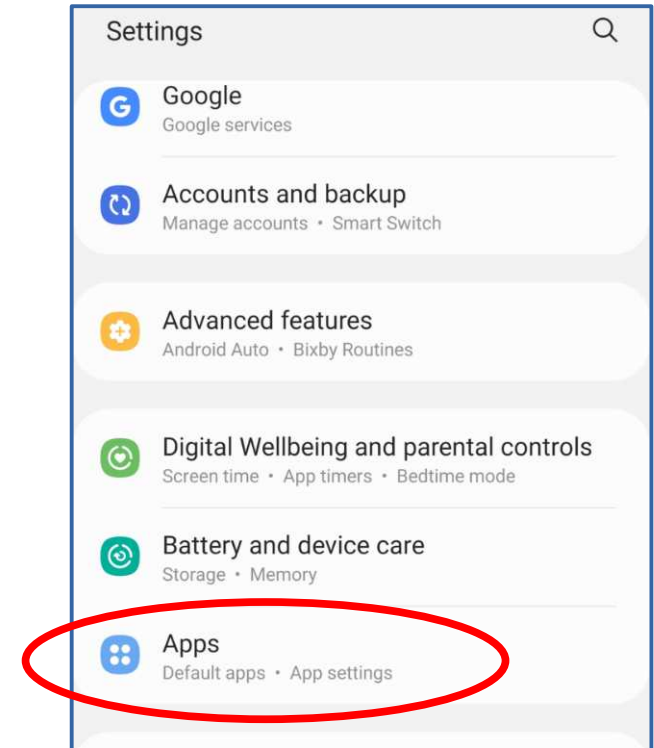
# How to delete app data and cache

- Open **Settings**
- In Settings, select **Apps**
- An alphabetic list of apps appears, with a Search button
- You can either scroll or search to find the app name you want to uninstall

# Example: delete data and cache

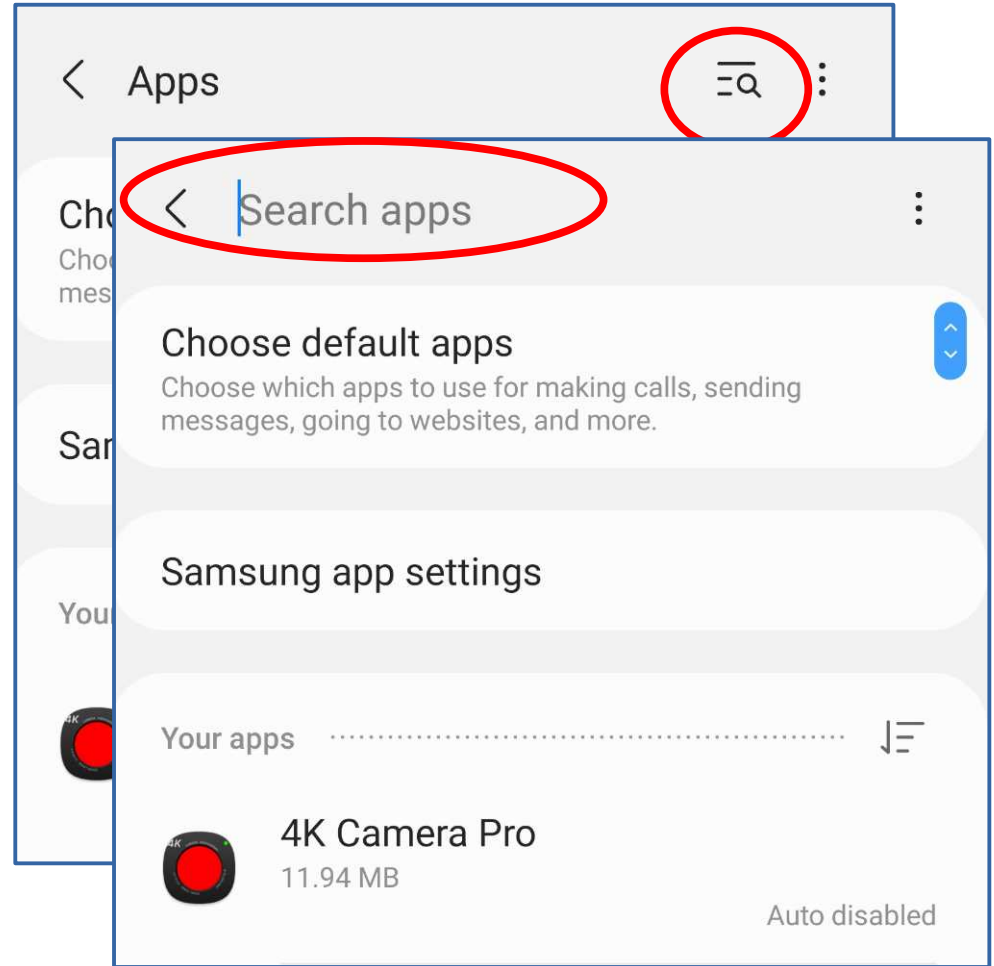
Clear data and cache for **Samsung Email**

- Open **Settings**
- Scroll to and tap **Apps**;  
the Apps screen appears



# Example: delete data and cache

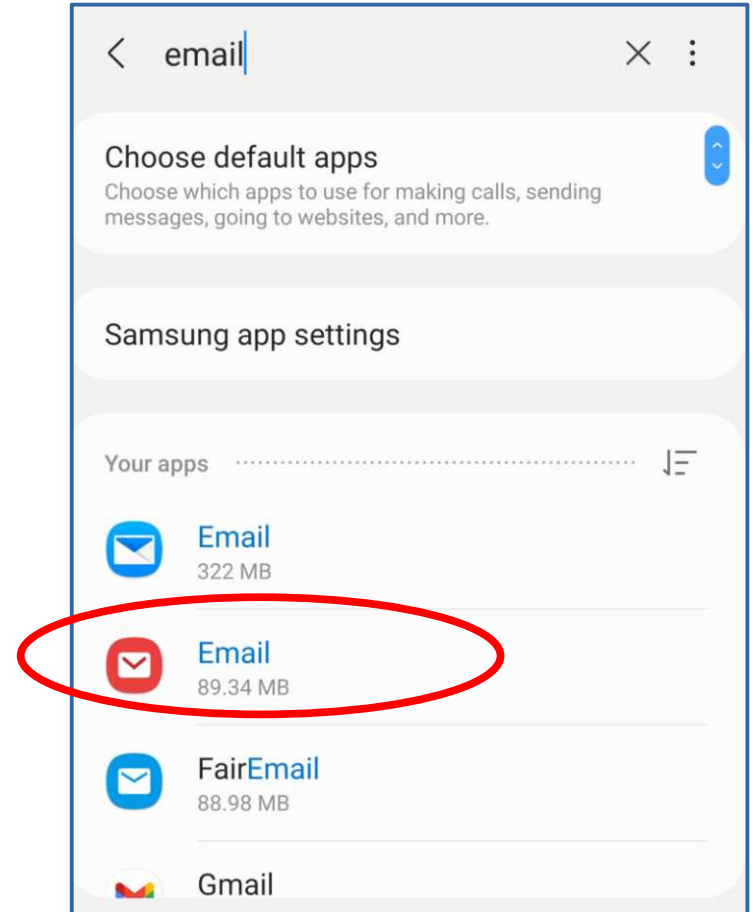
- Tap the search icon at the top of the Apps screen
- The Search field appears
- Tap the Search field; a virtual keyboard pops up
- Type the word **email** and tap the virtual keyboard **Search** button





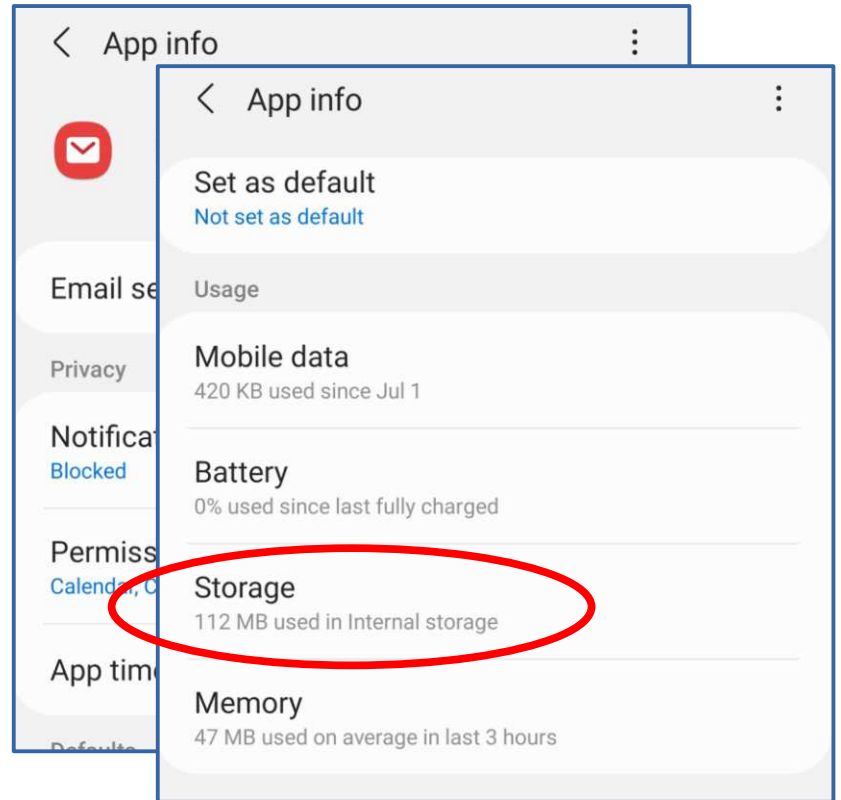
# Example: delete data and cache

- App names containing the search string are listed
- Tap the desired app
- The App Info screen appears



# Example: delete data and cache

- Various types of app info are provided
- Scroll down to and tap **Storage**
- The application's Storage details screen appears

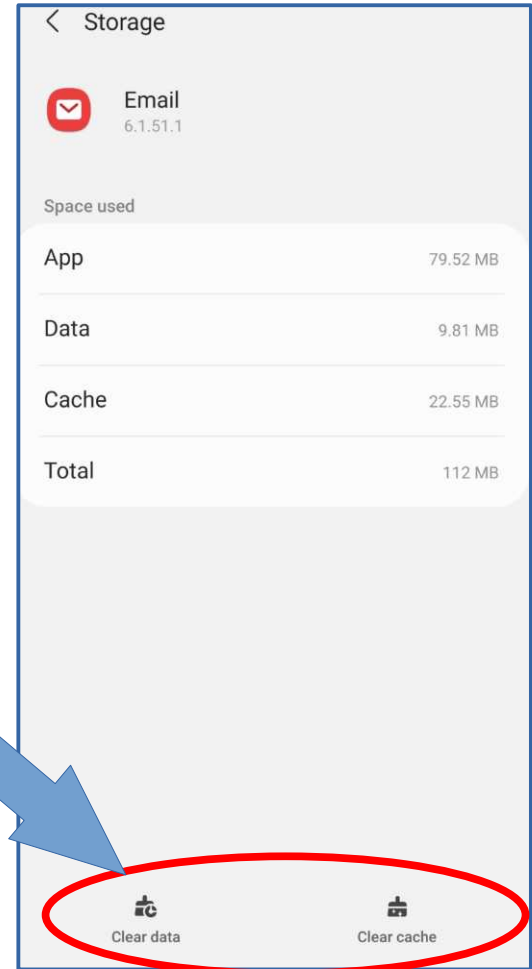
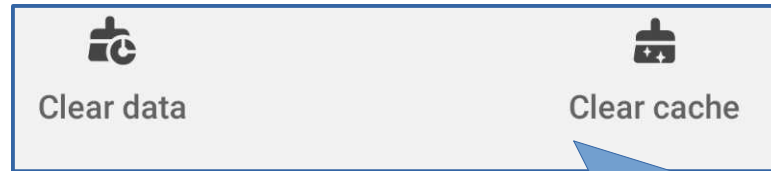


# Example: delete data and cache

- The Storage details screen includes two buttons at the bottom:

- Clear Data
- Clear Cache
- **Tap both buttons**

Done! You can close the Settings app.



# Three Ways to Remove Bloatware

- Remember to **delete data and cache BEFORE** you use any of these methods
- The **default** method  
(easiest, but several apps resist it)
- The **app-assisted** method  
(removes some resistant apps)
- The **Developer** method  
(removes more resistant apps)

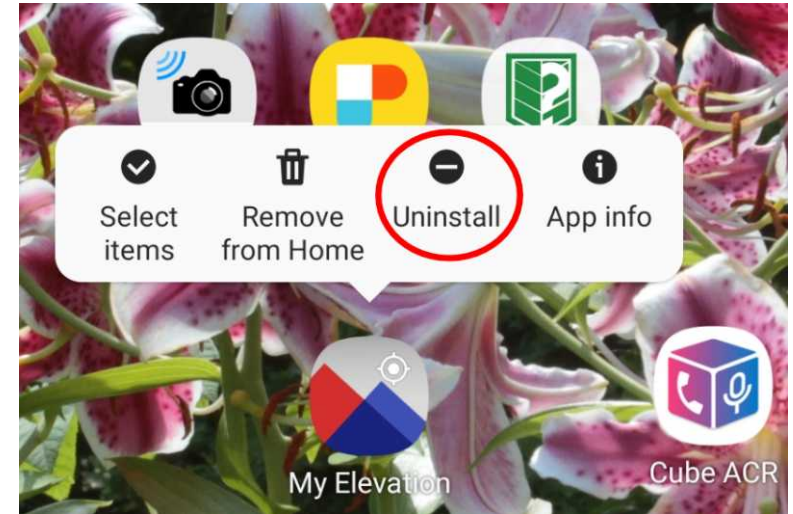
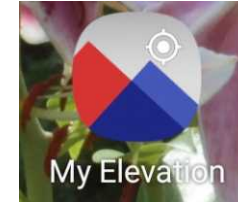
# **Method 1: The Default Method**

# The Default Method

- This method works for apps you install from the Play Store, and several other apps.
- This method does not always work for resistant pre-installed apps from Google, the device maker or the device seller.

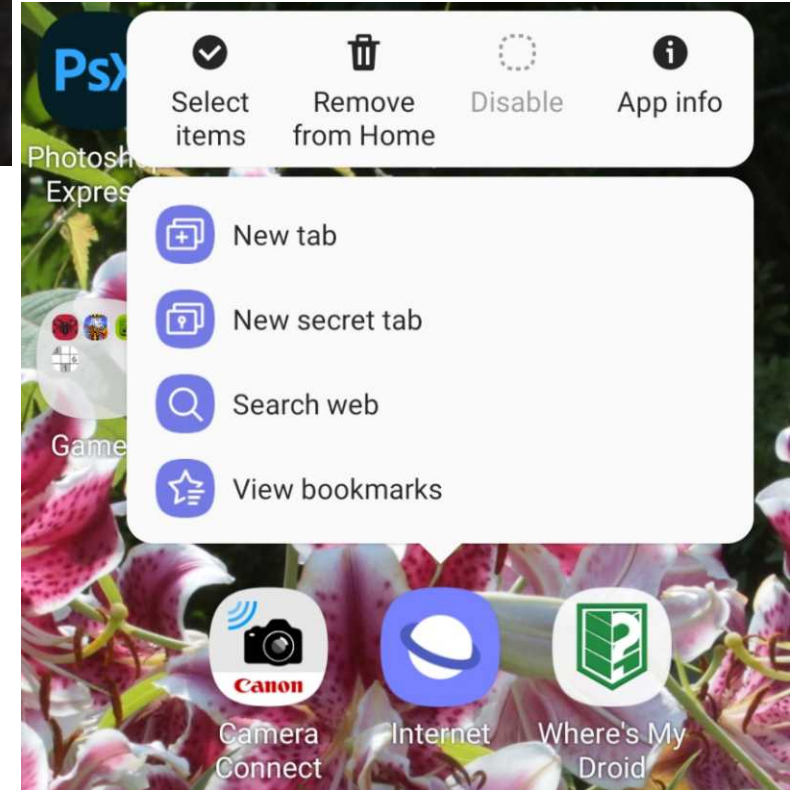
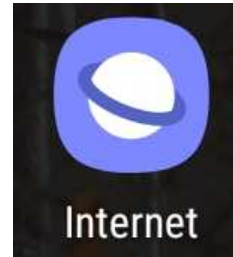
# Using the Default Method

- Using the **My Elevation app** as an example; I no longer use it.
- Tap and hold the unwanted app icon; a menu appears.
- If the menu includes the word **Uninstall**, then tap that choice.
- A confirmation popup may appear; tap **OK**
- The app icon disappears in a few seconds.



# A Resistant App

- Tap and hold the **Samsung Internet** web browser app icon
- A menu appears, but *not including the word **Uninstall***





# **Method 2: The App-Assisted Method**

# The App-Assisted Method

- This method will show you a list of apps installed, including several apps having no icon.
- DO NOT DELETE ANY APP HAVING NO ICON.  
DO NOT DELETE ANY APP WHOSE ICON DOES NOT APPEAR IN YOUR DEVICE DISPLAY OF ALL APPS.  
Most such apps are part of the Android operating system.
- Deleting such apps may prevent your device from working.
- Search online to check if the app name can be deleted without harm to your device.

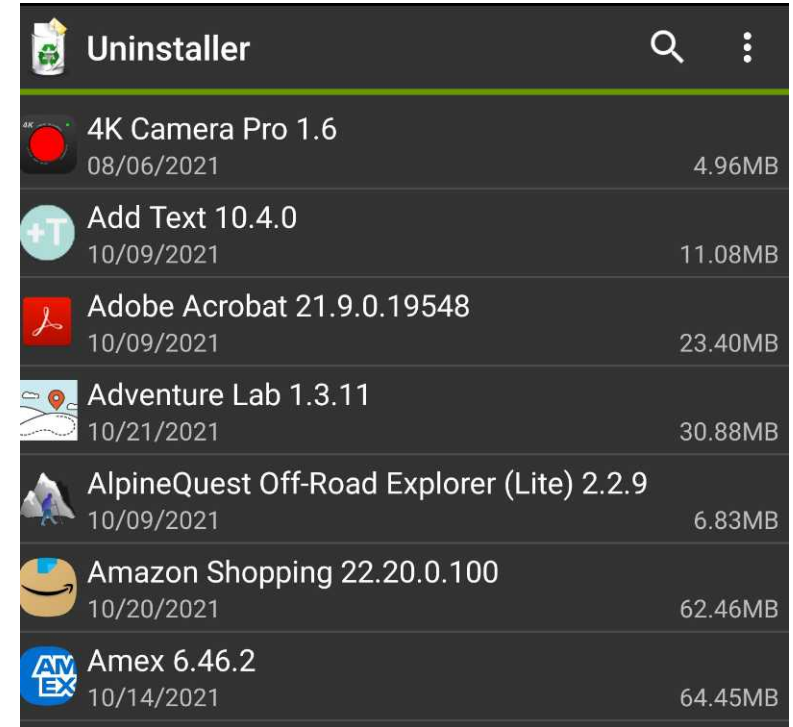
# The App-Assisted Method

- The Google Play Store offers many Android **Uninstaller apps**
- The uninstaller app I use is published by **Rhythm Software** (the free version)
- Download and install an **Uninstaller app**



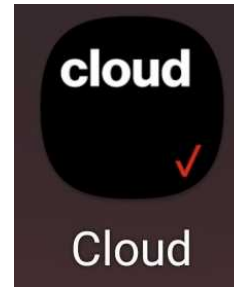
# The App-Assisted Method

- Start the Uninstaller app
- It displays an alphabetic list of app names, and includes a Search button
- Scroll down or search to find the app name you wish to delete
- Tap the app name
- A confirmation popup appears
- In the popup, tap the **OK button**



# Limits of the App-Assisted Method

- You still have to delete cache and data before using Uninstaller to remove an app
- The Uninstaller app does *not* list all apps
- Example of an unlisted app:  
**Verizon Cloud**



# **Method 3: The Developer Method**

# The Developer method - prep

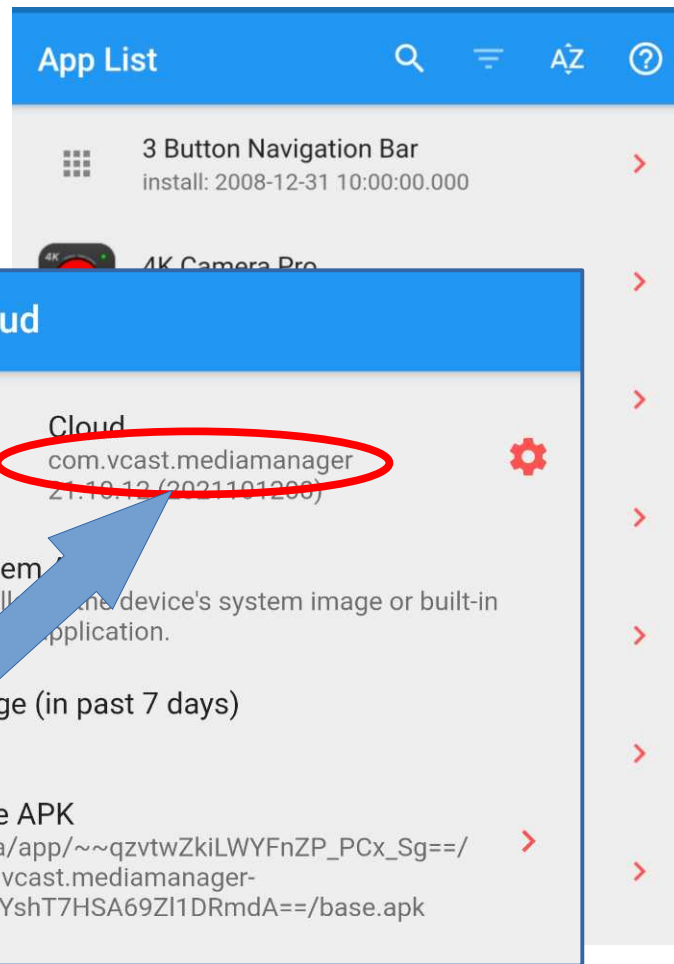
My son found this method and taught it to me.

It involves **three important preparations**:

- **Install an Android app** that identifies the application **package** name for each app.
- **Change device settings**
- **Install APK Developer software** on your computer
- Yes, you still must delete an app's Cache and Data before removing an app.

# The Android app

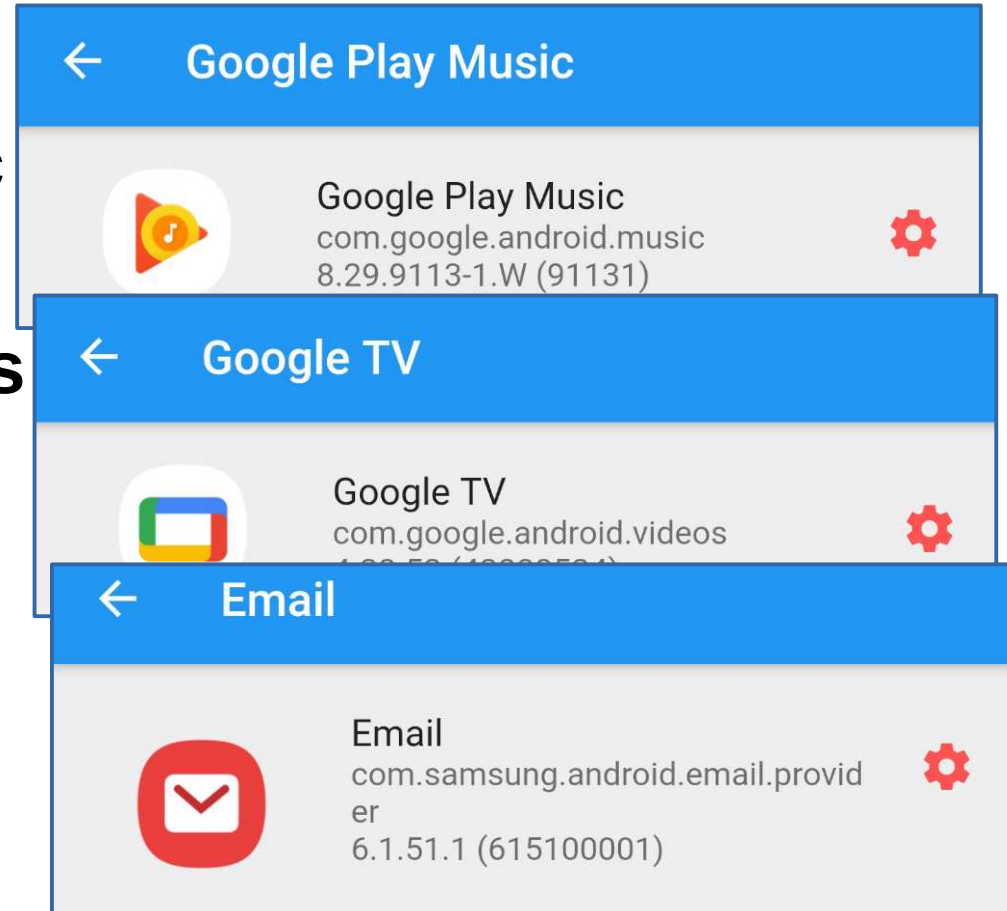
- I use **Application Inspector**, now called **App Inspector**, published by UBQSoft
- It is a free app on the Google Play Store
- Start the app; it shows a list of apps and a Search button
- Find and tap an app name, and it lists the **package** name for that app name.  
**com.vcast.mediamanager**





# The Android App – More Packages

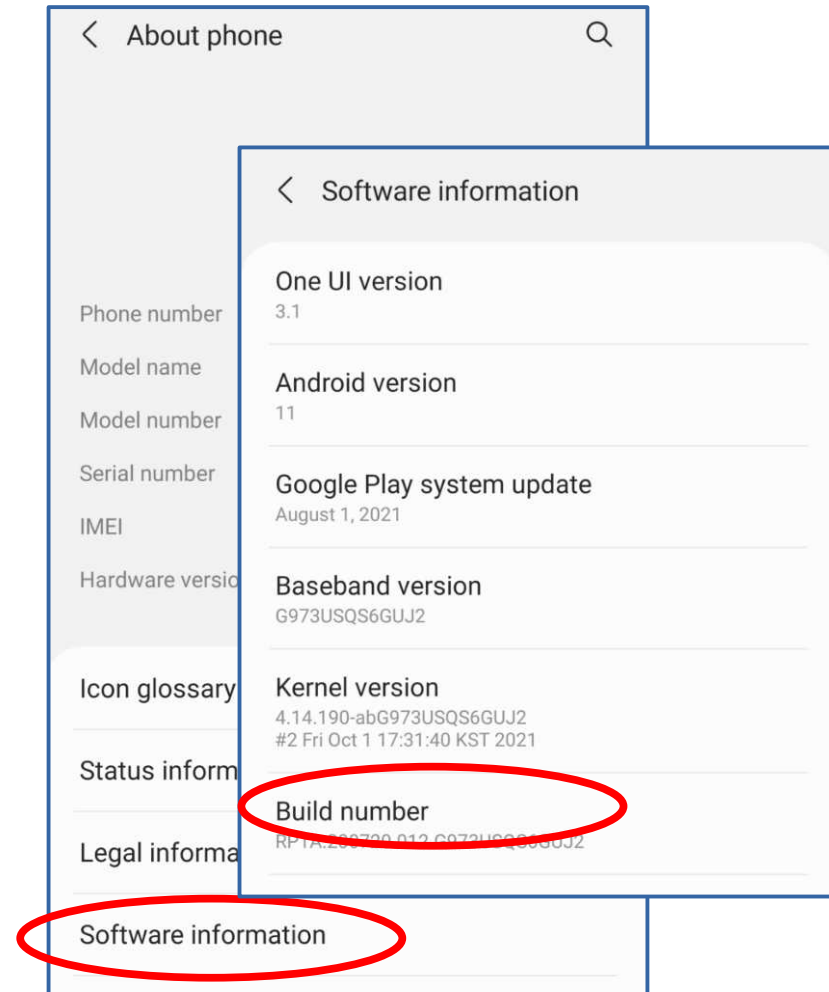
- Google Play Music app:  
**com.google.android.music**
- Google TV app:  
**com.google.android.videos**
- Samsung email app:  
**com.samsung.android.  
email.provider**



# Android Device Settings

Activate **hidden Developer settings:**

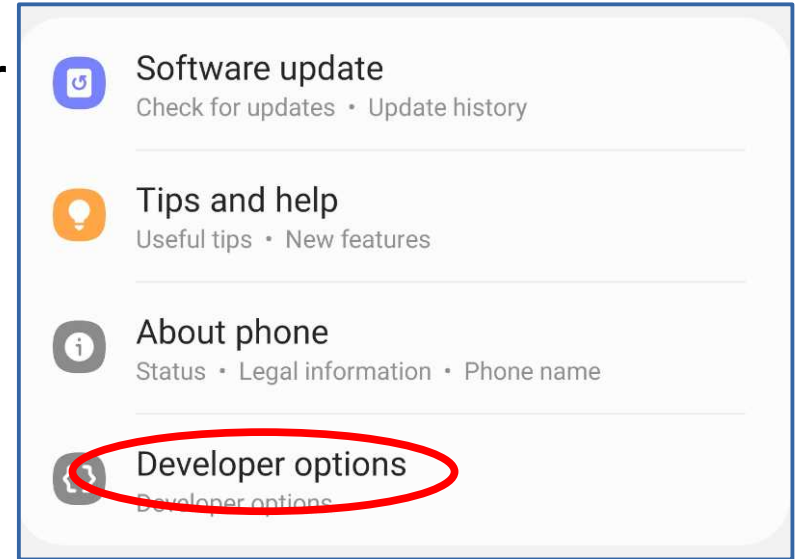
- In the Settings app, find and tap **About Phone** or **About Tablet**
- In the About screen, tap **Software Information**
- In the Software Information screen, find **Build Number**
- Tap **Build Number** seven times



# Android Device Settings

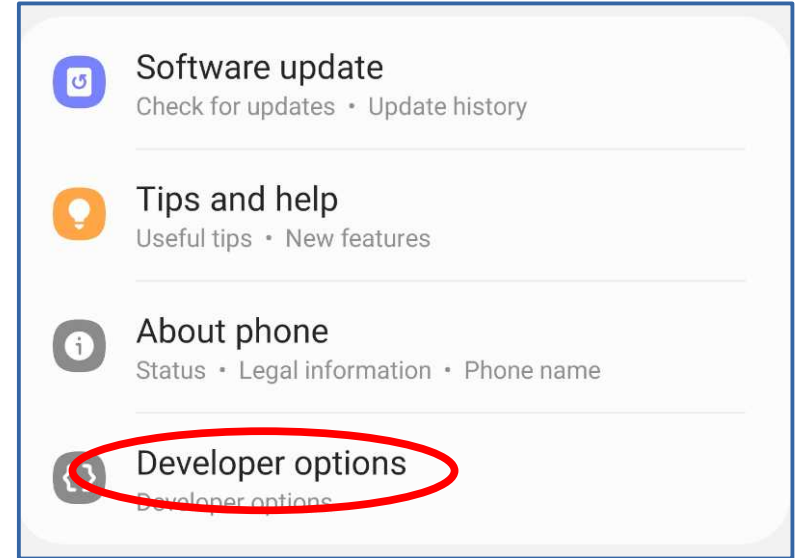
- On my Android device, a counter appeared after the third tap.
- After seven taps, the phone asked me to type the phone's password.
- If all that is done correctly, then a new choice appears at the bottom of the initial Settings Screen:

## Developer options



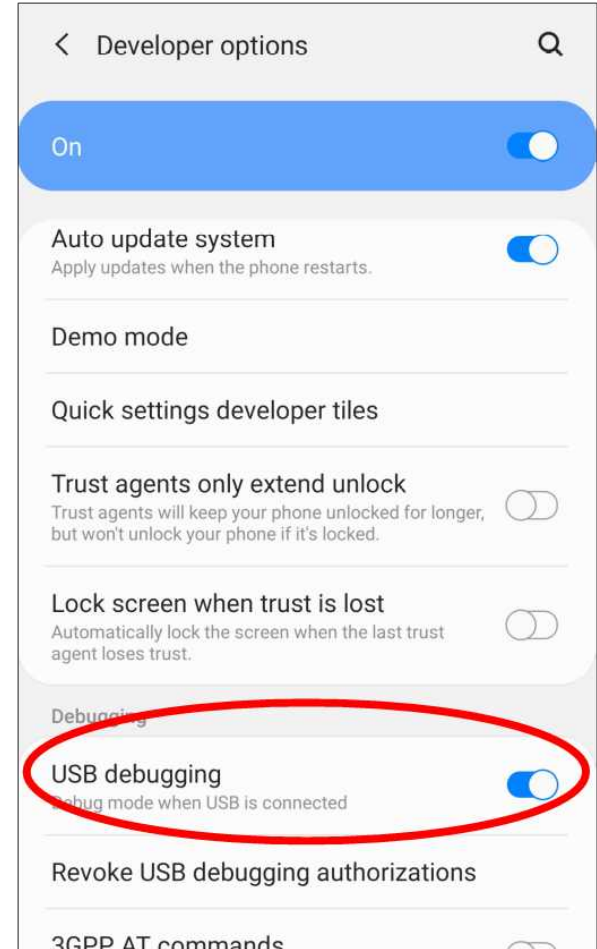
# Android Device Settings

- Tap that new **Developer Options** heading



# Android Device Settings

- The Developer Options screen appears
- Find and turn on the USB Debugging switch
- **Done!** With updating Settings.



# Download APK Developer software

- The free APK Developer software is available for Windows, Mac, and Linux
- You can download it to your personal computer from this web site:
- <https://developer.android.com/studio/releases/platform-tools>
- The web page appears in the next slide

https://developer.android.com/studio/releases/platform-tools

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User guide Preview

## SDK Platform Tools release notes

Android SDK Platform-Tools is a component for the Android SDK. It includes tools that interface with the Android platform, such as `adb`, `fastboot`, and `systrace`. These tools are required for Android app development. They're also needed if you want to unlock your device bootloader and flash it with a new system image.

Although some new features in these tools are available only for recent versions of Android, the tools are backward compatible, so you need only one version of the SDK Platform-Tools.

### Downloads

If you're an Android developer, you should get the latest SDK Platform-Tools from Android Studio's [SDK Manager](#) or from the `sdkmanager` command-line tool. This ensures the tools are saved to the right place with the rest of your Android SDK tools and easily updated.

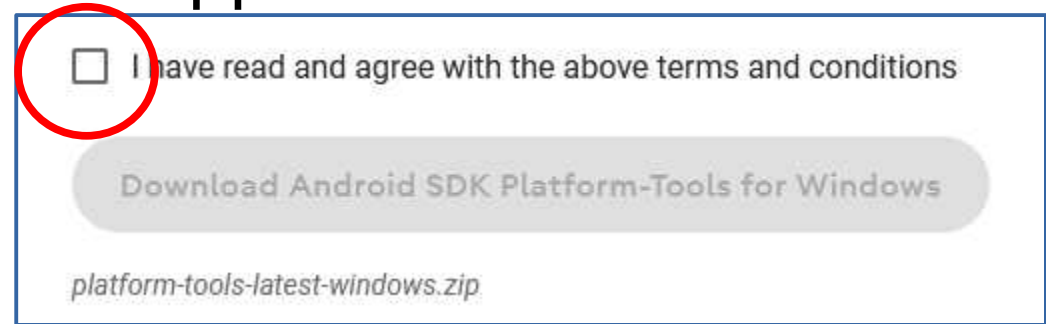
But if you want just these command-line tools, use the following links:

- [Download SDK Platform-Tools for Windows](#)
- [Download SDK Platform-Tools for Mac](#)
- [Download SDK Platform-Tools for Linux](#)

Click the correct link for your computer operating system

# APK Developer Software

- Click on a download link, and a popup page of terms and conditions appears.
- Scroll to the bottom and click the **I have read and Agree** check mark box.
- The **Download button** becomes active; click that button.
- The downloaded file is a ZIP archive file with no password.





# APK Developer Software

- Open the ZIP archive file
- Extract or Copy the files inside the ZIP archive file to a **known folder** on your hard drive or solid state drive (SSD) or USB flashdrive
- To remove apps from your Android device, you have to know the computer's folder containing those files.
- One of those files is an executable file called **ADB**
- In the Windows version, the file name is **ADB.exe**

# **The Developer Method: How to Use It**

# Open a Command Shell

- In Windows, open the **Start menu**.
- In the Start Menu search field, type CMD and tap the Enter key. A window opens.
- Long ago, this was known as a Disk Operating System (DOS) prompt.
- MAC: open a **Terminal** window.
- Linux: open **BASH** or any command shell.

# Command Shell use

- Attach your Android device to your computer using a USB cable. Follow all commands with the Enter key.
- In the command shell, **change directory** to the folder path in which ADB is stored
- The command is **cd folderpath**
- List the files located in **folderpath**, to confirm that you have changed to the correct folder.

**Commands: DOS → dir, MAC and LINUX → ls**  
**(first character is a lowercase L)**

# Windows CMD example

- My developer files are on drive E:
- 1. switch to drive E:  
**E:**
- 2. CD to files folder  
**cd platform-tools**
- 3. Confirm ADB.exe is there

**dir**

```
Command Prompt
Microsoft Windows [Version 10.0.19042.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Users\jkrou>E:

E:\>cd platform-tools

E:\platform-tools>dir
Volume in drive E is Windows
Volume Serial Number is B879-DA0F

Directory of E:\platform-tools

10/14/2020  03:25 PM    <DIR>          .
10/14/2020  03:25 PM    <DIR>          ..
10/14/2020  03:25 PM             5,193,216 adb.exe
10/14/2020  03:25 PM             97,792 AdbWinApi.dll
10/14/2020  03:25 PM             62,976 AdbWinUsbApi.dll
10/14/2020  03:25 PM    <DIR>          api
```

# Command Shell use: ADB

- Type **adb devices**
- If the command prints UNAUTHORIZED, then look at your Android device; a popup appears, asking for your authorization to do USB Debugging. You provide that authorization.
- If your Android device is connected and authorized, then the command prints your device serial number and the word **device**.
- ADB is an acronym for **Android Debug Bridge**

# ADB removal command example

Removing the Samsung email app

- Command:  
**adb shell pm  
uninstall -k --user 0  
com.samsung.android.  
email.provider**



```
Command Prompt
Microsoft Windows [Version 10.0.19042.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Users\jkrou>E:

E:\>cd platform-tools

E:\platform-tools>adb devices
List of devices attached
R38MB07VBYD    device

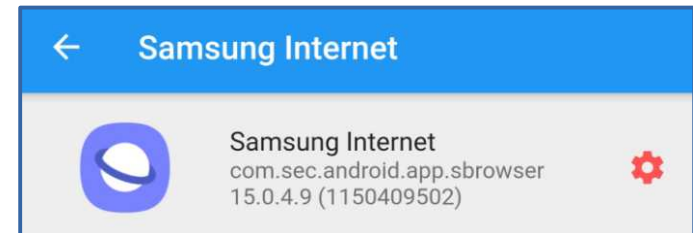
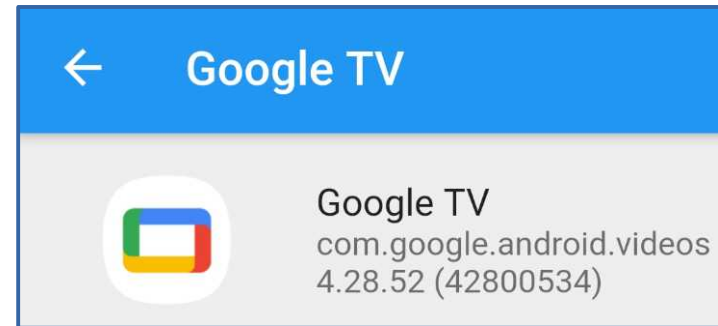
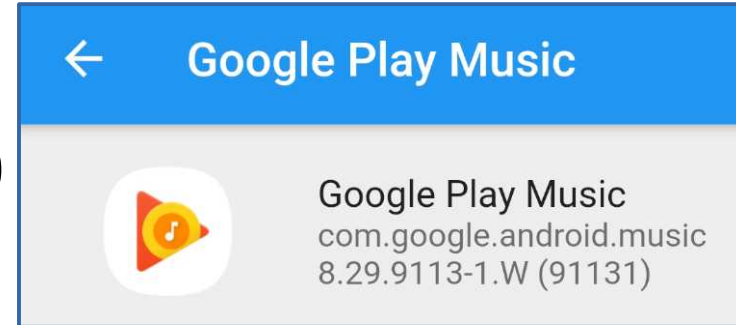
E:\platform-tools>adb shell pm uninstall -k --user 0 com
.samsung.android.email.provider
Success

E:\platform-tools>_
```

- If the command is successful, then the word **Success** is printed; if not, then **Failure** is printed

# ADB removal command examples

- Google Play Music app:  
**adb shell pm uninstall -k --user 0  
com.google.android.music**
- Google TV app:  
**adb shell pm uninstall -k --user 0  
com.google.android.videos**
- Samsung Internet browser app:  
**adb shell pm uninstall -k --user 0  
com.sec.android.app.sbrowser**





# When you try adb later

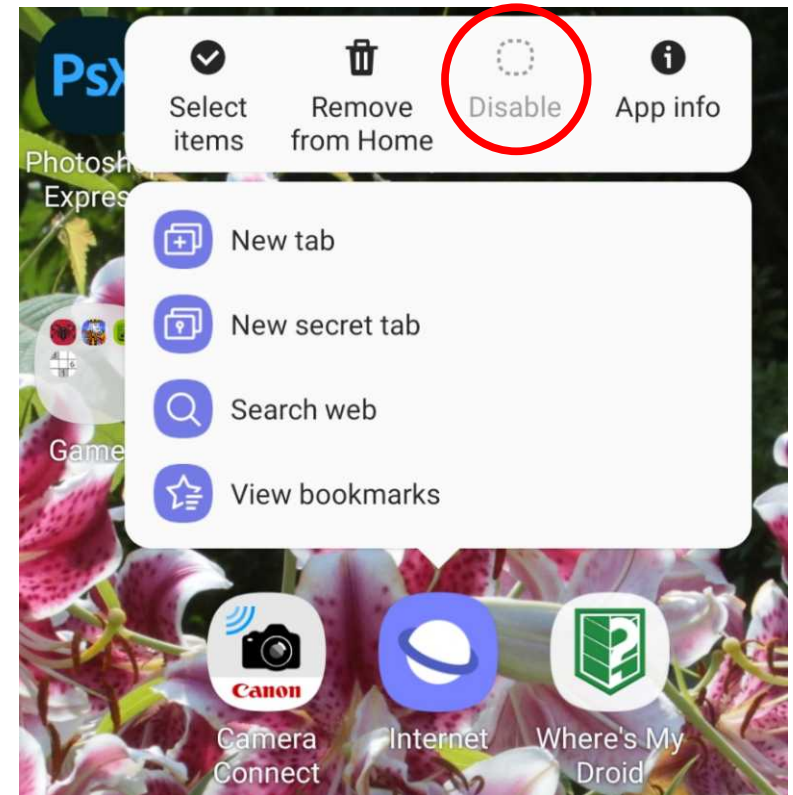
- I found that my Android phone was again unauthorized, even though my phone stayed connected to the computer via USB.
- On the device, I turned USB debugging off and on again.
- After that, I repeated the adb devices command
- I found my Android phone was authorized.

# Consider these apps for removal

- **Google TV**; I use YouTube instead
- **Google Chrome**; I use Firefox instead
- **Samsung-specific: Email, Samsung Internet**  
I found these on my Samsung Galaxy Tab 5e tablet
- **Microsoft Office apps**, if you do not use them
- **Skype**, if you do not use it

# What if nothing works?

- You may be able to Disable the unwanted app, using the Default method, if the Disable choice is active.
- Tap the Disable choice.
- This will at least prevent app mischief in the background (without display an app screen)
- Disable was not available for Samsung Internet web browser



# About iOS devices

- I tried deleting pre-installed apps on an iPhone X running iOS 15.
- Much to my surprise, none of the apps were resistant. Every one had an active Delete choice in the popup menu.
- There must be an iOS developer equivalent of the Android developer utilities. So far, I do not think this is needed for users deleting iOS apps.

**THE END**