



Backup, Encrypt and Restore Android

Backup your Android

Android includes a built-in way to back up and restore the contents of your phone or tablet. All you need is a computer and a device running Android 4.0 (Ice Cream Sandwich) or newer.

Installing the Android SDK

We'll need to use the adb (Android Debug Bridge) command to perform a backup or restore. This command is included with Google's Android SDK, which you can download for free.

First, you'll need to install Oracle's Java Development Kit, which the Android SDK requires. [Download and install the 32-bit version](#) – the Android SDK wants the 32-bit version, even if you're using a 64-bit version of Windows.

Java SE Development Kit 7u5

You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Thank you for accepting the Oracle Binary Code License Agreement for Java SE; you may now download this software.

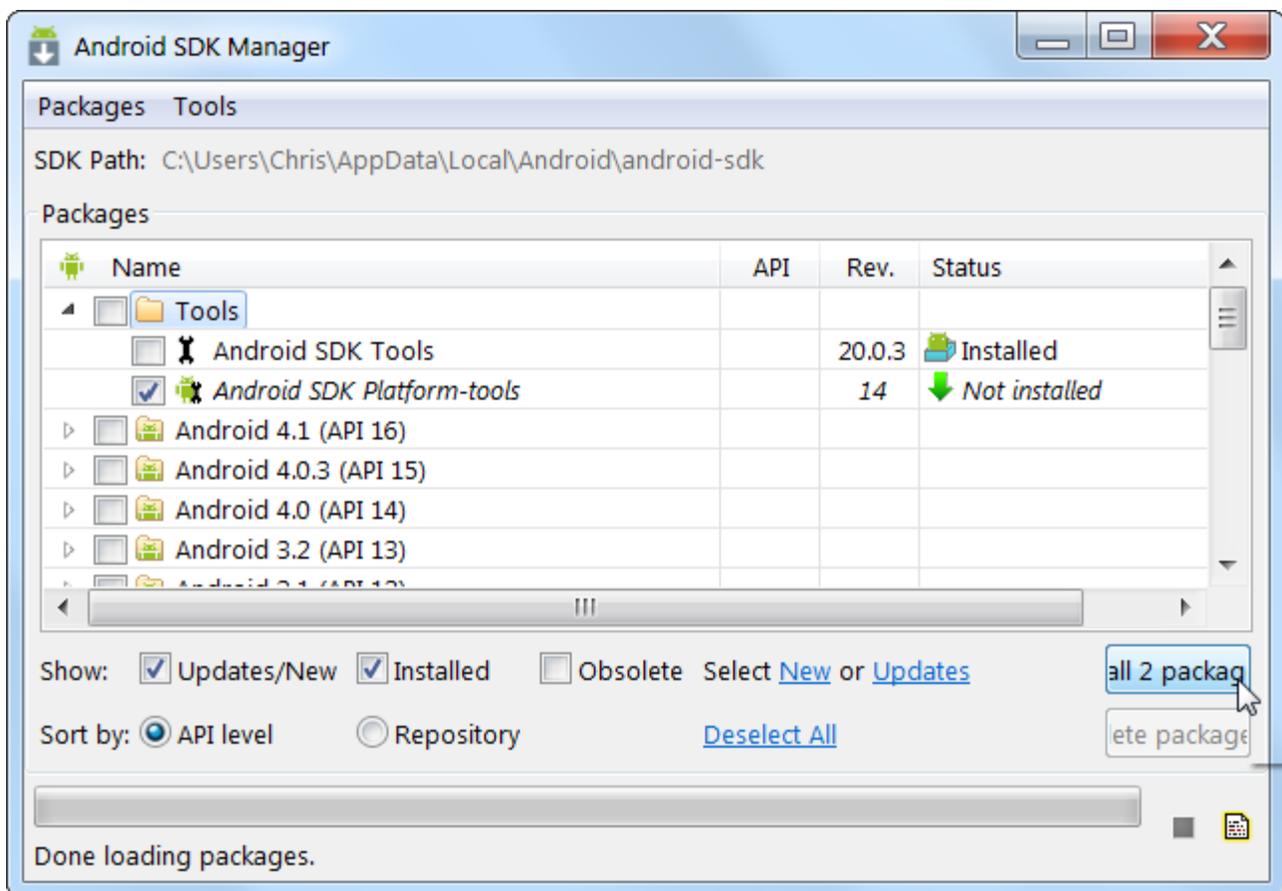
Product / File Description	File Size	Download
Linux x86	64.1 MB	jdk-7u5-linux-i586.rpm
Linux x86	79.1 MB	jdk-7u5-linux-i586.tar.gz
Linux x64	64.93 MB	jdk-7u5-linux-x64.rpm
Linux x64	77.67 MB	jdk-7u5-linux-x64.tar.gz
Mac OS X x64	97.26 MB	jdk-7u5-macosx-x64.dmg
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Solaris x86	82.01 MB	jdk-7u5-solaris-i586.tar.gz
Solaris SPARC	140.27 MB	jdk-7u5-solaris-sparc.tar.Z
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Solaris SPARC 64-bit	16.45 MB	jdk-7u5-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	12.55 MB	jdk-7u5-solaris-sparcv9.tar.gz
Solaris x64	14.39 MB	jdk-7u5-solaris-x64.tar.Z
Solaris x64	9.54 MB	jdk-7u5-solaris-x64.tar.gz
Windows x86	87.95 MB	jdk-7u5-windows-i586.exe
Windows x64	92.36 MB	jdk-7u5-windows-x64.exe



Next, [download and install the Android SDK from Google](#). If the SDK informs you that it can't find Java, you may have installed the 64-bit version of the JDK – ensure you install the 32-bit version.

After the SDK is installed, open the Android SDK Manager from your Start menu (search for “SDK Manager”).

Enable the *Android SDK Platform-tools* checkbox and click the Install button to install the platform tools package, which contains adb. If you see an error, you may need to run the SDK Manager as Administrator. (Right-click the SDK Manager shortcut in your Start menu and select Run as Administrator.)



Device Setup

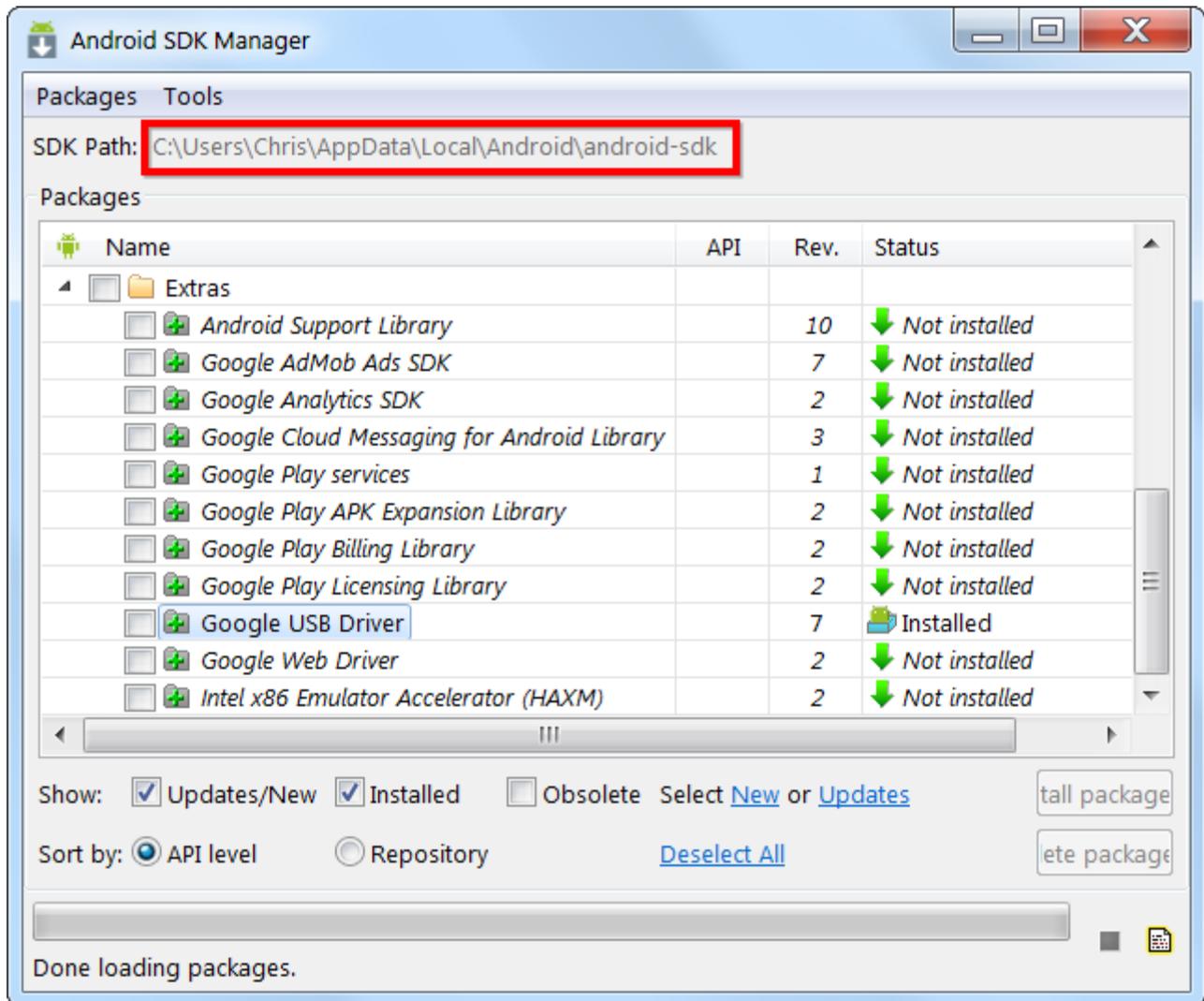
You'll need to enable USB Debugging on your Android device – you can do this from the Developer Options screen in Android's settings.



You can now connect your Android smartphone or tablet to your computer using a USB cable. You'll need drivers for your device installed on your computer to communicate with it – you can often find these drivers on your device manufacturer's website. Installing the Google USB Driver from the Android SDK Manager window (look for it under Extras) may also work.

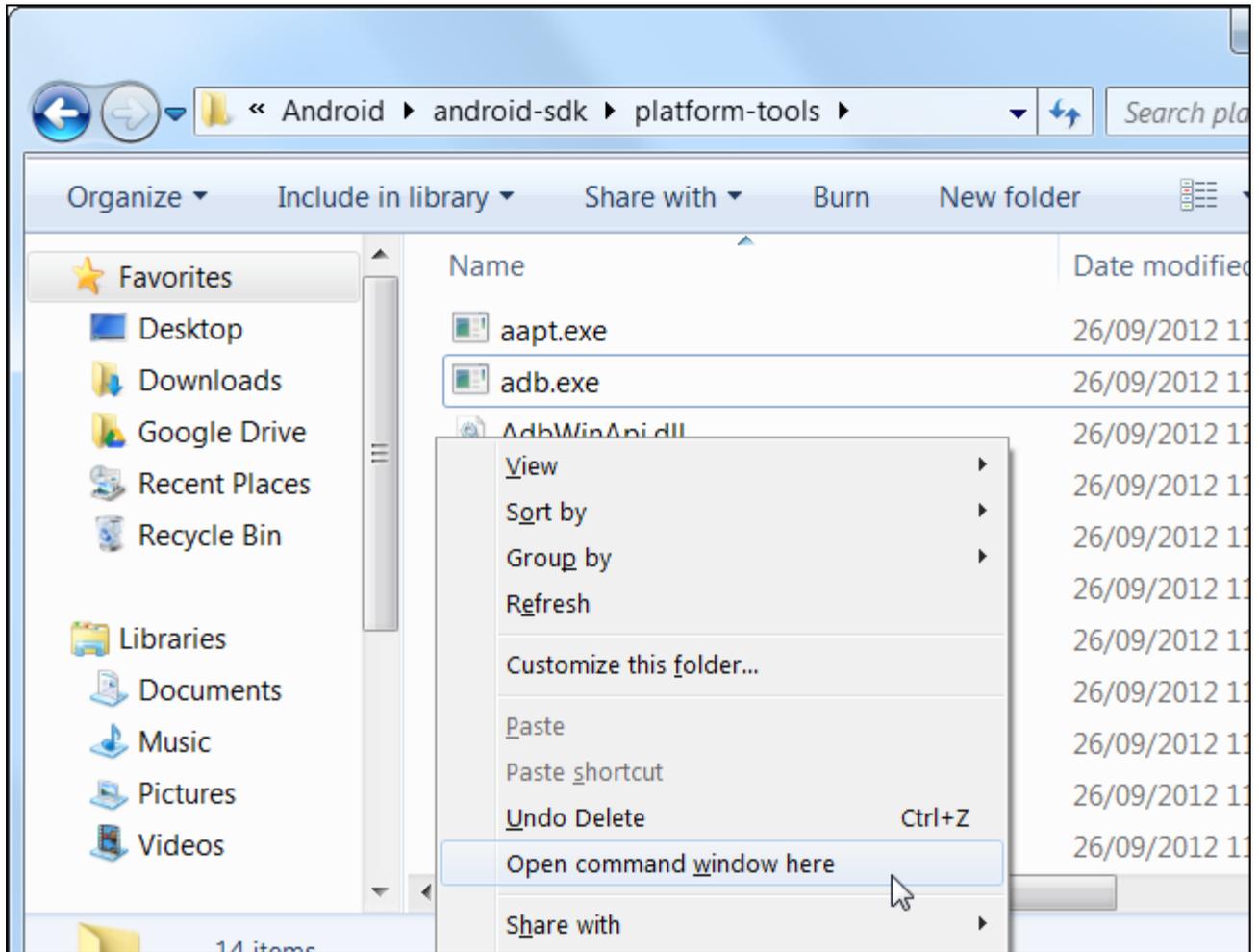
Testing ADB

Note the path where you installed the Android SDK. It's displayed at the top of the Android SDK Manager window, next to SDK Path.



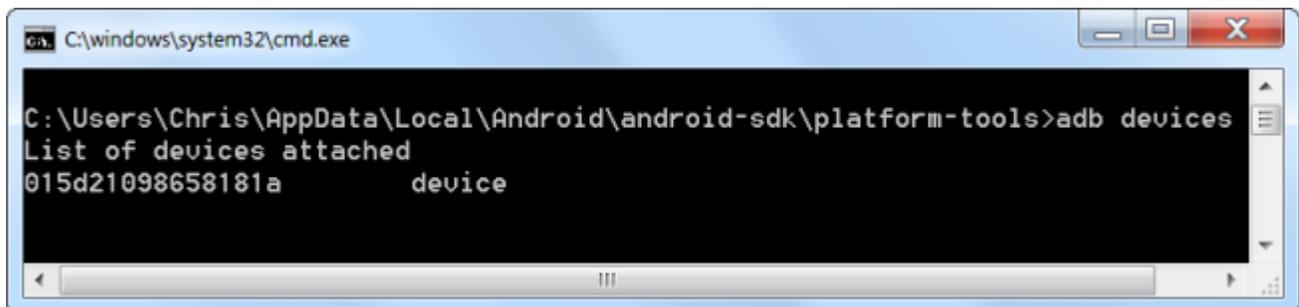
You'll find the adb.exe file in the platform-tools folder. With the default installation settings, the location is: C:\Users\NAME\AppData\Local\Android\Android-sdk\platform-tools

Navigate to this folder, hold Shift and right-click inside it, and select *Open command window here*.



To test whether adb can communicate with your device, run the following command:

```
adb devices
```



You should see a device in the list – if you see no devices, adb can't communicate with your device because its driver isn't installed properly.

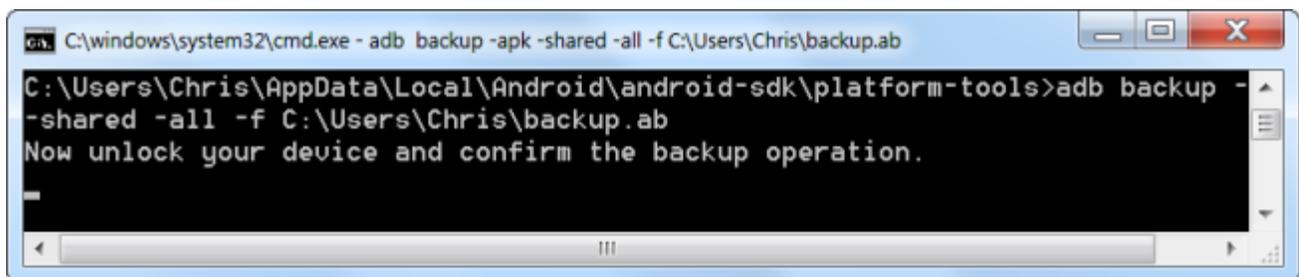


Backing Up Your Device

You can now use the adb backup command to back up your device. To back up everything, run the following command:

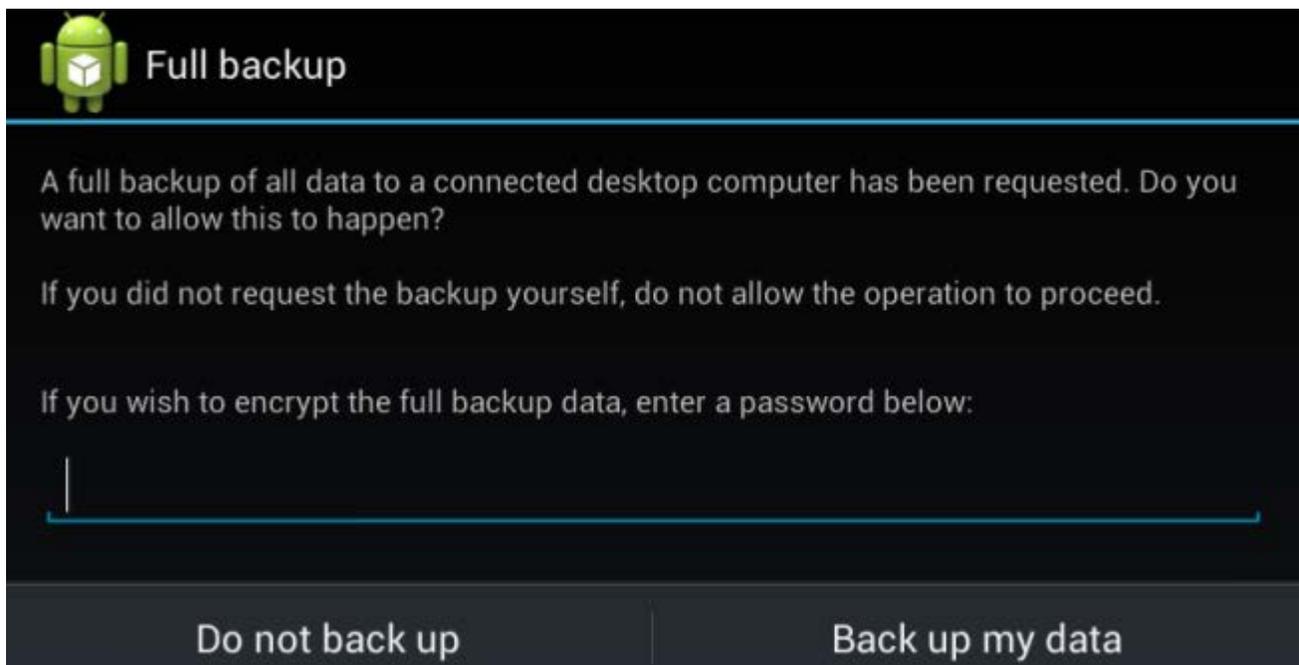
```
adb backup -apk -shared -all -f C:\Users\NAME\backup.ab
```

This backs up all your installed apps (APK files) and shared storage (SD card) data to the C:\Users\NAME\backup.ab file on your computer. Replace NAME in the command with your Windows username or provide another location for the backup file.



```
C:\windows\system32\cmd.exe - adb backup -apk -shared -all -f C:\Users\Chris\backup.ab  
C:\Users\Chris\AppData\Local\Android\android-sdk\platform-tools>adb backup -  
-shared -all -f C:\Users\Chris\backup.ab  
Now unlock your device and confirm the backup operation.
```

After running this command, you'll have to agree to the backup on your device. You should enter a password here to encrypt the backup.



Depending on how much data there is to back up, the process may take some time.

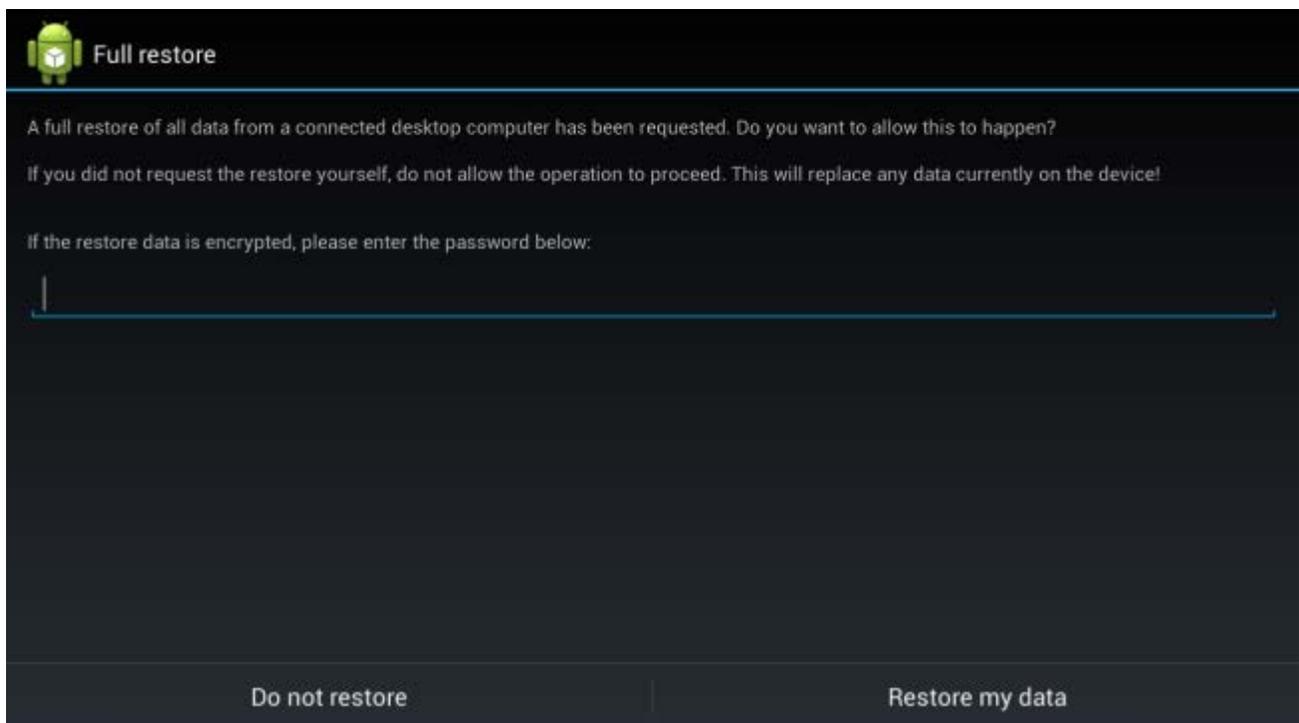


Restore your Android

To restore your backup in the future, run the following command:

```
adb restore C:\Users\NAME\backup.ab
```

You'll be asked if you want to do a full restore – this will replace the data and apps on the device with the ones from your backup. If you encrypted the backup with a password, you'll have to enter the password to restore it.



This is a useful feature, but the complexity of using the Android SDK to create and restore backups is a bit much for the average user. Hopefully this feature will be given a convenient button in Android's interface in the future.