

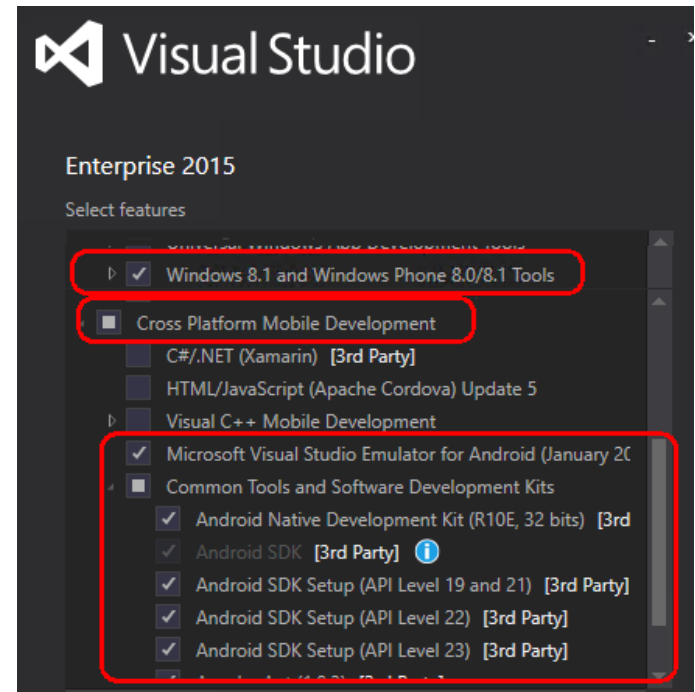
# Installation of Visual Studio Android emulator and Android Studio

# Install mobile tools with Visual Studio 2015

- Step 1a

If you want to work with Visual Studio 2015 and mobile component, you can install Android elements and windows phone with Visual Studio 2015.

- On USB or get by DreamSpark

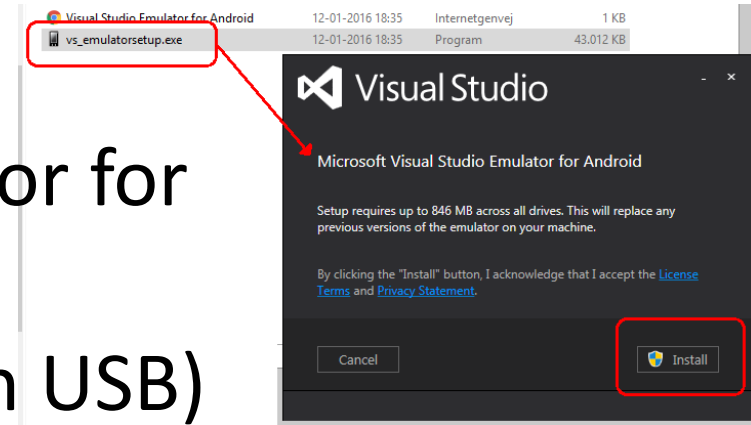


# Install Visual Studio Emulator for Android

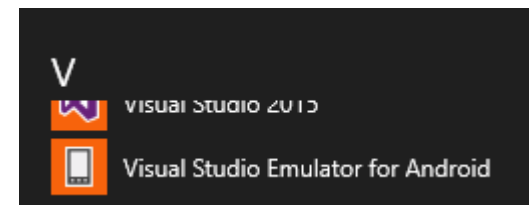
- Step 1b  
Install Visual Studio Emulator for Android  
(vs\_emulatorsetup.exe – on USB)

You can also download from

<https://www.visualstudio.com/en-us/features/msft-android-emulator-vs.aspx>



**This emulator is better than those from Google**



# Install Java SE Development Kit

- Step 2

Start with install of Java SE Development Kit  
(jdk-8u66-windows-x64.exe – on USB)

You can also download from

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

# Install Android SDK tools

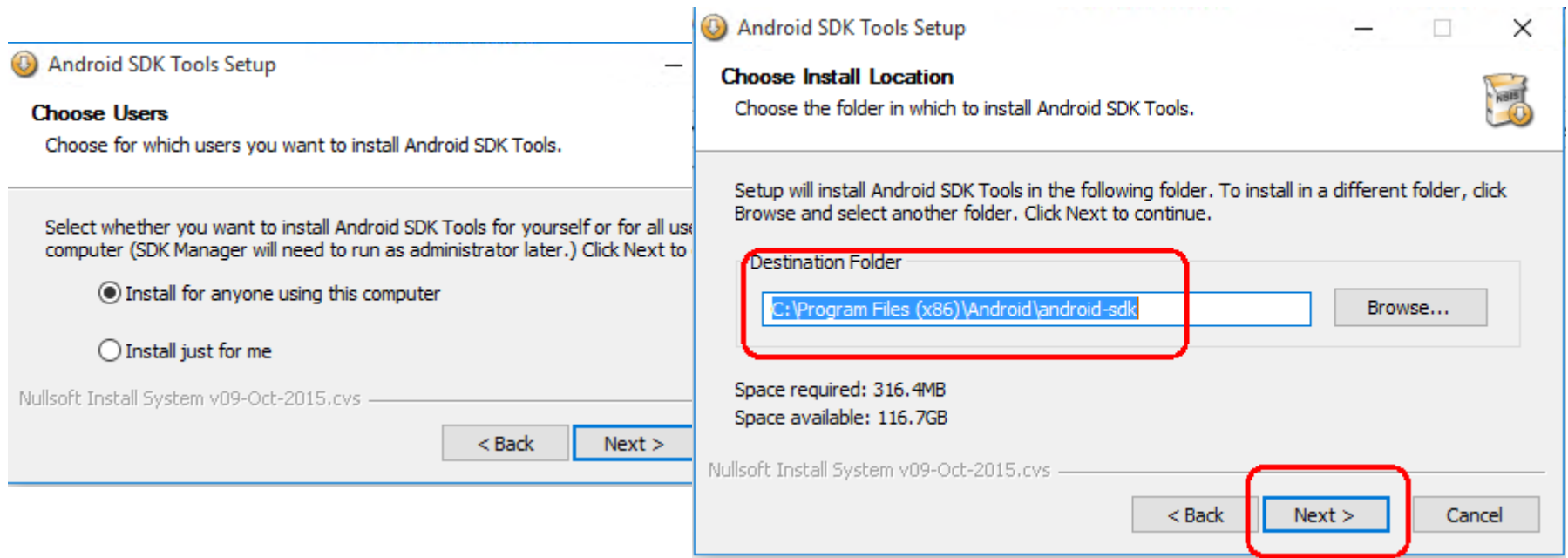
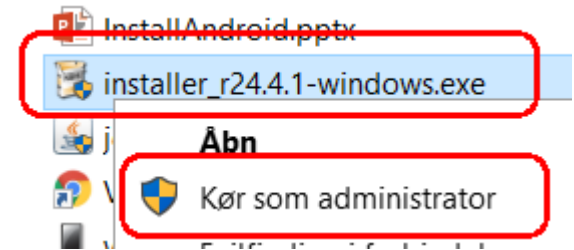
(if not installed with Visual Studio components)

- Step 3

Install Android SDK tools

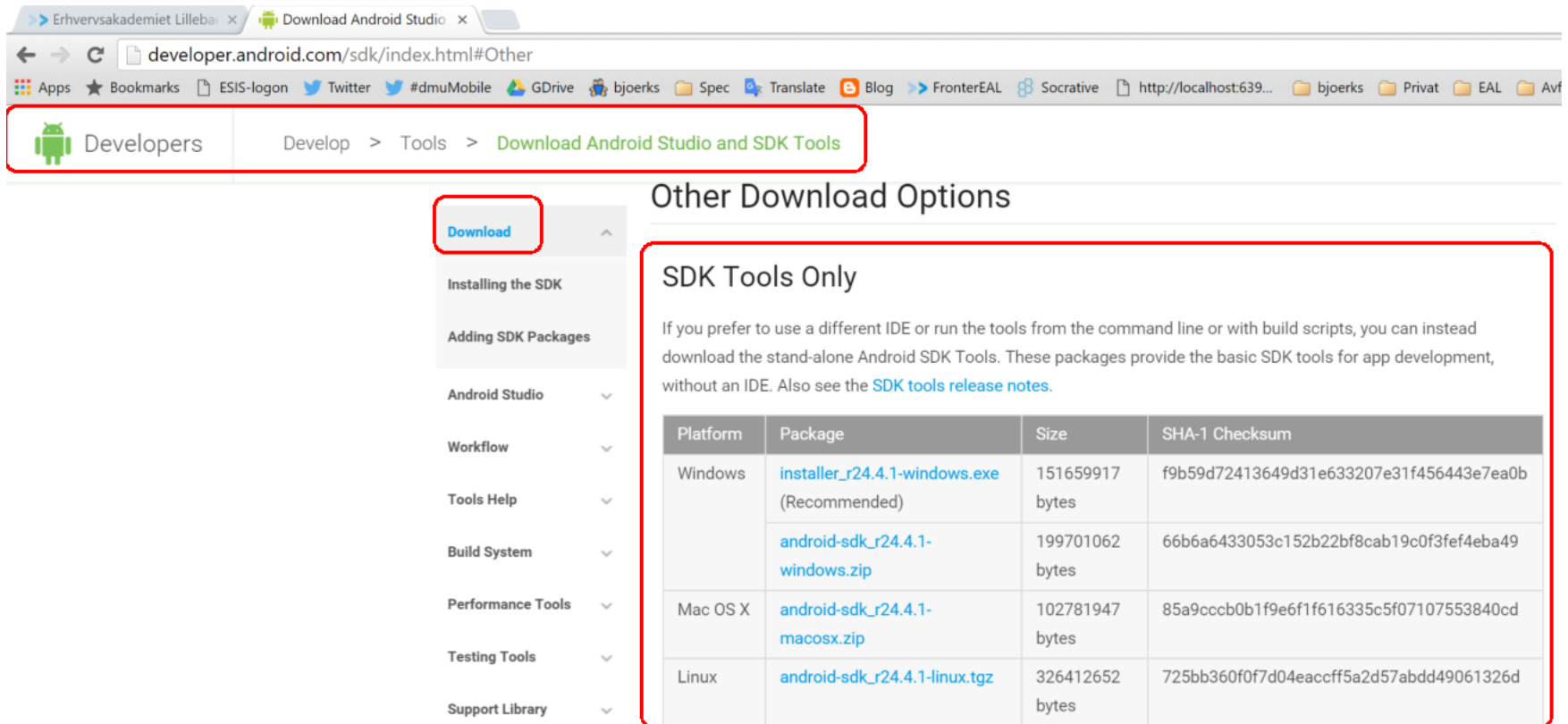
(r24.4.1-windows.exe – on USB)

Install in folder: **C:\Program Files (x86)\Android\android-sdk**



# You can download Android SDK tools (if not using the USB)

- You can download from  
<http://developer.android.com/sdk/index.html#Other>



The screenshot shows the 'Download Android Studio and SDK Tools' page on the Android Developer website. The 'Download' link in the left sidebar is highlighted with a red box. The 'Other Download Options' section is also highlighted with a red box, containing the 'SDK Tools Only' subsection and a table of download links for Windows, Mac OS X, and Linux.

Other Download Options

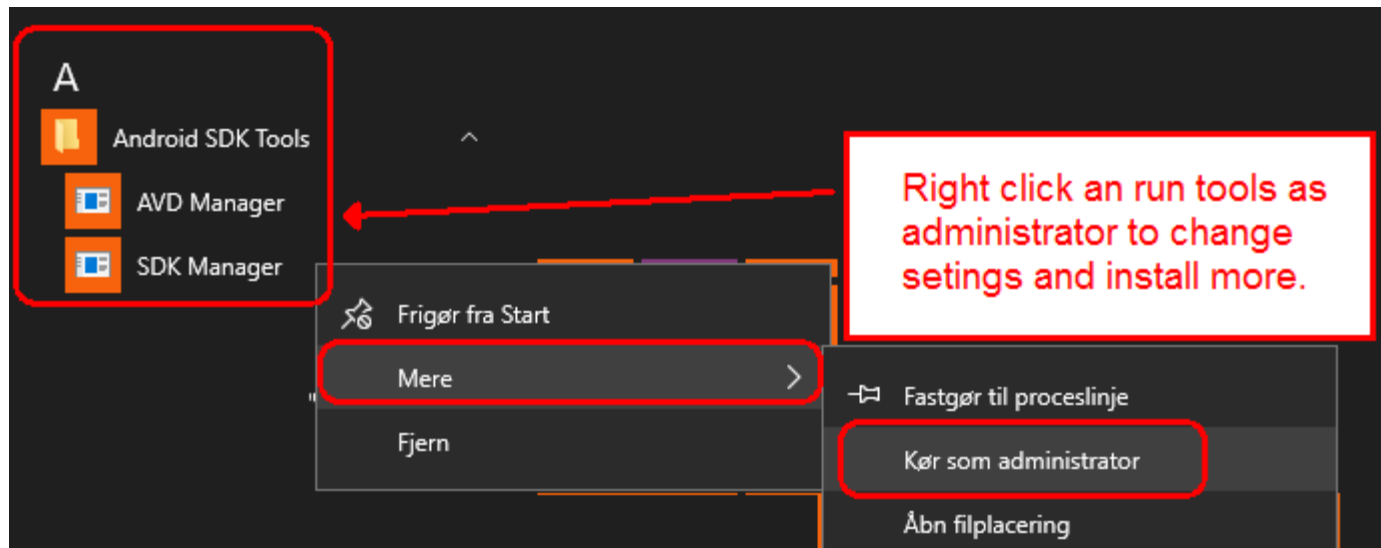
**SDK Tools Only**

If you prefer to use a different IDE or run the tools from the command line or with build scripts, you can instead download the stand-alone Android SDK Tools. These packages provide the basic SDK tools for app development, without an IDE. Also see the [SDK tools release notes](#).

Platform	Package	Size	SHA-1 Checksum
Windows	<a href="#">installer_r24.4.1-windows.exe</a> (Recommended)	151659917 bytes	f9b59d72413649d31e633207e31f456443e7ea0b
	<a href="#">android-sdk_r24.4.1-windows.zip</a>	199701062 bytes	66b6a6433053c152b22bf8cab19c0f3fef4eba49
Mac OS X	<a href="#">android-sdk_r24.4.1-macosx.zip</a>	102781947 bytes	85a9cccb0b1f9e6f1f616335c5f07107553840cd
Linux	<a href="#">android-sdk_r24.4.1-linux.tgz</a>	326412652 bytes	725bb360f0f7d04eacff5a2d57abdd49061326d

# Later run tools as administrator

- You might later need to run Android Tools as administrator to install extra or change settings



# Install Android Studio IDE

- Step 3

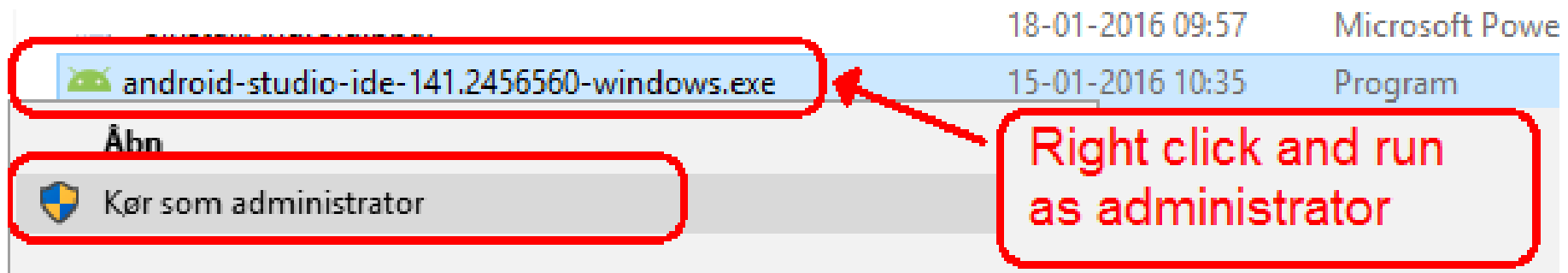
Install Android Studio IDE **as administrator**

(android-studio-ide-141.2456560-windows.exe – on USB)

While Android SDK is installed in

C:\Program Files (x86)\Android\android-sdk

it demand right as administrator to install more in this folder.



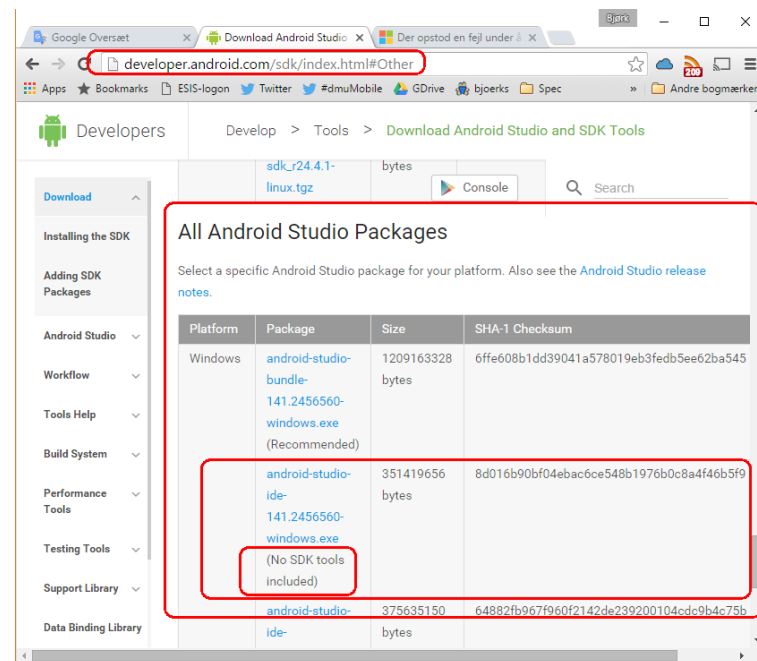


# Download Android Studio from (if not using the USB)

- You can also download from  
<http://developer.android.com/sdk/index.html#top>

Select IDE only.

If you don't want to use the Visual Studio Android Emulator, you can use the bundle installation with the SDK, but else you might not want this and 2 version of the SDK and tools



The screenshot shows the 'All Android Studio Packages' section on the developer.android.com website. It features a table with columns for Platform, Package, Size, and SHA-1 Checksum. The 'android-studio-ide-141.2456560-windows.exe (No SDK tools included)' package is highlighted with a red box.

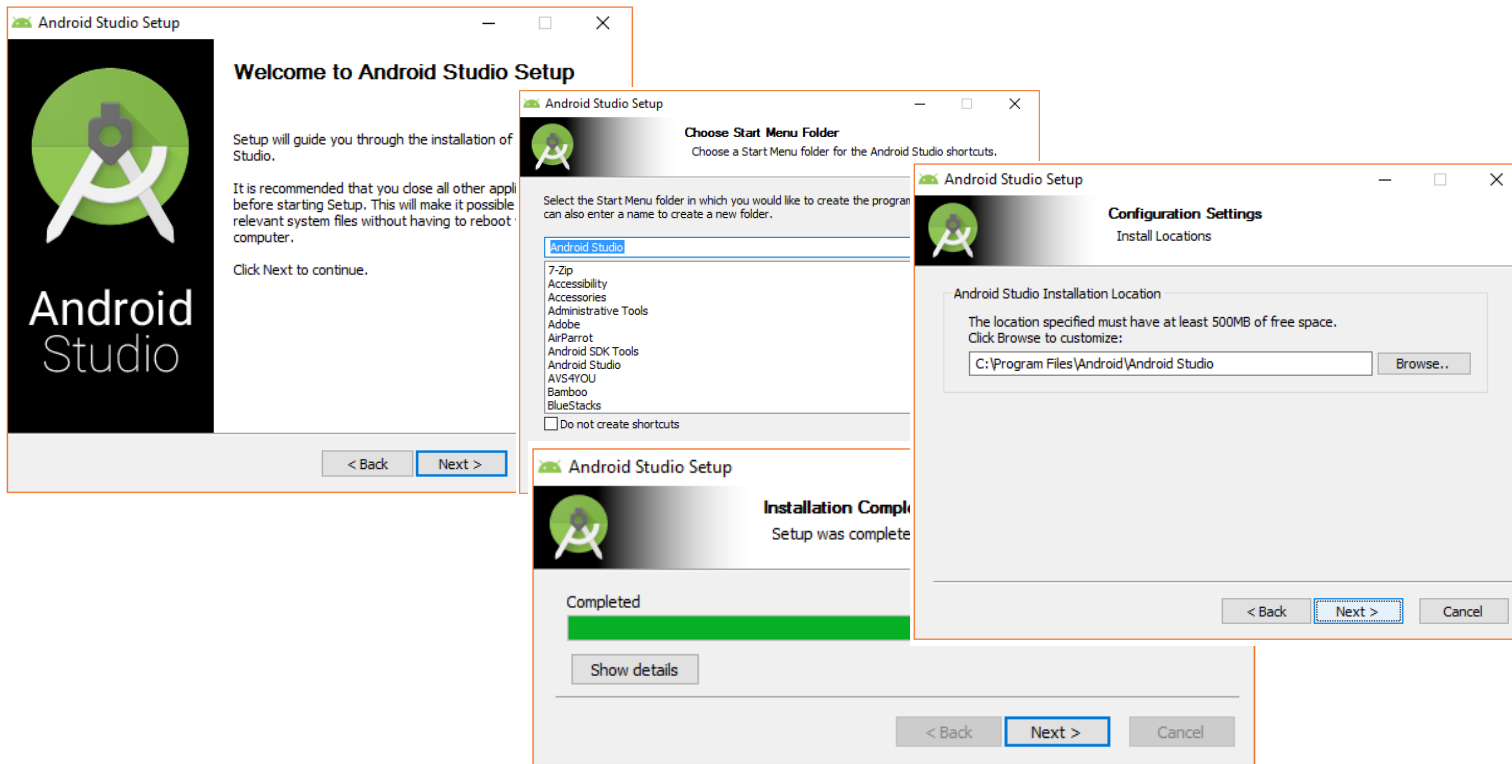
Platform	Package	Size	SHA-1 Checksum
Windows	android-studio-bundle-141.2456560-windows.exe (Recommended)	1209163328 bytes	6ffe08b1dd39041a578019eb3fedb5ee62ba545
	android-studio-ide-141.2456560-windows.exe (No SDK tools included)	351419656 bytes	8d016b90bf04ebac6ce548b1976b0c8a4f46b5f9
	android-studio-ide-	375635150 bytes	64882fb967f960f2142de239200104cdc9b4c75b

DOWNLOAD ANDROID-STUDIO-IDE-141.2456560-WINDOWS-EXE

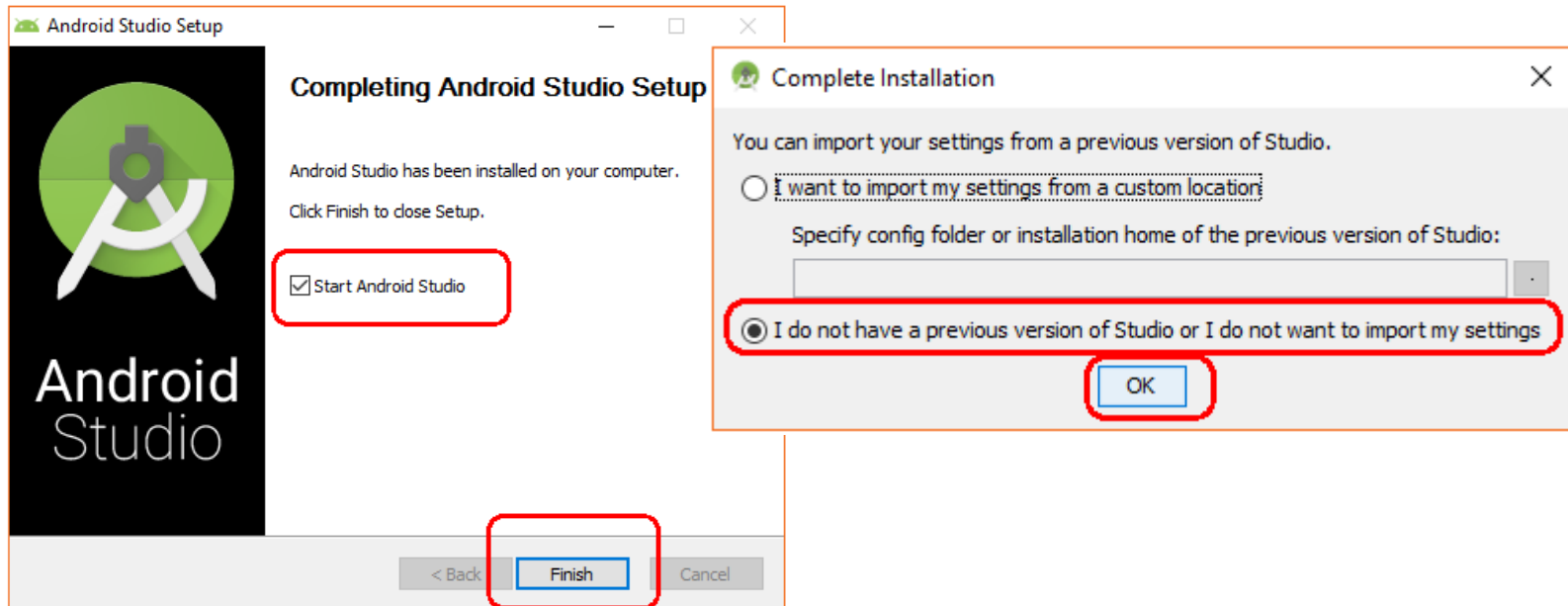
I have read and agree with the above terms and conditions

# Install Android Studio IDE

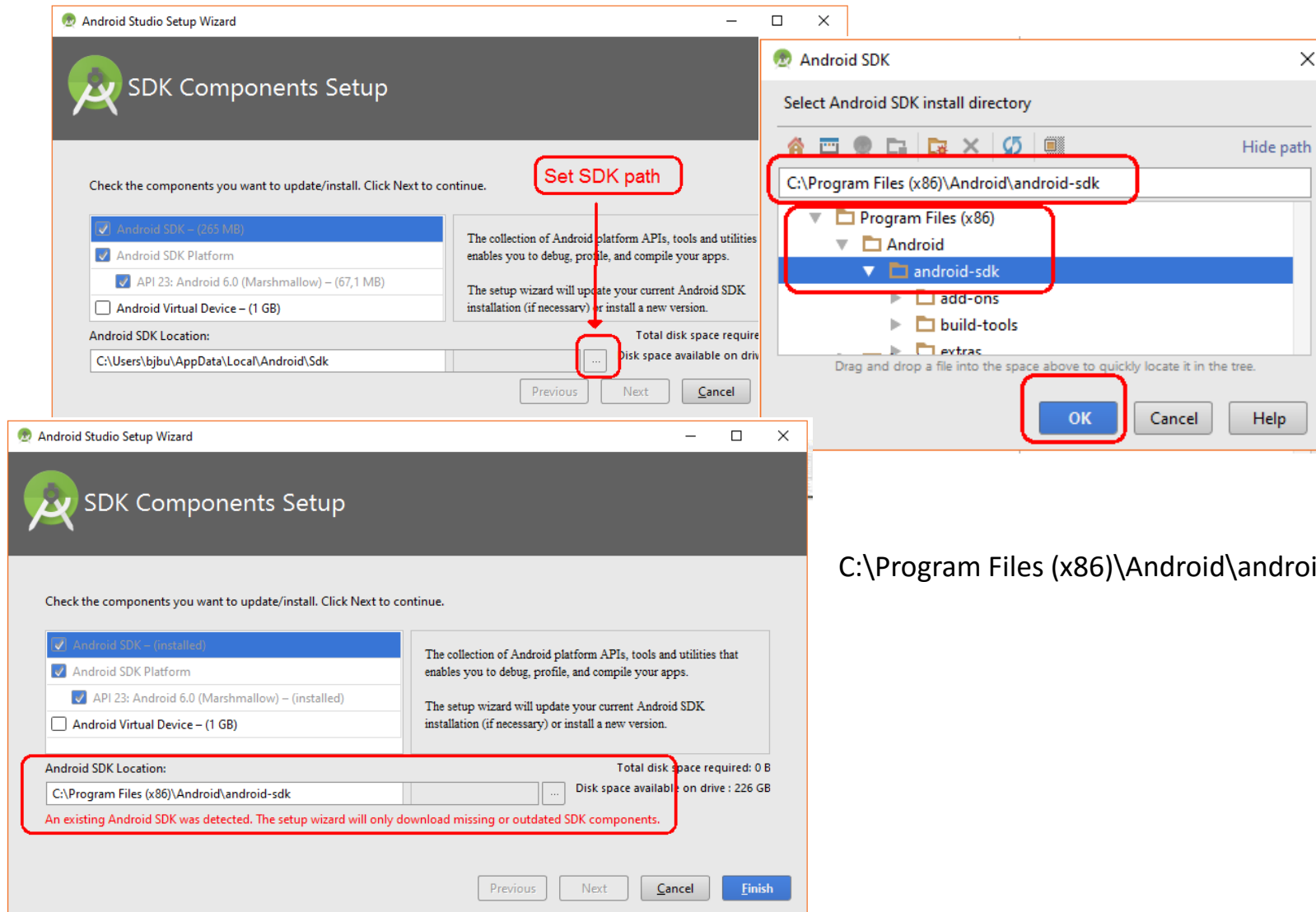
Remember to run as administrator when using SDK with Visual Studio Android Emulator



# Start – still running as administrator



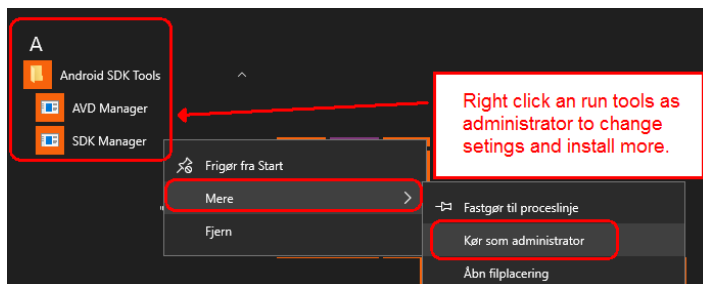
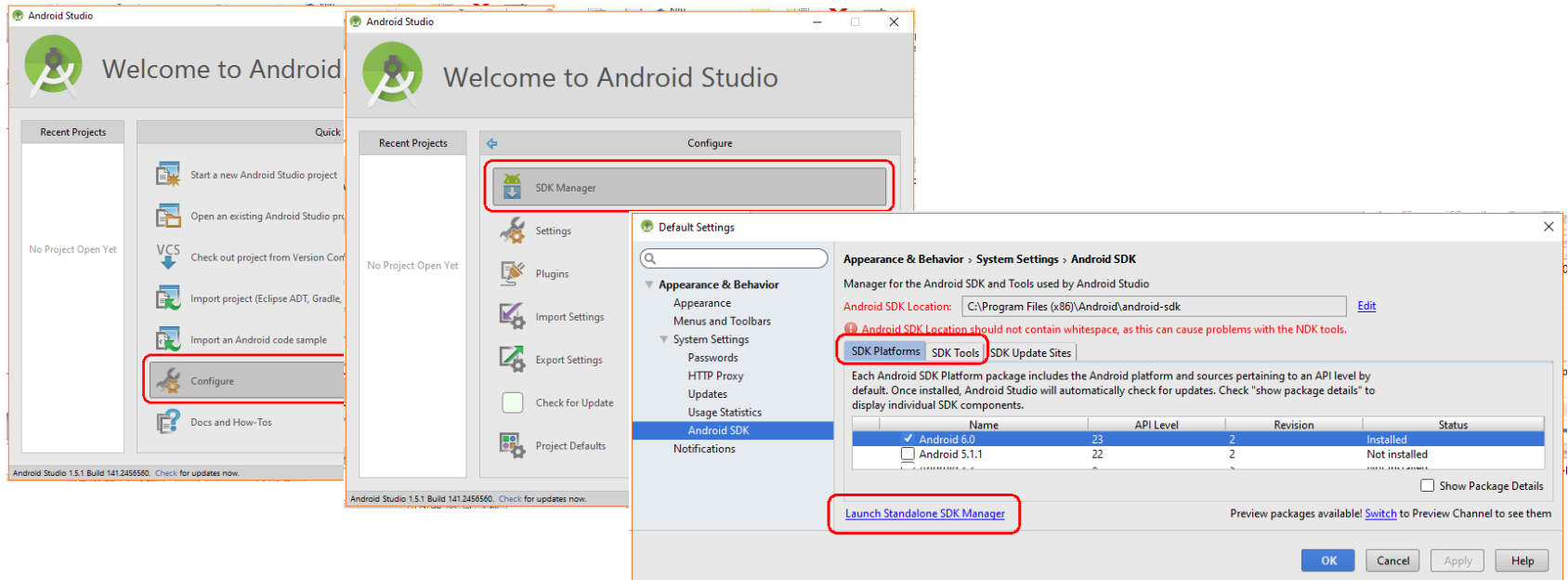
# SDK Component setup



C:\Program Files (x86)\Android\android-sdk

# Check and install more platforms and tools

## Still running as administrator

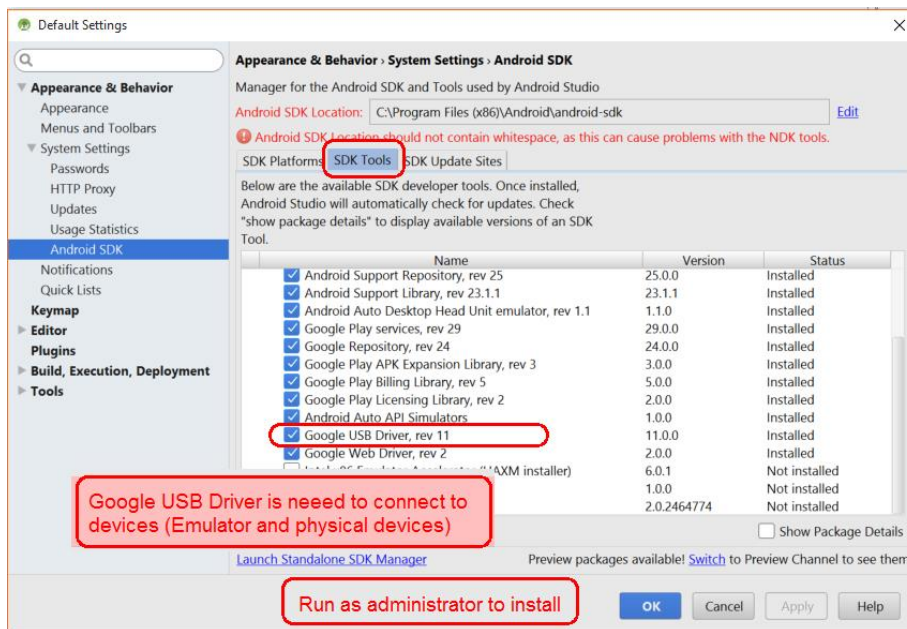


You can install platform from Android Studio when running as administrator or launch Standalone SDK Manager, witch also can be started directly.

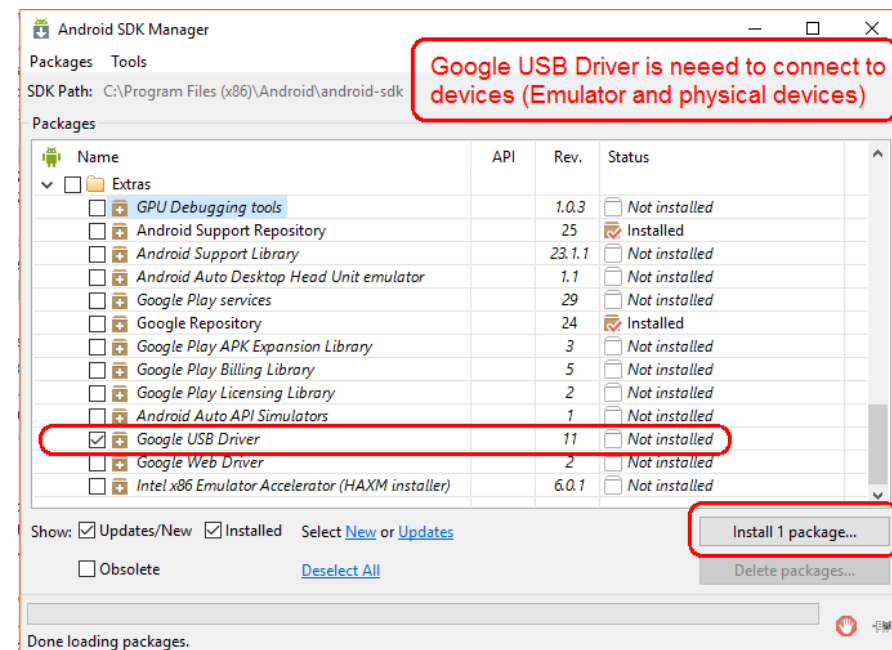
# Install Google USB Driver

You need the USB driver to connect to emulator and physical devices for deploy, running and debugging from Android Studio.

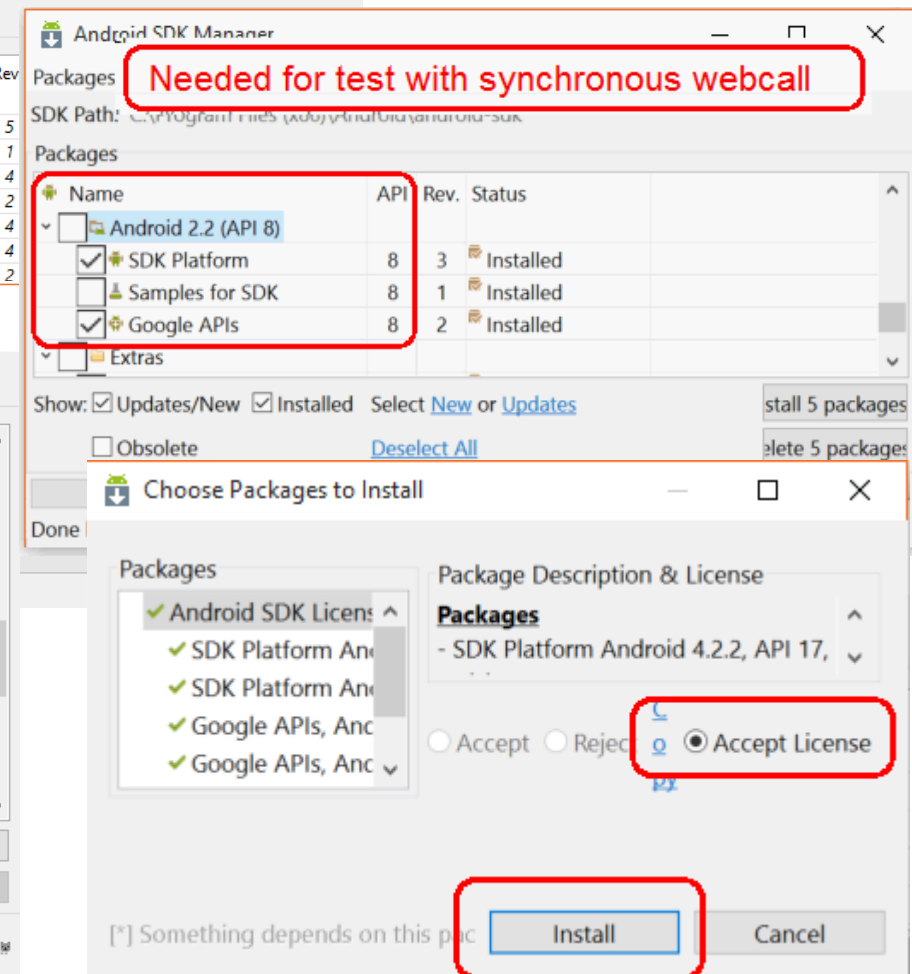
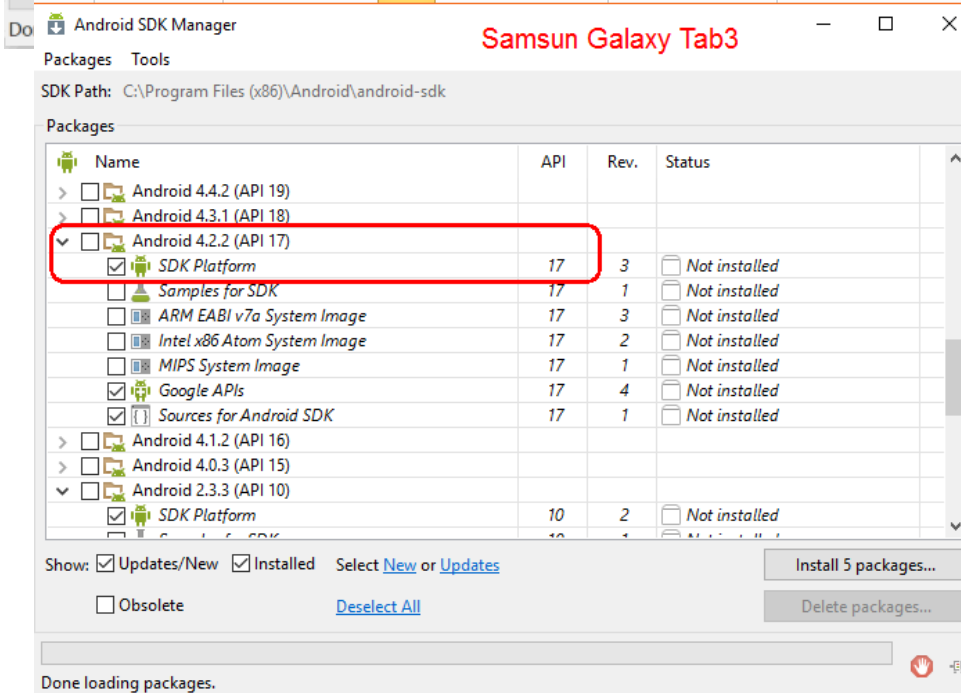
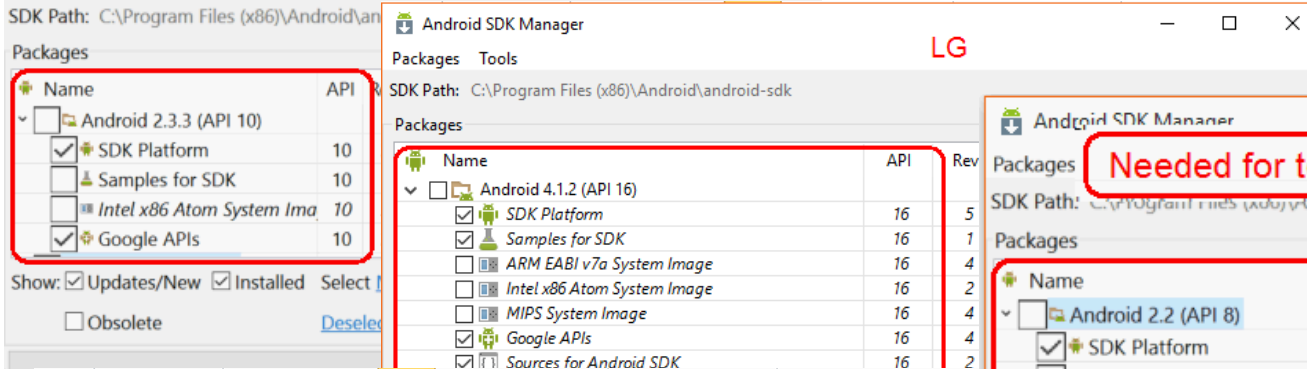
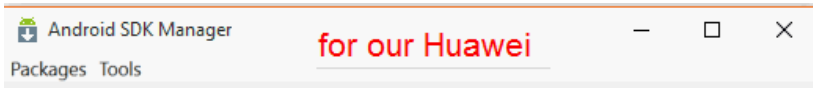
Install from  
Android Studio



Install from  
Android SDK Manager



# Install more platforms from SDK manager



# Check and Install more platforms from Android Studio

Android Studio

Quick Start

- Start a new Android Studio project
- Open an existing Android Studio project
- VCS: Check out project from Version Control
- Import project (Eclipse ADT, Gradle, etc.)
- Import an Android code sample
- Configure
- Docs and How-Tos

SDK Manager

- Settings
- Plugins
- Import Settings
- Export Settings
- Check for Update
- Project Defaults

Default Settings

- Appearance & Behavior
  - Appearance
  - Menus and Toolbars
- System Settings
  - Passwords
  - HTTP Proxy
  - Updates
  - Usage Statistics
- Android SDK
  - Notifications
  - Quick Lists
- Keymap
- Editor
- Plugins
- Build, Execution, Deployment
- Tools

Appearance & Behavior > System Settings > Android SDK

Manager for the Android SDK and Tools used by Android Studio

Android SDK Location: C:\Program Files (x86)\Android\android-sdk

Android SDK Location should not contain whitespace, as this can cause problems

SDK Platforms | SDK Tools | SDK Update Sites

Each Android SDK Platform package includes the Android platform and sources pertaining to an API level by default. Once installed, Android Studio will automatically check for updates. Check "show package details" to display individual SDK components.

	Name	API Level	Revision
<input checked="" type="checkbox"/>	Android 6.0	23	2
<input type="checkbox"/>	Android 5.1.1	22	2
<input type="checkbox"/>	Android 5.0.1	21	2
<input type="checkbox"/>	Android 4.4W.2	20	2
<input checked="" type="checkbox"/>	Android 4.4.2	19	4
<input type="checkbox"/>	Android 4.3.1	18	3
<input checked="" type="checkbox"/>	Android 4.2.2	17	3
<input checked="" type="checkbox"/>	Android 4.1.2	16	5
<input type="checkbox"/>	Android 4.0.3	15	5
<input checked="" type="checkbox"/>	Android 2.3.3	10	2
<input checked="" type="checkbox"/>	Android 2.2	8	3

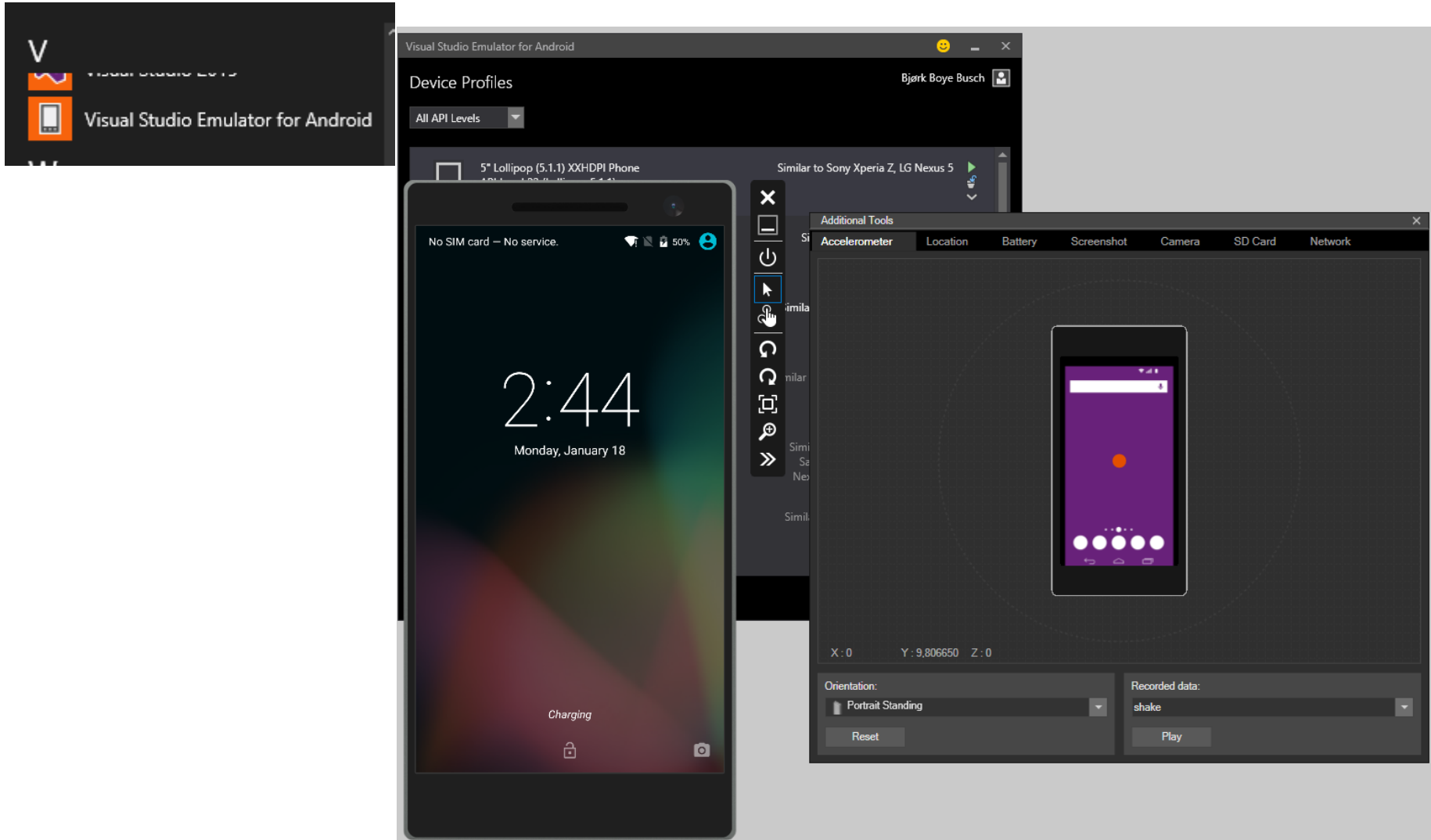
You might need to install API level 17, 16, 10 and 8 used when synchronized web call is needed for testing

Run as administrator to change

OK

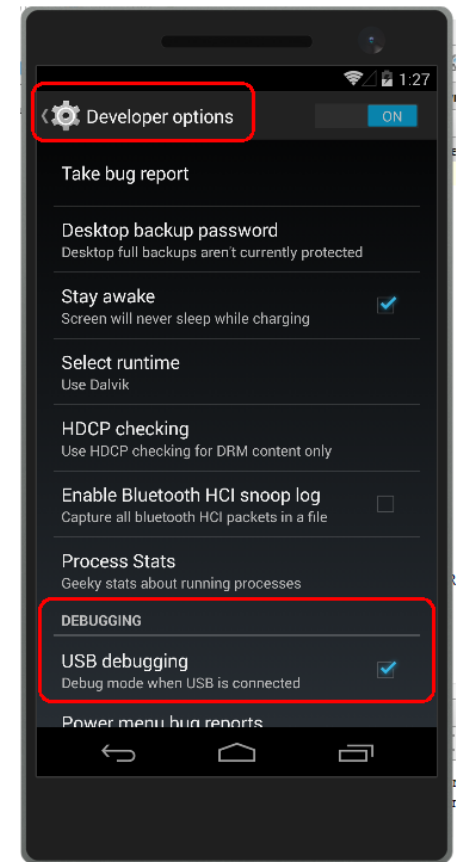
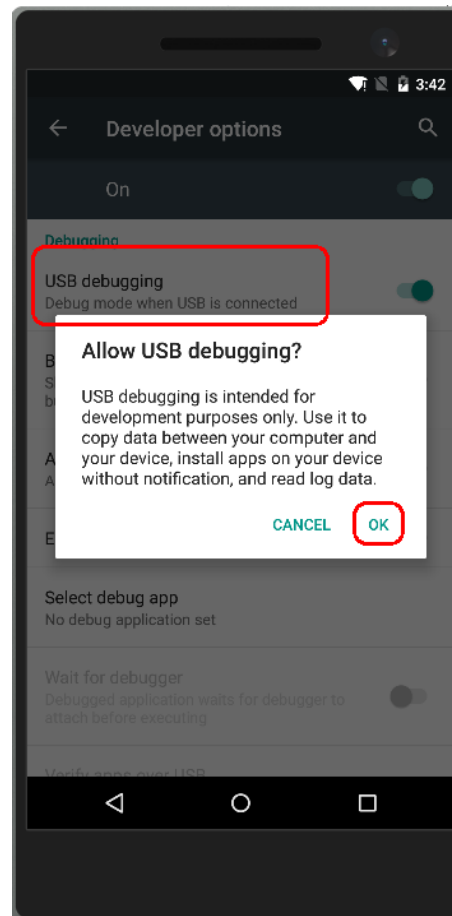
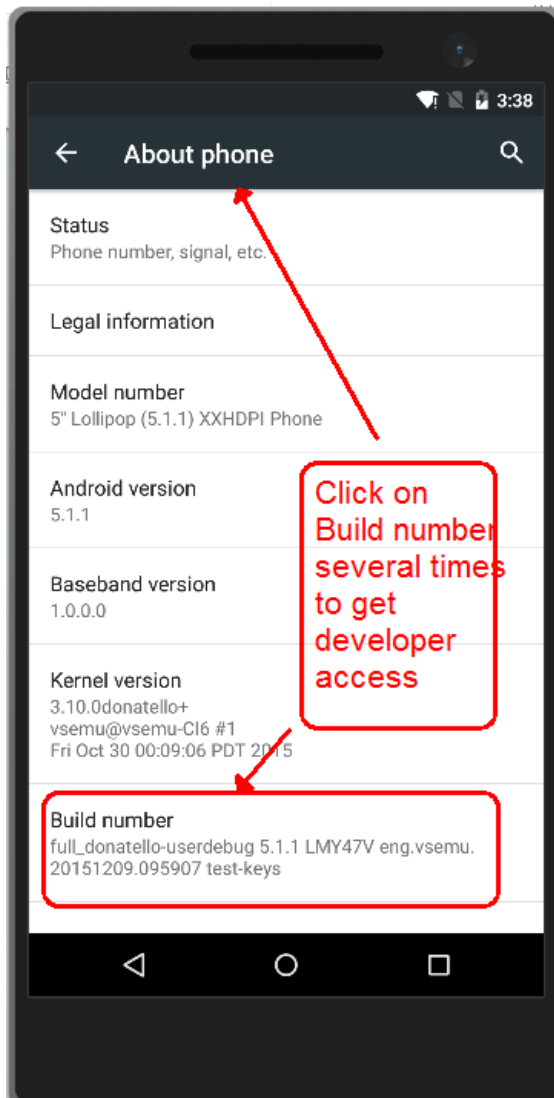


# Running Visual Studio Android Emulator

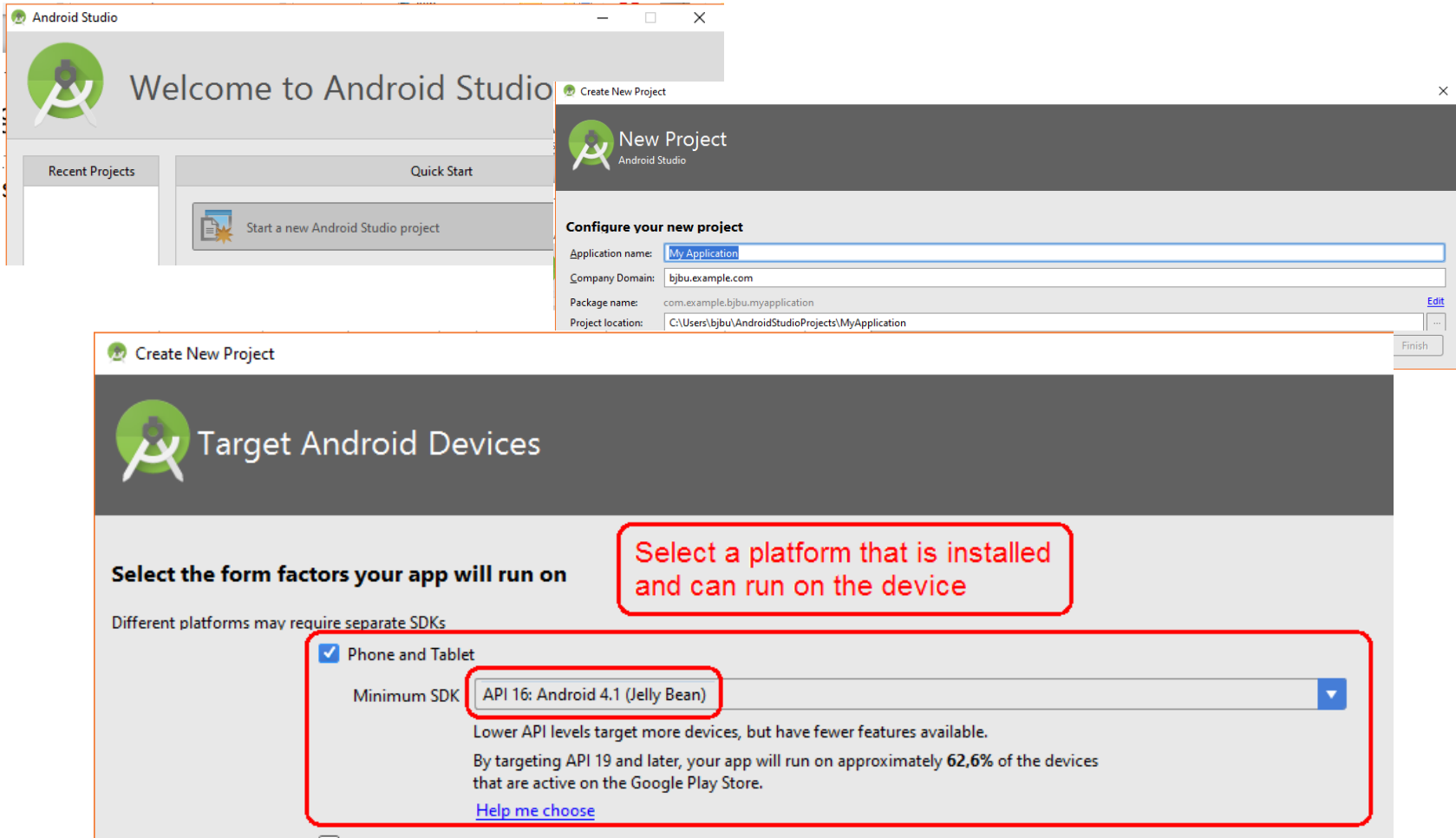


# Developer access

Set USB debugging to use  
Visual Studio Emulator  
as device in Android Studio




# Create an Android APP



# Create an Android APP – part 2

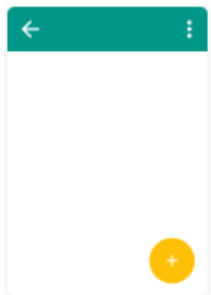
Create New Project

---

 Add an activity to Mobile

Select Blank Activity

Add No Activity

 Blank Activity

Creates a new blank activity with an app bar. **Just keep default names**

Activity Name: MainActivity

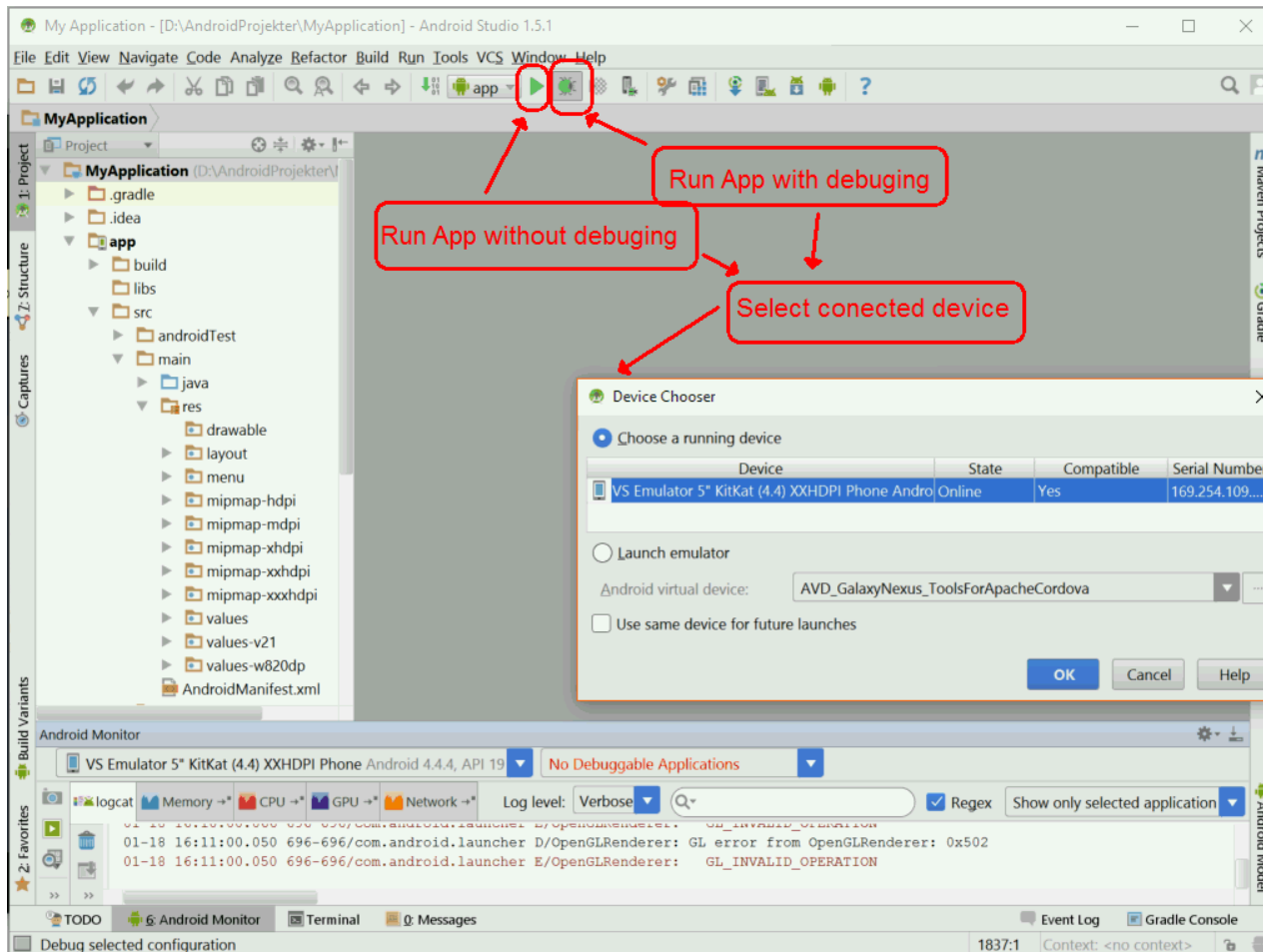
Layout Name: activity\_main

Title: MainActivity

Menu Resource Name: menu\_main

☐ Use a Fragment

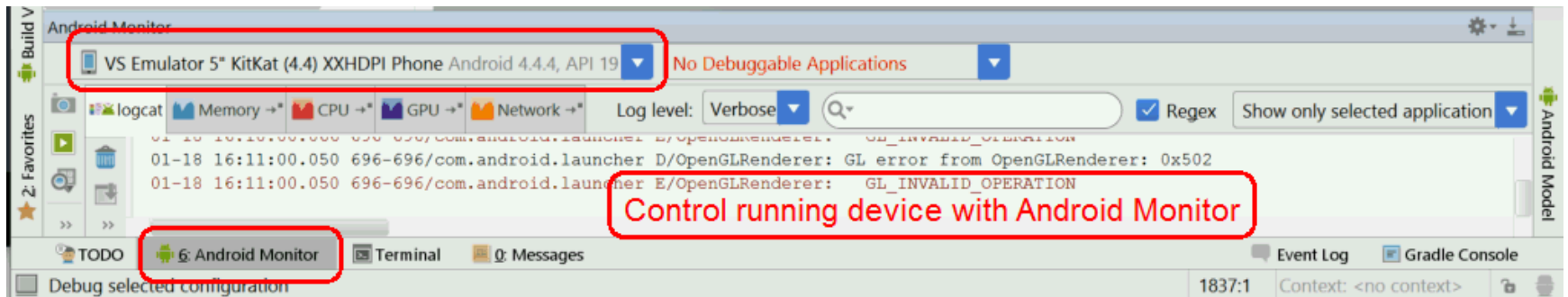
# Run app on running device



# Android Device Monitor

Use Android Device Monitor to control running process on connected device.

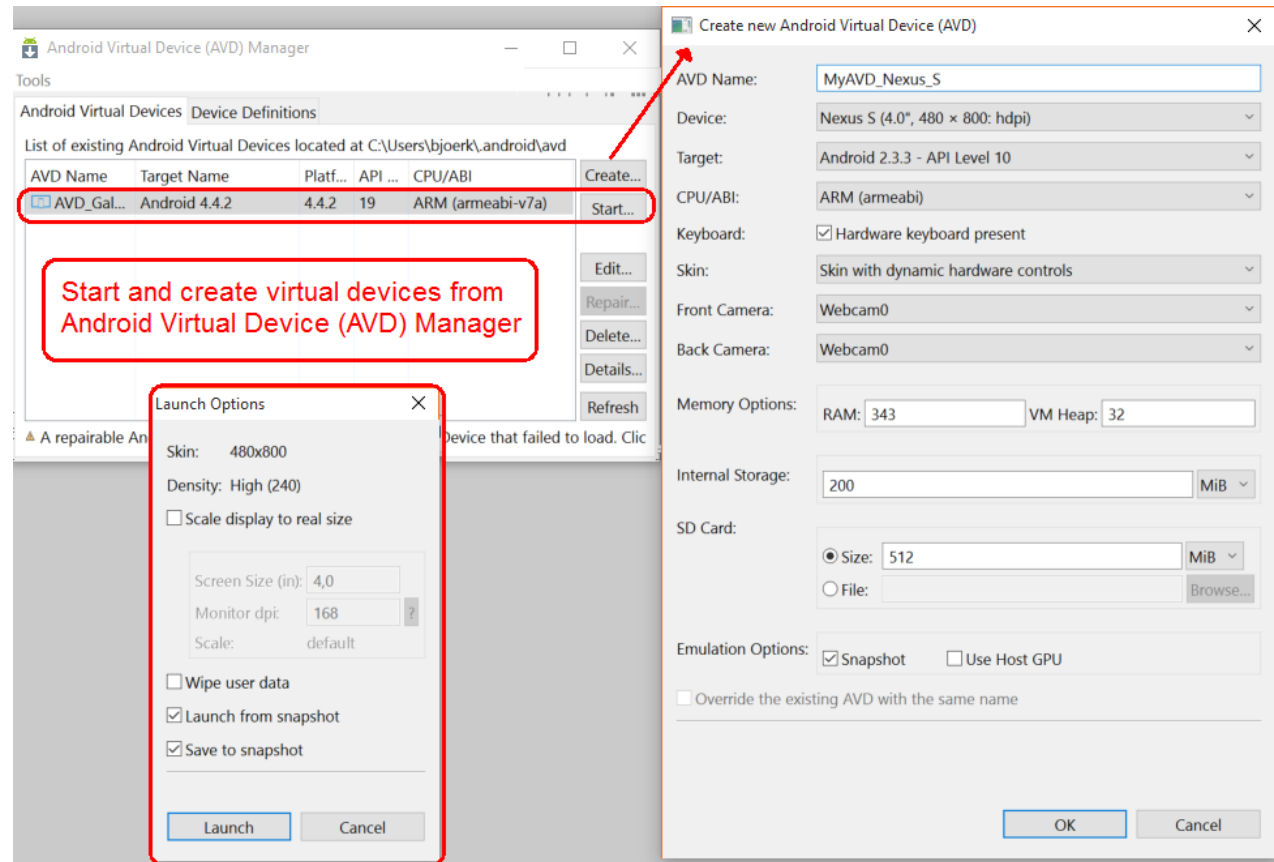
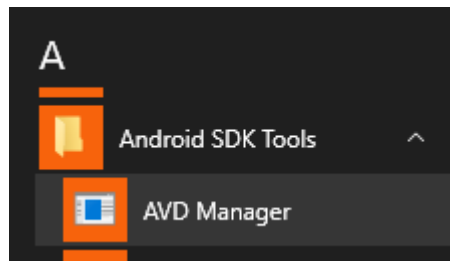
You can also take screendumps on devices with ADM



# Android Virtual Device Manager

You can also use AVD Manager from the Android SDK tools to create and start Virtual Android Devices if you have problem with the one from Visual Studio or you just want a different device.

You might save state instead of shoot down when closed, then the speed is alright.



# VS Android Virtual Device problem solving

- Check you can run Hyper-V in Windows
- Check you have allowed virtualization in BIOS
- Link that might help you if you have problem running the Visual Studio Android Emulator



VS\_Android\_Emulator\_ProblemSolving.zip



# VS Android Virtual Device problem solving using Hyper-V manager

The image shows the Hyper-V Manager interface with the 'Virtuelle maskiner' (Virtual Machines) list. The 'VS Emulator 5-inch KitKat (4.4) XXHDPI Phone.bjoerk' VM is selected and highlighted with a red box. Below the list, the 'Kontrolpunkter' (Checkpoints) section shows a message: 'Den valgte virtuelle maskine har ingen kontrolpunkter.' (The selected virtual machine has no checkpoints).

A red box highlights the text: 'Use Hyper-V manager for dianostic and solving problem with Visual Studio Android Emulator (running as virtual mashines)'.

The 'Handler' (Tools) pane on the right shows the 'VS Emulator 5-inch KitKat (4.4) XXHDPI Ph...' VM selected, with a red box around the 'Start' button.

In the bottom left, the Windows Administrative Tools window is open, with 'Hyper-V Manager' highlighted by a red box.

Navn	Tilstand	CPU-brug	Tildelt hukommelse
VS Emulator 5-inch KitKat (4.4) XXHDPI Phone.bjoerk	Fra		
VS Emulator 7-inch KitKat (4.4) XHDPI Tablet.bjoerk	Fra		
Win10	Fra		
Win2008-YouTube	Fra		

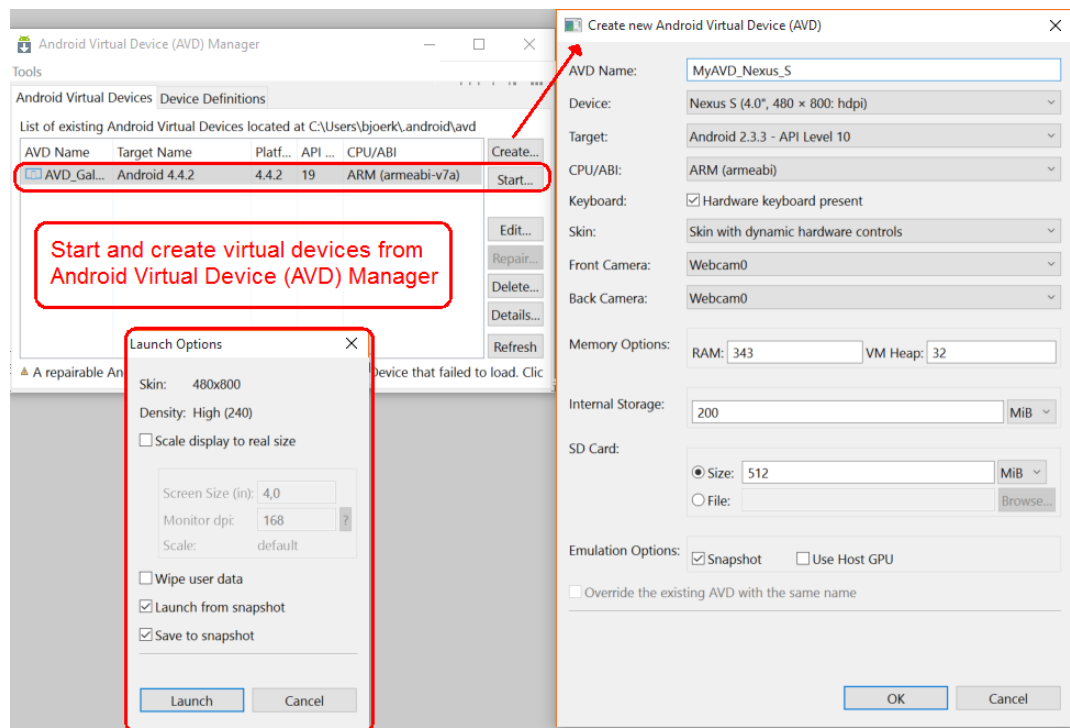
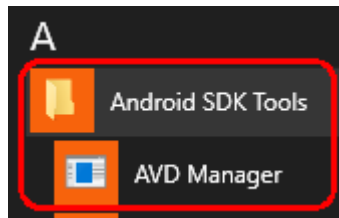
**VS Emulator 5-inch KitKat (4.4) XXHDPI Phone.bjoerk**

Oprettest: 19-01-2016 01:10:42 I klynge: Nej  
Konfigurationsversion: 6.2  
Generation: 1  
Noter: Emulator 10.0.10240.0  
SDDisk(C:\Users\bjoerk\AppData\Local\Microsoft\VisualStudioEmulator\Android\Containers\Local\Devic...

# Using basic Android Virtual Device problem solving using AVD manager

- If you can't run the Visual Studio Android Emulator, you might also use one created with AVD manager, installed with the SDK.

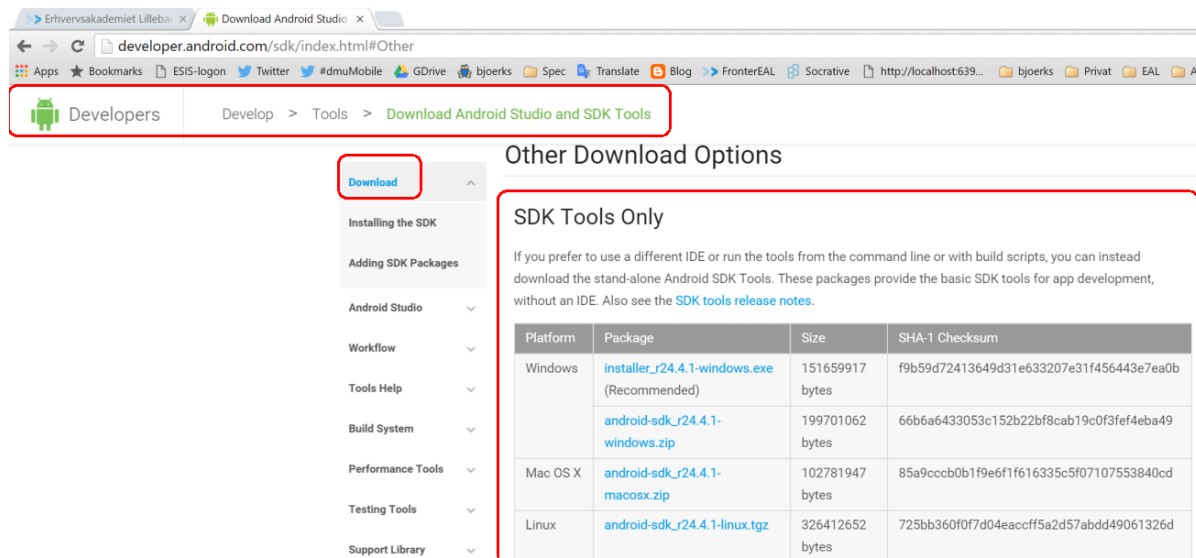
You might also install the Android SDK if not success with the other instalation.



# SDK problem solving

- If you have problem with missing SDK and/or AVD manager you might install standalone SDK or you might drop VS Android Virtual Device and install Android Studio inclusive SDK.

<http://developer.android.com/sdk/index.html#Other>



Other Download Options

SDK Tools Only

If you prefer to use a different IDE or run the tools from the command line or with build scripts, you can instead download the stand-alone Android SDK Tools. These packages provide the basic SDK tools for app development, without an IDE. Also see the [SDK tools release notes](#).

Platform	Package	Size	SHA-1 Checksum
Windows	<a href="#">installer_r24.4.1-windows.exe</a> (Recommended)	151659917 bytes	f9b59d72413649d31e633207e31f456443e7ea0b
	<a href="#">android-sdk_r24.4.1-windows.zip</a>	199701062 bytes	66b6a6433053c152b22bf8cab19c0f3fef4eba49
Mac OS X	<a href="#">android-sdk_r24.4.1-macosx.zip</a>	102781947 bytes	85a9cccb0b1f9e6f1f616335c5f07107553840cd
Linux	<a href="#">android-sdk_r24.4.1-linux.tgz</a>	326412652 bytes	725bb360f07d04eacff5a2d57abdd49061326d