



EKON 17

Android

setting up your device for mobile development

Basic steps

- Follow the video at <http://www.embarcadero.com/starthere/xe5/index.html>
 - This used to be an iOS page, but now starts with the Android information

Android Mobile Help Wizard

- **Help > Mobile Help Wizard:**
<http://www.embarcadero.com/starthere/xe5/mobdevsetup/android/en/index.html>
- Delphi Requires ADB (see further on) which is in Android SDK and NDK bundle
- Summary:
 - Do not use emulator:
 - It is painfully slow
 - It does not run inside VMware/HyperV/VirtualBox/...
(if you still want to run it, see a few slides later)
 - Do use multiple devices: it is the real world
 - Install remote screen viewer / control tools

SDK and NDK

- Show what happens when the SDK/NDK config is trashed
 - C:\Users\Public\Documents\RAD Studio\12.0\PlatformSDKs\adt-bundle-windows-x86-20130522\sdk
 - C:\Users\Public\Documents\RAD Studio\12.0\PlatformSDKs\android-ndk-r8e

ADB: Android Debug Bridge

- <http://developer.android.com/tools/help/adb.html>
- Is part of the Android SDK
- Delphi XE5 has it here:
 - reg query
HKEY_CURRENT_USER\Software\Embarcadero\BDS\12.0
/V AndroidPath
 - C:\Users\Public\Documents\RAD Studio\12.0\PlatformSDKs\adt-bundle-windows-x86-20130522\sdk\platform-tools\adb.exe
- Requires some batch files to start successfully
- Uses ADB USB drivers for your device to communicate with it

ADB USB drivers

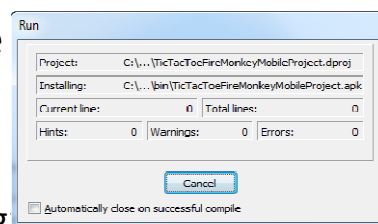
- Google ADB drivers: for Google and compatible devices
 - C:\Users\Public\Documents\RAD Studio\12.0\PlatformSDKs\adt-bundle-windows-x86-20130522\sdk\extras\google\usb_driver
 - Or download from <http://developer.android.com/sdk/win-usb.html>
 - Or download via the Android SDK Manager; see batch files in C:\Users\developer\Copy\zephyr-xe5\Tools\ADT
- Install the Windows drivers, for instance:
 - HTC, Corporation - Other hardware - My HTC; Download size: 1.1 MB
 - HTC, Corporation Other hardware software update released in September, 2013
- Universal Naked Driver: *.inf modification to allow for most devices
 - 0.73 <http://forum.xda-developers.com/showthread.php?t=2386956>
 - 0.72 <http://forum.xda-developers.com/showthread.php?t=1426502>
 - Find the USB ID for your device through http://www.nirsoft.net/utils/usb_devices_view.html
 - How to modify .inf: <http://stackoverflow.com/questions/4204232/android-usb-adb-driver-for-htc-desire-hd>
- Get drivers from your vendor.
 - Be aware they often install OLD versions of the ADB binaries

ADB demo

- Show-Devices.bat
 - A connected device does not means it will always work
- Run-Monitor.bat
Android Debug Monitor;
 - Explain what this means:
 - [2013-11-04 07:37:13 - ddms]ADB rejected shell command (ls -l /): closed
- Run-droidAtScreen-1.0.2.bat
 - Easiest way to remote see the screen of your Android device
- Run-SDK-Manager.bat
Android SDK Manager
 - Show what is installed and how to update it
- Run-ASM_2_50.bat
Android Screen Monitor; has trouble finding ADB.EXE
- Run-AVD.bat
Android Virtual Devices: won't work inside a VM anyway

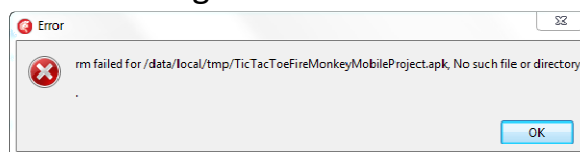
When uninstall does not work

- When you do not get here



- But it hangs at “uninstalling

- Or get this:



- Then reconnect your device

Using a remote Android Emulator

- Note the emulator is really really slow. Really.
- You need to two-way tunnel TCP ports 5554 and 5555 between the two machines.
- Tunneling options:
 - ssh
<http://delphi.org/2013/09/debugging-against-a-remote-android-emulator/>
 - httpunnel
<http://stackoverflow.com/questions/1754162/remote-debugging-with-android-emulator>
- You can also connect over WiFi to a physical Android device like this:
 - <http://stackoverflow.com/questions/2604727/how-can-i-connect-to-android-with-adb-over-tcp>
<http://delphi.org/2013/10/wireless-android-debugging-with-delphi-xe5/>