

LEARNING TO BUILD AN ANDROID APK EXECUTABLE FROM A RUNNING PYTHON PROGRAM

► Premise and Major Steps

- Initially wanted to convert a PySimpleGUI Python program into a running Android App
- Got program running on Windows 10
- Got Program running inside PyDroid IDE on Android 12 Samsung Galaxy A12 cellphone
 - No changes required to get this to work
- Followed lots of good info from YouTube videos on how to create native Android APK
- Could never get PySimpleGUI running as standalone native APK on Android
- Mike of PySimpleGUI confirmed that PySimpleGUI does not yet work as a native Android APK
- Took steps back to create a simple Kivy program, compile and run on Android
- Put together build files, info and source code from many different sources to create and run a very simple Android APK using Kivy which just puts up a simple interactive window
- This simple Kivy program can be used to be modified into a PySimpleGUI program and be a platform for debugging why it will not run (or sometimes not even compile)

► Initial Investigation and Learning

<https://www.youtube.com/watch?v=VsTaM057rdc&list=PL4dCAb3hSiR2JLMFM-8Co1LtMDlzBs3V-&index=2&t=755s>

<https://www.youtube.com/watch?v=pzsvN3fuBA0&list=PL4dCAb3hSiR2JLMFM-8Co1LtMDlzBs3V-&index=5&t=1s>

https://www.youtube.com/watch?v=B_UOykI0Mo&list=PL4dCAb3hSiR2JLMFM-8Co1LtMDlzBs3V-&index=7&t=19s

<https://www.youtube.com/watch?v=WQ0oNpsTJus&list=PL4dCAb3hSiR2JLMFM-8Co1LtMDlzBs3V-&index=3&t=14s>

https://github.com/denczo/kivy_examples

simple kivy program

<https://www.geeksforgeeks.org/python-make-a-simple-window-using-kivy/>

► Development Environment

- Visual Studio for code and preliminary debug on Windows 10
- GitHUB for source code revision management
 - Git repo can be found at:
- APK build infrastructure – Google Colaboratory
 - <https://colab.research.google.com/>
- Use ScrCpy utility to create a video capture of KivySimple app install/run
 - Use adb.exe for debug connection to phone and capture of log for “Traceback” log of exact nature of failure

► Currrent project status Dec. 3, 2022

- Built, installed and ran app on Samsung Galaxy A12 phone.

- Took screen capture video of install and run showing proof it worked
- Re-built everything before committing to Git repo
 - Build worked fine, but got fatal error while installing
 - Checking in to Git repo anyway so that others can work in parallel and maybe find the problem
- Found an even simpler Kivy program of “Hello World” and will begin to see if this will build, install and run.