

ART [Android Reverse Tools]

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¿What is this?

ART is a tool to compile – decompile apk files easily.

Included files in the package

<code>\Android_Reverse_Tools\</code>	← root directory
<code>_tools\</code>	← tools directory
<code>\needed\</code>	← here are the files that be copied to the windows directory
<i>Aapt.exe</i>	
<i>Java.exe</i>	
<i>Java.dll</i>	
<code>\sdktools\</code>	← android sdk directory (now 2.2 version)
<i>Apktool.bat</i>	← apktool launcher
<i>Apktools.jar</i>	← tool for compile - decompile
<i>dalvik_opcodes.pdf</i>	← opcodes necessary for reverse the crackmes
<i>signapk.jar</i>	← tool to sign the apks
<i>smali.uew</i>	← file for ultraedit to recognize smali files
<i>testkey.pk8</i>	← signapk.jar keyfile
<i>testkey.x509.pem</i>	← signapk.jar keyfile
<code>\decompiled_aplications\</code>	← here end up decompiled files

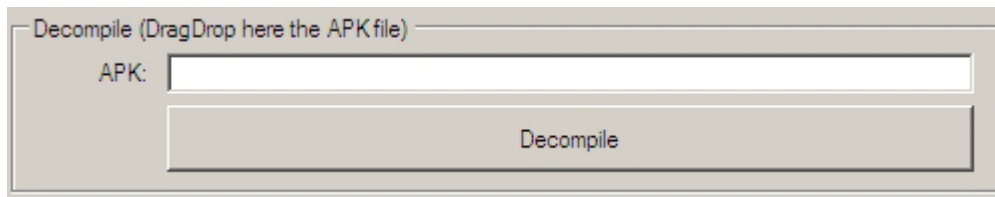
In the beginning

First of all, ART need Net Framework 3.5 or later for run.

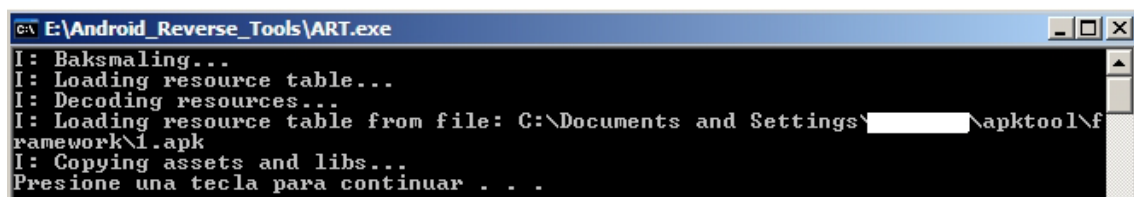
In the first run, the application check if aapt.exe, java.exe and java.dll exist in windows directory, and if not there, copy.

Decompiling the APK

For decompile the apk file, just drag and drop the file and push "decompile"



if all goes well we will see the following message



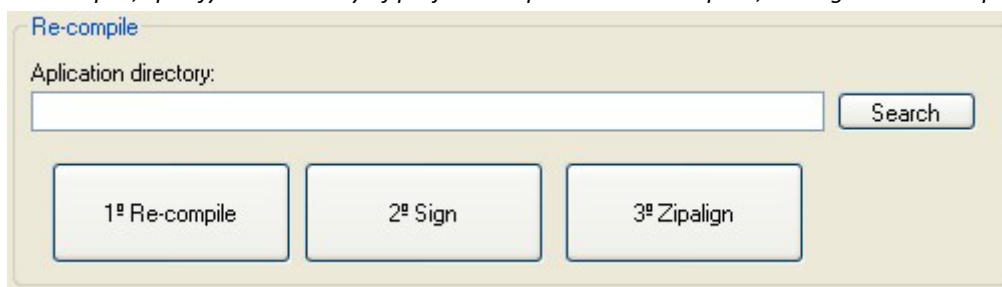
Reversing the code

This is your job dude!

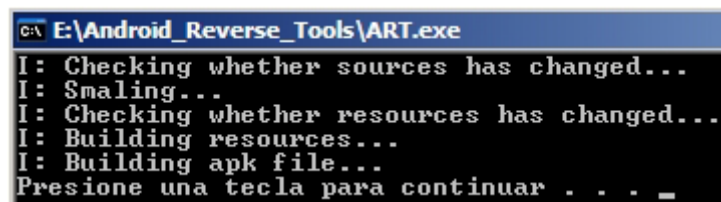
Rebuilding the APK

Compiling, Signing and Zipaligning

For compile, specify the directory of project and push "1º Re-compile", "2º Sign" and "3º Zipalign"



If all goes well we will see the following message and now have a "apkfile_final.apk" in the ART directory



Some errors that may appears

If java is not installed or ART fail to copy, this error appears decompiling.

```

E:\Android_Reverse_Tools\ART.exe
-jar: illegal argument
usage: java [-options] class
where options include:
  -help          print out this message
  -version       print out the build version
  -v -verbose    turn on verbose mode
  -debug        enable remote JAVA debugging
  -noasyncgc    don't allow asynchronous garbage collection
  -verbosegc    print a message when garbage collection occurs
  -noclassgc    disable class garbage collection
  -ss<number>   set the maximum native stack size for any thread
  -oss<number>  set the maximum Java stack size for any thread
  -ms<number>   set the initial Java heap size
  -mx<number>   set the maximum Java heap size
  -classpath <directories separated by semicolons> list directories in which to look for classes
  -prof[:<file>] output profiling data to .\java.prof or .\<file>
  -verify       verify all classes when read in
  -verifyremote verify classes read in over the network [default]
  -noverify     do not verify any class
  -nojit        disable JIT compiler
Presione una tecla para continuar . . .

```

If aapt.exe is not copied in windows directory, this error appears compiling.

```

E:\Android_Reverse_Tools\ART.exe
I: Checking whether sources has changed...
I: Smaling...
I: Checking whether resources has changed...
I: Building resources...
Exception in thread "main" brut.androlib.AndrolibException: brut.common.BrutException: could not exec command: [aapt, p, -F, C:\DOCUMENT1\CONFIG1\Temp\APKTOOL1322101207996766741.tmp, -I, C:\Documents and Settings\apktool\framework\1.apk, -S, E:\Android_Reverse_Tools\decompiled_applications\crackme03\res, -M, E:\Android_Reverse_Tools\decompiled_applications\crackme03\AndroidManifest.xml]
    at brut.androlib.res.AndrolibResources.aaptPackage(Unknown Source)
    at brut.androlib.Androlib.buildResourcesFull(Unknown Source)
    at brut.androlib.Androlib.buildResources(Unknown Source)
    at brut.androlib.Androlib.build(Unknown Source)
    at brut.apktool.Main.cmdBuild(Unknown Source)
    at brut.apktool.Main.main(Unknown Source)
Caused by: brut.common.BrutException: could not exec command: [aapt, p, -F, C:\DOCUMENT1\CONFIG1\Temp\APKTOOL1322101207996766741.tmp, -I, C:\Documents and Settings\apktool\framework\1.apk, -S, E:\Android_Reverse_Tools\decompiled_applications\crackme03\res, -M, E:\Android_Reverse_Tools\decompiled_applications\crackme03\AndroidManifest.xml]
    at brut.util.OS.exec(Unknown Source)
    ... 7 more
Caused by: java.io.IOException: Cannot run program "aapt": CreateProcess error=2
. El sistema no puede hallar el archivo especificado
    at java.lang.ProcessBuilder.start(Unknown Source)
    at java.lang.Runtime.exec(Unknown Source)
    at java.lang.Runtime.exec(Unknown Source)
    ... 8 more
Caused by: java.io.IOException: CreateProcess error=2, El sistema no puede hallar el archivo especificado
    at java.lang.ProcessImpl.create(Native Method)
    at java.lang.ProcessImpl.<init>(Unknown Source)
    at java.lang.ProcessImpl.start(Unknown Source)
    ... 11 more
Presione una tecla para continuar . . .

```