

Not really.

With AGP 4.1.3, without setting cmake path in local property and \$PATH (also no cmake version in build gradle), AGP 4.1.3 / CmakeLocator.kt is able to find the cmake path either through do the one (fork cmake?) associated with SDK or can just find a cmake in ~/Android/Sdk/cmake/camke\_version that has an executable.

Simply speaking, with exactly the same configurations, cmake path can be found with AGP 4.1.3 but cannot with AGP 4.2.0 and above.

https://android.googlesource.com/platform/tools/base/+/refs/tags/studio-2021.2.1-patch1/build-system/gradle-core/src/main/java/com/android/build/gradle/internal/cxx/configure/Cmal

- \* The search algorithm tries to enforce several invariants:
- \* (1) If a cmake is specified in local.properties then that CMake must be used or it's an error.
- \* (2) If a CMake version \*is\* specified in build.gradle externalNativeBuild.cmake.version then
- that version must be matched or it's an error.
- \* (3) If a CMake version \*is not\* specified in build.gradle externalNativeBuild.cmake.version then
- fork CMake must be used. We won't use a random CMake found on the path.
- \* (4) Combining (2) and (3) creates the additional invariant that there is always a specific CMake
- version prescribed by a build.gradle. In the case there is no concrete version in
- build gradle there is still a concreted Android Gradle Plugin version which, in turn,
- prescribes an exact CMake version.
- \* Given these invariants, the algorithm looks in the following locations:
- \* (1) SDK  $\ /\!/\!/\!/\!/$  Doesn't seem to work for 4.2.0 and above but works in 4.1.3
- \* (2) \$PATH
- \* (3) cmake.dir from local.properties

em...@google.com <em...@google.com><u>#4</u>

Jun 24, 2022 (

- · Your sample project uses AGP 4.2.0, which has a bug that causes it to not auto-download CMake from the Android SDK.
  - $\circ~$  Please upgrade to AGP 4.2.2, then Gradle will auto-download CMake during build.
- AGP 4.2.\* uses CMake 3.10.2 as the default CMake, so auto-download will use that version.
  - If you want any other version, you should explicitly declare it in the build. gradle. E.g., version "3.18.1" (newer) or version "3.6.0" (older).

Please let me know if this solves your problem.

Message last modified on Jun 24, 2022 06:28AM

bo...@gmail.com <bo...@gmail.com>#5

Jun 24, 2022 (

Is it mandatory to declare a cmake version in build gradle for AGP 7.2.1 or later?

I have also committed the recommended changes for my testing sample app and I am still seeing the warnings.

```
> git diff HEAD^
diff --git a/app/build.gradle b/app/build.gradle
index 66176c123bcb41829e36d357681d57c105e682e5..da515ebd34309a9ed9d3f6d70a6e8bba64fd5b96 100644
--- a/app/build.gradle
+++ b/app/build.gradle
@@ -26,6 +26,7 @@ android {
             externalNativeBuild {
                      cmake {
                               path "src/main/cpp/CMakeLists.txt"
                                  version "3.18.1"
                    }
           }
diff --git a/build.gradle b/build.gradle
index\ 02dd5ae1f16818ada234f5867253304313e7f8c0..b930d3b2bcd798f17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f38f5a23cd6cdeeb\ 100644f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5f3eq17f1ea3f5fq9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq17f1ea3ff9eq
 --- a/build.gradle
+++ b/build.gradle
@@ -7,7 +7,7 @@ buildscript {
                    mayenCentral()
           dependencies {
```

classpath 'com.android.tools.build:gradle:4.2.0'

classpath 'com.android.tools.build:gradle:7.2.1' classpath "org.jetbrains.kotlin:kotlin-gradle-plugin:\$kotlin\_version"

// NOTE: Do not place your application dependencies here; they belong

Reference for adding a cmake version:

https://developer.android.com/studio/projects/install-ndk

Testing App:

em...@google.com <em...@google.com>#6

Jun 24, 2022 (

Is it mandatory to declare a cmake version in build.gradle for AGP 7.2.1 or later?

No. If you do not declare CMake version in your build. gradle, then some default version will be used. The default version depends on the Android Gradle Plugin version you are using. For A 3.10.2. Latest Android Studio (chipmunk) uses 3.18.1

I have also committed the recommended changes for my testing sample app

I don't see your change on your GitHub project.

and I am still seeing the warnings.

What warnings are you seeing?

Which version of Android Studio are you using? (the logs in comment#1 contained very old 4.2-Beta 1). If you upgraded your AGP to 7.2.1, then please make sure you use Android Studio Ch newer.

bo...@gmail.com <bo...@gmail.com>#7

Jun 24, 2022 (

Just upgraded AGP 7.2.1 and it did not download cmake 3.18.1 instead it gives me the warnings as below (screenshot attached).

Sorry I forgot to push and just did.

Warnings I see (screenshot attached:

> Configure project :app

C/C++: Could not execute cmake at '/home/chsiao/Android/Sdk' to get version. Skipping.

 $\hbox{C/C++: Could not execute cmake at '/home/chsiao/Android/Sdk' to get version. Skipping.}$ 

C/C++: Could not execute cmake at '/home/chsiao/Android/Sdk' to get version. Skipping.

Android studio and other info:

Build: Al-212.5712.43.2112.8609683, 202205181650,

AS: Chipmunk | 2021.2.1 Patch 1; Kotlin plugin: 212-1.7.0-release-281-AS5457.46; Android Gradle Plugin: 7.2.1; Gradle: 7.3.3; Gradle JDK: version 1.8.0\_201; NDK: from local.properties: (not s latest from SDK: (not found); LLDB: LLDB 3.1 (revision: 3.1.4508709); CMake: from local.properties: (not specified), latest from SDK: (unable to invoke cmake), from PATH: (unable to invoke c

 $IMPORTANT: Please\ read\ \underline{https://developer.android.com/studio/report-bugs.html}\ carefully\ and\ supply\ all\ required\ information.$ 

0

warnings.png

127 KB View Download

em...@google.com <em...@google.com><u>#8</u>

Jun 25, 2022 (

Does it build OK despite the warnings?

Do you have  $/ \verb|home/chsiao/Android/Sdk| on your $PATH?$ 

bo...@gmail.com <bo...@gmail.com>\_#9

Jun 25, 2022 (

It does build OK but I am not sure if it will run OK (on real phones). Our production code has multiple native libraries in multiple gradle modules and those warnings seem alarming after looking source code especially to that null assignment....

```
fun versionGetter(cmakePath : File) = try {
    cmakeVersionGetter(cmakePath)
} catch (e: IOException) {
    warnIn("Could not execute cmake at '$cmakePath' to get version. Skipping.")
    null ///// ***
}
```

It may have been built because of using the came in the Sdk/cmake ??

C/C++: arm8Debug|armeabi-v7a :CMake Warning at /home/chsiao/Android/Sdk/ndk/22.1.7171670/build/cmake/android.toolchain.cmake:449 (message):

C/C++: arm8Debug|armeabi-v7a: An old version of CMake is being used that cannot automatically detect

C/C++: arm8Debug|armeabi-v7a: compiler attributes. Compiler identification is being bypassed. Some

C/C++: arm8Debug|armeabi-v7a : values may be wrong or missing. Update to CMake 3.19 or newer to use

C/C++: arm8Debug|armeabi-v7a: CMake's built-in compiler identification.

C/C++: arm8Debug|armeabi-v7a :Call Stack (most recent call first):

	C/C++: arm8Debug armeabi-v7a : values may be wrong or missing. Update to CMake 3.19 or newer to use C/C++: arm8Debug armeabi-v7a : CMake's built-in compiler identification. C/C++: arm8Debug armeabi-v7a :Call Stack (most recent call first):	
	Do you have /home/chsiao/Android/Sdk on your \$PATH? => Yes, /home/chsiao/Android/Sdk is declared in my \$PATH	
	em@google.com <em@google.com> #10  Jun 25, 2022 (</em@google.com>	
	C/C++: arm8Debug armeabi-v7a :CMake Warning at /home/chsiao/Android/Sdk/ndk/22.1.7171670/build/cmake/android.toolchain.cmake:449 (message): C/C++: arm8Debug armeabi-v7a version of CMake is being used that cannot automatically detect	
	You can ignore these warnings. They won't affect your build outcome. We will provide a newer CMake in Android SDK that eliminates these warnings, but it's not ready yet.	
	especially to that null assignment	
	The function caller handles null, don't worry about it.	
	Do you have /home/chsiao/Android/Sdk on your \$PATH?	
	We had a bug that thinks "Android/Sdk/cmake" is an executable (only on Linux), and tries to execute it. I just fixed it, but it will take time to be included in a stable build (it'll be in Electric Eel tl This bug was causing the following warnings: "C/C++: Could not execute cmake at '/home/chsiao/Android/Sdk' to get version. Skipping.". You can safely ignore this warning too. Or, better ye /home/chsiao/Android/Sdk from your \$PATH, because it doesn't add any useful value.	
	<b>bo@gmail.com</b> <bo@gmail.com> #11</bo@gmail.com>	
	I can confirm that the warnings won't show up if removing /home/chsiao/Android/Sdk from my \$PATH.	
	Which cmake is it using with AGP 7.2.1? Cmake 3.18.1 is currently not automatically downloaded and installed in /home/chsiao/Android/Sdk/cmake as what AGP 4.1.3 does (which downloads cmake 3.10.2.4988404 if the AGP car Noticed that /home/chsiao/Android/Sdk/cmake/test/share/cmake-3.18/Modules/CMakeDetermineSystem.cmake:93 in the log. Is that what has been used and the expected behavior from r	
	bo@gmail.com <bo@gmail.com> #12  Jun 27, 2022 (</bo@gmail.com>	
	Comment has been deleted.	
	Message last modified on Jun 27, 2022 08:19PM	
	em@google.com <em@google.com>#13  Jun 28, 2022 (</em@google.com>	
	AGP 7.2.1 will is configured to auto-download CMake 3.18.1 from the Android SDK.	
	When building with AGP, we pass <code>CMAKE_TOOLCHAIN_FILE</code> argument to CMake command.	
	<b>bo@gmail.com</b> <bo@gmail.com> #14</bo@gmail.com>	
	It is confirmed that CMake 3.18.1 is downloaded automatically and installed to the path as AGP 4.1.3 does.	
	This ticket can be closed.	
	Thank you for looking into this issue and providing the fix for future releases.	
_	em@google.com <em@google.com>  Jun 28, 2</em@google.com>	
)	Marked as fixed, reassigned to em@google.com.	

 $C/C++: arm8Debug|armeabi-v7a: CMake\ Warning\ at\ /home/chsiao/Android/Sdk/ndk/22.1.7171670/build/cmake/android.toolchain.cmake: 449\ (message): CMake\ Warning\ at\ /home/chsiao/Android/Sdk/ndk/22.1.7171670/build/cmake/android/Sdk/ndk/ndk/22.1.7171670/build/cmake/android/Sdk/ndk/ndk/22.1.7171670/build/cmake/android/Sdk/ndk/ndk/$ 

C/C++: arm8Debug|armeabi-v7a: An old version of CMake is being used that cannot automatically detect C/C++: arm8Debug|armeabi-v7a: compiler attributes. Compiler identification is being bypassed. Some