← C ☆ Cannot debug library with Native Code

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Comments (3)    Dependencies    Duplicates (0)    Blocking (0)    Resources (0)

Can't Repro    Bug    P2    + Add Hotlist    Reviewed (L1)

👥 **STATUS UPDATE**  No update yet.   Edit

📄 **DESCRIPTION** dc...@gmail.com created issue #1        Aug 27, 2019 11:42AM  ⋮

Build: AI-191.8026.42.35.5791312, 201908090002,

AI-191.8026.42.35.5791312, JRE 1.8.0_202-release-1483-b49-5587405x64 JetBrains s.r.o, OS Mac OS X(x86_64) v10.14.6, screens 3840x1080

AS: 3.5; Android Gradle Plugin: (plugin information not found); Gradle: 5.4.1; NDK: from local.properties: 20.0.5594570, latest from SDK: 20.0.5594570; LLDB: pinned revision 3.1 not found, latest from SDK: (package not found); CMake: from local.properties: (not specified), latest from SDK: 3.10.2, from PATH: 3.13.3

Steps to Reproduce:

Create a new Android project with type "Native C++"
Change the plugin to "com.android.library" and comment out the applicationId
Right click on ExampleInstrumentedTests and select "Debug"
Select an Android emulator and run the tests

Expected:

Tests run attached to debugger, breakpoints work, etc.

Actual:

Debugger exits with message "Cannot get process architecture" or emulator freezes for several seconds before the debugger exits with message "Test Framework Quit Unexpectedly"

Debugging works if either the plugin is changed back to "com.android.application" or the "externalNativeBuild" section of gradle is commented out

**COMMENTS**

All comments ▼      ↓ Oldest first

⚪ **vi...@google.com** <vi...@google.com> #2        Aug 29, 2019 02:40PM  ⋮

*Assigned to ar...@google.com.*

Thank you for your feedback. Team may reach out for more feedback in reproducing or triaging this issue.

⚪ **ar...@google.com** <ar...@google.com>        May 20, 2021 09:35AM

*Reassigned to an...@google.com.*

⚪ **em...@google.com** <em...@google.com> #3        Jun 10, 2021 08:22AM  ⋮

*Status: Won't Fix (Not Reproducible)*

We cannot reproduce this issue.

Using Android Studio Arctic Fox 2020.3.1 Canary 14, I followed these steps:

1. Create new project.
2. Create nee module: select Android Library, call it "myapplication"
3. Right click project, select "Add C++ to module".
4. Add a native Java method to ExampleInstrumentedTest.java, e.g., `public native String hello();`
5. Add a C++ implementation for this method to `myapplication.cpp`. E.g.,

```
#include <jni.h>
#include <string>

extern "C" JNIEXPORT jstring JNICALL
Java_com_example_myapplication_ExampleInstrumentedTest_hello(
        JNIEnv* env,
        jobject /* this */) {
    std::string hello = "Hello ";
    return env->NewStringUTF(hello.c_str());
}
```

6. Add `.so` library load block to `ExampleInstrumentedTest.java`:

**Reporter**      ⚪ dc...@gmail.com

**Type**      Bug

**Priority**      P2

**Severity**      S2

**Status**      Won't fix (Not reproducible)

**Access**      Default access  View

**Assignee**      ⚪ em...@google.com

**Verifier**      --

**Collaborators**  👥 _____  ⌃

**CC**      🔒 _____  ⌃
an...@google.com
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**AOSP ID**      --

**Blocking Release**      --

**Release Status**      --

**Found In**      5791312

**Targeted To**      --

**Verified In**      --

**In Prod**      ⚪

Show 1 additional field  ⌄

```
    static {
        System.loadLibrary("myapplication");
    }
```

7. Debug `ExampleInstrumentedTest`. (Make sure the Run Configuration has `Automatically selected` as the debugger).

And breakpoints on both Java and Native debuggers work fine.

Please try Android Studio 4.2 Beta 1 and newer, and let us know if this issue still occurs.