CameraView crash when used in fragment being restored from backstack

WAI Bug P4 + Add Hotlist

STATUS UPDATE No update yet. Edit

DESCRIPTION sa...@robinhood.com created issue #1

CAMERAX VERSION 1.0.0-alpha09 (camera-camera2) & 1.0.0-alpha06 (camera-view)

CAMERA APPLICATION NAME AND VERSION: https://github.com/SamThompson/CameraXCrash

ANDROID OS BUILD NUMBER: PSR1.180720.075

DEVICE NAME: Pixel 2 emulator, also verified on physical pixel 2

DESCRIPTION:
CameraView crashes app when it is used in a fragment that is put on the backstack and subsequently popped off. I'm unsure if I'm doing something wrong here, but this seems like a bug at first

STEPS TO REPRODUCE:
See steps to reproduce in https://github.com/SamThompson/CameraXCrash/blob/master/Readme.md

OBSERVED RESULTS:
App crashes

EXPECTED RESULTS:
CameraView properly restores itself

REPRODUCIBILITY: 100%

✓ Mentioned issues (1)

Mentioned issues (1)

-- -- "https://issuetracker.google.com/148791439"

COMMENTS

sa...@robinhood.com <sa...@robinhood.com> #2

I should clarify - this example uses bindToLifecycle and passes the fragment as the LifecycleOwner. I did do some limited debugging into this and it seems like the lifecycle observer in Came callback when the fragment is put on the backstack.

er...@google.com <er...@google.com> #3

Reassigned to hu...@google.com.

Stacktrace from comment#1:

```
2020-02-05 12:53:40.316 7399-7444/com.example.cameraxcrash E/BufferQueueProducer: [SurfaceTexture-0-7399-2] query: BufferQueue has been abandoned
2020-02-05 12:53:40.316 7399-7444/com.example.cameraxcrash E/Legacy-CameraDevice-JNI: LegacyCameraDevice_nativeDetectSurfaceDimens: Error while querying s
2020-02-05 12:53:40.323 7399-7444/com.example.cameraxcrash E/AndroidRuntime: FATAL EXCEPTION: CameraX-
    Process: com.example.cameraxcrash, PID: 7399
    java.lang.RuntimeException: java.lang.IllegalArgumentException: Surface was abandoned
        at androidx.camera.camera2.internal.Camera2CameraImpl$15.onFailure(Camera2CameraImpl.java:973)
        at androidx.camera.core.impl.utils.futures.Futures$CallbackListener.run(Futures.java:338)
        at android.os.Handler.handleCallback(Handler.java:873)
        at android.os.Handler.dispatchMessage(Handler.java:99)
        at android.os.Looper.loop(Looper.java:193)
        at android.os.HandlerThread.run(HandlerThread.java:65)
     Caused by: java.lang.IllegalArgumentException: Surface was abandoned
        at android.hardware.camera2.utils.SurfaceUtils.getSurfaceSize(SurfaceUtils.java:84)
        at android.hardware.camera2.params.OutputConfiguration.<init>(OutputConfiguration.java:260)
        at android.hardware.camera2.params.OutputConfiguration.<init>(OutputConfiguration.java:145)
        at androidx.camera.camera2.internal.compat.params.OutputConfigurationCompatApi28Impl.<init>(OutputConfigurationCompatApi28Impl.java:34)
        at androidx.camera.camera2.internal.compat.params.OutputConfigurationCompat.<init>(OutputConfigurationCompat.java:51)
        at androidx.camera.camera2.internal.CaptureSession.lambda$openCaptureSession$2$CaptureSession(CaptureSession.java:354)
        at androidx.camera.camera2.internal.-$$Lambda$CaptureSession$bwwGuGuBhJx-fgB4Br9WswwmeOU.attachCompleter(Unknown Source:8)
        at androidx.concurrent.futures.CallbackToFutureAdapter.getFuture(CallbackToFutureAdapter.java:102)
        at androidx.camera.camera2.internal.CaptureSession.openCaptureSession(CaptureSession.java:273)
        at androidx.camera.camera2.internal.CaptureSession.lambda$open$0$CaptureSession(CaptureSession.java:236)
```

```
    at androidx.camera.camera2.internal.-$$Lambda$CaptureSession$2IbSQd39wMeo2dJgmFG1rvePLoM.apply(Unknown Source:8)
    at androidx.camera.core.impl.utils.futures.ChainingListenableFuture.run(ChainingListenableFuture.java:201)
    at android.os.Handler.handleCallback(Handler.java:873)
    at android.os.Handler.dispatchMessage(Handler.java:99)
    at android.os.Looper.loop(Looper.java:193)
    at android.os.HandlerThread.run(HandlerThread.java:65)
Caused by: android.hardware.camera2.legacy.LegacyExceptionUtils$BufferQueueAbandonedException
    at android.hardware.camera2.legacy.LegacyExceptionUtils.throwOnError(LegacyExceptionUtils.java:73)
    at android.hardware.camera2.legacy.LegacyCameraDevice.getSurfaceSize(LegacyCameraDevice.java:606)
    at android.hardware.camera2.utils.SurfaceUtils.getSurfaceSize(SurfaceUtils.java:82)
    at android.hardware.camera2.params.OutputConfiguration.<init>(OutputConfiguration.java:260)
    at android.hardware.camera2.params.OutputConfiguration.<init>(OutputConfiguration.java:145)
    at androidx.camera.camera2.internal.compat.params.OutputConfigurationCompatApi28Impl.<init>(OutputConfigurationCompatApi28Impl.java:34)
    at androidx.camera.camera2.internal.compat.params.OutputConfigurationCompat.<init>(OutputConfigurationCompat.java:51)
    at androidx.camera.camera2.internal.CaptureSession.lambda$openCaptureSession$2$CaptureSession(CaptureSession.java:354)
    at androidx.camera.camera2.internal.-$$Lambda$CaptureSession$bwwGuGuBhJx-fgB4Br9WswwmeOU.attachCompleter(Unknown Source:8)
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    at androidx.camera.camera2.internal.-$$Lambda$CaptureSession$2IbSQd39wMeo2dJgmFG1rvePLoM.apply(Unknown Source:8)
    at androidx.camera.core.impl.utils.futures.ChainingListenableFuture.run(ChainingListenableFuture.java:201)
    at android.os.Handler.handleCallback(Handler.java:873)
    at android.os.Handler.dispatchMessage(Handler.java:99)
    at android.os.Looper.loop(Looper.java:193)
    at android.os.HandlerThread.run(HandlerThread.java:65)
```

er...@google.com <er...@google.com> #4

Hi Hus,

Can you help take a look at this?

hu...@google.com <hu...@google.com>

Accepted by hu...@google.com.

hu...@google.com <hu...@google.com> #5

Hi Samuel,

As you mentioned, this seems like an issue with the CameraView not clearing its resources/unbinding its use cases when the fragment's view is destroyed, once the back button is pressed, t session, but the surface is no longer available at that point. one way of fixing this is triggering the resource cleanup once the cameraView is detached from its window. We'll work on fixing th

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

Assigned to bu...@google.com.

Bugjuggler: http://b/148791439 is fixed

bu...@google.com <bu...@google.com> #7

Accepted by bu...@google.com.

Hi. I've received your bug and will wait for b/148791439 to be fixed and then assign the bug to husaynhakeem@google.com.

hu...@google.com <hu...@google.com> #8

Alternatively, instead of binding the CameraView to the Fragment's lifecycle, you could bind it to the Fragment's viewLifecycleOwner. This will trigger the cleanup CameraView does when its b ON_DESTROY state.

fu...@google.com <fu...@google.com>

Status: Won't Fix (Intended Behavior)

bu...@google.com <bu...@google.com> #9

Reassigned to hu...@google.com.

Bug is closed; my job here is done.