

Stream AudioTrack objects leak memory

+1 Hotlists (26) Mark as Duplicate

Comments (11) Dependencies Duplicates (0) Blocking (0) Resources (20)

Obsolete Bug P3 [AOSP] assigned

STATUS UPDATE No update yet. Edit

DESCRIPTION kj...@gmail.com created issue #1

Mar 14, 2018 02:01AM

We have developed "audio mixer" application, where users will select several audio files (AudioTrack instances) and play them together. When you stop playing then all AudioTrack instances are released (AudioTrack.release()). If you want to start playing again then new instances are created. This will soon result to exceeding the max amount of available audiotracks:

03-03 16:28:27.763 700-6550/? E/AudioFlinger: no more track names available
03-03 16:28:27.764 700-6550/? E/AudioFlinger: createTrack_() initCheck failed -12; no control block?
03-03 16:28:27.765 7765-3671/fi.metropolia.yellow_spaceship.androidadvproject E/AudioTrack: AudioFlinger could not create track, status: -12
03-03 16:28:27.768 7765-3671/fi.metropolia.yellow_spaceship.androidadvproject E/AudioTrack-JNI: Error -12 initializing AudioTrack
03-03 16:28:27.769 7765-3671/fi.metropolia.yellow_spaceship.androidadvproject E/android.media.AudioTrack: Error code -20 when initializing AudioTrack.
03-03 16:28:27.769 7765-3671/fi.metropolia.yellow_spaceship.androidadvproject W/AudioTrack: Use of stream types is deprecated for operations other than volume control
03-03 16:28:27.769 7765-3671/fi.metropolia.yellow_spaceship.androidadvproject W/AudioTrack: See the documentation of AudioTrack() for what to use instead with android.media.AudioAttributes to qualify your playback use case
03-03 16:28:27.774 7765-3671/fi.metropolia.yellow_spaceship.androidadvproject E/AndroidRuntime: FATAL EXCEPTION: Thread-16
Process:
fi.metropolia.yellow_spaceship.androidadvproject, PID: 7765
java.lang.IllegalStateException: play() called on uninitialized AudioTrack.
at
android.media.AudioTrack.play(AudioTrack.java:1979)
at
fi.metropolia.yellow_spaceship.androidadvproject.models.ProjectSound\$TrackRunnable.run(ProjectSound.java:358)
at java.lang.Thread.run(Thread.java:764)

If you use Android Studio's Monitor to check the Memory and take Heap Dump after releasing AudioTrack(s) and creating new AudioTrack(s), you'll find out AudioTrack Instances are still in Heap (without references) and even after carbage collection nothing happens (see attached screen capture from a Heap Dump in a situation that 14 instances are active and 20 instances are released, but not removed from the Heap)

Extract from code:

```
mAudioTrack = new AudioTrack(AudioManager.STREAM_MUSIC, mSampleRate, getChannels(), getBits(), minBufferSize, AudioTrack.MODE_STREAM);
```

```
int i;  
byte[] buffer = new byte[minBufferSize];  
setVolume(mVolume);  
mAudioTrack.play();  
try {
```

```
    BufferedInputStream bis = new BufferedInputStream(new FileInputStream(mFile));  
    bis.skip(SoundPlayer.HEADER_SIZE);  
    while (isPlaying) {
```

```
        i = bis.read(buffer, 0, minBufferSize);  
        if (i == -1) {  
            if (isOnLoop) {  
                bis.close();  
                bis = new BufferedInputStream(new FileInputStream(mFile));  
                bis.skip(SoundPlayer.HEADER_SIZE);  
            } else {
```

Reporter kj...@gmail.com
Type Bug
Priority P3
Severity S3
Status Won't fix (Obsolete)
Access Default access View
Assignee am...@google.com
Verifier --
Collaborators
CC am...@google.com
kj...@gmail.com
ku...@google.com
AOSP ID --
ReportedBy --
Found In --
Targeted To --
Verified In --
In Prod

```
        isPlaying = false;
        soundFinishedListener.soundIsFinished(ProjectSound.this);
    }
}
mAudioTrack.write(buffer, 0, i);
}
if (mAudioTrack != null && mAudioTrack.getState() != AudioTrack.STATE_UNINITIALIZED) {
    try {
        mAudioTrack.stop();
    } catch (IllegalStateException e) {
        e.printStackTrace();
    }
}
mAudioTrack.release();
mAudioTrack = null;
bis.close();
```

Tested in Samsung Galaxy S7 & S8 & Google Pixel



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✓ Links (4)

Hide all

"<http://tutsa.fi/aani/soundspace.apk>" kj...@ #5
"https://issuetracker.google.com/hotlists/468606" kj...@ #5, kj...@ #7, kj...@ #8, kj...@ #9
"https://drive.google.com/open?id=15fDA_3VGW2ddP_ayyPh..." kj...@ #7, kj...@ #8, kj...@ #9
"< <https://drive.google.com/file/d/17OfYqefJN8YrWUnVq7Vqcgwgglc7k9YbK/vie...> >" kj...@ #9

COMMENTS

All comments

↓ Oldest first



ku...@google.com <ku...@google.com>

Mar 15, 2018 08:16PM

Assigned to ku...@google.com.



ku...@google.com <ku...@google.com> #2

Mar 16, 2018 12:47AM ⋮

Thank you for reporting this issue. For us to further investigate this issue, please provide the following additional information:

Android build

Which Android build are you using? (e.g. OPM1.171019.011)

Steps to reproduce

Please provide a sample application or apk to reproduce the issue.

Also kindly mention the steps to be followed for reproducing the issue with the given sample application.

Expected output

Could you please explain the expected behavior.

Current output

Could you please explain the current behavior.

Android bug report

After reproducing the issue, press the volume up, volume down, and power button simultaneously. This will capture a bug report on your device in the "bug reports" directory. Attach the bug report file to this issue.

Alternate method:

After reproducing the issue, navigate to developer settings, ensure 'USB debugging' is enabled, then enable 'Bug report shortcut'. To take bug report, hold the power button and select the 'Take bug report' option.



kj...@gmail.com <kj...@gmail.com> #3

Mar 16, 2018 07:07AM ⋮

Android build: NRD90M.G930FXXS1DRA7

Find attached apk

Steps to reproduce:

Login into DAM using the following credentials:

username: aanimaisema

password: Laulukirja1

Collection ID: 22

Touch Create Soundscape button

---- add 5 audiofiles from NATURE category:

Touch + FAB

Touch Sound Library

Touch Nature

Touch first label (Hevonen_hirnuu_15s) -> this should bring you back to

Create Soundscape view and there you see green box with label HEVONEN_HI...

Touch Nature

Touch + FAB

Touch Sound Library

Touch Nature

Touch second label (A_Suomalaisia_lintuja_30s) -> this should bring you

back to Create Soundscape view and there you see green box with label

A_SUOMALAI...

-- continue adding

Touch + FAB

Touch Sound Library

Touch Nature

Touch fifth label (A_Lokkeja_15s) -> this should bring you back to Create

Soundscape view and there you see green box with label A_LOKKEJA_---- add 5 audiofiles from HUMAN category:

---- add 5 audiofiles from HUMAN category:

Touch + FAB

Touch Sound Library

Touch Human

Touch first label (Naiset_voihkii_20s) -> this should bring you back to

Create Soundscape view and there you see orange box with label

NAISET_VOIH...

Touch + FAB

Touch Sound Library

Touch Human

Touch second label (Humalainen_porukka_30s) -> this should bring you back

to Create Soundscape view and there you see orange box with label

HUMALAINEN...

-- continue adding 3 more audio files

Touch Play-icon (Bottom middle) -> you should hear animal and human voices

Touch Stop-icon (Bottom middle)

---- add 3 audiofiles from MACHINE category:

Touch + FAB

Touch Sound Library

Touch Machine

Touch first label (Moottoripyörä_ohiajo_15s) -> this should bring you back

to Create Soundscape view and there you see red box with label MOOTTORIPY...

Touch + FAB

Touch Sound Library

Touch Machine

Touch second label (Tuotantolinja) -> this should bring you back to Create

Soundscape view and there you see red box with label TUOTANTOLI...

Touch Play-icon (Bottom middle) -> you should hear animal, human and machine voices

Touch Stop-icon (Bottom middle)

-- add one more from MACHINE category:

Touch + FAB

Touch Sound Library

Touch Machine

Touch fourth label (Raitiovaunu_ohiajo_15s) -> this should bring you back

to Create Soundscape view and there you see red box with label

RAITIOVAUNU...

Touch Play-icon (Bottom middle) -> you should hear animal, human and machine voices

Touch Stop-icon (Bottom middle)

--- add one more from MACHINE category:

Touch + FAB

Touch Sound Library

Touch Machine

Touch fifth label (Pelikone_rahoja) -> this should bring you back to Create Soundscape view and there you see red box with label PELIKONE_RA...

Touch Play-icon (Bottom middle) -> you should hear animal, human and machine voices

Expected output: should continue playing all the sounds

Current output: Now the app crashes

Bug report attached

On Thu, Mar 15, 2018 at 3:47 PM, <buganizer-system@google.com> wrote:

- [Show quoted text](#) -



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ku...@google.com <ku...@google.com> [#4](#)

Mar 16, 2018 09:31PM ⋮

Thank you for the reply.

The apk provided in [comment #3](#) didn't work for me(crashes on launch).

Please attach the working apk to reproduce the issue.



kj...@gmail.com <kj...@gmail.com> [#5](#)

Mar 16, 2018 09:50PM ⋮

Hi and sorry about that.

You can download apk from: tutsa.fi/aani/soundspace.apk

I have also attached it (size should be 2233 kB)

Best regards,

Kari

On Fri, Mar 16, 2018 at 12:31 PM, <buganizer-system@google.com> wrote:

- [Show quoted text](#) -



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ku...@google.com <ku...@google.com> [#6](#)

Mar 19, 2018 08:24PM ⋮

Thank you for the reply.

we are tried to reproduce that issue on Android N build and O build , but unable to reproduce it.Attached video for your reference.

So, please provide the following additional information:

Android bug report

After reproducing the issue, press the volume up, volume down, and power button simultaneously. This will capture a bug report on your device in the "bug reports" directory. Attach the bug report file to this issue.


Alternate method:


After reproducing the issue, navigate to developer settings, ensure 'USB debugging' is enabled, then

enable 'Bug report shortcut'. To take bug report, hold the power button and select the 'Take bug report' option.

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 **kj...@gmail.com** <kj...@gmail.com> #7

Mar 20, 2018 03:37AM 

Hi,

Find bug report as attachment. You can find it also in Gdrive:
https://drive.google.com/open?id=15fDA_3VGW2ddP_ayyPhmdT4RyqM14yHl


Is this bug report OK?


Best regards,
Kari


On Mon, 19 Mar 2018, 11:25 , <buganizer-system@google.com> wrote:

[- Show quoted text -](#)

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 **kj...@gmail.com** <kj...@gmail.com> #8

Mar 20, 2018 03:49AM 

Hi,


I just watched your video. Sorry that my instructions were not accurate enough. Add 5 sounds from Nature category (now you have added only 3), add 5 sounds from Human category (now you have added only 3), add 2 from machine category, play the soundscape, stop playing, add 1 more sound from machine category, play the soundscape, stop playing, add 1 more sound from machine category play the soundscape, stop playing, add 1 more sound from machine category, play the soundscape -> crash


So, up till fourteen sounds I'm able to add, but when I add the 15th sound, then it crashes. This requires that I'll play the soundscape (consisting of several sounds) and stop it couple of times. Stop releases all audiotracks, and play allocates new audiotracks for all audiofiles.

Best regards,
Kari

On Mon, Mar 19, 2018 at 6:37 PM, Kari Salo <kjsalo@gmail.com> wrote:

[- Show quoted text -](#)

 **kj...@gmail.com** <kj...@gmail.com> #9

Mar 20, 2018 04:11AM 


Hi,


Find a video attached to see what happens, when I run in trouble.

Best regards,
Kari
soundspace_crash_20180319.mp4
<https://drive.google.com/file/d/17OfYqefJN8YrWUnVq7VqcwgqIc7k9YbK/view?usp=drive_web>

On Mon, Mar 19, 2018 at 6:49 PM, Kari Salo <kjsalo@gmail.com> wrote:

[- Show quoted text -](#)

 **ku...@google.com** <ku...@google.com> #10

Mar 23, 2018 12:16AM 

Thank you for reporting this issue. We have shared this with our product and engineering team and will update this issue with more information as it becomes available.



am...@google.com <am...@google.com>

Nov 6, 2019 10:19PM

Reassigned to am...@google.com.



am...@google.com <am...@google.com> [#11](#)

Feb 5, 2020 09:02PM ⋮

Status: Won't Fix (Obsolete)

The issue is not reproducible on latest Android releases. Please report back if the issue persists.