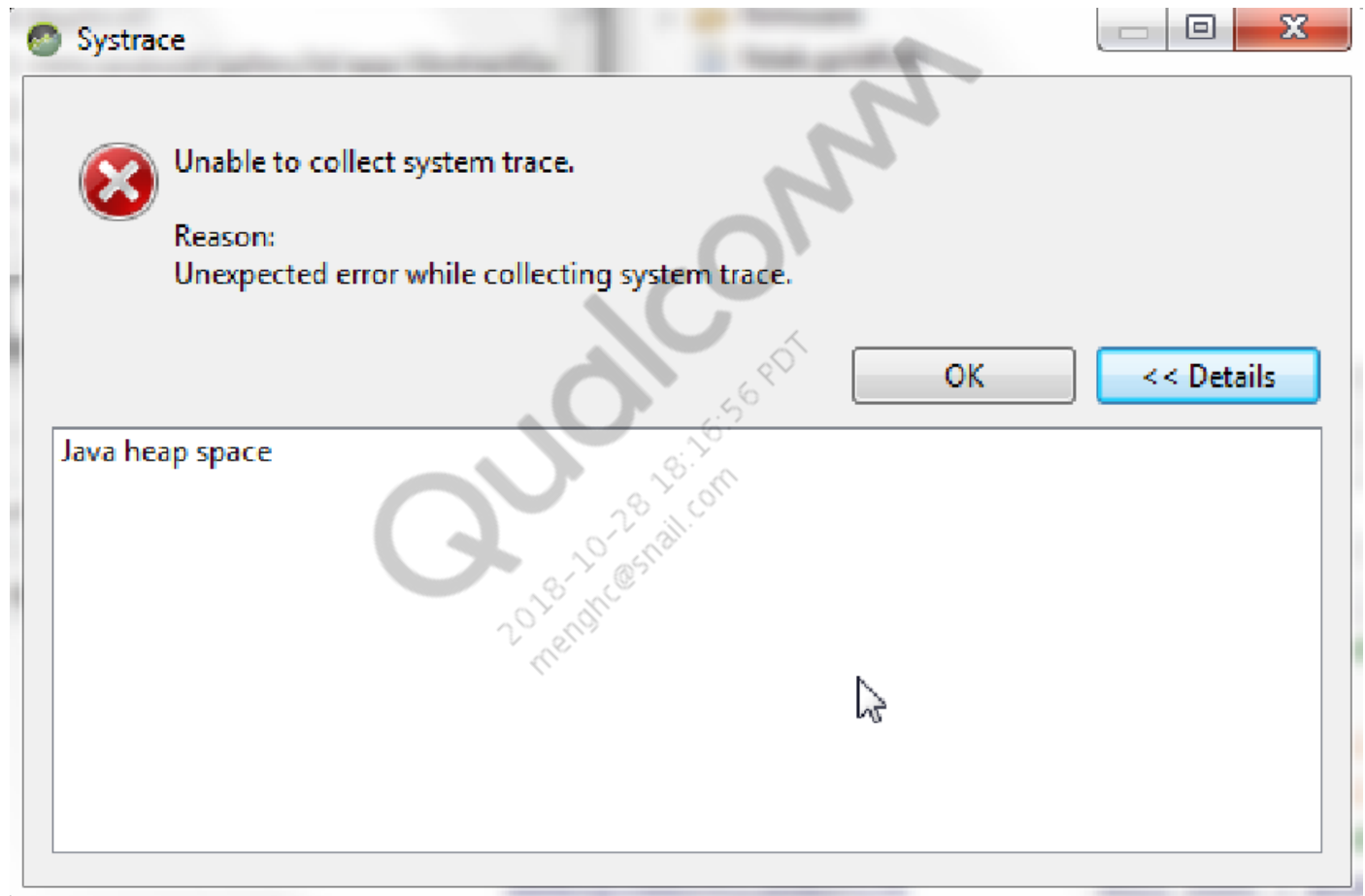


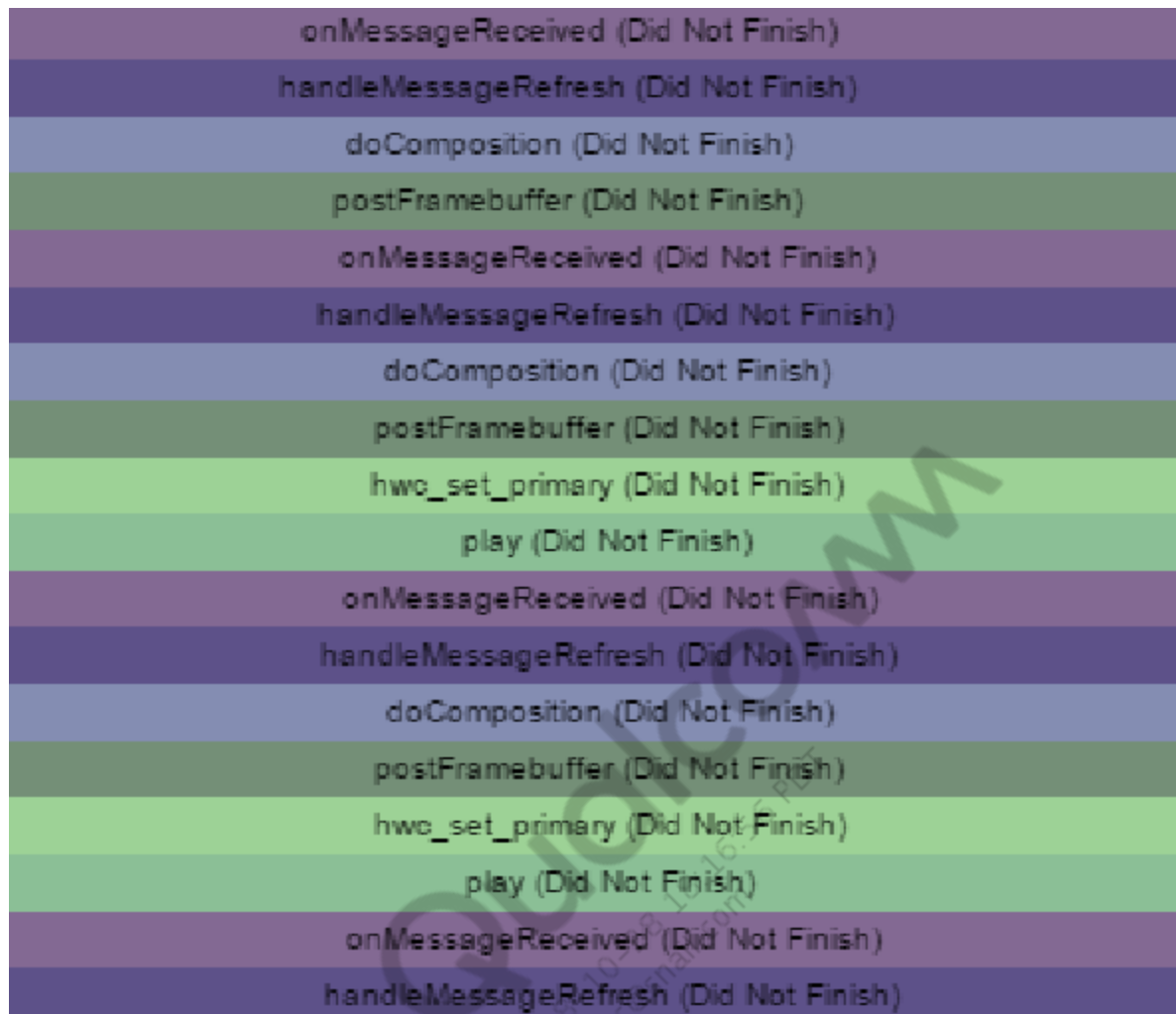
Systrace tips

Configuration

So many customers reported such issue when collecting systrace



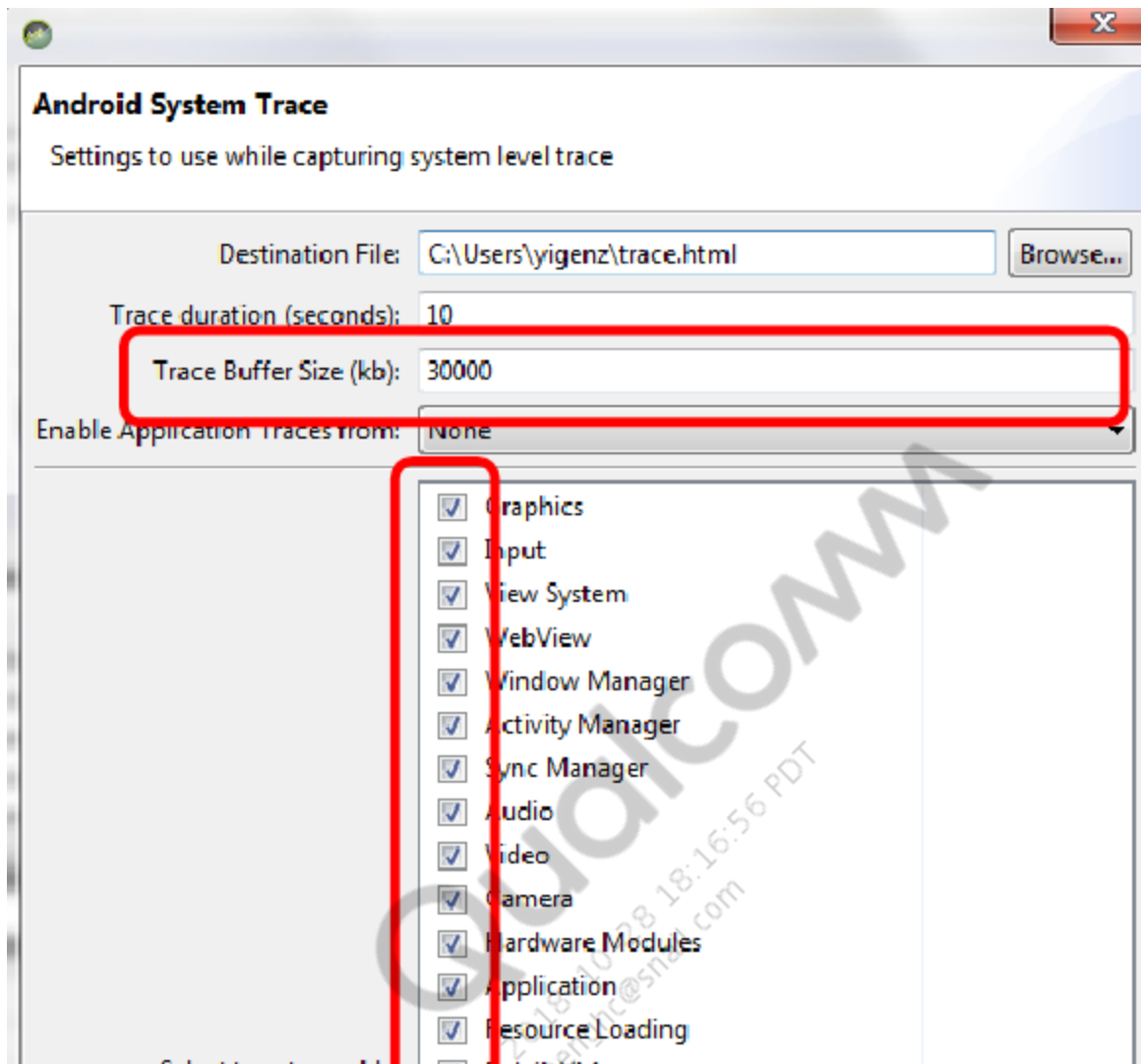
Or



To resolve such issue, you can alternatively:

1. Un-check unnecessary tags, or
2. Reduce "Trace buffer size"

Like this:



But the side effect of doing so is your systrace may contain insufficient information. So you have a better choice:

Enlarge systrace tool buffer size

- Android monitor

Open your `Android\android-studio\sdk\tools\lib\monitor-%vmarch%\monitor.ini`

Increase the value of `-XX:MaxPermSize;-Xms;-Xmx;`

Example

Change from:

`-XX:MaxPermSize=256m`

`-Xms512m`

`-Xmx1024m`

To:

`-XX:MaxPermSize=512m`

`-Xms1024m`

`-Xmx2048m`

- DDMS

DDMS is similar, but the configuration file is `eclipse.ini`, you can find it from your eclipse tool root folder

Systrace on Android N

To collect systrace via Android Monitor for your Android N software, you have to upgrade your Android SDK to 25.2.2 or upper.

Or you can only collect systrace by `systrace.pl` script. Recommended command for `systrace.pl` for performance issue is:

```
systrace.py gfx rs input view sched am wm camera dalvik freq idle load workq power mmc disk sm  
audio hal video app res -b 20480 -t 10 -o trace.html
```

Special cases

There're some special scenarios need to be aware.

1. Issue can't be reproduced with USB connected
2. Issue not seen with USB/WiFi/Charger connected
3. Low frequency issue
4. Crash issue
5. Focus on ftrace of special kernel modules

Issue can't be reproduced with USB connected

Consider to use adb via WiFi, steps

- Connect device via USB
- `adb tcpip 5555`
- `adb shell netcfg`

By this command, you can get your WiFi ip, like 192.168.43.5

- adb connect <ip>
- Unplug USB cable and you can run adb via WiFi connection

Issue not seen with USB/WiFi/Charger connected

Consider to run atrace background, steps

1. Connect USB
2. adb shell
3. `atrace -z -b 20960 -t 12 gfx input audio view webview wm am hal app res dalvik rs bionic power sched freq idle load sync workq memreclaim > /data/local/tmp/atrace.out &`
4. Unplug USB and reproduce your issue
5. `adb pull /data/local/tmp/atrace.out`
6. `python systrace.py --from-file atrace.out`
7. Note:
 - -b is for buffer size and -t is for atrace duration in second, -z is for compress; you may have to repeat step 3 several times until your issue reproduced
 - If your atrace runs failed, please run `atrace -list` to list all supported categories, and change your atrace parameter accordingly.

Low frequency issue

Consider to run atrace with async style

1. Connect USB
2. `adb shell atrace --async_start -z -b 20960 gfx input audio view webview wm am hal app res dalvik rs bionic power sched freq idle load sync workq memreclaim`
3. Unplug USB and reproduce your issue
4. Once issue get replicated, plugin USB immediately and run

```
adb shell atrace --async_dump -z -b 20960 gfx input audio view webview wm am hal app res dalvik rs bionic power sched freq idle load sync workq memreclaim >atrace.out
```

1. `python systrace/systrace.py --from-file atrace.out`

Crash issue

Consider to run atrace background, steps

1. Connect USB
2. adb shell

3. `atrace -z -b 20960 -t 12 gfx input audio view webview wm am hal app res dalvik rs bionic power sched freq idle load sync workq memreclaim > /data/local/tmp/atrace.out &`
4. Unplug USB and reproduce your issue
5. Provide ramdump to Qualcomm with your issue replicated

Tracing set_events settings

Most kernel modules have tracing configuration, customer can switch on/off tracing event accordingly.

For example, if you only care about bus vote, following settings is preferred.

```
adb shell "echo 0 > /sys/kernel/debug/tracing/tracing_on"
```

```
adb shell "echo > /sys/kernel/debug/tracing/trace"
```

```
adb shell "echo > /d/tracing/set_event"adb shell "echo 1 >
```

```
/sys/kernel/debug/tracing/events/msm_bus/bus_update_request/enable"
```

```
adb shell "echo 1 > /sys/kernel/debug/tracing/events/msm_bus/bus_update_request_end/enable"
```

```
adb shell "echo 1 > /d/tracing/events/rpm_smd/enable"
```

```
adb shell "echo 1 > /sys/kernel/debug/tracing/events/power/clock_set_rate/enable"
```

```
adb shell "echo 1 > /sys/kernel/debug/tracing/events/mdss/mdp_video_underrun_done/enable"
```

```
adb shell "echo 1 > /sys/kernel/debug/tracing/tracing_on"
```

```
adb shell cat /sys/kernel/debug/tracing/trace_pipe > trace_pipe.txt
```

Reference

[SYSTRACE LOGGING \(80-P0803-2\)](#)

[APPLICATION NOTE: ANALYZING UX-RELATED SYSTEM ISSUES \(80-NR256-4\)](#)

<http://developer.android.com/tools/help/systrace.html>