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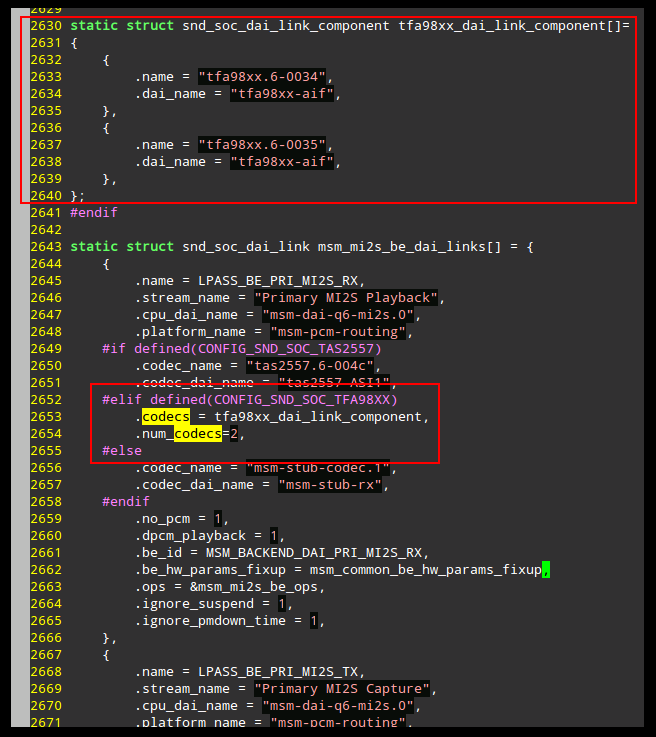
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# Audio Summary

## 两个SmartPA同时挂载PRI I2S上面，dailink修改



## media音量等阶修改

Android N上使用XML的配置，修改如下。

hardware/qcom/audio/configs/msm8953/msm8953.mk



frameworks/av/services/audiopolicy/config/default\_volume\_tables.xml



Android M上未使用XML的配置，修改如下。

frameworks/av/services/audiopolicy/enginedefault/src/Gains.cpp



## systrace log

高通平台如何offline 抓取systrace log:

当系统需要深度睡眠时，离线systrace可以帮助收集systrace。 在这种情况下，

像没有usb连接可用或系统需要进入LMP其他模式。您可以使用这个

文档获得正确的systrace以帮助性能问题。

前提

1.adb root和adb remount可用

2./system/bin/atrace可用

收集systrace

1，运行“adb root && adb remount”

2，在adb shell中，运行以下命令：

atrace -z -b 40000 gfx input view wm am hal res dalvik rs sched freq idle load disk mmc -t 15 > /data/local/tmp/trace\_output

audio: atrace -z -b 5120 irq audio sched freq idle load -t 10 -s 3 > /data/local/tmp/trace\_output &

-a appname enable app-level tracing for a comma separated list of cmdlines

-b N use a trace buffer size of N KB

-t N trace for N seconds [defualt 5]

-z compress the trace dump

--list\_categories list the available tracing categories

The time and buffer size should be long enough to finished the systrace collecting.

3, remove USB connection

4, reproduce this issue

从设备获取systrace

1.使用USB电缆连接设备

2.使用“adb shell ps -t | grep atrace”，如果没有这样的atrace，就可以走出systrace

3.使用以下命令：adb pull /data/local/tmp/trace\_output

转换systrace

systrace.py --from-file trace\_output -o output.html

现在，您可以使用Chrome来分析systrace文件。

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"

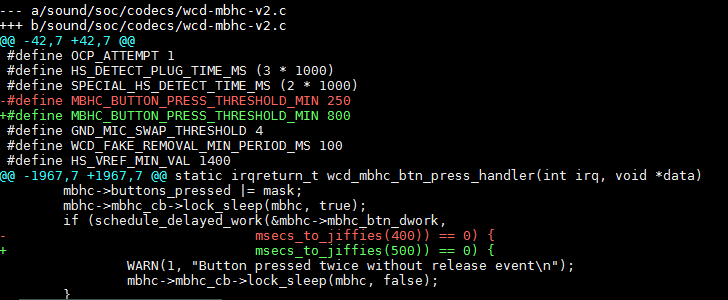
adb shell "echo 1 > /sys/kernel/debug/tracing/events/mdss/mdp\_video\_underrun\_done/enable"

adb shell "echo 1 > /sys/kernel/debug/tracing/tracing\_on"

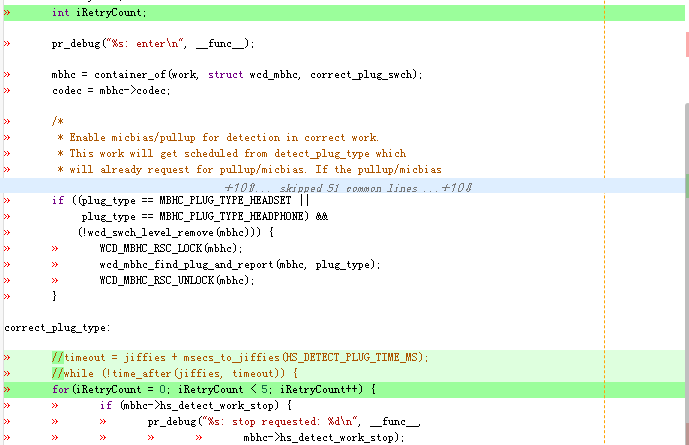
adb shell cat /sys/kernel/debug/tracing/trace\_pipe > trace\_pipe.txt

* -h, –help Show the help message.（帮助）
* -o Write the HTML trace report to the specified file.（即输出文件名，）
* -t N, –time=N Trace activity for N seconds. The default value is 5 seconds. （Trace抓取的时间，一般是 ： -t 8）
* -b N, –buf-size=N Use a trace buffer size of N kilobytes. This option lets you limit the total size of the data collected during a trace.
* -k
* —ktrace= Trace the activity of specific kernel functions, specified in a comma-separated list.
* -l, –list-categories List the available tracing category tags. The available tags are
  + gfx - Graphics
  + input - Input
  + view - View
  + webview - WebView
  + wm - Window Manager
  + am - Activity Manager
  + audio - Audio
  + video - Video
  + camera - Camera
  + hal - Hardware Modules
  + res - Resource Loading
  + dalvik - Dalvik VM
  + rs - RenderScript
  + sched - CPU Scheduling
  + freq - CPU Frequency
  + membus - Memory Bus Utilization
  + idle - CPU Idle
  + disk - Disk input and output
  + load - CPU Load
  + sync - Synchronization Manager
  + workq - Kernel Workqueues Note: Some trace categories are not supported on all devices. Tip: If you want to see the names of tasks in the trace output, you must include the sched category in your command parameters.
* -a
* —app= Enable tracing for applications, specified as a comma-separated list of package names. The apps must contain tracing instrumentation calls from the Trace class. For more information, see Analyzing Display and Performance.
* —link-assets Link to the original CSS or JavaScript resources instead of embedding them in the HTML trace report.
* —from-file= Create the interactive Systrace report from a file, instead of running a live trace.
* —asset-dir= Specify a directory for the trace report assets. This option is useful for maintaining a single set of assets for multiple Systrace reports.
* -e
* —serial= Conduct the trace on a specific connected device, identified by its device serial number.  
  上面的参数虽然比较多，但使用工具的时候不需考虑这么多，在对应的项目前打钩即可，命令行的时候才会去手动加参数

## 缓慢插拔耳机误报media键



## 耳机检测过程出现轻微哒哒声



## 深入理解audio系统

<http://blog.csdn.net/innost/article/details/47208109>

## How/Why To generate/modify acdb\_avs\_config.acdb

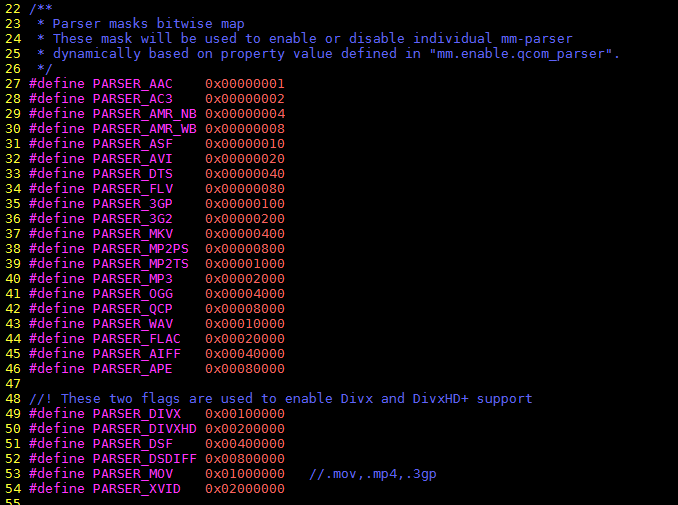
* Load the avs\_config.xml file and edit the built-in module configuration
* Register and modify custom modules

From the DSP build at < build root>\adsp\_proc\avs\build\avs\_cfg\_autogen\avs\_config.xml

For details to see QACT Help -> Manage built-in and custom DSP modules chapter.

## About QTI parser

Adb shell getprop/setprop mm.enable.qcom\_parser(default 494303/3FFFFF)



## Qcom audio system

Play back over A2DP and USB does not go through ADSP.

FM playback, google follow BT devices flow, but QTI follow speaker/headset devices’.

