RK3308 app启动流程

app启动流程：

以编入了的eq_drc_process为例：

1.在目录external下，创建eq_drc_process文件夹,创建Makefile

2.在目录buildroot/package/rockchip下，创建创建eq_drc_process文件夹，创建Config.in和eq_drc_process.mk

3.在buildroot/package/rockchip/eq_drc_process中的config.in中定义BR2_PACKAGE_EQ_DRC_PROCESS，

在buildroot/package/rockchip/Config.in中source "package/rockchip/eq_drc_process/Config.in，

在buildroot/configs/firefly_rk3308_release_defconfig中加入BR2_PACKAGE_EQ_DRC_PROCESS=y。

4.编译之后，生成bin文件，在buildroot/output/firefly_rk3308_release/target/usr/bin/eq_drc_process

5.连接上设备后，能在设备的/usr/bin里看见eq_drc_process

6.在/etc中，发现inittab中sysinit:/etc/init.d/rcS，即inittab --> init.d -->rcS --> S100_EQ_init --> eq_drc_process，到此时，eq_drc_process启动完成。如果别的app在/etc/init.d中加上S开头的脚本，就可以一开机就执行。

百度算法App目录：external/DuerClientSDK/DCSApp

app编译指令

source envsetup.sh

（一）编译模块：

1.在buildroot下：make key_code_read-rebuild

注意：如果出现没编进去的情况，在external目录下执行make clean

（二）整体编译：（SDK目录下）

1.请先删除.stamp*配置文件

rm /media/bb-yy/WORK/RK/SDK/buildroot/output/firefly_rk3308_release/build/key_code_read-1.1/.stamp_*

2./build.sh

```
1  make DuerClientSDK-clean-for-rebuild
2  make DuerClientSDK-rebuild
```

```
1  设备内文件丢失，使用adb shell sync 可以解决问题
2
3  adb shell sync 命令：
4    1.在shell中执行
5    2.将内存缓冲区中的数据 写入到磁盘
6
7  adb sync 命令：
8  1.同步更新/data/或/system/下的数据
9  命令用法：adb sync [directory]
10 如果不指定目录，将同步更新/data/和/system/
11
```

```
1  还原不小心删掉的文件
2  git checkout +文件名
```

dts修改

```
1  readme：./build.sh roc-rk3308b-cc-plus-buildroot.mk   #配置编译固件
2  /device/rockchip/rk3308/build.sh roc-rk3308b-cc-plus-buildroot.mk中include
3
4  注意选择i2c引脚功能
5
```

Glibc版本变更

```
1   对于rk4.4版本：
2   glibc 2.29的库在：
3   /media/bb-yy/WORK/RK/SDK/buildroot/package/glibc
4   要把使用glibc 2.26改为2.29：
5   1.修改glibc.hash(加上从github得到的glibc2.29的hash值)和glibc.mk的GLIB_VERSION
6   2.使用make glibc-rebuild，重新编译，目录：/media/bb-
    yy/WORK/RK/SDK/buildroot/output/
7   firefly_rk3308_release/target/lib/libm.so.6中的链接就会指向glibc-2.29
8
9   对于rk5.1版本：
10  glibc库在：
11  /media/bb-yy/WORK/RK/SDK/buildroot/package/glibc
12  修改glib.mk
```

```
huangxinran@xr-build-server:~/RK3308/buildroot/package/glibc$ ls
2.28-69-g1e5c5303a522764d7e9d2302a60e4a32cdb902f1  2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa  Config.in  glibc.hash  glibc.mk  nsswitch.conf
huangxinran@xr-build-server:~/RK3308/buildroot/package/glibc$ vi glibc.mk
```

查看变更后的glibc版本：

```
inary file buildroot/package/glibc/.glibc.mk.swp matches
huangxinran@xr-build-server:~/RK3308$ vi README.md
huangxinran@xr-build-server:~/RK3308$ cd buildroot
huangxinran@xr-build-server:~/RK3308/buildroot$ cd output/
huangxinran@xr-build-server:~/RK3308/buildroot/output$ ls
test  rockchip_rk3308_b_release  rockchip_rk3308_bs_release  rockchip_rk3308_recovery
huangxinran@xr-build-server:~/RK3308/buildroot/output$ cd rockchip_rk3308_bs_release/
huangxinran@xr-build-server:~/RK3308/buildroot/output/rockchip_rk3308_bs_release$ cd build/
huangxinran@xr-build-server:~/RK3308/buildroot/output/rockchip_rk3308_bs_release/build$ cd g
esftpserver-1/                                          glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa/
uangxinran@xr-build-server:~/RK3308/buildroot/output/rockchip_rk3308_bs_release/build$
```

在glib-2.37下找到libc.so.6，这正是我们需要的库。

```
huangxinran@xr-build-server:~/RK3308$ find ./ -name *libc-2.37*
./buildroot/output/rockchip_rk3308_recovery/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa
./buildroot/output/rockchip_rk3308_recovery/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa.tar
./buildroot/output/rockchip_rk3308_bs_release/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa
./buildroot/output/rockchip_rk3308_bs_release/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa.tar
./buildroot/dl/glibc/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa.tar.gz
huangxinran@xr-build-server:~/RK3308$ cd buildroot/output/rockchip_rk3308_bs_release/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa$ ls
abi-tags        config.make.in    debug            gshadow      io             Makeconfig      NEWS     README       signal      termios
aclocal.m4      configure         dirent           hesiod       libc-abis      Makefile        nis      resolv       socket      test-skeleton.
argp            configure.ac      dlfcn            htl          libio          Makefile.help   nptl     resource     soft-fp     time
assert          conform           elf              hurd         libof-iterator.mk  Makefile.in  nptl_db  rt           stdio-common  timezone
benchtests      CONTRIBUTED-BY    extra-lib.mk     iconv        LICENSES       Makerules       nscd     Rules        stdlib      version.h
bits            COPYING           gen-locales.mk   iconvdata    locale         malloc          nss      scripts      string      wcsmbs
build           COPYING.LIB       glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa.tar  include  localedata  manual  o-iterator.mk  setjmp  sunrpc  wctype
catgets         crypt             gmon             inet         login          math            po       shadow       support
ChangeLog.old   csu               gnulib           intl         mach           mathvec         posix    SHARED-FILES sysdeps
config.h.in     ctype             grp              INSTALL      MAINTAINERS    misc            pwd      shlib-versions  sysvipc
huangxinran@xr-build-server:~/RK3308/buildroot/output/rockchip_rk3308_bs_release/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa$ cd build/
huangxinran@xr-build-server:~/RK3308/buildroot/output/rockchip_rk3308_bs_release/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa/build$ ls
abi-versions.h  dirent            gnu              libBrokenLocale.map  libio.map    localedata   pthread-pi-defines.h   signal      sysd-versions  Versions.def
argp            dlfcn             gnulib           libc.a               login.map    Makefile     pthread-pi-defines.h.d  socket     sysvipc       Versions.mk
assert          dl-link.h         grp              libc-abis.h          libnsl.map   pwd          resolv                 termios     version.stmp
bits            dl-link.h.d       gshadow          libc-abis.stamp      libnss_compat.map  malloc  resolv  soversions.i  testrun.sh  Versions.tmp
catgets         dl-tunable-list.h  hesiod          libc_malloc_debug.map  libnss_db.map  manual  resource  soversions.mk  time       Versions.v
config.h        dl-tunable-list.stmp  iconv         libc.map            libnss_dns.map  math    rt         stamp.o         tine        Versions.v.i
config.log      dummy.c           iconvdata        libc-modules.h       libnss_files.map  mathvec  rtld-sizes.h  stamp.os  time64-compat.mk  wcsmbs
config.make     dummy.o           inet             libc-modules.stmp    libnss_hesiod.map  misc    rtld-sizes.h.d  stdio-common  time64-compat.mk.i  wctype
config.status   dummy.o.dt        intl             libc_nonshared.a     libpthread.map  nis     runtime-linker.h  stdlib   timezone
conform         elf               io               libc_pic.a           libresolv.map   nptl    runtime-linker.stamp  string  tlsdesc.h
crypt           first-versions.h  jmp_buf-macros.h  libc_pic.os         librt.map      nptl_db  setjmp  sunrpc    ucontext_i.h
csu             format.lds        jmp_buf-macros.h.d  libcrypt.map      libthread_db.map  nscd  shadow  support   ucontext_i.h.d
ctype           gcc-macros.h      ldbl-compat-choose.h  libutil.map     nss      shlib.lds  sysd-rules  unwindbuf.h
debug           gcc-macros.h.in   ld.map            libc.so.6           linkobj      po       shlib-versions.v  sysd-sorted  unwindbuf.h.d
debugglibc.sh   gmon              libanl.map        locale              posix     shlib-versions.v.i  sysd-syscalls  Versions.all
huangxinran@xr-build-server:~/RK3308/buildroot/output/rockchip_rk3308_bs_release/build/glibc-2.37-2-g9f8513dc64119a424b312db97cef5d87d376defa/build$ scp libc
libc.a          libc-abis.stamp   libc.map          libc-modules.stmp   libc_pic.a     libcrypt.map  libc.so.6
libc-abis.h     libc_malloc_debug.map  libc-modules.h  libc_nonshared.a  libc_pic.os   libc.so
```

```
1   然而把这个库移到rk4.4SDK上，提示：
2   usr/bin/coreutils:
3   relocation error: /lib64/libc.so.6: symbol _dl_audit_symbind_alt version
    GLIBC_PRIVATE not
4   defined in file ld-linux-aarch64.so.1 with link time reference
5   因为这是rk5.1上编出来的库，不能在4.4上运行。
```

duerlight在rk3308下编译

编译

```
1   source build/envsetup.sh或source buildroot/envsetup.sh
2   lightduer 14
3   make
4
5   清除编译
6   make clean_all
7   单编模块
8   make HTTP
```

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ source build/envsetup.sh
including build/device/freertos/a113l/configsetup.sh
including build/device/freertos/esp32/configsetup.sh
including build/device/freertos/esp8266/configsetup.sh
including build/device/freertos/mw300/configsetup.sh
including build/device/freertos/rtk/configsetup.sh
including build/device/freertos/sv32wb0x/configsetup.sh
including build/device/freertos/xr6166/configsetup.sh
including build/device/freertos/xr871/configsetup.sh
including build/device/lightduer/storydroid/configsetup.sh
including build/device/linux/amlogica113/configsetup.sh
including build/device/linux/mips/configsetup.sh
including build/device/linux/mtk/configsetup.sh
including build/device/linux/x86/configsetup.sh
```

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ lightduerconfig

You're building on Linux

config menu... pick one:
    1. freertos_a113l-sdkconfig
    2. freertos_esp32-sdkconfig
    3. freertos_esp8266-sdkconfig
    4. freertos_mw300-sdkconfig
    5. freertos_rtk-xxxconfig
    6. freertos_sv32wb0x-sdkconfig
    7. freertos_xr6166-sdkconfig
    8. freertos_xr871-sdkconfig
    9. lightduer_storydroid-x86linuxdemoconfig
    10. linux_amlogica113-sdkconfig
    11. linux_mips-democonfig
    12. linux_mips-sdkconfig
    13. linux_mtk-democonfig
    14. linux_x86-democonfig
    15. linux_x86-speexencoderconfig
    16. linux_x86-dcs3linuxdemoconfig
    17. linux_x86-soniccodecdemoconfig

Which would you like? [1] 14
*****************************
TARGET_PLATFORM_OR_VENDOR=linux
TARGET_COMPILE_ENV_OR_PRODUCT=x86
TARGET_BUILD_VARIANT=democonfig
*****************************
```

编译链

x86下编译文件在：

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device/build/device/linux/x86$ vi democonfig.mk
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device/build/device/linux/x86$ vi democonfig.mk
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device/build/device/linux/x86$ vi democonfig.mk
```

在democonfig.mk中修改编译工具为rk3308的工具：

```
1 #TOOLCHAIN ?= $(AMLOGIC_A113_TOOLCHAIN_PATH)/bin/arm-linux-gnueabihf-
2 TOOLCHAIN ?= /home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-
3
```

移除以前的out目录

然后再次make成功

加入动态库

需求：链接libasound.so库

1.修改了example/linux/duer.mak，在CFLAGS下加上libasound.so库所在的目录/home/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr/lib，并在LDFLAGS下加上库名字

```
#aac add
CFLAGS += -I/usr/include
LOCAL_LDFLAGS := -lm -lrt -lpthread -lasound
LDFLAGS += -lasound
```

出现如下错误：会找不到lib/lib.so.6等库，原因是这个库前面也有lib，识别不到，

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ make
CC out/linux/x86/democonfig/modules/linux-demo/duerapp_args.c.o
CC out/linux/x86/democonfig/modules/linux-demo/duerapp.c.o
examples/linux/duerapp.c: In function 'main':
examples/linux/duerapp.c:241:5: warning: implicit declaration of function 'duer_media_audio_start'; did you mean 'duer_dcs_audio_on_started'? [-Wimplicit-function-declaration]
  241 |     duer_media_audio_start();
      |     ^~~~~~~~~~~~~~~~~~~~~~
      |     duer_dcs_audio_on_started
CC out/linux/x86/democonfig/modules/linux-demo/duerapp_recorder.c.o
CC out/linux/x86/democonfig/modules/linux-demo/duerapp_profile_config.c.o
CC out/linux/x86/democonfig/modules/linux-demo/duerapp_dcs.c.o
CC out/linux/x86/democonfig/modules/linux-demo/duerapp_media.c.o
===> LN out/linux/x86/democonfig/modules/linux-demo/linux-demo
/home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/../lib/gcc/aarch64-none-linux-gnu/10.3.1/../../../../aarch64-none-linux-gnu/bin/ld: ca
nnot find /lib64/libc.so.6
/home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/../lib/gcc/aarch64-none-linux-gnu/10.3.1/../../../../aarch64-none-linux-gnu/bin/ld: ca
nnot find /usr/lib64/libc_nonshared.a
/home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/../lib/gcc/aarch64-none-linux-gnu/10.3.1/../../../../aarch64-none-linux-gnu/bin/ld: ca
nnot find /lib/ld-linux-aarch64.so.1
collect2: error: ld returned 1 exit status
make: *** [build/core/build_pre.mak:119: out/linux/x86/democonfig/modules/linux-demo/linux-demo] Error 1
#### make failed to build some targets (2 seconds) ####
```

2.把libasound.so库挪到usr目录下（上一级），在CFLAGS下加上libasound.so库所在的目录/home/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr

报错如下：不论我怎么把全部的库挪到usr目录下,总是有库找不到


```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ make
===> LN out/linux/x86/democonfig/modules/linux-demo/linux-demo
/home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/../lib/gcc/aarch64-none-linux-gnu/10.3.1/../../../../aarch64-none-linux-gnu/bin/ld: /h
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_once@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_mutexattr_destroy@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dlclose@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dlsym@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dlinfo@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dladdr1@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_mutexattr_init@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dladdr@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_create@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_join@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dlerror@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_mutex_trylock@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `dlopen@GLIBC_2.34'
ome/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_release/host/aarch64-buildroot-linux-gnu/sysroot/usr1/libasound.so: undefined reference to `pthread_mutexattr_settype@GLIBC_2.34'
collect2: error: ld returned 1 exit status
make: *** [build/core/build_pre.mak:119: out/linux/x86/democonfig/modules/linux-demo/linux-demo] Error 1
#### make failed to build some targets (2 seconds) ####
```

3.找出build_pre.mak

```
1  添加：
2  TOOLCHAIN = /home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-
   arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-
3  SYSROOT = --
   sysroot=/home/WORK/huangxinran/RK3308/buildroot/output/rockchip_rk3308_bs_relea
   se/host/aarch64-buildroot-linux-gnu/sysroot
4
5
6  将(SYSROOT)也加入这两个规则，删除CFLAGS规则
7  $($(LOCAL_MODULE)_TARGET_EXE): $($(LOCAL_MODULE)_DEPS)
8      $(HIDE)echo "===> LN $@"
9      $(HIDE)$(TOOLCHAIN)$(CC) $(SYSROOT) -o $@ $(filter %.o,$^) $(call
   obtain_all_objects, $(filter %.a,$^)) $($(call obtain_prefix, $@)_LDFLAGS)
10
11 $($(LOCAL_MODULE)_OBJ_FILES):$($(LOCAL_MODULE)_TARGET_DIR)/%.o:$(MODULE_PATH)/%
```

```
12      $(HIDE)echo CC $@
13      $(HIDE)mkdir -p $(dir $@)
14      $(HIDE)$(TOOLCHAIN)$(CC) $(SYSROOT)  -o $@ -c $< $(call obtain_cflags, $@)
     $(CFLAGS)
```

至此问题解决

新增模块

需求：在modules下添加curl文件夹封装curl库用于http get获取百度云发过来的音频

1.在顶级Makefile中添加lightduer_supported_modules := modules_module_curl\，对于linux_demo把此模块的功能打开

注意到Makefile最后一句：会遍历根目录下所有.mak文件

```
1  $(foreach mak,$(call find, $(BASE_DIR) ,duer.mak),$(eval include $(strip
   $(mak))))
```

2.在build/device/linux/x86的democonfig.mk中添加

#aac add

TOOLCHAIN ?= /home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-

#aac add

modules_module_curl=y

3.写module/curl/duer.mak

```
1  include $(CLEAR_VAR)
2
3  #all:
4  #       @echo "bbbbbbbbbbbbbbbbbbbbbbbbb: $(lightduer_supported_modules)"
5
6  MODULE_PATH := $(BASE_DIR)/modules/curl
7
8  LOCAL_MODULE := curl
9
```

```
10   #LOCAL_STATIC_LIBRARIES := framework coap connagent cjson voice_engine
     platform device_status
11
12   LOCAL_LDFLAGS := -lm -lrt -lpthread -lasound -lcurl -lstdc++
13
14   LOCAL_SRC_FILES := $(wildcard $(MODULE_PATH)/*.cpp)
15
16   LOCAL_INCLUDES := $(MODULE_PATH)
17
18   include $(BUILD_STATIC_LIB)
19
```

之前出现问题一直是因为module/curl/duer.mak的最后一句没写加上一直没有make clean_all，一直
识别不到。现在我明白了加上最后一句，因为module中的模块最终会编成.a库，如果不加入
BUILD_STATIC_LIB，它就不会被linux_demo引用了。

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ make
make: *** No rule to make target 'out/linux/x86/democonfig/modules/curl/libcurl.a', needed by 'out/linux/x86/democonfig/modules/linux-demo/linux-demo'.  Stop.

#### make failed to build some targets (1 seconds) ####
```

C / C++ 混合编译

需求：在modules下添加curl文件夹封装curl库全是c++文件，工程的其他文件都是.c文件

直接编报错：cpp文件无法匹配

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ make
build/core/build_pre.mak:130: target 'modules/curl/http.cpp' doesn't match the target pattern
build/core/build_pre.mak:130: target 'modules/curl/response.cpp' doesn't match the target pattern
build/core/build_pre.mak:130: target 'modules/curl/request.cpp' doesn't match the target pattern
build/core/build_pre.mak:130: target 'modules/curl/executor.cpp' doesn't match the target pattern
build/core/build_pre.mak:130: target 'modules/curl/test_url.cpp' doesn't match the target pattern
build/core/build_pre.mak:130: target 'modules/curl/url.cpp' doesn't match the target pattern
build/core/build_pre.mak:130: target 'modules/curl/util.cpp' doesn't match the target pattern
--> AR out/linux/x86/democonfig/modules/curl/libcurl.a
/home/WORK/huangxinran/RK3308/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-ar: out/linux/x86/democonfig/modules/curl/libcurl.a: No such fi
le or directory
make: *** [build/core/build_pre.mak:120: out/linux/x86/democonfig/modules/curl/libcurl.a] Error 1

#### make failed to build some targets (1 seconds) ####
```

1.修改build/core/build_pre.mak

```
1   #aac add
2   #$(LOCAL_MODULE)_OBJ_FILES1 += $(patsubst $(MODULE_PATH)/%.cpp,
    $($(LOCAL_MODULE)_TARGET_DIR)/%.cpp.o, $(LOCAL_SRC_FILES))
3   #$(TARGET): $($(LOCAL_MODULE)_OBJ_FILES) $($(LOCAL_MODULE)_OBJ_FILES1)
4   $$(CXX)$$(TOOLCHAIN) -o $@ $^
5   #aac add
6   #$($(LOCAL_MODULE)_OBJ_FILES1):$($(LOCAL_MODULE)_TARGET_DIR)/%.o:$(MODULE_PATH)
    /%
7   $$(HIDE)echo CC $$@
```

```
  8  $$(HIDE)mkdir -p $$(dir $@)
  9  $$(HIDE)$$(TOOLCHAIN)$(CXX) $(SYSROOT)  -o $@ -c $< $(call obtain_cflags, $@)
     $(CFLAGS)
```

然而修改后变成了.c文件无法匹配，插句题外话，不知道为什么，编译库的时候也有这个问题

```
huangxinran@xr-build-server:~/RK3308/external/libduer-device-3.2/libduer-device$ make
build/core/build_pre.mak:136: target 'framework/core/lightduer_thread.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_lib.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_ap_info.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_net_transport_wrapper.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_semaphore.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_random.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_sleep.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_net_transport.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_mutex.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_net_trans_aes_cbc_encrypted.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_memory.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_net_trans_encrypted.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_debug.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_file.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/core/lightduer_timestamp.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_ecdh.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_rscode.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_uuid.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_base_coding.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_hashcode.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_snprintf.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_queue_cache.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_math.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_aes.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_bitmap.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_handler.c' doesn't match the target pattern
build/core/build_pre.mak:136: target 'framework/utils/lightduer_net_util.c' doesn't match the target pattern
build/core/build_pre.mak:124: warning: overriding recipe for target 'linux-demo'
build/core/build_pre.mak:124: warning: ignoring old recipe for target 'linux-demo'
```

2.解决：

在pre_duer.mak文件，先判断一下模块名，如果是我们新加入的模块，用c++规则编译，否则用c

```
ifneq ($(LOCAL_MODULE),curl)
$(info =====+++++++++++++++++++)
$(LOCAL_MODULE)_OBJ_FILES += $(patsubst $(MODULE_PATH)/%.c, $($(LOCAL_MODULE)_TARGET_DIR)/%.c.o, $(LOCAL_SRC_FILES))
#aac add
else
$(info =====+12111111111111)
$(LOCAL_MODULE)_OBJ_FILES += $(patsubst $(MODULE_PATH)/%.cpp, $($(LOCAL_MODULE)_TARGET_DIR)/%.cpp.o, $(LOCAL_SRC_FILES))
endif
$(info LOCAL_MODULE_OBJ_FILES1: $($(LOCAL_MODULE)_OBJ_FILES1))
```
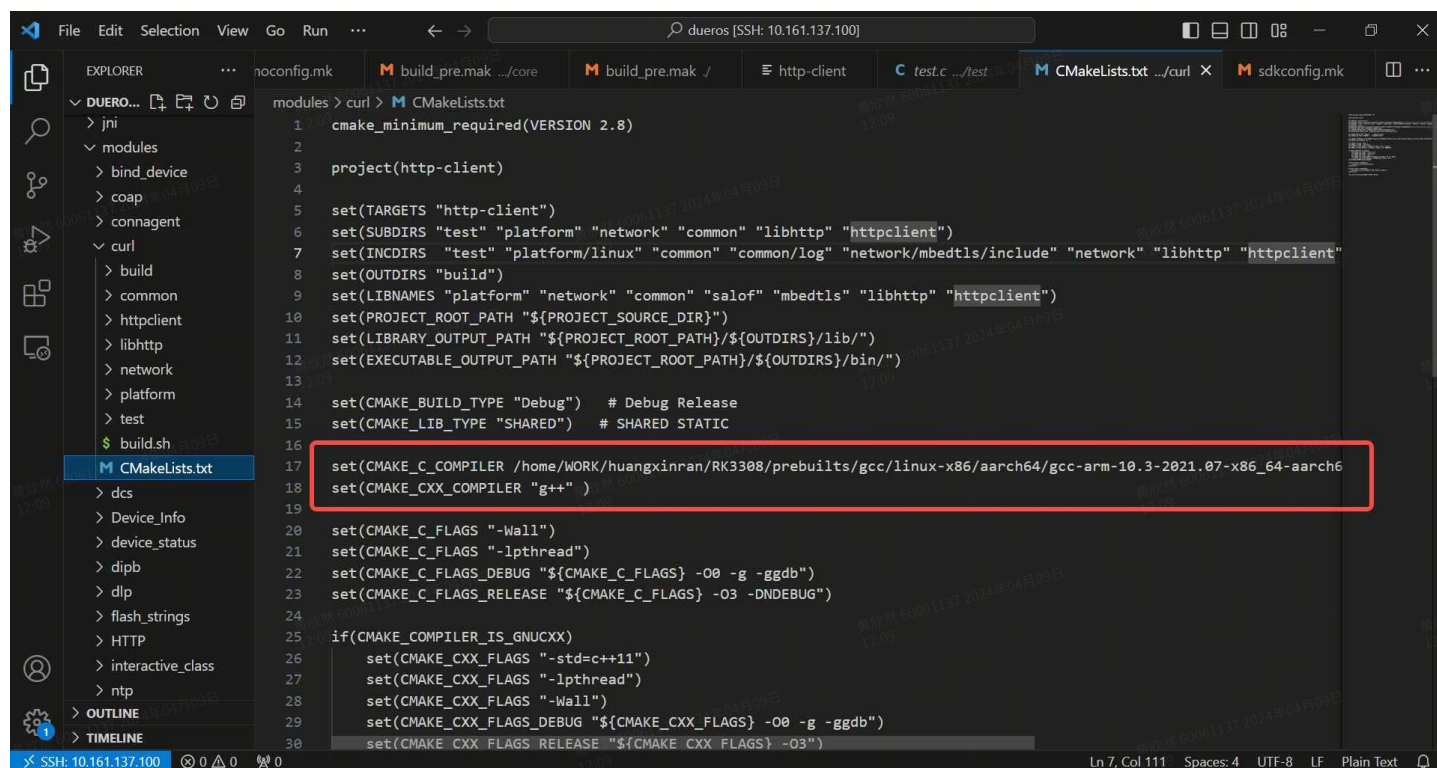
```
 137   ifneq ($(LOCAL_MODULE),curl)
 138   $(info =====+++++++++++++++++)
 139   $($(LOCAL_MODULE)_OBJ_FILES):$($(LOCAL_MODULE)_TARGET_DIR)/%.o:$(MODULE_PATH)/%
 140       $(HIDE)echo CC $@
 141       $(HIDE)mkdir -p $(dir $@)
 142       $(HIDE)$(TOOLCHAIN)$(CC) $(SYSROOT)  -o $@ -c $< $(call obtain_cflags, $@) $(CFLAGS)
 143   else
 144   #aac add
 145   $(info =====1111111111111111111111111)
 146   $($(LOCAL_MODULE)_OBJ_FILES):$($(LOCAL_MODULE)_TARGET_DIR)/%.o:$(MODULE_PATH)/%
 147       $(HIDE)echo CC $@
 148       $(HIDE)mkdir -p $(dir $@)
 149       $(HIDE)$(TOOLCHAIN)$(CXX) $(SYSROOT)  -o $@ -c $< $(call obtain_cflags, $@) $(CFLAGS)
 150   endif
```

编译http client sdk

把此处的gcc改成我们的编译链目录-gcc

就可以编出我们自己的库，然而编出来的库没有.h引用文件，不能被我们的工程引用，接下来要解决这个问题

目前采用的方法是把头文件复制到sysroot目录下去

模块编译成动态库

CMakeLists.txt

```
 1  add_library(HTTP SHARED
 2              lightduer_http_client_ops.c
 3              lightduer_http_client.c
 4              lightduer_http_dns_client_ops.c)
 5
 6  #target_link_libraries(DeviceIo Timer wpa_client SocketApp)
 7
 8  target_include_directories(HTTP PUBLIC
 9  #hxr add
10  "/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Dueros/modules/HTTP"
```

```
11  "/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Dueros/framewor
    k/core"
12  "/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Dueros/framewor
    k/include"
13  "/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Dueros/platform
    /include"
14  "/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Dueros/modules/
    device_status"
15  "/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Dueros/external
    /baidu_json"
16  )
```

如何在CMakeLists.txt构建的项目中编译带有.mak的子目录

这么写暂未生效

```
1  #add_custom_target(Dueros
2      #COMMAND /bin/bash -c "source
   ${CMAKE_CURRENT_SOURCE_DIR}/Dueros/build/envsetup.sh && lightduerconfig 11"
3      #COMMAND make -C ${CMAKE_CURRENT_SOURCE_DIR}/Dueros
4  #)
5  #add_custom_target(Dueros
6  #    COMMAND /bin/bash -c "source
   ${CMAKE_CURRENT_SOURCE_DIR}/Dueros/build/envsetup.sh"
7  #    COMMAND /bin/bash -c "lightduerconfig 11"
8  #    COMMAND /bin/bash -c "make"
9  #    COMMENT "Running external Makefile"
10 #    COMMAND buildtool ${CMAKE_CURRENT_SOURCE_DIR}/Dueros/Makefile
11 #    WORKING_DIRECTORY ${CMAKE_CURRENT_SOURCE_DIR}/Dueros)
```

这么写可以编出.a库

```
1  message(STATUS "Dueros CMAKE")
2  execute_process(COMMAND sh -c "${CMAKE_CURRENT_SOURCE_DIR}/build.sh")
```

编译错误1，忘了怎么解决的了

```
/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/SMARTApp/src/Configuration.cpp: In member function 'bool SMARTApp::application::Configuration::readConfig()':
/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/SMARTApp/src/Configuration.cpp:113:24: error: 'IStreamWrapper' is not a member of 'rapidjson'
  113 |         rapidjson::IStreamWrapper appConfigStreamWrapper(appConfigStream);
      |                    ^~~~~~~~~~~~~~
/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/SMARTApp/src/Configuration.cpp:115:38: error: 'appConfigStreamWrapper' was not declared in this scope; did you mean 'appConfigStream'?
  115 |         readDocument.ParseStream(appConfigStreamWrapper);
      |                                  ^~~~~~~~~~~~~~~~~~~~~~
      |                                  appConfigStream
/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/SMARTApp/src/Configuration.cpp:298:24: error: 'IStreamWrapper' is not a member of 'rapidjson'
  298 |         rapidjson::IStreamWrapper duerosConfigStreamWrapper(duerosConfigStream);
      |                    ^~~~~~~~~~~~~~
/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/SMARTApp/src/Configuration.cpp:300:38: error: 'duerosConfigStreamWrapper' was not declared in this scope; did you mean 'duerosConfigStream'?
  300 |         readDocument.ParseStream(duerosConfigStreamWrapper);
      |                                  ^~~~~~~~~~~~~~~~~~~~~~~~~
      |                                  duerosConfigStream
make[2]: *** [SMARTApp/src/CMakeFiles/duer_linux.dir/build.make:154: SMARTApp/src/CMakeFiles/duer_linux.dir/Configuration.cpp.o] Error 1
make[1]: *** [CMakeFiles/Makefile2:408: SMARTApp/src/CMakeFiles/duer_linux.dir/all] Error 2
make: *** [Makefile:130: all] Error 2
/home/WORK/jiangmin/CODE/RK/LINUX/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-strip: '/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpe
akerSDK/Rk3308_buildout/output/lib/*': No such file
/home/WORK/jiangmin/CODE/RK/LINUX/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-2021.07-x86_64-aarch64-none-linux-gnu/bin/aarch64-none-linux-gnu-strip: '/home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpe
akerSDK/Rk3308_buildout/output/duer_linux': No such file
jiangmin@xr-build-server:~/CODE/RK/LINUX/external/SmartSpeakerSDK$
```

Log问题

由于百度方提供的是LoggerUtils.so库，不透明，我们打算重新写一下打印

```
1  将include "LoggerUtils/DcsSdkLogger.h"都改为我们自己的LogTrace/log.h

2

3  在LogTrace/log.h中模仿minilog定义APP_ERROR等
4  void APP_ERROR(const char *format, ...) __attribute__((format(print, 1, 2)));
5  void APP_INFO(const char *format, ...) __attribute__((format(print, 1, 2)));
6  void APP_DEBUG(const char *format, ...) __attribute__((format(print, 1, 2)));

7

8  在LogTrace/src/log.cpp中增加log.h中对应接口的具体代码
9  //hxr2 add
10 void APP_INFO(const char *format, ...) {
11         va_list ap;
12         va_start(ap, format);
13         vsyslog(LOG_INFO, format, ap);
14         va_end(ap);
15 }

16

17 void APP_ERROR(const char *format, ...) {
18         va_list ap;
19         va_start(ap, format);
20         vsyslog(LOG_INFO, format, ap);
21         va_end(ap);
22 }
```

但是APP_INFO等无打印，出现如下报错：

init后解决

.h文件出现变量重复定义

问题描述：在ble.h文件中定义bool ble_update，SmartModeController.cpp和OTAWrapper.cpp都包含了ble.h，报以下错误：

```
1  报错：
2  /home/WORK/jiangmin/CODE/RK/LINUX/prebuilts/gcc/linux-x86/aarch64/gcc-arm-10.3-
   2021.07-x86_64-aarch64-none-linux-gnu/bin/../lib/gcc/aarch64-none-linux-
   gnu/10.3.1/../../../../aarch64-none-linux-gnu/bin/ld:
3  CMakeFiles/duer_linux.dir/SmartModeController.cpp.o:
4  /home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Infineon/ble/inc
   lude/ble.h:265: multiple definition of `ble_update';
5  CMakeFiles/duer_linux.dir/OTAWrapper.cpp.o:
6  /home/WORK/jiangmin/CODE/RK/LINUX/external/SmartSpeakerSDK/Sdk/Infineon/ble/inc
   lude/ble.h:265: first defined here
```

解决：

在一个.c源文件定义bool ble_update，在ble.h文件引用extern bool ble_update即可

配置网络

手动：

```
1  检查自己的网口（如wlan0）是否开启 #:ifconfig
2
```

```
 3  如果没有开启，可以使用以下命令#: ifconfig wlan0 up
 4
 5  开启成功执行ifconfig有以下显示:
 6  wlan0     Link encap:Ethernet  HWaddr 36:1b:02:76:0b:91  Driver icnss
 7            UP BROADCAST MULTICAST  MTU:1500  Metric:1
 8            RX packets:0 errors:0 dropped:0 overruns:0 frame:0
 9            TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
10            collisions:0 txqueuelen:3000
11            RX bytes:0 TX bytes:0
12
13  启动wpa_supplicant服务器:
14  /usr/sbin/wpa_supplicant -iwlan0 -c /etc/wpa_supplicant.conf -B
15
16  wpa_cli -i wlan0 scan          //搜索附件wifi热点
17  wpa_cli -i wlan0 scan_result   //显示搜索wifi热点
18
19  开启wpa_cli:
20  wpa_cli -i wlan0
21  >add_network
22  4
23  >set_network 4 ssid "iPhone"
24  OK
25  >set_network 4 psk "3456789lll"
26  OK
27  >save config
28  OK
29
30
31  # wpa_cli -i wlan0 enable_network 4
32  OK
33
```

脚本:

```
 1  ./usr/bin/wifi-connect.sh "iPhone" "3456789lll"
 2
 3  wifi-connect.sh:
 4  #!/bin/sh
 5  SSID=$1
 6  PASSWORD=$2
 7  CONF=/tmp/wpa_supplicant.conf
 8
 9  cp /etc/wpa_supplicant.conf $CONF
10  echo "connect to WiFi ssid: $SSID, Passwd: $PASSWORD"
11  sed -i "s/SSID/$SSID/g" $CONF
```

```
12  sed -i "s/PASSWORD/$PASSWORD/g" $CONF
13  killall wpa_supplicant
14  sleep 1
15  wpa_supplicant -B -i wlan0 -c $CONF
```

修改录音mic数

```
huangxinran@xr-build-server:~/RK3308/kernel/arch/arm64/boot/dts/rockchip$ vim rk3308bs-evb-dmic-pdm-v11.dts
huangxinran@xr-build-server:~/RK3308/kernel/arch/arm64/boot/dts/rockchip$
```

```
#include "rk3308bs-evb-v11.dtsi"

/ {
        model = "Rockchip RK3308B-S evb digital-pdm mic v11 board";
        compatible = "rockchip,rk3308bs-evb-dmic-pdm-v11", "rockchip,rk3308";

        pdm_i2s_dais: pdm-i2s-dais {
                status = "okay";
                compatible = "rockchip,rk3308-multi-dais", "rockchip,multi-dais";
                dais = <&pdm_8ch>, <&i2s_8ch_2>;
                capture,channel-mapping = <4 0>;
                playback,channel-mapping = <0 2>;
                #sound-dai-cells = <0>;
        };

        pdm-mic-array {
```

修改lib大小

查询EXT2_SIZE的大小

0x4000000=512M

```
jiangmin@xr-build-server:~/CODE/RK/LINUX/buildroot$ grep -rn EXT2_SIZE
output/rockchip_rk3308_recovery/.config.orig:2970:BR2_TARGET_ROOTFS_EXT2_SIZE="auto"
output/rockchip_rk3308_recovery/.config:2970:BR2_TARGET_ROOTFS_EXT2_SIZE="auto"
output/rockchip_rk3308_recovery/build/linux-headers-custom/arch/sh/include/mach-se/mach/se7343.h:28:#define PA_EXT2_SIZE      0x04000000
output/rockchip_rk3308_recovery/build/linux-headers-custom/arch/sh/include/mach-se/mach/se.h:23:#define PA_EXT2_SIZE      0x04000000
output/rockchip_rk3308_recovery/build/linux-headers-custom/arch/sh/include/mach-se/mach/se7751.h:26:#define PA_EXT2_SIZE      0x04000000
^C
```

```
1  buildroot/configs/rockchip/base/base.config中
2  BR2_TARGET_ROOTFS_EXT2_SIZE="auto"改为
3  BR2_TARGET_ROOTFS_EXT2_SIZE="512M"
4  此时还是不能编译通过
```

修改：

```
no changes added to commit (use "git add" and/or "git commit -a")
liyang@xr-build-server:~/work/test/rk3308_new/device/rockchip$ git diff common/scripts/mk-firmware.sh
diff --git a/common/scripts/mk-firmware.sh b/common/scripts/mk-firmware.sh
index 0c5b645..386c4fd 100755
--- a/common/scripts/mk-firmware.sh
+++ b/common/scripts/mk-firmware.sh
@@ -12,7 +12,8 @@ fatal() {
 # Get partition size limit, 0 means unlimited or not exists.
 partition_size_kb() {
        PART_SIZE="$(rk_partition_size "$1")"
-       echo $(( ${PART_SIZE:-0} / 2))
+       #echo $(( ${PART_SIZE:-0} / 2))
+       echo $(( ${PART_SIZE:-0}))
 }
```

查看声卡状态

如果播放音频出现问题，查以下

1.cat /proc/asound/card0/pcm0/sub0/status

prepared表示正在准备，running表示正在录

```
root@rk3308bs-buildroot:/# cat /proc/asound/card0/pcm0c/sub0/status
state: PREPARED
owner_pid   : 1402
trigger_time: 0.000000000
tstamp      : 0.000000000
delay       : 0
avail       : 0
avail_max   : 0
-----
root@rk3308bs-buildroot:/#
```

2.Lsof | grep pcm

`lsof` : list open files

```
root@rk3308bs-buildroot:/# lsof | grep pcm
root@rk3308bs-buildroot:/# lsof | grep pcm
540     /usr/bin/pulseaudio     25      /dev/snd/pcmC0D0p
540     /usr/bin/pulseaudio     39      /dev/snd/pcmC0D0c
```

3.关闭S50pulseaudio进程，它有可能占用声卡

刷固件

只刷kernel:

编出来在在rockdev，需要这三个文件

```
1010  scp boot.img huangxinran@10.0.21.131:/home/huangxinran/share
1011  scp MiniLoaderAll.bin huangxinran@10.0.21.131:/home/huangxinran/share
1012  scp parameter.txt huangxinran@10.0.21.131:/home/huangxinran/share
```

ffmpeg和alsa库使用

使用snd_pcm_open如果声卡状态为没打开则需要手动打开

```
1  err = snd_pcm_start(capture_handle);
2          printf("start pcm result: %d\n", err);
```

录音：arecord -D hw:0,0 -c 8 -r 16000 -f S16_LE --period-size 1024 -t wav /userdata/test.wav
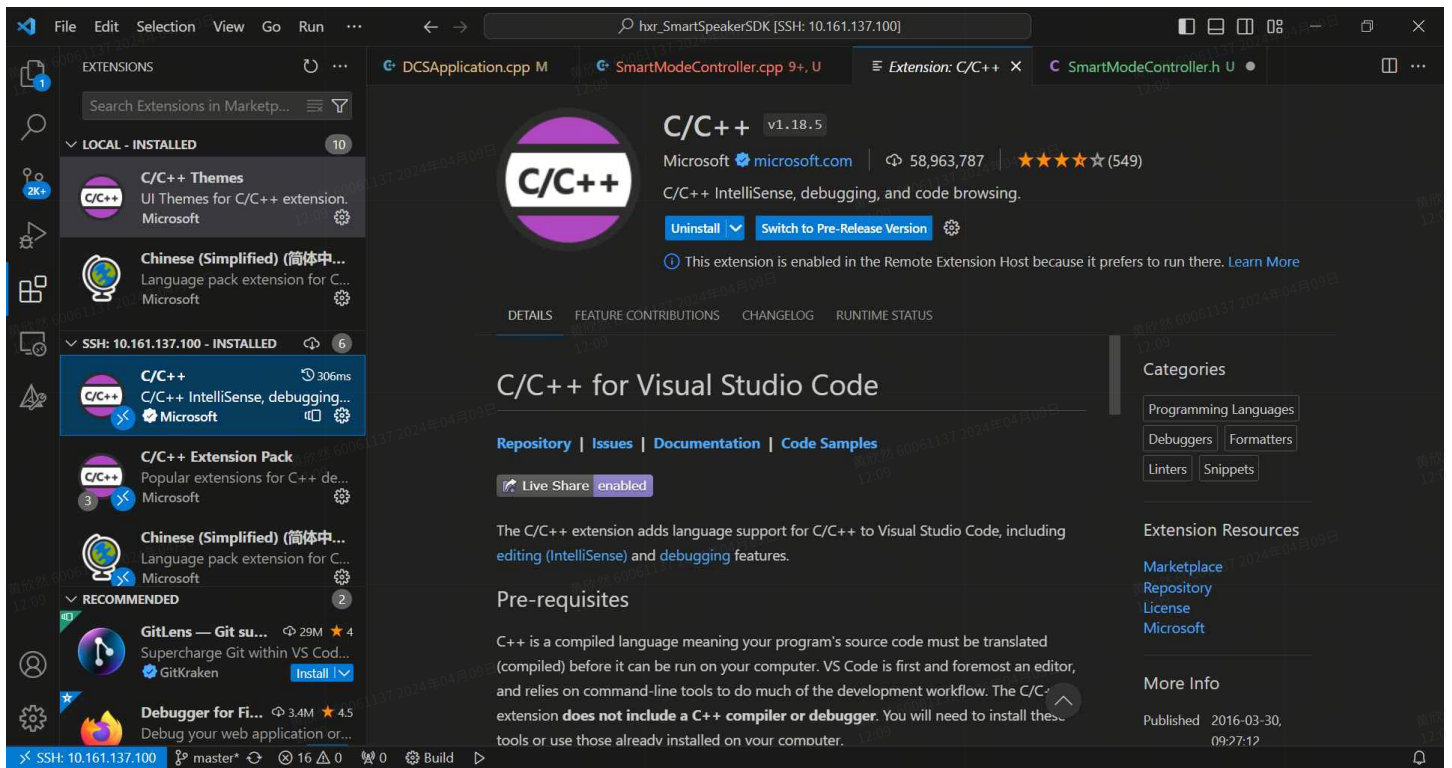
播放：aplay -D hw:0,0 -r 48000 -c 2 -f s16_le 07dukou.wav

调试BAIDU-1.0,针对录音送数据慢的问题声卡换成hw:0,0后正常,play声音卡顿，使用default后正常

vscode代码跳转问题

问题：通过remote ssh连接linux服务器看代码时，代码无法跳转

This extension is disabled in this workspace because it is defined to run in the Remote Extension Host. Please install the extension in 'SSH: 10.161.137.100' to enable
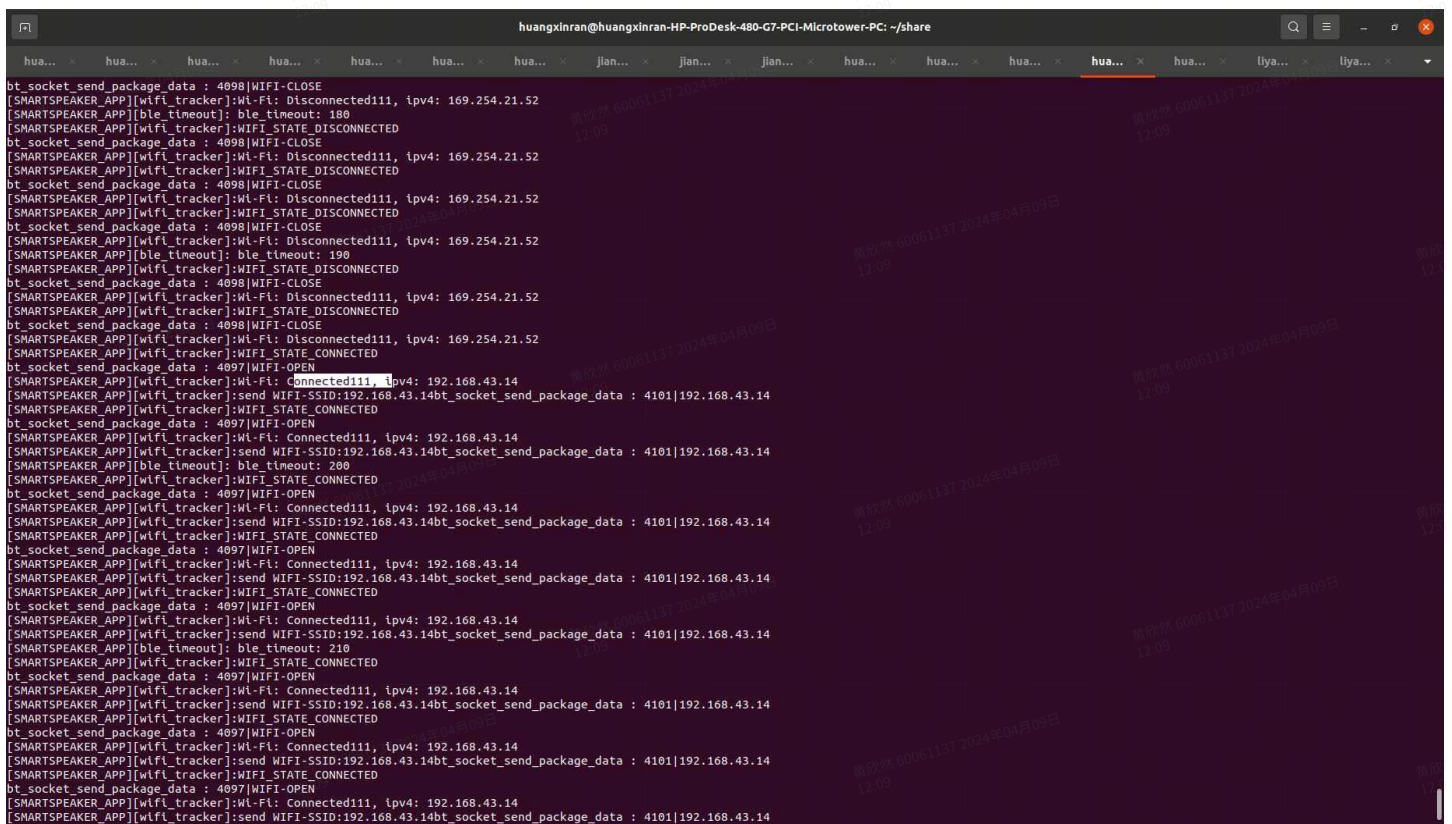
解决：在vscode打开插件，选择在linux端安装此插件

SMART WIFI问题

wifi连接到底在哪儿

这个wifi-open就是wifi连接上了的意思？为什么

图片是自己通过网络连接了WiFi后的log

但是我用脚本断开WiFi后没显示断连

重启cypress，一连上就显示如下

发完ssid和psw后，发送01后出现：

```
[SMARTSPEAKER_APP][ble_gatts_req_cb]:ble_gatts_req_cb. conn 32768, opcode 18
[SMARTSPEAKER_APP][ble_gatts_req_write_handler]:[ble_gatts_req_write_handler] conn_id:32768 hdl:0x116 opcode:18 offset:0 len:1
 [SMARTSPEAKER_APP][ble_gatts_req_cb]:cypress_socket_send_package_data ble writebt_socket_send_package_data : 520|BLE_WRITE
[SMARTSPEAKER_APP][le_app_write_handler]:GATT write handler: handle:0x116 len:1, opcode:0x12
[SMARTSPEAKER_APP][le_app_write_handler]:WIFI_CONTROL_CONNECT
[SMARTSPEAKER_APP][le_app_write_handler]:Wi-Fi connect command: bash wlan_config.sh "nova 9" "123456789"
bash: wlan_config.sh: No such file or directory
[SMARTSPEAKER_APP][le_app_write_handler]:Wi-Fi connect command result is not "OK", kindly check your Wi-Fi information, especially the length of PASSWORD.
[SMARTSPEAKER_APP][wifi_tracker]:WIFI_STATE_CONNECTED
bt_socket_send_package_data : 4097|WIFI-OPEN
[SMARTSPEAKER_APP][wifi_tracker]:Wi-Fi: Connected111, ipv4: 192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:send WIFI-SSID:192.168.43.14bt_socket_send_package_data : 4101|192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:WIFI_STATE_CONNECTED
bt_socket_send_package_data : 4097|WIFI-OPEN
[SMARTSPEAKER_APP][wifi_tracker]:Wi-Fi: Connected111, ipv4: 192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:send WIFI-SSID:192.168.43.14bt_socket_send_package_data : 4101|192.168.43.14
[SMARTSPEAKER_APP][ble_timeout]: ble_timeout: 380
[SMARTSPEAKER_APP][wifi_tracker]:WIFI_STATE_CONNECTED
bt_socket_send_package_data : 4097|WIFI-OPEN
[SMARTSPEAKER_APP][wifi_tracker]:Wi-Fi: Connected111, ipv4: 192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:send WIFI-SSID:192.168.43.14bt_socket_send_package_data : 4101|192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:WIFI_STATE_CONNECTED
bt_socket_send_package_data : 4097|WIFI-OPEN
[SMARTSPEAKER_APP][wifi_tracker]:Wi-Fi: Connected111, ipv4: 192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:send WIFI-SSID:192.168.43.14bt_socket_send_package_data : 4101|192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:WIFI_STATE_CONNECTED
bt_socket_send_package_data : 4097|WIFI-OPEN
[SMARTSPEAKER_APP][wifi_tracker]:Wi-Fi: Connected111, ipv4: 192.168.43.14
[SMARTSPEAKER_APP][wifi_tracker]:send WIFI-SSID:192.168.43.14bt_socket_send_package_data : 4101|192.168.43.14
```

SMART上提交代码

repo同步代码

同步代码前先提交本地的代码

比如kernel下的仓库，有一些暂时用不到会和新代码冲突的地方，我们把它移动别的分支去提交

```
1  huangxinran@xr-build-server:~/RK3308/kernel$ git branch
2  * master
3  huangxinran@xr-build-server:~/RK3308/kernel$ git checkout -b test_i2c
4  Switched to a new branch 'test_i2c'
5  huangxinran@xr-build-server:~/RK3308/kernel$ git status
6  On branch test_i2c
7  Changes not staged for commit:
8    (use "git add <file>..." to update what will be committed)
9    (use "git restore <file>..." to discard changes in working directory)
10        modified:   arch/arm64/boot/dts/rockchip/rk3308-evb-v11.dtsi
11        modified:   arch/arm64/boot/dts/rockchip/rk3308.dtsi
12        modified:   arch/arm64/boot/dts/rockchip/rk3308bs-evb-dmic-pdm-v11.dts
13        modified:   drivers/misc/Makefile
14
15  Untracked files:
16    (use "git add <file>..." to include in what will be committed)
17        drivers/misc/ipd_i2c_master_transmit.c
18
```

```
19  no changes added to commit (use "git add" and/or "git commit -a")
20  huangxinran@xr-build-server:~/RK3308/kernel$ git branch
21    master
22  * test_i2c
23  huangxinran@xr-build-server:~/RK3308/kernel$ git add .
24  huangxinran@xr-build-server:~/RK3308/kernel$ git status .
25  On branch test_i2c
26  Changes to be committed:
27    (use "git restore --staged <file>..." to unstage)
28        modified:   arch/arm64/boot/dts/rockchip/rk3308-evb-v11.dtsi
29        modified:   arch/arm64/boot/dts/rockchip/rk3308.dtsi
30        modified:   arch/arm64/boot/dts/rockchip/rk3308bs-evb-dmic-pdm-v11.dts
31        modified:   drivers/misc/Makefile
32        new file:   drivers/misc/ipd_i2c_master_transmit.c
33
34  huangxinran@xr-build-server:~/RK3308/kernel$ git commit -m "ipd i2c test"
35  [test_i2c 8e68b633d] ipd i2c test
36   5 files changed, 2846 insertions(+), 12 deletions(-)
37   create mode 100644 drivers/misc/ipd_i2c_master_transmit.c
38  huangxinran@xr-build-server:~/RK3308/kernel$ git status .
39  On branch test_i2c
40  nothing to commit, working tree clean
41  huangxinran@xr-build-server:~/RK3308/kernel$ git checkout master
42  Switched to branch 'master'
43  huangxinran@xr-build-server:~/RK3308/kernel$ git status .
44  On branch master
45  nothing to commit, working tree clean
46  huangxinran@xr-build-server:~/RK3308/kernel$ cd ..
```

把所有仓库的代码提交后，切回主分支

```
1    repo sync
2    repo forall -c "git pull origin master"
```

发现同步出现问题，有两个文件没有同步，看git log也有地方未同步到

```
1  huangxinran@xr-build-server:~/RK3308$ repo forall -c "git pull orgin master"
2
3  ... A new version of repo (2.39) is available.
4  ... New version is available at: /home/WORK/huangxinran/RK3308/.repo/repo/repo
5  ... The launcher is run from: /usr/bin/repo
6  !!! The launcher is not writable.  Please talk to your sysadmin or distro
```

```
 7  !!! to get an update installed.
 8
 9  skipping external/SmartSpeakerSDK/
10  skipping external/vendor/
```

把它们从别人的目录上clone过来，然后成功同步了

```
 1  huangxinran@xr-build-server:~/RK3308/external$ git clone
    "ssh://60061137@gerrit.aac.tech:29418/rk3308_new/external/SmartSpeakerSDK"
 2  Cloning into 'SmartSpeakerSDK'...
 3  remote: Counting objects: 7149, done
 4  remote: Finding sources: 100% (7149/7149)
 5  remote: Total 7149 (delta 2349), reused 7147 (delta 2349)
 6  Receiving objects: 100% (7149/7149), 102.13 MiB | 35.91 MiB/s, done.
 7  Resolving deltas: 100% (2349/2349), done.
 8  Updating files: 100% (5590/5590), done.
 9  huangxinran@xr-build-server:~/RK3308/external$ git clone
    "ssh://60061137@gerrit.aac.tech:29418/rk3308_new/external/vendor"
10  Cloning into 'vendor'...
11  remote: Counting objects: 28, done
12  remote: Finding sources: 100% (28/28)
13  remote: Total 28 (delta 4), reused 26 (delta 4)
14  Receiving objects: 100% (28/28), 16.63 KiB | 5.54 MiB/s, done.
15  Resolving deltas: 100% (4/4), done.
16  huangxinran@xr-build-server:~/RK3308/external$ cd ..
17  huangxinran@xr-build-server:~/RK3308$ repo sync
18
19  ... A new version of repo (2.39) is available.
20  ... New version is available at: /home/WORK/huangxinran/RK3308/.repo/repo/repo
21  ... The launcher is run from: /usr/bin/repo
22  !!! The launcher is not writable.  Please talk to your sysadmin or distro
23  !!! to get an update installed.
24
25  Fetching: 100% (59/59), done in 2.047s
26  info: A new version of repo is available
27  warning: repo is not tracking a remote branch, so it will not receive updates
28  =============================================================================
    =
29  Repo command failed: RepoUnhandledExceptionError
```

同步完，用git log查看是否同步成功，再将buildroot下output删除，然后build.sh clrear 后，可以重新编译了

缺少Change-Id

```
1  huangxinran@xr-build-server:~/RK3308/external/vendor$ git commit -m "add
   ledeffect.so dependent libraries dbus"
2  [master e134f72] add ledeffect.so dependent libraries dbus
3   1 file changed, 1 insertion(+)
4  huangxinran@xr-build-server:~/RK3308/external/vendor$ git push origin
   HEAD:refs/for/master
5  Enumerating objects: 7, done.
6  Counting objects: 100% (7/7), done.
7  Delta compression using up to 96 threads
8  Compressing objects: 100% (4/4), done.
9  Writing objects: 100% (4/4), 391 bytes | 391.00 KiB/s, done.
10 Total 4 (delta 3), reused 0 (delta 0)
11 remote: Resolving deltas: 100% (3/3)
12 remote: Processing changes: refs: 1, done
13 remote: ERROR: commit e134f72: missing Change-Id in message footer
14 remote:
15 remote: Hint: to automatically insert a Change-Id, install the hook:
16 remote:   gitdir=$(git rev-parse --git-dir); scp -p -P 29418
   60061137@gerrit.aac.tech:hooks/commit-msg ${gitdir}/hooks/
17 remote: (for OpenSSH >= 9.0 you need to add the flag '-O' to the scp command)
18 remote: or, for http(s):
19 remote:   f="$(git rev-parse --git-dir)/hooks/commit-msg"; curl -o "$f"
   https://gerrit.aac.tech/tools/hooks/commit-msg ; chmod +x "$f"
20 remote: and then amend the commit:
21 remote:   git commit --amend --no-edit
22 remote: Finally, push your changes again
23 remote:
24 To ssh://gerrit.aac.tech:29418/rk3308_new/external/vendor
25  ! [remote rejected] HEAD -> refs/for/master (commit e134f72: missing Change-
   Id in message footer)
26 error: failed to push some refs to
   'ssh://60061137@gerrit.aac.tech:29418/rk3308_new/external/vendor'
27 huangxinran@xr-build-server:~/RK3308/external/vendor$ gitdir=$(git rev-parse --
   git-dir); scp -p -P 29418 60061137@gerrit.aac.tech:hooks/commit-msg
   ${gitdir}/hooks/
28 commit-msg

                  100% 3013     2.0MB/s    00:00
29 huangxinran@xr-build-server:~/RK3308/external/vendor$ git commit --amend --no-
   edit
30 [master 47df285] add ledeffect.so dependent libraries dbus
```

```
31   Date: Tue Apr 2 15:55:00 2024 +0800
32   1 file changed, 1 insertion(+)
33   huangxinran@xr-build-server:~/RK3308/external/vendor$ git push origin
     HEAD:refs/for/master
34 Enumerating objects: 7, done.
35 Counting objects: 100% (7/7), done.
36 Delta compression using up to 96 threads
37 Compressing objects: 100% (4/4), done.
38 Writing objects: 100% (4/4), 433 bytes | 433.00 KiB/s, done.
39 Total 4 (delta 3), reused 0 (delta 0)
40 remote: Resolving deltas: 100% (3/3)
41 remote: Processing changes: refs: 1, new: 1, done
42 remote:
43 remote: SUCCESS
44 remote:
45 remote:   https://gerrit.aac.tech/c/rk3308_new/external/vendor/+/203 add
     ledeffect.so dependent libraries dbus [NEW]
46 remote:
47 To ssh://gerrit.aac.tech:29418/rk3308_new/external/vendor
48   * [new branch]      HEAD -> refs/for/master
```

amxier

```
1 使用条件：打开default声卡播放音乐时
2 amixer sset Master 50调节音量为50%
3
4 alsaamxier显示音量的图形界面
```