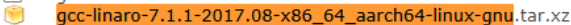# Hikey970编译

2018年4月2日　　16:08

```
==========
Bootloader
==========
```

```
//
// env setup
//
sudo apt-get install uuid-dev build-essential
```

```
mkdir  bootloader
cd bootloader
```

```
//
// download bootloader source code
//
git clone https://github.com/96boards-hikey/tools-images-hikey970.git
git clone https://github.com/96boards-hikey/OpenPlatformPkg.git -b hikey970_v1.0
git clone https://github.com/96boards-hikey/arm-trusted-firmware.git -b hikey970_v1.0
git clone https://github.com/96boards-hikey/l-loader.git -b hikey970_v1.0
git clone https://github.com/96boards-hikey/edk2.git -b hikey970_v1.0
git clone https://github.com/96boards-hikey/uefi-tools.git -b  hikey970_v1.0
```

```
cd edk2

ln -sf ../OpenPlatformPkg
```

```
//
// download bootloader cross compile toolchain and extract it
//
http://releases.linaro.org/components/toolchain/binaries/7.1-2017.08/aarch64-linux-gnu/
gcc-linaro-7.1.1-2017.08-win32-manifest.txt
gcc-linaro-7.1.1-2017.08-x86_64_aarch64-linux-gnu.tar.xz
```

```
//
// set bootloader  cross compile
//
vim ${BUILD_PATH}/l-loader/build_uefi.sh
```



```
//
// build
//
l-loader/build_uefi.sh hikey970
```

```
//
// bootloader binary
//
l-loader/ptable-aosp-32g.img
l-loader/fip.bin
l-loader/l-loader.bin
```

```
=====
kernel
=====
 mkdir kernel
 cd kernel
git clone https://github.com/96boards-hikey/linux.git -b hikey970-v4.9
```

```
//
// set CROSS_COMPILE to AOSP prebuilts/gcc/linux-x86/aarch64/aarch64-linux-android-4.9/bin/aarch64-linux-android-
//
#!/bin/bash
export ARCH=arm64
export CROSS_COMPILE=/home/bruce/vm_disk_d/arm_cc/aosp-4.9/bin/aarch64-linux-android-
make hikey970_defconfig
```

```
make -j4
make hisilicon/kirin970-hikey970.dtb
cp -a arch/arm64/boot/Image .
cp -a arch/arm64/boot/dts/hisilicon/kirin970-hikey970.dtb .
```

=====
AOSP
=====

// source
https://github.com/96boards-hikey/android-manifest

```
 mkdir aosp
 cd aosp

repo init -u https://android.googlesource.com/platform/manifest -b master
git clone https://github.com/96boards-hikey/android-manifest.git -b hikey970_v1.0 .repo/local_manifests
repo sync
```

special operation for current hikey970 AOSP branch, extract hikey970.rar to device/linaro/hikey/installer/hikey970

```
 source ./build/envsetup.sh
```
 choosecombo
Build type: release
Product: hikey970
Variant choices: userdebug

 make -j16

============
Gen boot.img
============
Put Image，kirin970-hikey970.dtb，ramdisk.img in a directory

1. Copy Image and kirin970-hikey970.dtb from kernel directory
2. copy ramdisk.img from android out/
3. do command list below gen boot.img

cat Image kirin970-hikey970.dtb > Image-dtb

./mkbootimg --kernel Image-dtb --ramdisk ramdisk.img --cmdline "androidboot.hardware=hikey970 firmware_class.path=/system/etc/firmware loglevel=15 buildvariant=userdebug androidboot.selinux=permissive clk_ignore_unused=true initrd=0xBE19D000,0x16677F earlycon=pl011,0xfff32000,115200 console=tty AMA6 androidboot.serialno=54DA9CD5022525E4 clk_ignore_unused=true" -o boot.img

========
download
=========
```
 fastboot flash ptable l-loader/ptable-aosp-32g.img

fastboot flash xloader tools-images-hikey970/sec_xloader.img

fastboot flash fastboot   l-loader/l-loader.bin

fastboot flash fip    l-loader/fip.bin

fastboot flash boot boot.img

fastboot flash cache cache.img

fastboot flash system system.img

fastboot flash userdata userdata.img
```

https://item.taobao.com/item.htm?&id=566806699719
https://item.jd.com/26886480708.html