



HiKey970

Kernel Development Guide

Issue 01

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Change History

Changes between document issues are cumulative. The latest document issue contains all the changes made in earlier issues.

Issue 01 (2018-03-11)

The first version.



Contents

Change History	i
Contents	ii
1 Compiling the image	1
1.1 Download the code of Hikey970 on GitHub	1
1.2 Prepare tools and files	1
1.2.1 Create a tools folder	1
1.2.2 Copy ramdisk.img and mkbooting to the tools Directory	1
1.2.3 Modify the compilation script	1
1.3 Compile	2
1.3.1 Run build_kernel.sh	2
2 Loading the image.....	3
2.1 Entering the FastBoot mode	3
2.2 Load the boot image	3



1 Compiling the image

1.1 Download the code of Hikey970 on GitHub

Git command:

```
git clone https://github.com/96boards-hikey/linux.git
```

Note: after the code is downloaded, switch to the hikey970 branch (Branch Name: origin/hikey970-v4.9).

1.2 Prepare tools and files

1.2.1 Create a tools folder

Create a “tools” folder in the same level directory of the “linux” directory.

```
./linux/arch  
./linux/mm  
./linux/kernel  
...  
./tools/
```

1.2.2 Copy ramdisk.img and mkbooting to the tools Directory

Copy the compiled ramdisk.img and mkbooting into the tools directory.

1.2.3 Modify the compilation script

Move the build_kernel.sh compilation script to the tools folder; Edit the compile script CROSS_COMPILE parameters to specify the compiler tool according to your own compilation environment, For example:

```
export  
CROSS_COMPILE=/home/xxxxxx/hikey970/prebuilts/gcc/linux-x86/aarch64/aarch64-linux-  
android-4.9/bin/aarch64-linux-android-
```



1.3 Compile

1.3.1 Run `build_kernel.sh`

Execute `./build_kernel.sh` in the tools directory to compile the image. After the compilation is completed, the `boot.img` can be generated under “`out/target/product/hikey970`”.



2 Loading the image

2.1 Entering the FastBoot mode

Input in ADB mode: `adb reboot bootloader` or dial the back of the code switch 3 (EXT_BOOT) to ON, and press the RESET key to restart.

2.2 Load the boot image

Input in Fastboot mode: `fastboot flash boot + "boot image path"` starts to load the image, and then input "fastboot reboot" to normal start.

