S3C6410 Mango64R2 Linux How to Compile and image Fusing

http://www.mangoboard.com/
http://cafe.naver.com/embeddedcrazyboys
Crazy Embedded Laboratory

Document History

Revision	Date	Change note

1. 망고64R2 Linux How to

[Environment Setting]
http://cafe.naver.com/embeddedcrazyboys/18501

[Nor Boot u-boot 실행]
Mango64 : 1, 3, 5 On
uart, usb otg PC와 연결
[uart 드라이버 설치 링크]
http://www.mangoboard.com/sub2.html?ptype=view&prdcode=1206140001&catcode=120000&page=1&catcode=120000&grp=&brand=&orderby=&searchopt=&searchkey=

터미널 프로그램 (putty, Tera Term]
Baudrate : 115200 설정

전원일 인가하면 아래와 같이 출력 됩니다.

```
Reset by XnRESET[RSTSTAT:0x1]
VCO=1.064GHz

+-----------------------------------------------+
| S3C6410 USB OTG Downloader v0.2 (2008.07.04)   +
| System ID : Revision [ 0], Pass [ 1]            +
+-----------------------------------------------+
ARMCLK: 532.00MHz   HCLKx2: 266.00MHz   HCLK: 133.00MHz   PCLK: 66.50MHz
VIC mode / Sync Mode

USB host is not connected yet.
Waiting for USB host connection.
OTGDEV_InitOtg: OK

!!! USB host is connected !!!
 - Bulk In EP : 1
 - Bulk Out EP : 2
 - Speed : High
 - Op Mode : DMA mode

Download & Run is selected
```

Select a file to download in DNW
If you want to quit, press any key
Select a file to download in DNW
If you want to quit, press any key

0: Download & Run
1: Donwload Only
2: Upload Only
3: Select Op Mode
4: Program AMD NOR Flash
5: Suspend & Resume On/Off
6: Check Suspend Current

Select the function to test : 0
Select a file to download in DNW
If you want to quit, press any key
입력
[Linux PC]
$ cd image

$ sudo ./smdk-usbdl -f u-boot.bin -a 57e00000

[Window pc 32bit only]

dnw tool에서
downloader address : 0x57e00000

usb port -> transmit -> transmit 에서 u-boot.bin
선택

u-boot가 실행이 됩니다.

[U-boot Compile]

$ ./build_uboot

[Kernel Compile]

$ ./build_kernel defconfig mango64r2_7inch_mrvl8787_defconfig ; ./build_kernel
[filesystem]
sudo ./mkyaffs2image rootfs rootfs.yaffs2

Nor Booting : 1, 3, 5 ON
[Linux PC]
usb 드라이버 확인 방법

[icanjji@icanjji-pc image]$ lsusb

Bus 002 Device 016: ID 04e8:1234 Samsung Electronics Co., Ltd
$ cd image

$ sudo ./smdk-usbdl -f u-boot.bin -a 51000000
[Window pc 32bit]
dnw tool에서
downloader address : 0x57e00000

usb port -> transmit -> transmit 에서 u-boot.bin
선택
nand scrub

dnw 51000000
nand erase 0 40000; nand write 51000000 0 40000
u-boot가 nand write가 되었으므로
NAND Mode 로 부팅
Mango64: 1,2,5 ON

[kernel]

tftpboot
tftpboot 51000000 zImage;bootm 51000000

usb otg 로
[nand write]

- u-boot write
dnw 51000000

nand erase 0 40000;dnw 51000000 ;nand write 51000000 0 40000

host pc linux
sudo ./smdk-usbdl -f u-boot.bin -a 51000000
- kernel write

nand erase 40000 300000;dnw 51000000;nand write 51000000 40000 300000
host pc linux
sudo ./smdk-usbdl -f zImage -a 51000000
- filesystem write

nand erase 400000 8000000;dnw 51000000

host pc linux
sudo ./smdk-usbdl -f rootfs.yaffs2 -a 51000000

nand write.yaffs 51000000 400000 $(filesize)
" dnw tool" 하는 방법도 있습니다.

[nand boot]
After u-boot
setenv bootargs "root=/dev/mtdblock2 rootfstype=yaffs2 init=/sbin/init console=ttySAC1,115200"
setenv bootcmd "nand read 50008000 40000 300000;bootm 50008000"
save
reset

[NFS booting]
NFS 설정
http://cafe.naver.com/embeddedcrazyboys/4421
참조

$ sudo vi /etc/exports

/home/icanjji/work *(rw,no_root_squash,no_all_squash,sync,subtree_check)

/home/icanjji/work 은 자신의 디렉토리 설정

$ sudo /etc/init.d/nfs-kernel-server restart

이더넷을 보드에 연결
$ cd image
$ sudo tar xf rootfs.tgz -C ~/work/nfsroot/rootfs

setenv bootargs "root=/dev/nfs rw nfsroot=192.168.3.9:/home/icanjji/work/nfsroot/rootfs init=/sbin/init ip=192.168.3.20:192.168.3.9:192.168.3.1:255.255.255.0:::off console=ttySAC1,115200 "
setenv ipaddr 192.168.3.20; setenv gatewayip 192.168.3.1; setenv serverip 192.168.3.9
ipaddr : 보드
[wifi test]

$ insmod mlan.ko
$ insmod sd8787.ko
$ ifconfig mlan0 up
$ iwlist mlan0 scan
$ iwconfig mlan0 essid CRZ
$ udhcpc -imlan0

$ ping 192.168.3.1

[camera test]

mknod /dev/video0 c 81 0

./capture

Full 화면 프리뷰 시
capture_mt9t111.c 파일에서 아래와 같이 수정

#define PREVIEW_WIDTH 800//640 //320
#define PREVIEW_HEIGHT 480 //240