

Edit by OSSLab :thx

???????? Hippo and Jserv

???????????????? ????openwrt ??????????  
 ??????????????

????Linux ????:

[http://linux.vbird.org/linux\\_basic/0...#startup\\_intro](http://linux.vbird.org/linux_basic/0...#startup_intro)

?embedded system ??

uboot (bootloader),Kernel ,rootfs

????? uboot ?????? ,

Kernel ??????????

rootfs ??????Linux ??.

ALARM, Gentoo, Fedora, OpenWrt

??uboot ?????? [?????](#)

???? ubuntu 11.04 Desktop ? ?linux-3.1.10 ??? ???

1.??Linux sources code ???mkimage

```
$ wget ftp://ftp.isu.edu.tw/Linux/kernel/v3.x/patch-3.1.10.gz #??Kernel ???
```

```
$ tar -xjf linux-3.1.10.tar.xz -C Source
```

```
$ sudo ln -s /home/???/Source/linux-3.1.10 /usr/src/linux-3.1.10
```

```
$ apt-get install uboot-mkimage # ??mkimage
```

2. ?????Cross Compiler ?toolchain

Arm?X86 CPU ?????? ,?????????Toolchain,

????? binutils,gcc ,gdb,newlib ???

?????CodeSourcery?????.

?? Kernel??CodeSourcery arm-2011.03-42-arm-none-eabi.bin ??

?????

```
wget https://sourcery.mentor.com/GNUToolchain/package8736/public/arm-none-eabi/
```

```

arm-2011.03-42-arm-none-eabi.bin
tar -xjf arm-2011.03-42-arm-none-eabi.bin
chmod +x arm-2011.03-42-arm-none-eabi.bin
????????????????
sudo dpkg-reconfigure dash
.\arm-2011.03-42-arm-none-eabi.bin

```

```
???????
```

```

sudo vi /etc/profile
????????
PATH=$HOME/user/CodeSourcery/Sourcery_G++_Lite/bin:$PATH

```

```

?????
logout ????.

```

```
arm-none-linux-gnueabi-gcc -v
```

```
?????? ???????
```

```
Sourcery_G++_Lite ???????
```

```
$home/CodeSourcery/Sourcery_G++_Lite/bin
```

3. ??Kernel ?wget ??Hippo ???[Script](#)

```
$ ./nas-34.x86.sh # ??????? script
```

```
?????:Marvell Orion-NAS Reference Design
```

```

abel@w5fe:~/Source/linux-3.1.10 [100x40]
連線(C) 編輯(E) 檢視(V) 視窗(W) 選項(O) 說明(H)
.config - Linux/arm 3.1.10 Kernel Configuration

- Orion Implementations
Arrow keys navigate the menu. <Enter> selects submenus --->. Highlighted letters are
hotkeys. Pressing <Y> includes, <N> excludes, <M> modularizes features. Press <ESC><Esc>
to exit, <?> for Help, </> for Search. Legend: [*] built-in [ ] excluded <M> module
< > module capable

[ ] Marvell Orion-2 Development Board (NEW)
[*] Marvell Orion-NAS Reference Design
[ ] KuroBox Pro (NEW)
[ ] D-Link DNS-323 (NEW)
[ ] QNAP TS-109/TS-209 (NEW)
[ ] Buffalo Terastation Pro II/Live (NEW)
[ ] Buffalo Linkstation Pro/Live (NEW)
[ ] Buffalo Linkstation Live v3 (LS-CHL) (NEW)
[ ] Buffalo Linkstation Mini (NEW)
[ ] Buffalo Linkstation LS-HGL (NEW)
[ ] QNAP TS-409 (NEW)
[ ] Linksys WRT350N v2 (NEW)
[ ] Technologic Systems TS-78xx (NEW)
[ ] HP Media Vault mv2120 (NEW)
[ ] LaCie Ethernet Disk mini V2 (NEW)
[ ] LaCie d2 Network (NEW)
[ ] LaCie Big Disk Network (NEW)
[ ] LaCie 2Big Network (NEW)
[ ] Maxtor Shared Storage II (NEW)
[ ] Netgear WNR854T (NEW)
[ ] Marvell Orion-VoIP GE Reference Design (NEW)
[ ] Marvell Orion-VoIP FXO Reference Design (NEW)
[ ] Marvell Orion-1-90 AP GE Reference Design (NEW)

<Select> < Exit > < Help >

```

Flash, ??Memory Technology Device (MTD) support

```

abel@w5fe:~/Source/linux-3.1.10 [100x40]
連線(C) 編輯(E) 檢視(V) 視窗(W) 選項(O) 說明(H)
.config - Linux/arm 3.1.10 Kernel Configuration

Device Drivers
Arrow keys navigate the menu. <Enter> selects submenus --->. Highlighted letters are
hotkeys. Pressing <Y> includes, <N> excludes, <M> modularizes features. Press <ESC><Esc>
to exit, <?> for Help, </> for Search. Legend: [*] built-in [ ] excluded <M> module
< > module capable

Generic Driver Options --->
[M] Connector - unified userspace <-> kernelspace linker --->
< > Memory Technology Device (MTD) support --->
<M> Parallel port support --->
[*] Block devices --->
-* Misc devices --->
<M> ATA/ATAPI/MFM/RLL support (DEPRECATED) --->
SCSI device support --->
<M> Serial ATA and Parallel ATA drivers --->
[*] Multiple devices driver support (RAID and LVM) --->
<M> Generic Target Core Mod (TCM) and ConfigFS Infrastructure --->
[*] Fusion MPT device support --->
IEEE 1394 (Firewire) support --->
<M> I2O device support --->
-* Network device support --->
[*] ISDN support --->
<M> Telephony support --->
Input device support --->
Character devices --->
[M] I2C support --->
[ ] SPI support --->
PPS support --->
PTP clock support --->
[*] GPIO support --->
<M> Dallas's 1-wire support --->
[*] Power supply class support --->
v(+)

<Select> < Exit > < Help >

```

????NFS server??rootfs, ?NFS client support???? (????)

???????USB ??, ?????(???USB ???,3G ??? ,USB ???)

?????, ?/usr/src/linux-3.1.10/xxxxx/arm/boot/uImage, ???TFTP server.

?????? ???? ?Kernel

4.??U-Boot ?TFTP server ??Kernel

???? TFTP server,

NAS-34??TTL console?, ??? ?COM Console ????? Enter , ??U-Boot.

Console ?????uboot ??,??Kernel ??? ???tftp??

setenv serverip 192.168.7.57 # ?? ??kernel tftp ip server

setenv ipaddr 192.168.7.11 # ?? ??kernel NAS ??IP

printenv #??????

tftpboot 800000 uImage # (??uimage ?DRAM 800000 ??)

bootm 800000# (?80000 ?????)

ok ??tftp ??Kernel ....

??????, ??rootfs.??)

??

<http://digiland.tw/viewtopic.php?id=1942>

<http://buffalo.nas-central.org/index...M9> Kernel Port

<http://computingplugs.com/index.php/...> custom kernel

<http://www.nslu2-linux.org/wiki/Optware/PlugComputers>

<http://plugcomputer.org/plugwiki/ind...nel> and U-Boot

[http://linux.vbird.org/linux\\_basic/0...#startup\\_intro](http://linux.vbird.org/linux_basic/0...#startup_intro)