

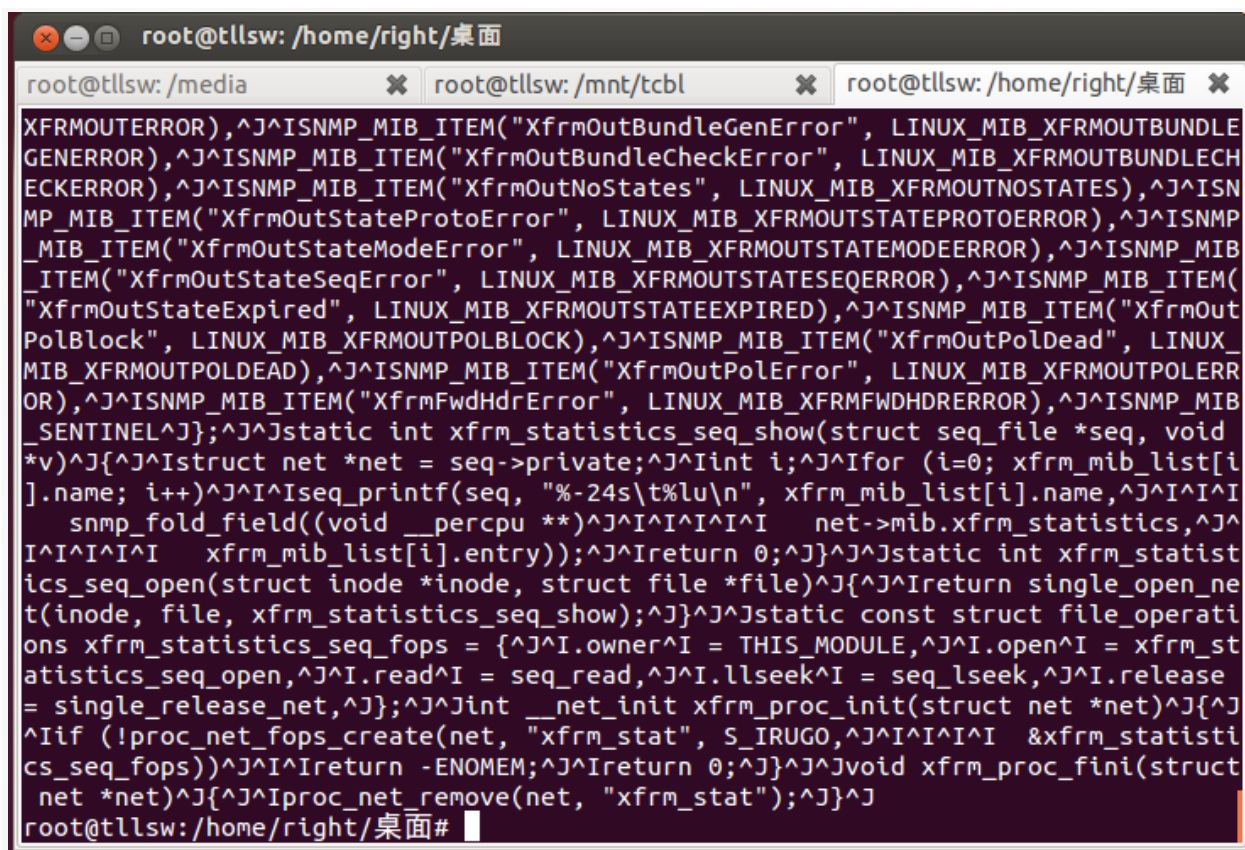
高手別看，給新手看的

【編譯3.4】

【在PC機上，我的系統是Ubuntu 12.04 Desktop 32bit】

```
● sudo su
●
● wget https://github.com/linux-sunxi/linux-sunxi/archive/sunxi-3.4.zip
●
● unzip sunxi-3.4
●
● cd linux*sunxi*3.4
●
● make sun4i_defconfig ARCH=arm
```

複製代碼



```
root@tllsw: /home/right/桌面
root@tllsw: /media
root@tllsw: /mnt/tcbl
root@tllsw: /home/right/桌面
XFRMOUTERROR),^J^ISNMP_MIB_ITEM("XfrmOutBundleGenError", LINUX_MIB_XFRMOUTBUNDLE
GENERROR),^J^ISNMP_MIB_ITEM("XfrmOutBundleCheckError", LINUX_MIB_XFRMOUTBUNDLECH
ECKERROR),^J^ISNMP_MIB_ITEM("XfrmOutNoStates", LINUX_MIB_XFRMOUTNOSTATES),^J^ISN
MP_MIB_ITEM("XfrmOutStateProtoError", LINUX_MIB_XFRMOUTSTATEPROTOERROR),^J^ISNMP
_MIB_ITEM("XfrmOutStateModeError", LINUX_MIB_XFRMOUTSTATEMODEERROR),^J^ISNMP_MIB
_ITEM("XfrmOutStateSeqError", LINUX_MIB_XFRMOUTSTATESEQERROR),^J^ISNMP_MIB_ITEM(
"XfrmOutStateExpired", LINUX_MIB_XFRMOUTSTATEEXPIRED),^J^ISNMP_MIB_ITEM("XfrmOut
PolBlock", LINUX_MIB_XFRMOUTPOLBLOCK),^J^ISNMP_MIB_ITEM("XfrmOutPolDead", LINUX
_MIB_XFRMOUTPOLDEAD),^J^ISNMP_MIB_ITEM("XfrmOutPolError", LINUX_MIB_XFRMOUTPOLERR
OR),^J^ISNMP_MIB_ITEM("XfrmFwdHdrError", LINUX_MIB_XFRMFWDHDRERROR),^J^ISNMP_MIB
_SENTINEL^J};^J^Jstatic int xfrm_statistics_seq_show(struct seq_file *seq, void
*v)^J{^J^Istruct net *net = seq->private;^J^Iint i;^J^Ifor (i=0; xfrm_mib_list[i
].name; i++)^J^I^Iseq_printf(seq, "%-24s\t%lu\n", xfrm_mib_list[i].name,^J^I^I^I
snmp_fold_field((void __percpu *)__net->mib.xfrm_statistics,^J^
I^I^I^I xfrm_mib_list[i].entry));^J^Ireturn 0;^J}^J^Jstatic int xfrm_statisti
cs_seq_open(struct inode *inode, struct file *file)^J{^J^Ireturn single_open_ne
t(inode, file, xfrm_statistics_seq_show);^J}^J^Jstatic const struct file_operati
ons xfrm_statistics_seq_fops = {^J^I.owner^I = THIS_MODULE,^J^I.open^I = xfrm_st
atistics_seq_open,^J^I.read^I = seq_read,^J^I.llseek^I = seq_lseek,^J^I.release
= single_release_net,^J};^J^Jint __net_init xfrm_proc_init(struct net *net)^J{^J
^Iif (!proc_net_fops_create(net, "xfrm_stat", S_IRUGO,^J^I^I^I^I &xfrm_statisti
cs_seq_fops))^J^I^Ireturn -ENOMEM;^J^Ireturn 0;^J}^J^Jvoid xfrm_proc_fini(struct
net *net)^J{^J^Iproc_net_remove(net, "xfrm_stat");^J}^J
root@tllsw: /home/right/桌面#
```

unzip

```
root@tllsw:/home/right/桌面/linux-sunxi-sunxi-3.4# make sun4i_defconfig ARCH=arm
HOSTCC  scripts/basic/fixdep
HOSTCC  scripts/kconfig/conf.o
SHIPPED scripts/kconfig/zconf.tab.c
SHIPPED scripts/kconfig/zconf.lex.c
SHIPPED scripts/kconfig/zconf.hash.c
HOSTCC  scripts/kconfig/zconf.tab.o
HOSTLD  scripts/kconfig/conf
#
# configuration written to .config
#
root@tllsw:/home/right/桌面/linux-sunxi-sunxi-3.4#
```

make config

完成後

```
● apt-get install build-essential u-boot-tools uboot-mkimage gcc-arm-linux-gnueabi  
-y
```

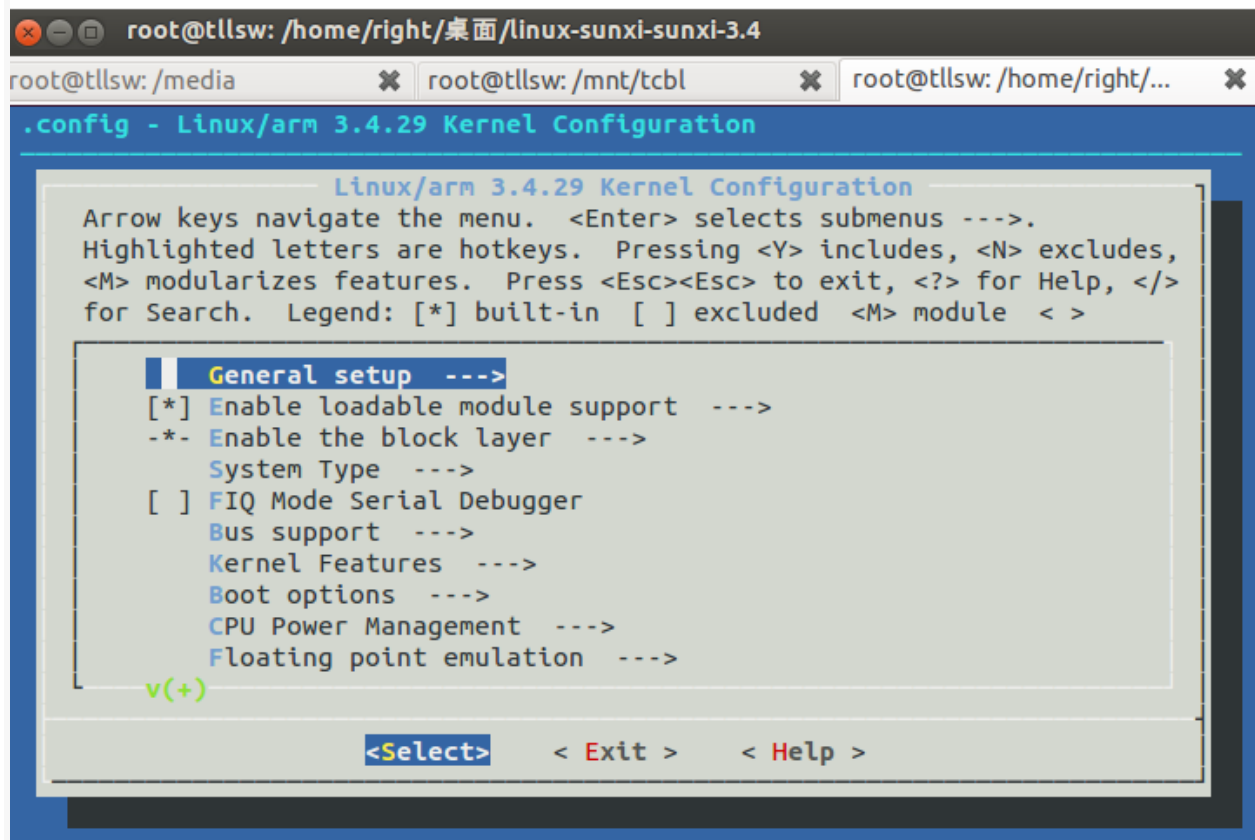
複製代碼

安裝必要的東西

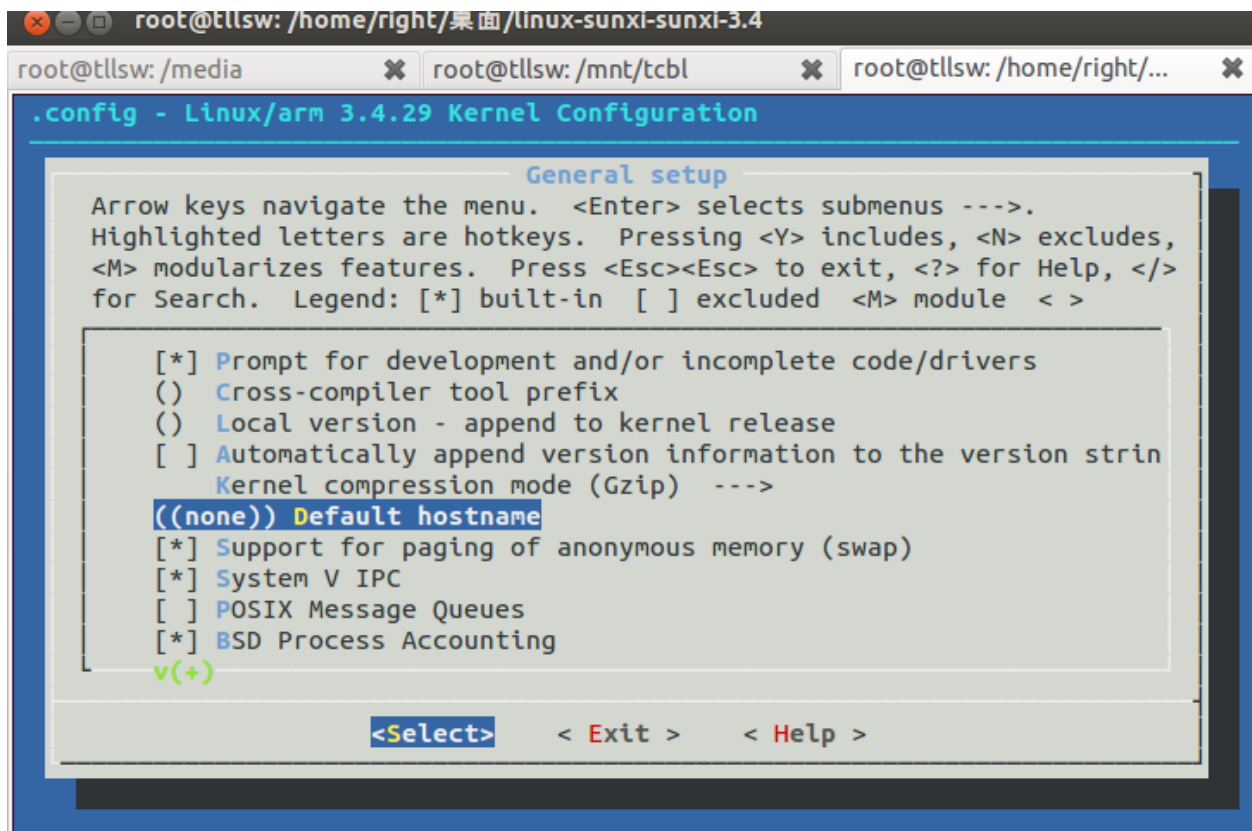
然後弄菜單出來選你要的（驅動什麼的）

```
● make menuconfig ARCH=arm
```

複製代碼



看清楚了，上面寫的是Linux/arm 3.4.29，如果你是Linux/arm 3.0.xx那麼你下載錯了，如果你是Linux/i386或Linux/x86_64那更不靠譜，要嘛你下載到i386的包要嘛你ARCH沒寫arm
自己慢慢選，下面Device Driver是驅動，Network Support是網絡。往下拉，下面其實是有東西的



第一個（Ge...Setup）裡面有個Default Hostname，也就是默認的hostname，可以自己修改

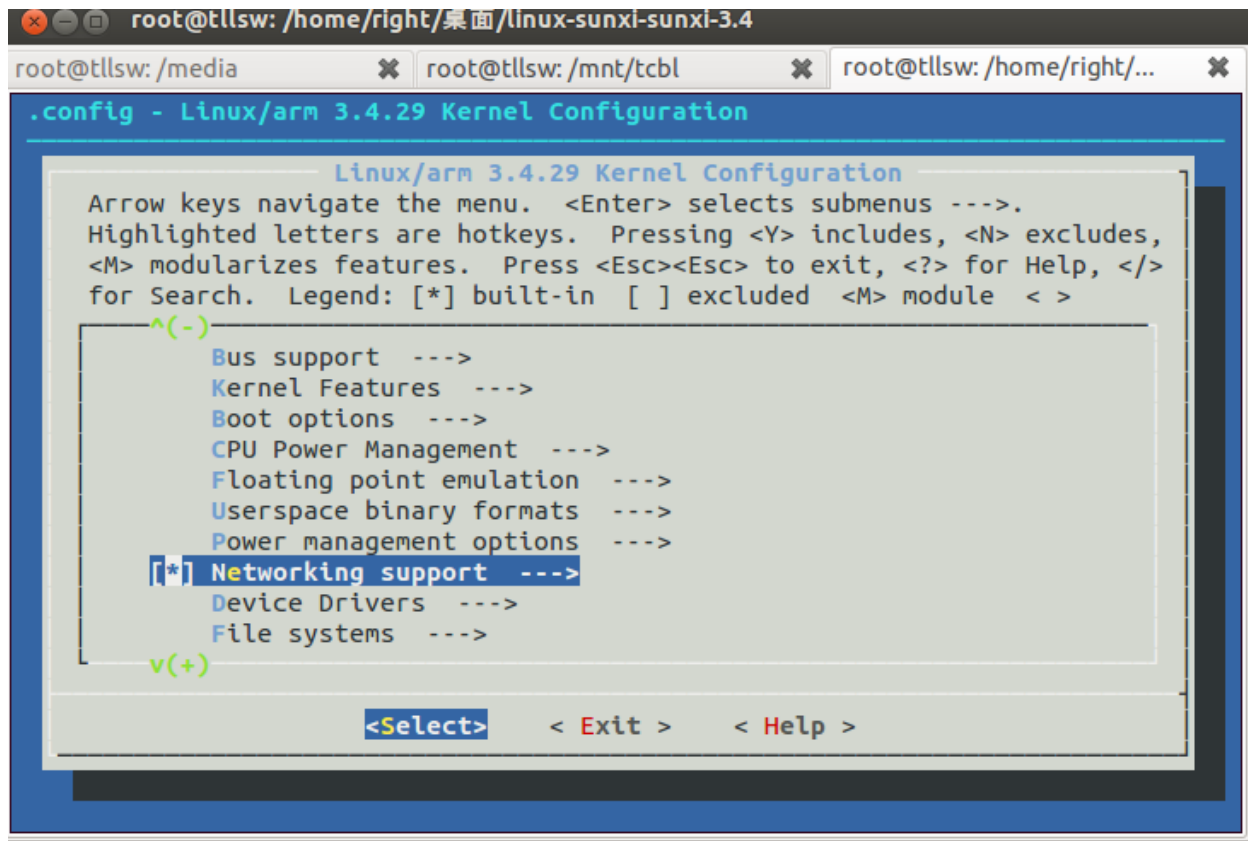
選東西要用按鍵：

Y設定為內置（刪不掉的）

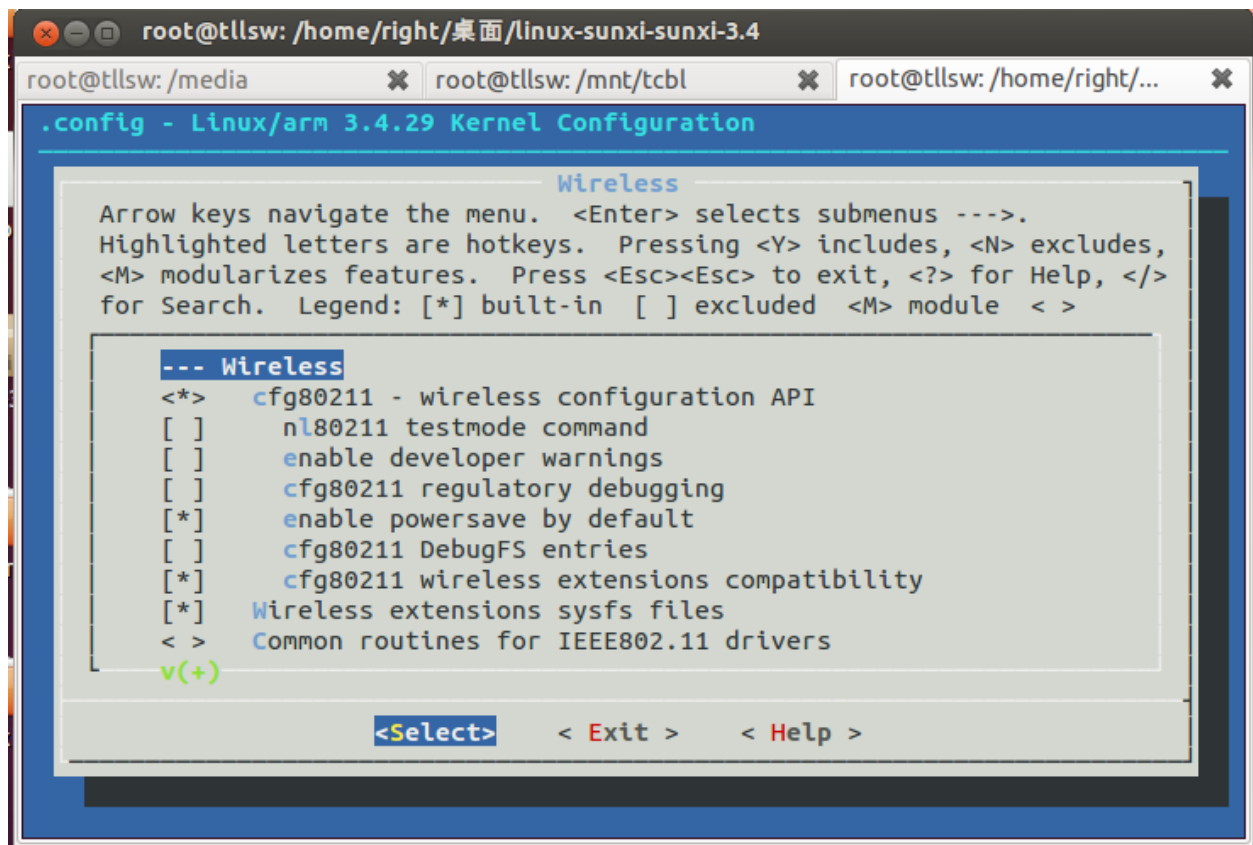
N設定為不要（內核裡面沒有，能通過模塊增加）

M設定為模塊（可以通過模塊增減）

給大家看下



這是網絡，裡面有個wireless就是無線，網絡支持下面那個是硬件驅動



這是無線選項，給大家參考

Devices Driver->Graphics Support->Bootup LOGO裡面有開機圖標，可以選，哈哈

.config - Linux/arm 3.4.29 Kernel Configuration

Graphics support

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 < >

^(-)

```
[ ] Enable debug in Mali driver
[ ] Enable Mali GPU utilization tracking
-M- UMP support
[*] Enable extra debug in UMP
< > Lowlevel video output switch controls
{*} Support for frame buffer devices --->
[ ] Exynos Video driver support --->
[ ] Backlight & LCD device support --->
    Console display driver support --->
[*] Bootup logo --->
```

<Select> < Exit > < Help >

root@tllsw: /home/right/桌面/linux-sunxi-sunxi-3.4

root@tllsw: /media

root@tllsw: /mnt/tcbl

root@tllsw: /home/right/...

.config - Linux/arm 3.4.29 Kernel Configuration

Bootup logo

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 < >

-- Bootup logo

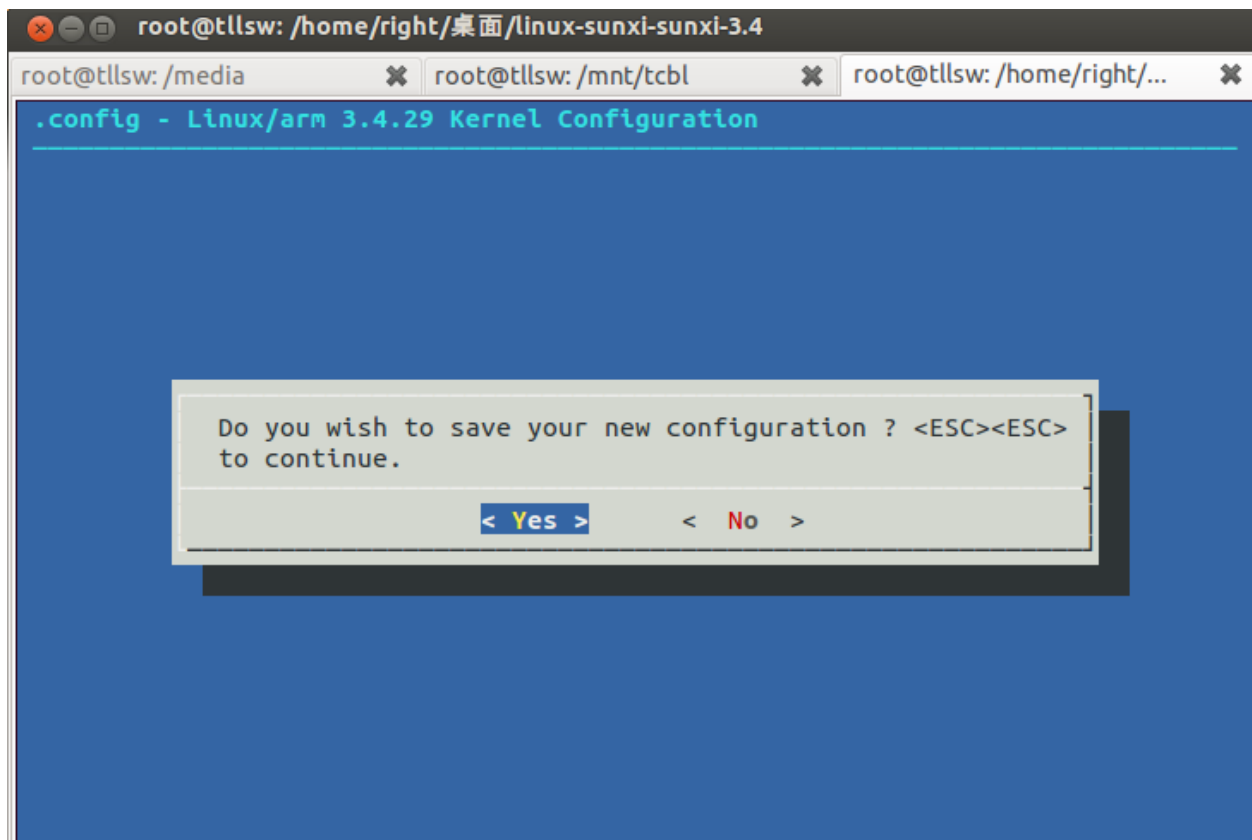
```
[*] Standard black and white Linux logo (NEW)
[*] Standard 16-color Linux logo (NEW)
[*] Standard 224-color Linux logo (NEW)
```

<Select> < Exit > < Help >

這就是Linux的企鵝圖標

選好了？

ok，左右按鍵選擇exit

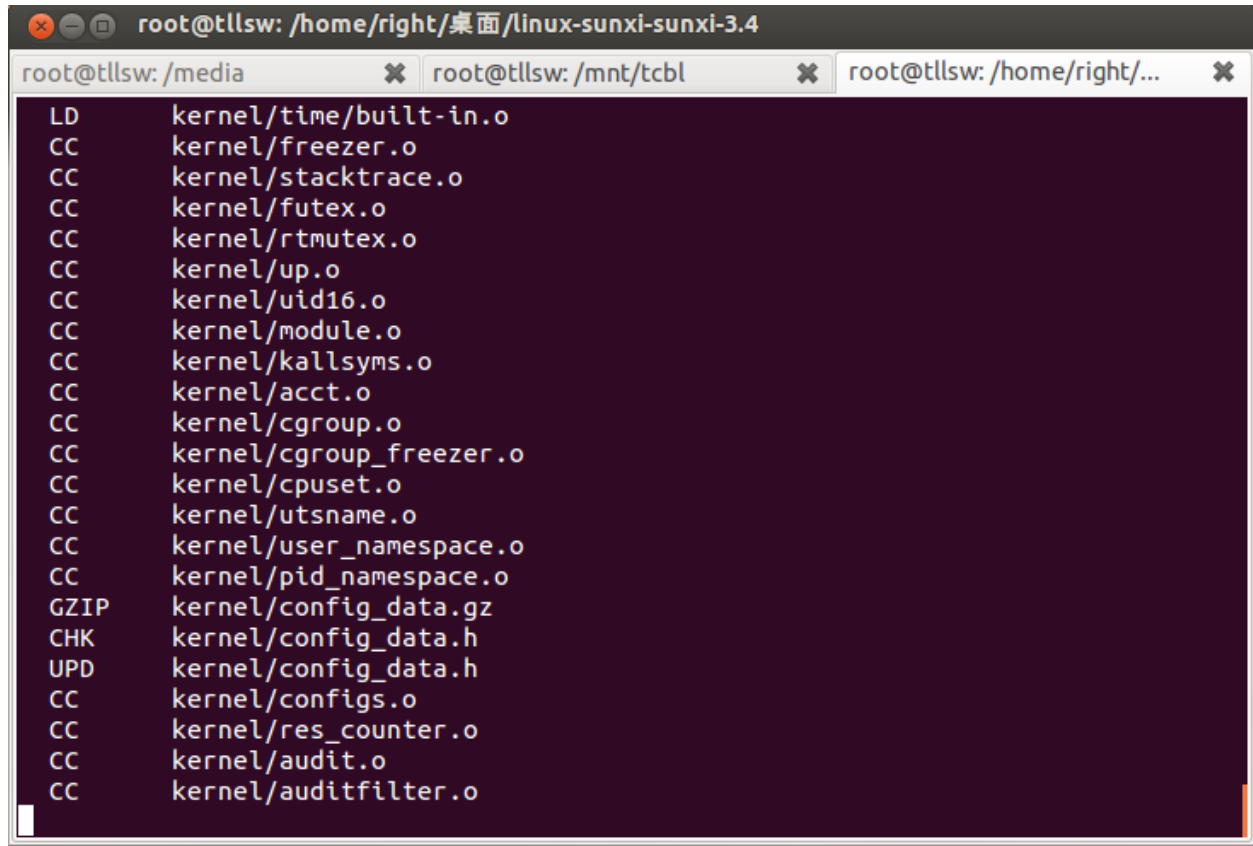


選yes，保存，好了。

- `make uImage CROSS_COMPILE=arm-linux-gnueabihf- -j2 ARCH=arm` #編譯uImage文件
-
- `make ARCH=arm CROSS_COMPILE=arm-linux-gnueabihf- -j2 INSTALL_MOD_PATH=output modules` #編譯lib文件夾裡的文件
-
- `make ARCH=arm CROSS_COMPILE=arm-linux-gnueabihf- -j2 INSTALL_MOD_PATH=output modules_install` #編譯lib文件夾裡的文件
-
- `mv arch/arm/boot/uImage output` #移動
-
-

複製代碼

上面j2意思是雙線程，可以改



A terminal window titled 'root@tllsw: /home/right/桌面/linux-sunxi-sunxi-3.4' with three tabs: 'root@tllsw: /media', 'root@tllsw: /mnt/tcbl', and 'root@tllsw: /home/right/...'. The terminal displays a list of kernel components being compiled, each preceded by a status code. The list includes: LD kernel/time/built-in.o, CC kernel/freezer.o, CC kernel/stacktrace.o, CC kernel/futex.o, CC kernel/rtmutex.o, CC kernel/up.o, CC kernel/uid16.o, CC kernel/module.o, CC kernel/kallsyms.o, CC kernel/acct.o, CC kernel/cgroup.o, CC kernel/cgroup_freezer.o, CC kernel/cpuset.o, CC kernel/utsname.o, CC kernel/user_namespace.o, CC kernel/pid_namespace.o, GZIP kernel/config_data.gz, CHK kernel/config_data.h, UPD kernel/config_data.h, CC kernel/configs.o, CC kernel/res_counter.o, CC kernel/audit.o, and CC kernel/auditfilter.o. A cursor is visible at the bottom left of the terminal area.

```
LD    kernel/time/built-in.o
CC    kernel/freezer.o
CC    kernel/stacktrace.o
CC    kernel/futex.o
CC    kernel/rtmutex.o
CC    kernel/up.o
CC    kernel/uid16.o
CC    kernel/module.o
CC    kernel/kallsyms.o
CC    kernel/acct.o
CC    kernel/cgroup.o
CC    kernel/cgroup_freezer.o
CC    kernel/cpuset.o
CC    kernel/utsname.o
CC    kernel/user_namespace.o
CC    kernel/pid_namespace.o
GZIP  kernel/config_data.gz
CHK    kernel/config_data.h
UPD    kernel/config_data.h
CC    kernel/configs.o
CC    kernel/res_counter.o
CC    kernel/audit.o
CC    kernel/auditfilter.o
```

正在編譯

```
OBJCOPY arch/arm/boot/Image
Kernel: arch/arm/boot/Image is ready
AS      arch/arm/boot/compressed/head.o
GZIP    arch/arm/boot/compressed/piggy.gzip
AS      arch/arm/boot/compressed/piggy.gzip.o
CC      arch/arm/boot/compressed/misc.o
CC      arch/arm/boot/compressed/decompress.o
CC      arch/arm/boot/compressed/string.o
SHIPPED arch/arm/boot/compressed/lib1funcs.S
AS      arch/arm/boot/compressed/lib1funcs.o
SHIPPED arch/arm/boot/compressed/ashldi3.S
AS      arch/arm/boot/compressed/ashldi3.o
LD      arch/arm/boot/compressed/vmlinux
OBJCOPY arch/arm/boot/zImage
Kernel: arch/arm/boot/zImage is ready
UIIMAGE arch/arm/boot/uImage
Image Name:   Linux-3.4.29
Created:      Mon Apr 29 10:08:26 2013
Image Type:   ARM Linux Kernel Image (uncompressed)
Data Size:    4308456 Bytes = 4207.48 kB = 4.11 MB
Load Address: 40008000
Entry Point:  40008000
Image arch/arm/boot/uImage is ready
root@tllsw:/home/right/桌面/linux-sunxi-sunxi-3.4#
```

OK

ulImage和lib可以同時編譯，開兩個終端即可

編譯好了直接複製到sd卡里

兩個文件都在output文件夾裡

ulImage複製到sd卡的FAT分區

lib複製到sd卡的linux分區

然後把sd卡插上即可

記得先把原來的備份下，不然弄壞就慘了

複製過程看二樓