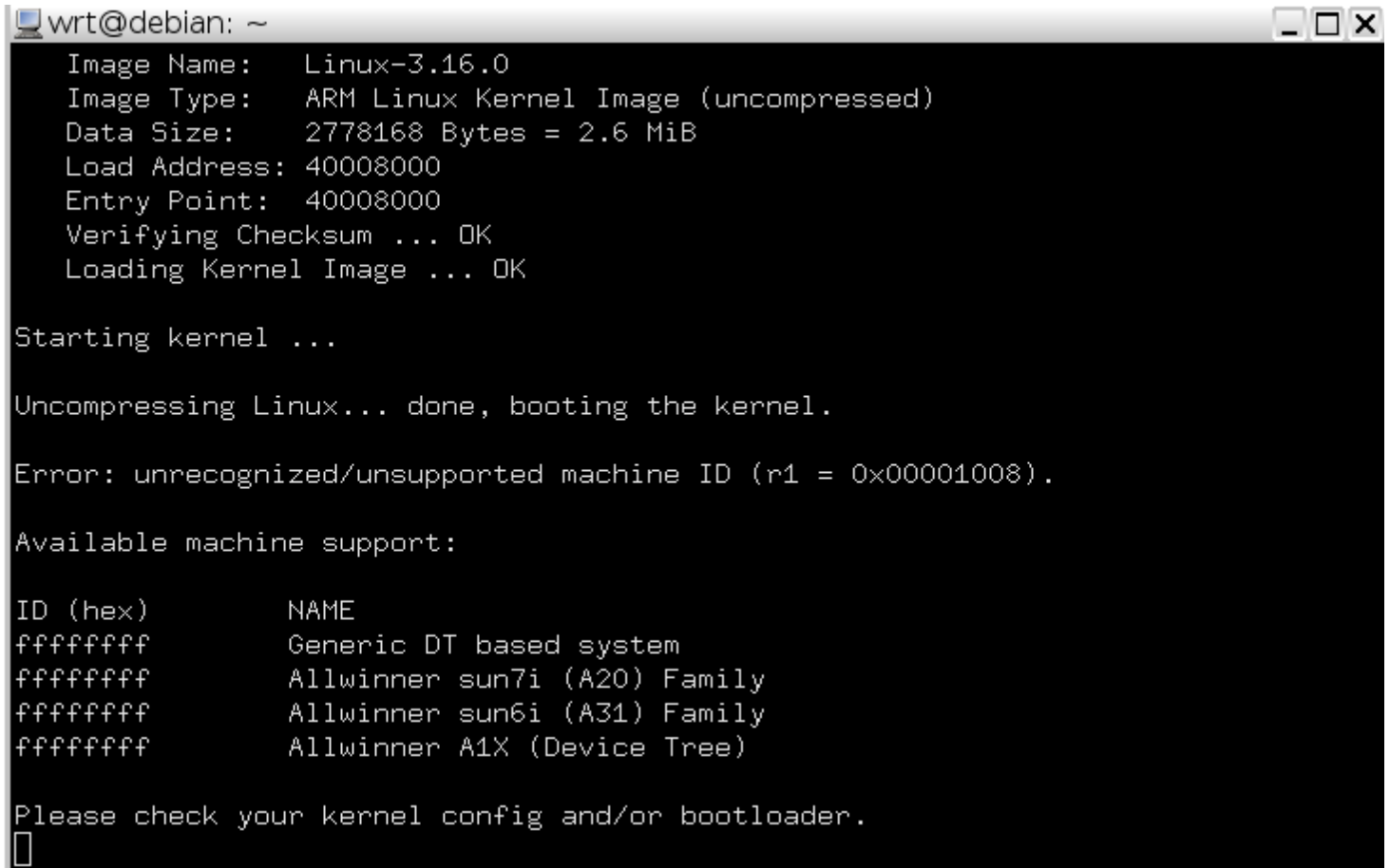


Cubieboard debian jessie for kernel 3.16(2015/7/27)

我們之前是在 cubieboard 上使用 jessie 和 kernel 3.4 去開機，之後要改成 kernel 3.16 但是我們遇到如圖 1 的問題。

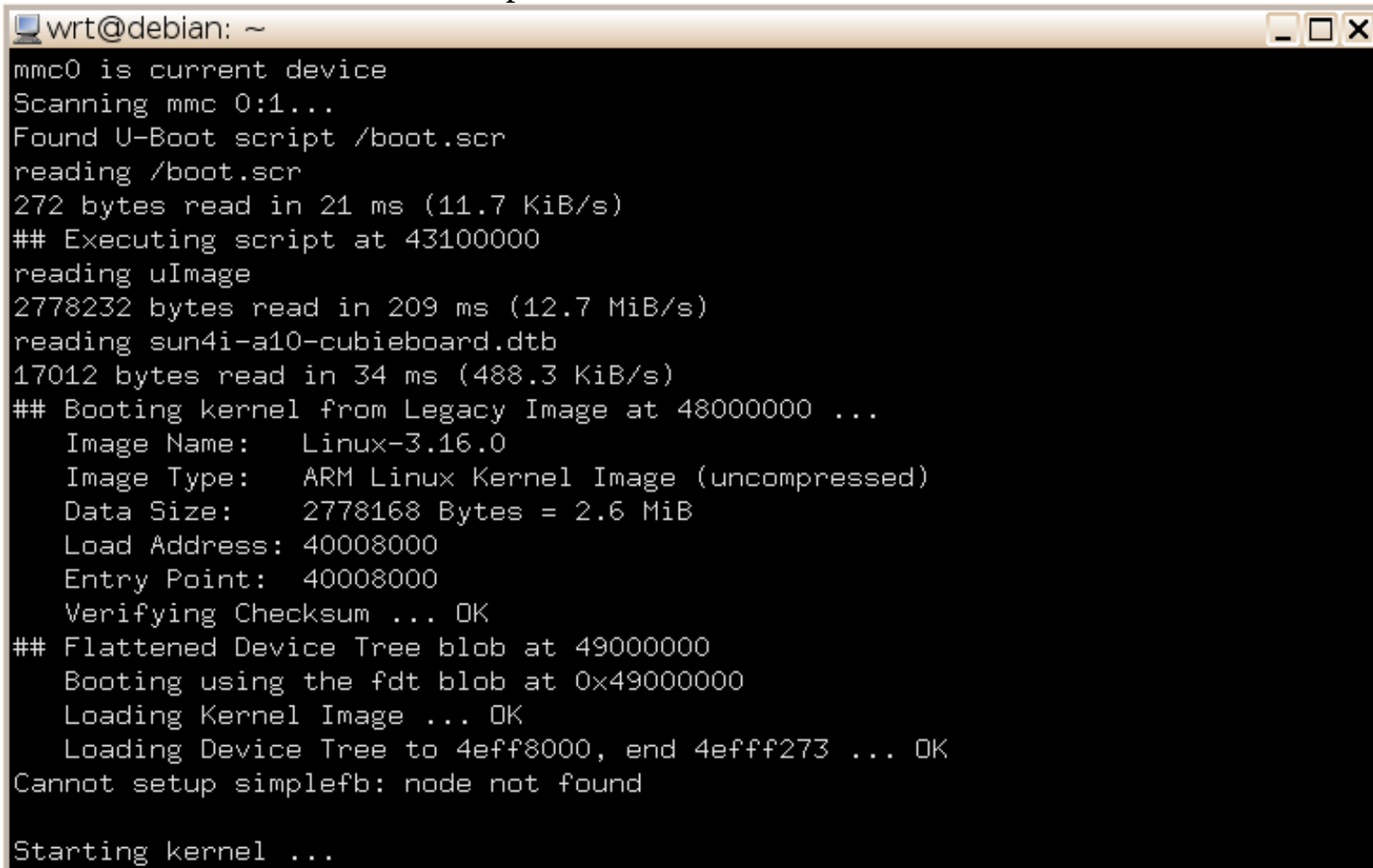
A terminal window titled 'wrt@debian: ~' with standard window controls. The terminal output shows the process of loading a Linux kernel image (3.16.0) and starting it. It reports an error: 'Error: unrecognized/unsupported machine ID (r1 = 0x00001008)'. Below this, it lists available machine support options with their IDs and names. The terminal ends with the instruction 'Please check your kernel config and/or bootloader.' and a cursor.

```
wrt@debian: ~  
Image Name:      Linux-3.16.0  
Image Type:      ARM Linux Kernel Image (uncompressed)  
Data Size:       2778168 Bytes = 2.6 MiB  
Load Address:    40008000  
Entry Point:     40008000  
Verifying Checksum ... OK  
Loading Kernel Image ... OK  
  
Starting kernel ...  
  
Uncompressing Linux... done, booting the kernel.  
  
Error: unrecognized/unsupported machine ID (r1 = 0x00001008).  
  
Available machine support:  
  
ID (hex)        NAME  
ffffffff        Generic DT based system  
ffffffff        Allwinner sun7i (A20) Family  
ffffffff        Allwinner sun6i (A31) Family  
ffffffff        Allwinner A1X (Device Tree)  
  
Please check your kernel config and/or bootloader.  
█
```

圖 1.

再圖 1 中顯示 cubieboard 的 machine ID(0x00001008)但是 kernel 上能支援的 ID 都顯示 ffffffff，所以就算設定正確的 machine ID 也無法解決這個問題。

再我們找了一些資料後得到的結論，我們抓的 kernel 3.4 是 sunxi 官方編譯好的 kernel，而在 kernel 3.8 之後本身已經有支援 cubieboard 的 Device Tree，所以只要抓取 sun4i-a10-cubieboard.dt 就可以解決(圖 2)，這個檔案就類似 sunxi 官方中的 script.bin 檔案。



```
wrt@debian: ~
mmc0 is current device
Scanning mmc 0:1...
Found U-Boot script /boot.scr
reading /boot.scr
272 bytes read in 21 ms (11.7 KiB/s)
## Executing script at 43100000
reading uImage
2778232 bytes read in 209 ms (12.7 MiB/s)
reading sun4i-a10-cubieboard.dtb
17012 bytes read in 34 ms (488.3 KiB/s)
## Booting kernel from Legacy Image at 48000000 ...
   Image Name:   Linux-3.16.0
   Image Type:   ARM Linux Kernel Image (uncompressed)
   Data Size:    2778168 Bytes = 2.6 MiB
   Load Address: 40008000
   Entry Point:  40008000
   Verifying Checksum ... OK
## Flattened Device Tree blob at 49000000
   Booting using the fdt blob at 0x49000000
   Loading Kernel Image ... OK
   Loading Device Tree to 4eff8000, end 4efff273 ... OK
Cannot setup simplefb: node not found

Starting kernel ...
```

圖 2.

但是之後出現 Failed to mount tmpfs at /sys/fs/cgroup: No such file or directory，目前要解決這個問題。

```
wrt@debian: ~  
[ 1.130572] ehci-platform 1c1c000.usb: USB 2.0 started, EHCI 1.00  
[ 1.137428] hub 2-0:1.0: USB hub found  
[ 1.141249] hub 2-0:1.0: 1 port detected  
[ 1.145690] ohci-platform 1c14400.usb: Generic Platform OHCI controller  
[ 1.152357] ohci-platform 1c14400.usb: new USB bus registered, assigned bus 3  
[ 1.160197] ohci-platform 1c14400.usb: irq 20, io mem 0x01c14400  
[ 1.225300] hub 3-0:1.0: USB hub found  
[ 1.229080] hub 3-0:1.0: 1 port detected  
[ 1.233579] ohci-platform 1c1c400.usb: Generic Platform OHCI controller  
[ 1.240207] ohci-platform 1c1c400.usb: new USB bus registered, assigned bus 4  
[ 1.248082] ohci-platform 1c1c400.usb: irq 23, io mem 0x01c1c400  
[ 1.315315] hub 4-0:1.0: USB hub found  
[ 1.319094] hub 4-0:1.0: 1 port detected  
[ 1.323462] sunxi-rtc 1c20d00.rtc: setting system clock to 2010-01-01 01:55:)  
[ 1.336174] vcc3v0: disabling  
[ 1.410591] ata1: SATA link down (SStatus 0 SControl 300)  
[ 1.423115] EXT4-fs (mmcblk0p2): couldn't mount as ext3 due to feature incoms  
[ 1.432882] EXT4-fs (mmcblk0p2): couldn't mount as ext2 due to feature incoms  
[ 1.458285] EXT4-fs (mmcblk0p2): mounted filesystem with ordered data mode. )  
[ 1.466449] VFS: Mounted root (ext4 filesystem) readonly on device 179:2.  
[ 1.491424] devtmpfs: mounted  
[ 1.494676] Freeing unused kernel memory: 216K (c04d5000 - c050b000)  
[ 1.666580] systemd[1]: Failed to mount tmpfs at /sys/fs/cgroup: No such fily
```