

mx53 SD/MMC 烧写步骤

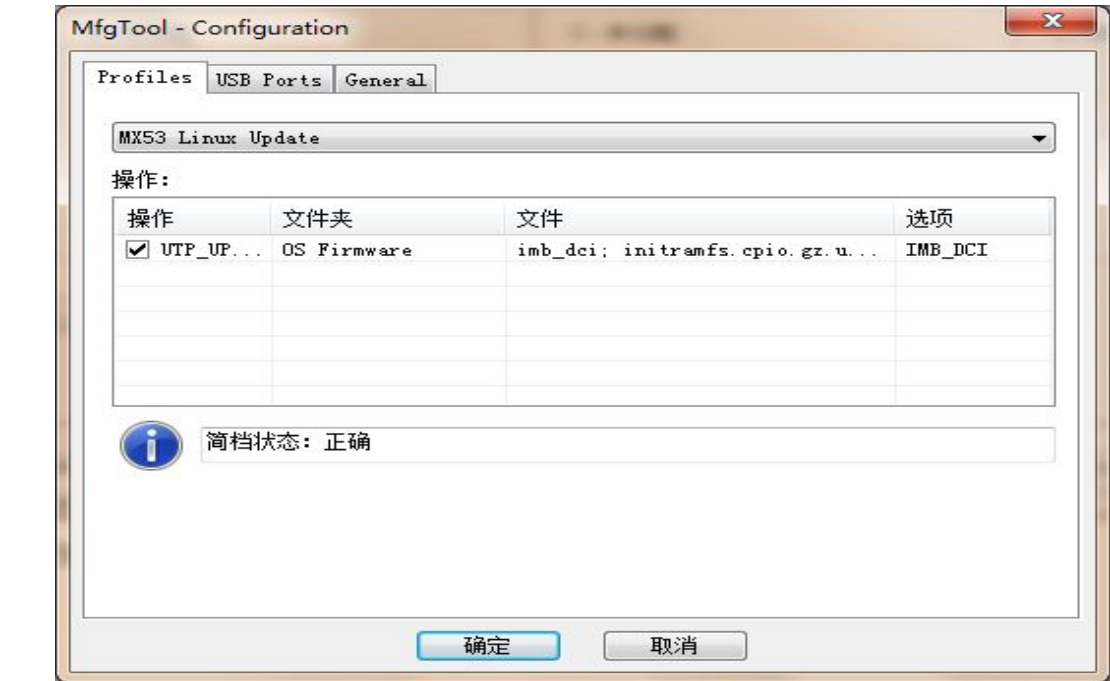
- 1、设置拨码开关为：00100111；mx53 启动时会进入串行下载模式；
注意：拨码开关打开 ON 一侧为 1，另一侧为 0。电路板上的拨码开关较小，使用镊子轻轻一拨即可。
- 2、使用 USB 线连接 mx53 与笔记本；电路板上电后，电脑显示发现新硬件，安装位于烧写软件目录下的驱动程序 Drivers/iMX_BulkIO_Driver/i386



- 3、打开 MFGTool.exe 烧写软件；



- 4、配置软件，选择烧写 USB 端口及烧写文件；Options->Configurations...



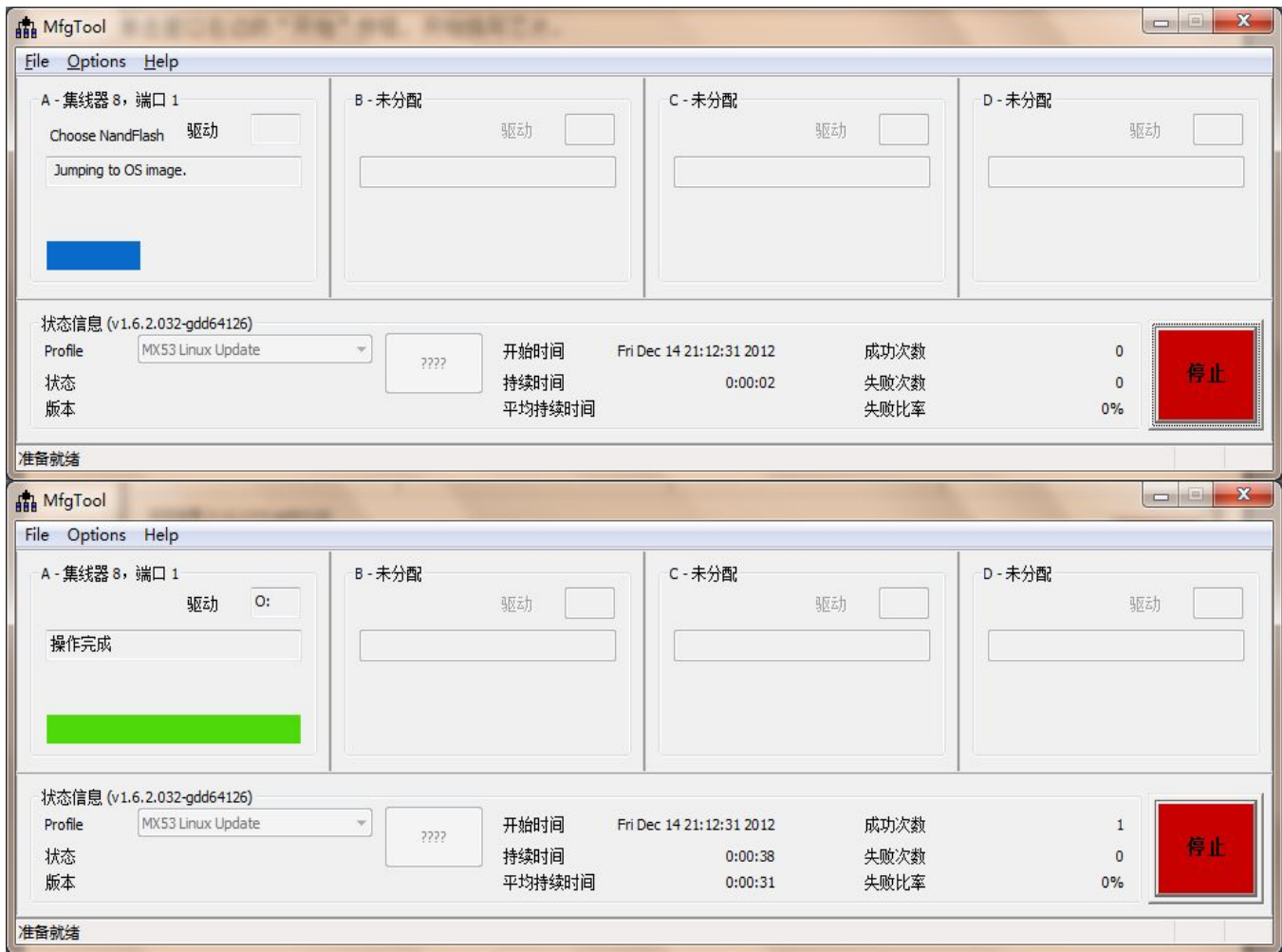
在 Profiles 选项卡下选择烧写文件，这里直接选择 IMB_DCI 就好了，因为烧写控制文件 ucl.xml 已经写好了。



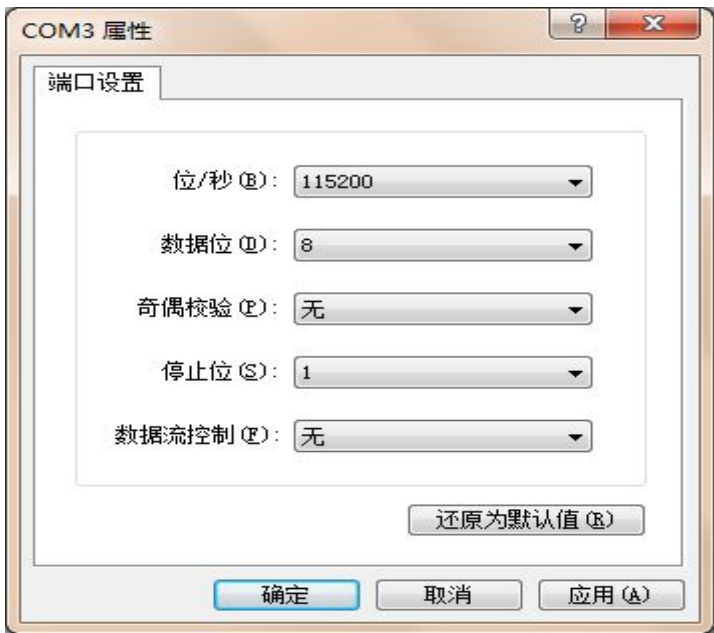
在 USB Ports 选项下选择被 Windows 识别的下载口，在前面打对勾。注意，如果驱动没有安装的话，此处是不会显示的。所以必须要先安装好 BulkIO 驱动程序。



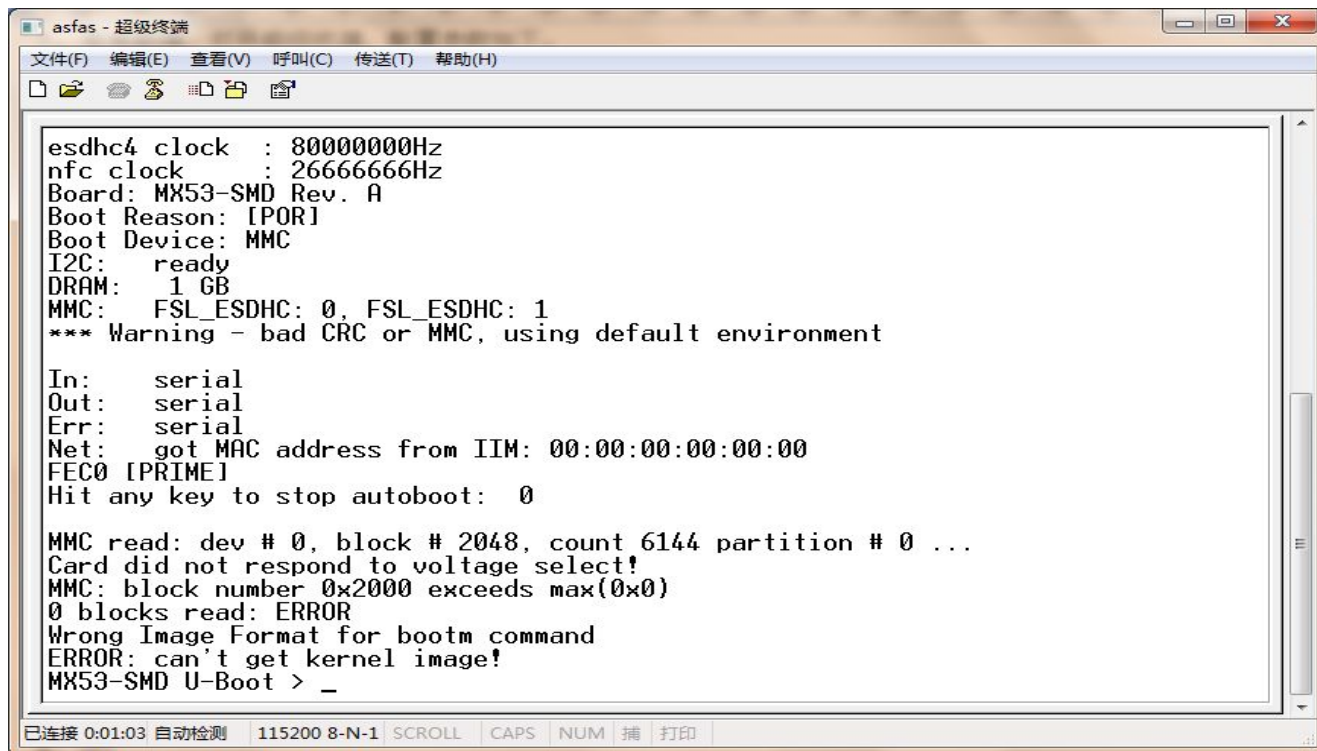
单击窗口右边的“开始”按钮，开始烧写芯片。



- 5、烧写完成后，将拨码开关设置为：00100110，让 mx53 从 Nand Flash 启动。
- 6、使用串口线接电路板上的 TxD、RxD、GND 经 Max3232 电平转换芯片后直接连接 USB 转串口线上。电脑端必须安装 USB 转串口线的驱动程序。(自己找个 max3232 焊个小板或者是借用别的电路板上的 max3232，飞几根线也可以)。
- 7、在电脑端，打开超级终端，配置参数如下：



8、电路板上电，信息会从串口输出，显示在超级终端上，如果出现乱码，请检查串口线、电平转换，重上电。



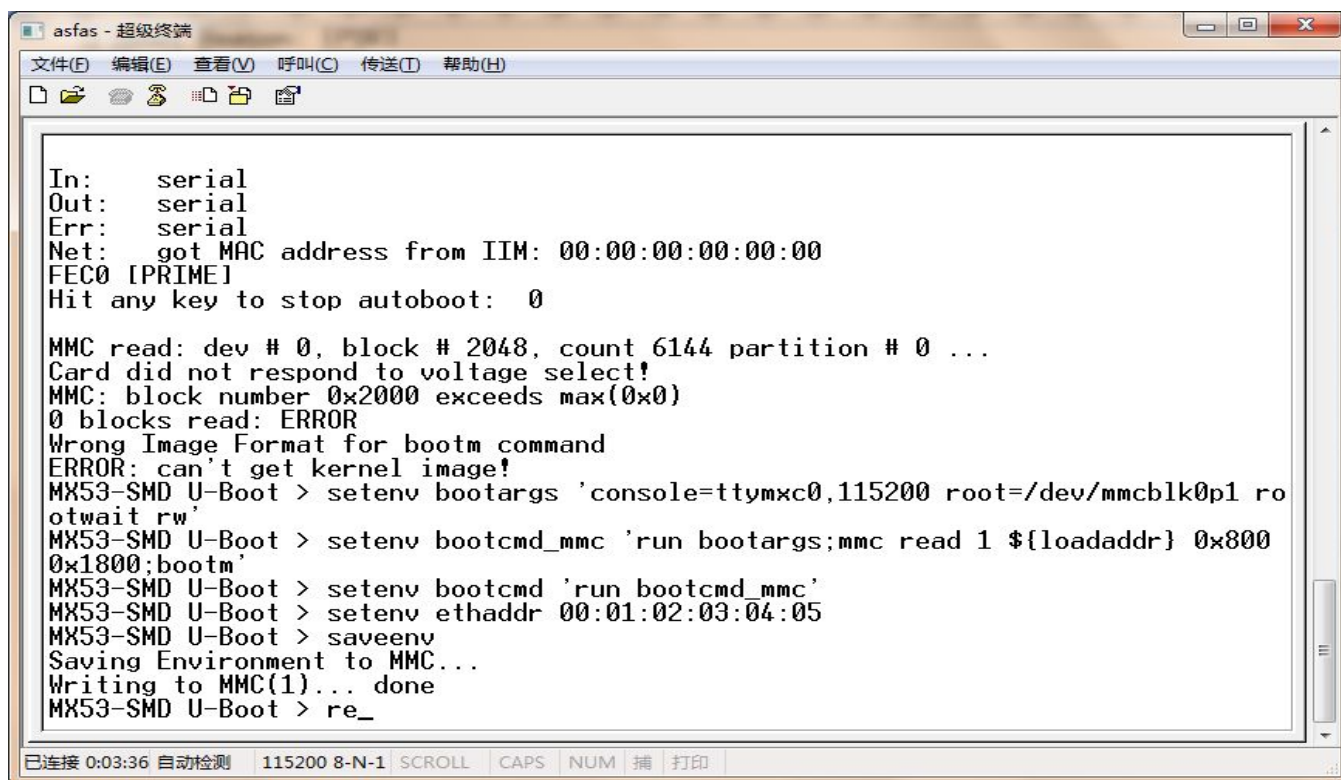
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asfas - 超级终端
文件(F) 编辑(E) 查看(V) 呼叫(C) 传送(T) 帮助(H)
esdhc4 clock : 80000000Hz
nfc clock : 26666666Hz
Board: MX53-SMD Rev. A
Boot Reason: [POR]
Boot Device: MMC
I2C: ready
DRAM: 1 GB
MMC: FSL_ESDHC: 0, FSL_ESDHC: 1
*** Warning - bad CRC or MMC, using default environment

In: serial
Out: serial
Err: serial
Net: got MAC address from IIM: 00:00:00:00:00:00
FEC0 [PRIME]
Hit any key to stop autoboot: 0

MMC read: dev # 0, block # 2048, count 6144 partition # 0 ...
Card did not respond to voltage select!
MMC: block number 0x2000 exceeds max(0x0)
0 blocks read: ERROR
Wrong Image Format for bootm command
ERROR: can't get kernel image!
MX53-SMD U-Boot > _
  
```

9、配置 uboot，让 uboot 能找到内核。在超级终端里输入以下命令：



```

asfas - 超级终端
文件(F) 编辑(E) 查看(V) 呼叫(C) 传送(T) 帮助(H)

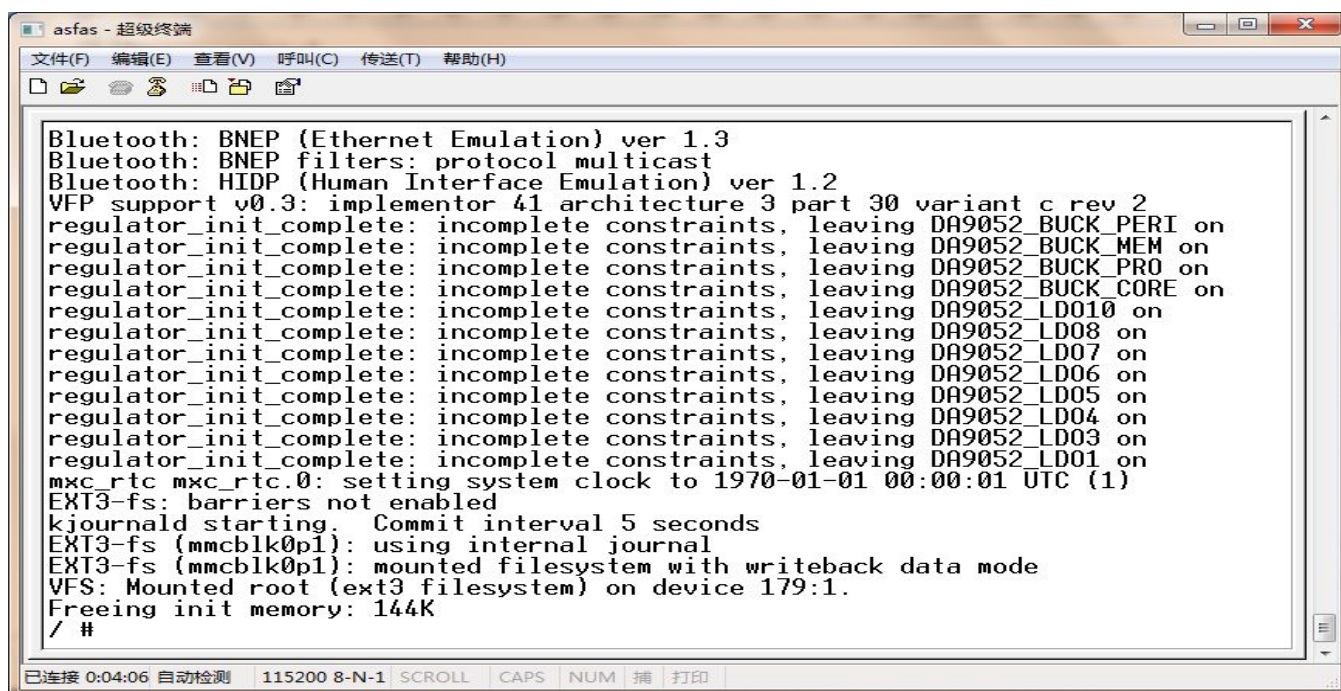
In: serial
Out: serial
Err: serial
Net: got MAC address from IIM: 00:00:00:00:00:00
FEC0 [PRIME]
Hit any key to stop autoboot: 0

MMC read: dev # 0, block # 2048, count 6144 partition # 0 ...
Card did not respond to voltage select!
MMC: block number 0x2000 exceeds max(0x0)
0 blocks read: ERROR
Wrong Image Format for bootm command
ERROR: can't get kernel image!
MX53-SMD U-Boot > setenv bootargs 'console=ttymx0,115200 root=/dev/mmcblk0p1 rootwait rw'
MX53-SMD U-Boot > setenv bootcmd_mmc 'run bootargs;mmc read 1 ${loadaddr} 0x800 0x1800;bootm'
MX53-SMD U-Boot > setenv bootcmd 'run bootcmd_mmc'
MX53-SMD U-Boot > setenv ethaddr 00:01:02:03:04:05
MX53-SMD U-Boot > saveenv
Saving Environment to MMC...
Writing to MMC(1)... done
MX53-SMD U-Boot > re_
  
```

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setenv bootargs 'console=ttymx0,115200 root=/dev/mmcblk0p1 rootwait rw'
setenv bootcmd_mmc 'run bootargs;mmc read 1 ${loadaddr} 0x800 0x1800;bootm'
setenv bootcmd 'run bootcmd_mmc'
saveenv
re
  
```


10、重启电路板后，uboot 引导内核，内核挂载根文件系统，进入 shell，如下：



```
asfas - 超级终端
文件(F) 编辑(E) 查看(V) 呼叫(C) 传送(T) 帮助(H)

Bluetooth: BNEP (Ethernet Emulation) ver 1.3
Bluetooth: BNEP filters: protocol multicast
Bluetooth: HIDP (Human Interface Emulation) ver 1.2
VFP support v0.3: implementor 41 architecture 3 part 30 variant c rev 2
regulator_init_complete: incomplete constraints, leaving DA9052_BUCK_PERI on
regulator_init_complete: incomplete constraints, leaving DA9052_BUCK_MEM on
regulator_init_complete: incomplete constraints, leaving DA9052_BUCK_PRO on
regulator_init_complete: incomplete constraints, leaving DA9052_BUCK_CORE on
regulator_init_complete: incomplete constraints, leaving DA9052_LD010 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD08 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD07 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD06 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD05 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD04 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD03 on
regulator_init_complete: incomplete constraints, leaving DA9052_LD01 on
mxc_rtc mxc_rtc.0: setting system clock to 1970-01-01 00:00:01 UTC (1)
EXT3-fs: barriers not enabled
kjournald starting. Commit interval 5 seconds
EXT3-fs (mmcblk0p1): using internal journal
EXT3-fs (mmcblk0p1): mounted filesystem with writeback data mode
VFS: Mounted root (ext3 filesystem) on device 179:1.
Freeing init memory: 144K
/ #
```

11、烧写完毕。



shell.albert
2012/12/14