

参考网页:http://blog.chinaunix.net/u1/59345/showart_1270685.html

FriendlyARM BIOS for 2440

- [x] bon part 0 320k 2368k
- [v] Download vivi
- [k] Download linux kernel
- [y] Download root_yaffs image
- [c] Download root_cramfs image
- [a] Absolute User Application
- [n] Download Nboot
- [e] Download Eboot
- [i] Download WinCE NK.nb0
- [w] Download WinCE NK.bin
- [d] Download & Run
- [f] Format the nand flash
- [p] Partition for Linux
- [b] Boot the system
- [s] Set the boot parameters
- [t] Print the TOC struct of wince
- [u] Backup NAND Flash to HOST through USB(upload)
- [r] Restore NAND Flash from HOST through USB
- [q] Goto shell of vivi

Enter your selection: k
USB host is connected. Waiting a download.

Now, Downloading [ADDRESS:30000000h, TOTAL:2047618]
RECEIVED FILE SIZE: 2047618 (499KB/S, 4S)
Downloaded file at 0x30000000, size = 2047608 bytes
Found block size = 0x001f4000
Erasing... .. done
Writing... .. done
Written 2047608 bytes

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```
Enter your selection: b
Copy linux kernel from 0x00050000 to 0x30008000, size = 0x00200000 ... done
zImage magic = 0x016f2818
Setup linux parameters at 0x30000100
linux command line is: "noinitrd root=/dev/mtdblock2 init=/linuxrc console=ttySAC0"
MACH_TYPE = 782
NOW, Booting Linux.....
Uncompressing Linux... done, booting the kernel.
```

```
Error: unrecognized/unsupported machine ID (r1 = 0x0000030e).
```

Available machine support:

ID (hex)	NAME
000000c1	SMDK2410
0000015b	IPAQ-H1940
0000039f	Acer-N35
00000290	Acer-N30
0000014b	Simtec-BAST
000002a8	Nex Vision - Otom 1.1
00000400	AML_M5900
000005b4	TCT_HAMMER
000001db	Thorcom-VR1000
00000454	QT2410
000005d2	JIVE
000003fe	SMDK2413
000003f1	SMDK2412
00000377	S3C2413
00000474	VSTMS
000002de	Simtec-Anubis
0000034a	Simtec-OSIRIS

00000250 IPAQ-RX3715
0000016a SMDK2440
000002a9 NexVision - Nexcoder 2440
00000707 AT2440EVB
000007cf MINI2440
0000043c SMDK2443

Please check your kernel config and/or bootloader.

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Enter your selection: s

Parameter Menu

- [r] Reset parameter table to default table
- [s] Set parameter
- [v] View the parameter table
- [w] Write the parameter table to flash memeory
- [q] Quit

Enter your selection: v

Number of parameters: 9

name	:	hex	integer
-----	-----	-----	-----
mach_type	:	0000030e	782
media_type	:	00000003	3
boot_mem_base	:	30000000	805306368
baudrate	:	0001c200	115200
xmodem	:	00000001	1
xmodem_one_nak	:	00000000	0
xmodem_initial_timeout	:	000493e0	300000
xmodem_timeout	:	000f4240	1000000
boot_delay	:	01000000	16777216

Linux command line: noinitrd root=/dev/mtdblock2 init=/linuxrc console=ttySAC0

Parameter Menu

[r] Reset parameter table to default table
[s] Set parameter
[v] View the parameter table
[w] Write the parameter table to flash memory
[q] Quit

Enter your selection: s

Enter the parameter's name (mach_type, media_type, linux_cmd_line, etc): mach_type

Enter the parameter's value (if the value contains space, enclose it with "): 362

Change 'mach_type' value. 0x0000030e(782) to 0x0000016a(362)

Parameter Menu

[r] Reset parameter table to default table
[s] Set parameter
[v] View the parameter table
[w] Write the parameter table to flash memory
[q] Quit

Enter your selection: w

Found block size = 0x0000c000

Erasing... .. done

Writing... .. done

Written 49152 bytes

Saved vivi private data

Parameter Menu

[r] Reset parameter table to default table
[s] Set parameter
[v] View the parameter table
[w] Write the parameter table to flash memory
[q] Quit

Enter your selection: v

Number of parameters: 9

name	:	hex	integer
-----	-----	-----	-----
mach_type	:	0000016a	362
media_type	:	00000003	3
boot_mem_base	:	30000000	805306368
baudrate	:	0001c200	115200
xmodem	:	00000001	1
xmodem_one_nak	:	00000000	0
xmodem_initial_timeout	:	000493e0	300000

20100405-2.txt

```
xmodem_timeout      :      000f4240      1000000
boot_delay          :      01000000      16777216
Linux command line: noinitrd root=/dev/mtdblock2 init=/linuxrc console=ttySAC0
```

Parameter Menu

- [r] Reset parameter table to default table
- [s] Set parameter
- [v] View the parameter table
- [w] Write the parameter table to flash memeory
- [q] Quit

Enter your selection: q

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Enter your selection: b

Copy linux kernel from 0x00050000 to 0x30008000, size = 0x00200000 ... done

zImage magic = 0x016f2818

Setup linux parameters at 0x30000100

linux command line is: "noinitrd root=/dev/mtdblock2 init=/linuxrc console=ttySAC0"

MACH_TYPE = 362

NOW, Booting Linux.....

Uncompressing Linux... done, booting the kernel.

Linux version 2.6.33 (root@shop) (gcc version 3.4.1) #2 Fri Mar 5 04:50:59 CST 2010

CPU: ARM920T [41129200] revision 0 (ARMv4T), cr=c0007177

CPU: VIVT data cache, VIVT instruction cache

Machine: SMDK2440

ATAG_INITRD is deprecated; please update your bootloader.

Memory policy: ECC disabled, Data cache writeback

CPU S3C2440A (id 0x32440001)

```

S3C24XX Clocks, Copyright 2004 Simtec Electronics
S3C244X: core 405.000 MHz, memory 101.250 MHz, peripheral 50.625 MHz
CLOCK: Slow mode (1.500 MHz), fast, MPLL on, UPLL on
Built 1 zonelists in Zone order, mobility grouping on. Total pages: 16256
Kernel command line: noinitrd root=/dev/mtdblock2 init=/linuxrc console=ttySAC0
PID hash table entries: 256 (order: -2, 1024 bytes)
Dentry cache hash table entries: 8192 (order: 3, 32768 bytes)
Inode-cache hash table entries: 4096 (order: 2, 16384 bytes)
Memory: 64MB = 64MB total
Memory: 60548KB available (3792K code, 338K data, 176K init, OK highmem)
Hierarchical RCU implementation.
NR_IRQS:99
irq: clearing subpending status 00000003
irq: clearing subpending status 00000002
Console: colour dummy device 80x30
console [ttySAC0] enabled
Calibrating delay loop... 201.93 BogoMIPS (lpj=504832)
Mount-cache hash table entries: 512
CPU: Testing write buffer coherency: ok
NET: Registered protocol family 16
S3C Power Management, Copyright 2004 Simtec Electronics
S3C2440: Initialising architecture
S3C2440: IRQ Support
S3C24XX DMA Driver, Copyright 2003-2006 Simtec Electronics
DMA channel 0 at c4808000, irq 33
DMA channel 1 at c4808040, irq 34
DMA channel 2 at c4808080, irq 35
DMA channel 3 at c48080c0, irq 36
S3C244X: Clock Support, DVS off
bio: create slab <bio-0> at 0
SCSI subsystem initialized
usbcore: registered new interface driver usbfs
usbcore: registered new interface driver hub
usbcore: registered new device driver usb
s3c-i2c s3c2440-i2c: slave address 0x10
s3c-i2c s3c2440-i2c: bus frequency set to 98 KHz
s3c-i2c s3c2440-i2c: i2c-0: S3C I2C adapter
Advanced Linux Sound Architecture Driver Version 1.0.21.
NET: Registered protocol family 2
IP route cache hash table entries: 1024 (order: 0, 4096 bytes)
TCP established hash table entries: 2048 (order: 2, 16384 bytes)
TCP bind hash table entries: 2048 (order: 1, 8192 bytes)
TCP: Hash tables configured (established 2048 bind 2048)
TCP reno registered
UDP hash table entries: 256 (order: 0, 4096 bytes)
UDP-Lite hash table entries: 256 (order: 0, 4096 bytes)
NET: Registered protocol family 1
RPC: Registered udp transport module.
RPC: Registered tcp transport module.
RPC: Registered tcp NFSv4.1 backchannel transport module.
NetWinder Floating Point Emulator V0.97 (extended precision)
JFFS2 version 2.2. (NAND) (SUMMARY) © 2001-2006 Red Hat, Inc.
ROMFS MTD (C) 2007 Red Hat, Inc.
msgmni has been set to 118
io scheduler noop registered
io scheduler deadline registered
io scheduler cfq registered (default)
Console: switching to colour frame buffer device 30x40
fb0: s3c2410fb frame buffer device
lp: driver loaded but no devices found
ppdev: user-space parallel port driver
Serial: 8250/16550 driver, 4 ports, IRQ sharing enabled
s3c2440-uart.0: s3c2410_serial0 at MMIO 0x50000000 (irq = 70) is a S3C2440
s3c2440-uart.1: s3c2410_serial1 at MMIO 0x50004000 (irq = 73) is a S3C2440
s3c2440-uart.2: s3c2410_serial2 at MMIO 0x50008000 (irq = 76) is a S3C2440
brd: module loaded
loop: module loaded
Uniform Multi-Platform E-IDE driver
ide-gd driver 1.18
ide-cd driver 5.00
S3C24XX NAND Driver, (c) 2004 Simtec Electronics
s3c24xx-nand s3c2440-nand: Tacls=3, 29ns Twrph0=7 69ns, Twrph1=3 29ns
s3c24xx-nand s3c2440-nand: NAND soft ECC
NAND device: Manufacturer ID: 0xec, Chip ID: 0x76 (Samsung NAND 64MiB 3,3V 8-bit)
Scanning device for bad blocks

```

```

Creating 3 MTD partitions on "NAND 64MiB 3,3V 8-bit":
0x000000000000-0x000000030000 : "VIVI"
0x000000050000-0x000000250000 : "Kernel"
0x000000250000-0x000003ffc000 : "shopping"
dm9000 Ethernet Driver, V1.31
usbmon: debugfs is not available
ohci_hcd: USB 1.1 'Open' Host Controller (OHCI) Driver
s3c2410-ohci s3c2410-ohci: S3C24XX OHCI
s3c2410-ohci s3c2410-ohci: new USB bus registered, assigned bus number 1
s3c2410-ohci s3c2410-ohci: irq 42, io mem 0x49000000
hub 1-0:1.0: USB hub found
hub 1-0:1.0: 2 ports detected
usbcore: registered new interface driver libusual
usbcore: registered new interface driver usbserial
USB Serial support registered for generic
usbcore: registered new interface driver usbserial_generic
usbserial: USB Serial Driver core
USB Serial support registered for FTDI USB Serial Device
usbcore: registered new interface driver ftdi_sio
ftdi_sio: v1.5.0:USB FTDI Serial Converters Driver
USB Serial support registered for pl2303
usbcore: registered new interface driver pl2303
pl2303: Prolific PL2303 USB to serial adaptor driver
mice: PS/2 mouse device common for all mice
S3C24XX RTC, (c) 2004,2006 Simtec Electronics
S3C2410 Watchdog Timer, (c) 2004 Simtec Electronics
s3c2410-wdt s3c2410-wdt: watchdog inactive, reset disabled, irq enabled
No device for DAI UDA134X
No device for DAI s3c24xx-i2s
ALSA device list:
  No soundcards found.
TCP cubic registered
NET: Registered protocol family 17
drivers/rtc/hctosys.c: unable to open rtc device (rtc0)
List of all partitions:
1f00          192 mtdblock0 (driver?)
1f01          2048 mtdblock1 (driver?)
1f02          63152 mtdblock2 (driver?)
No filesystem could mount root, tried: ext3 ext2 cramfs vfat msdos iso9660 romfs
Kernel panic - not syncing: VFS: Unable to mount root fs on unknown-block(31,2)
Backtrace:
[<c00389cc>] (dump_backtrace+0x0/0x104) from [<c0038ae8>] (dump_stack+0x18/0x1c)
r7:c3889000 r6:c388902a r5:00000000 r4:c381bf5c
[<c0038ad0>] (dump_stack+0x0/0x1c) from [<c00586c0>] (panic+0x3c/0x124)
[<c0058684>] (panic+0x0/0x124) from [<c0009044>] (mount_block_root+0x1d8/0x21c)
r3:00000002 r2:c381bf6f r1:c381bf5c r0:c03891fc
[<c0008e6c>] (mount_block_root+0x0/0x21c) from [<c0009254>] (mount_root+0xd0/0xf0)
[<c0009184>] (mount_root+0x0/0xf0) from [<c00093e4>] (prepare_namespace+0x170/0x1d0)
r6:00000000 r5:c0029a0c r4:c0410114
[<c0009274>] (prepare_namespace+0x0/0x1d0) from [<c0008c1c>] (kernel_init+0xd8/0x10c)
r5:c0028530 r4:c040fef8
[<c0008b44>] (kernel_init+0x0/0x10c) from [<c005aecc>] (do_exit+0x0/0x5a4)
r5:00000000 r4:00000000

```