

4.3 Compile and Run 2440test

Samsung 2440test is derived from a non-operating test procedures, which a lot of small-scale integrated test procedures, GPIO configuration relates to the suspension of the preparation, use of common interfaces such as testing, in which each part of the test code have The independence of a strong, very suitable for "ARM basic" experimental practice. 2440test is ADS1.2 based development environment to create it compiled a binary file cannot be downloaded to wince or linux system running, the memory can only be downloaded to a designated place site (this is 0x30000000) operation can also be NAND flash programmer to run.

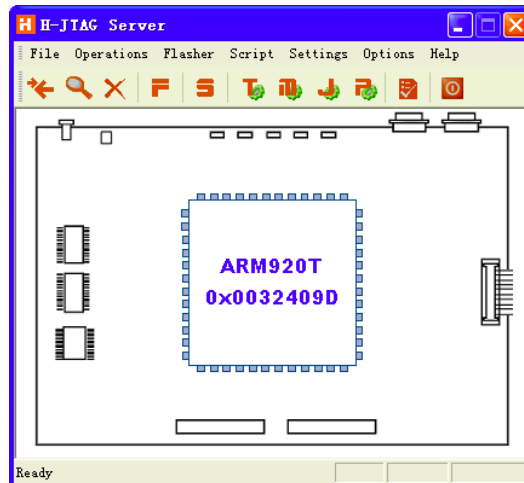
The development board provided for 2440test boot support for post-LCD display, you can \2440test\inc\Option.h definition of LCD_TYPE options:

```
# define LCD_TYPE_N35      1      /* N35 apply on behalf of NEC3.5-inch screen */
# define LCD_TYPE_A70      2      /* A70 apply on behalf of 7-inch screen */
# define LCD_TYPE_VGA1024x768 3      /* VGA1024x768 to the VGA output on
                                      behalf of the application of resolution for 1024x768 */
# define LCD_TYPE LCD_TYPE_N35
CD-ROM is the default LCD_TYPE_N35
```

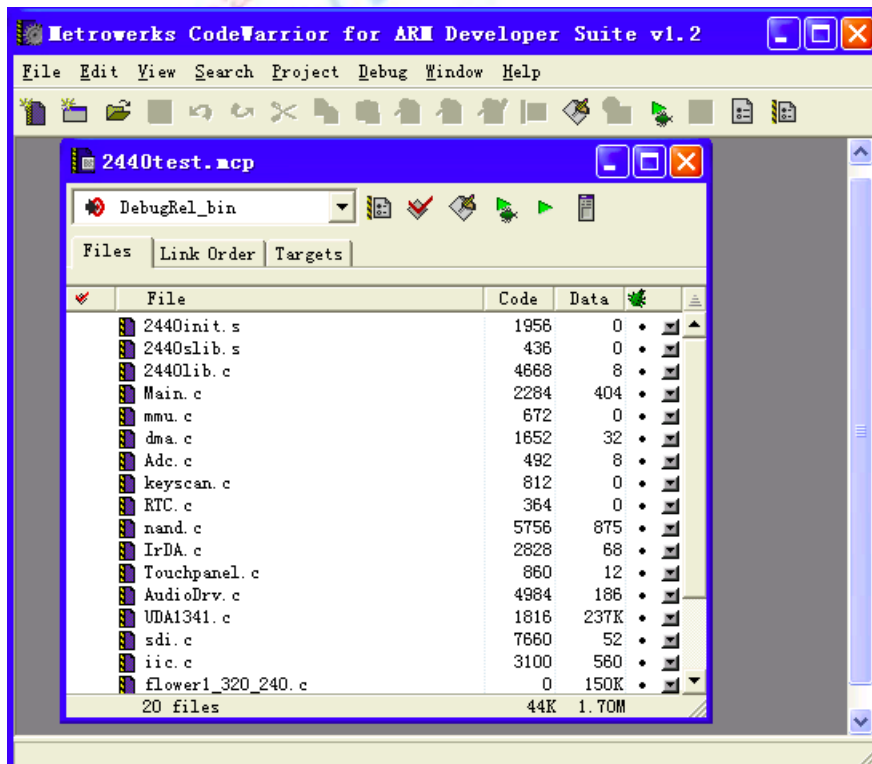
The following is a compilation 2440test, operation and programmer of the method, the principle source of requests the user to understand.

4.3.1 Compile and Use H-JTAG Debug 2440test

Development board using a small plate attached to connect JTAG development board's JTAG interface, using the included serial cable connections to develop serial board, and open access to the power. Then open the H-JTAG software, it will automatically detect the target board figure.

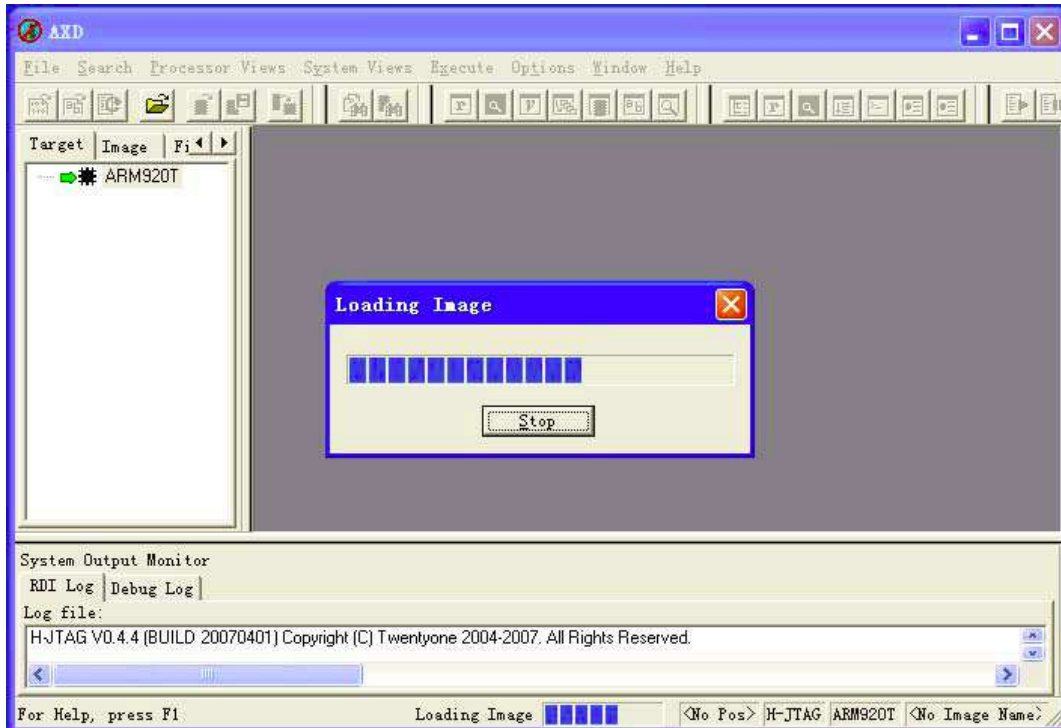


Copy the "non-operating system\sample code\2440test" directory from CD-ROM to working directory (here for D:\work), remove its read-only attribute, integrated development environment running ADS1.2, click File > Open ... Open 2440test.mcp documents, figure.

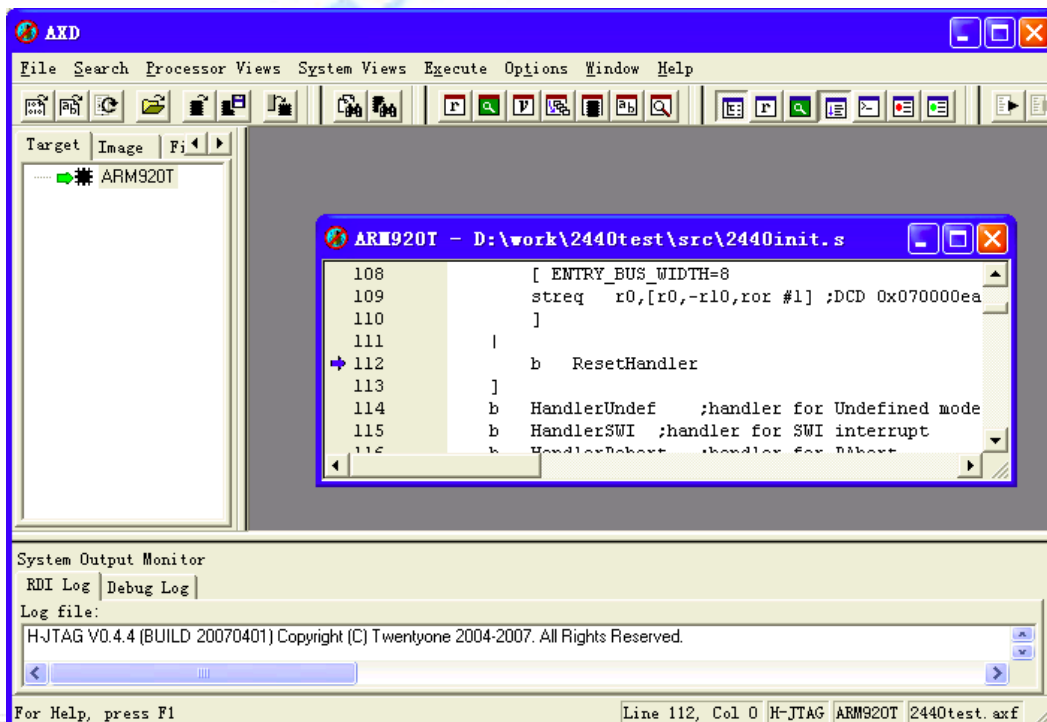


At Project > Debug or press the F5 key to start 2440test projects compiled, the compiler will automatically start finished AXD debugger and compiled through the JTAG download 2440test.axf image into memory, as shown in figure.

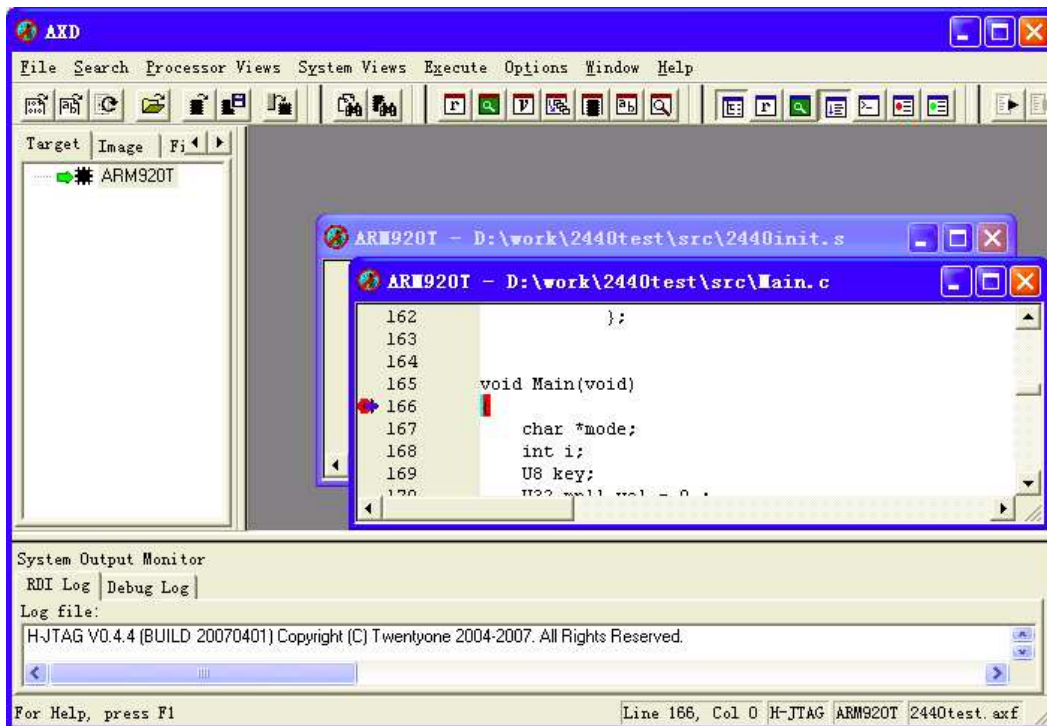
Note: Because 2440test.axf relatively large, so need to wait for some time to download.



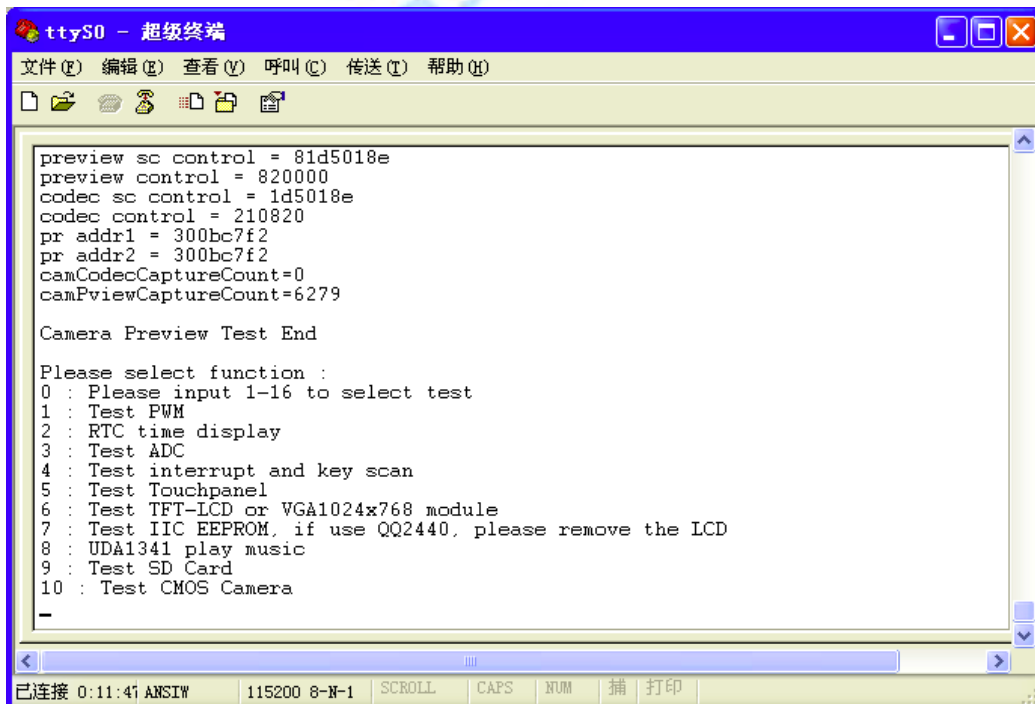
Download completed as shown.



At this time point menu Execute > Go or press the F5 key, the program will jump to the Main function, we can enter single-step debugging of running.



If you then again at full speed the implementation process, we can see from the serial terminal to print the following information, which is before us used in non-operating system testing procedures are the same.

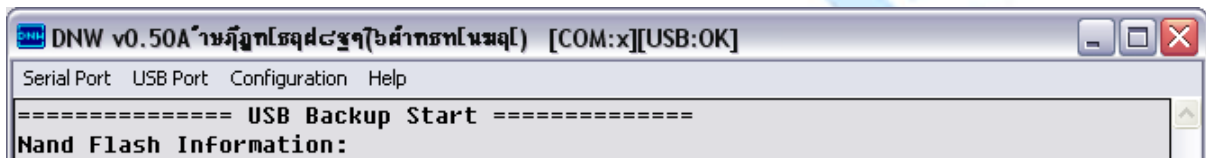


4.3.2 Download to Run 2440test through the USB

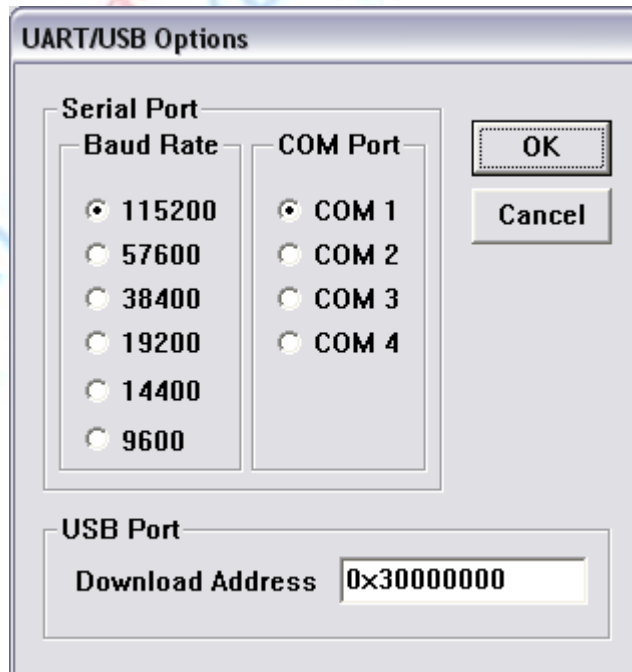
The use of USB Download 2440test procedures do not need to run parallel and JTAG board, Supervivi with the "Download & Run "function can be, and the following is the detailed steps:

(1) Connect good development board power supply, serial lines, USB cable, and set the development board for the NOR flash your system, sub - do not open the serial port and HyperTerminal DNW, the power development board to start.

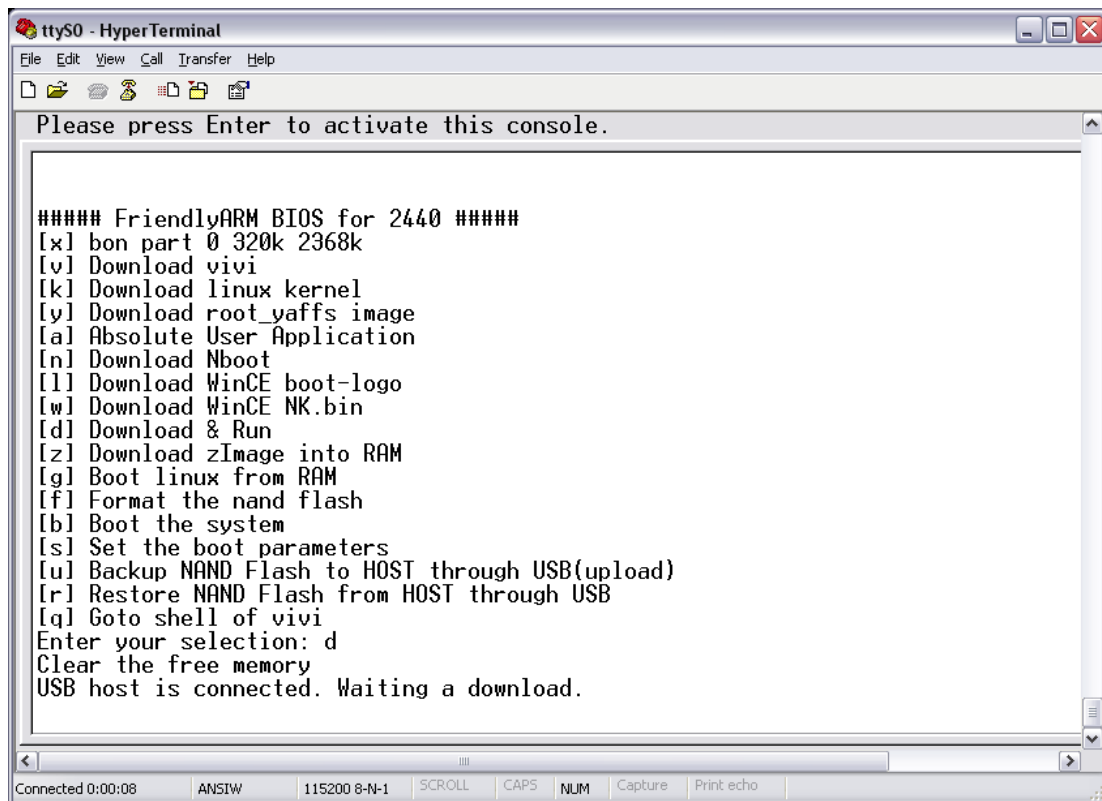
(2) Ensure the USB driver has been installed (as has already been described in detail the installation of USB-driven approach), this can be DNW's title bar to see the show [USB: OK], if there is no driver installed will be displayed [USB: x], as shown:



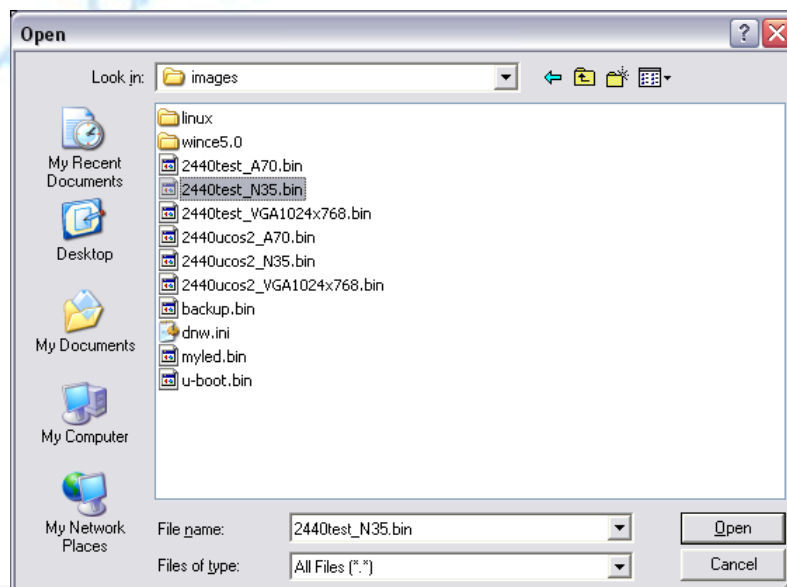
(3) DNW menu Configuration set the USB to download to run address 0x30000000.



(4) At this time in the BIOS functions of the HyperTerminal menu, select [d], there to wait for USB download message:



(5) Click on the DNW procedures "USB Port > Transmit", the compiler figure out just select image file (On CD-ROM "images" directory has been compiled in the executable file), start the download.



(6) After the download is automatically run, serial information appears as follows:

```

ttySO - HyperTerminal
File Edit View Call Transfer Help
<*****>
SBC2440 Test Program VER1.0
www.arm9.net
Build time is: Jun 16 2009 16:38:08
Image$$R0$$Base = 0x30000000
Image$$R0$$Limit = 0x300342c0
Image$$RW$$Base = 0x300342c0
Image$$RW$$Limit = 0x300e2078
Image$$ZI$$Base = 0x300958a8
Image$$ZI$$Limit = 0x300e2078
<*****>
Please select function :
0 : Please input 1-16 to select test
1 : Test PWM
2 : RTC time display
3 : Test ADC
4 : Test interrupt and key scan
5 : Test Touchpanel
6 : Test TFT-LCD or VGA1024x768 module
7 : Test IIC EEPROM, if use QQ2440, please remove the LCD
8 : UDA1341 play music
9 : Test SD Card
10 : Test CMOS Camera
-
Connected 0:03:49 ANSIW 115200 8-N-1 SCROLL CAPS NUM Capture Print echo
    
```

The use of 7-inch true color screen, the interface will appear as follows:



The use of NEC3.5-inch screen, the interface will appear as follows:



If you are using VGA output module will appear in the display interface is as follows:

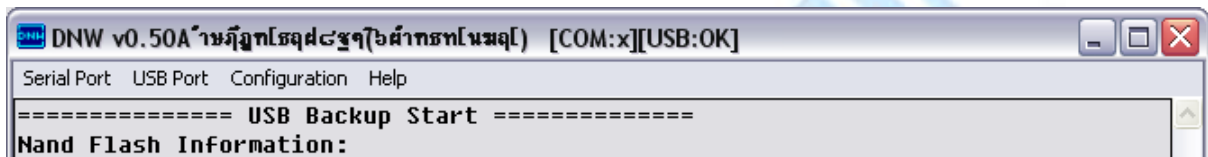


4.3.3 Program to run 2440test on NAND Flash

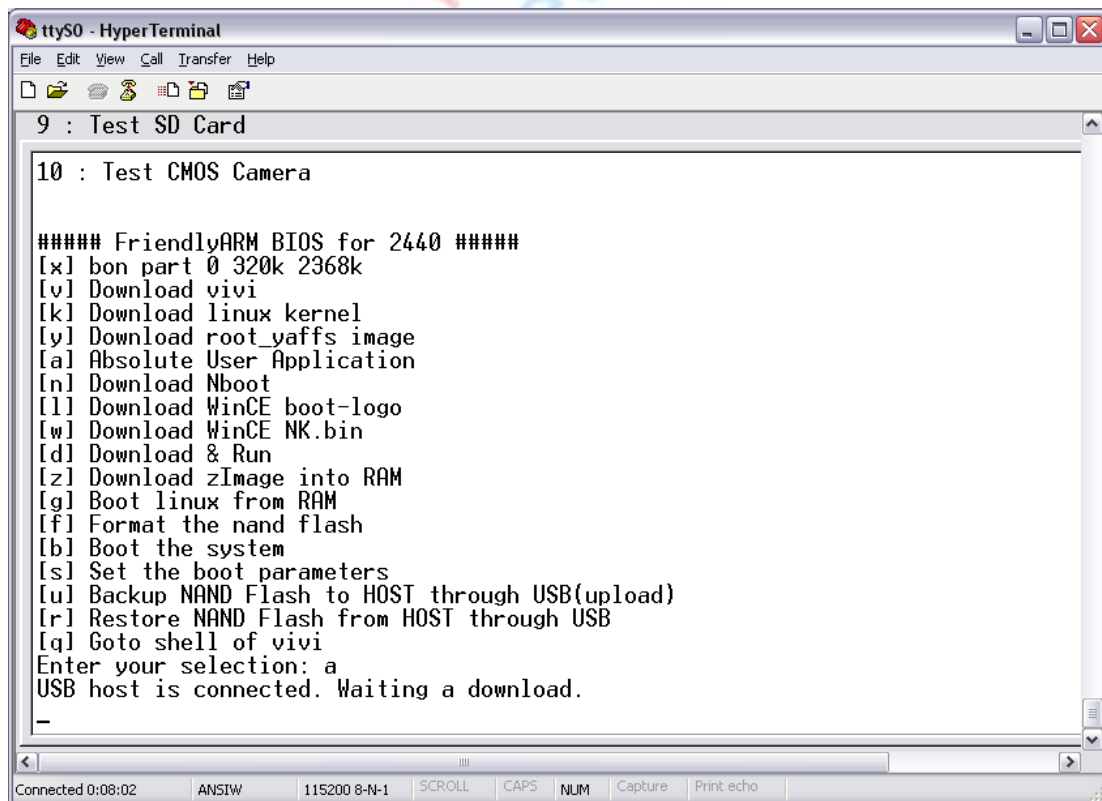
Supervise the function [a] can program 2440test.bin executable programs to run NAND flash, steps are as follows.

(1) Connect good development board power supply, serial lines, USB cable, and set the system development board for the NOR flash, Do not open the serial port and HyperTerminal DNW, the power development board to start.

(2) Ensure the USB driver has been installed (as has already been described in detail the installation of USB-driven approach), this can be DNW's title bar to see the show [USB: OK], if there is no driver installed will be displayed [USB: x], as shown.



(3) At this time in the BIOS functions of the HyperTerminal menu, select [a], there to wait for USB download message.



(4) Click on the DNW procedures "USB Port > Transmit", the compiler figure out just select image file (CD-ROM "images" directory has been compiled in the executable file), so start the download, the download is complete, Supervivi will automatically start NAND flash programmer to the block where is 0, that is the beginning of Block 0.

Programmer has finished, the development board NAND flash is set to start, restart or reset.

