

# Updating the boot loader to NOR with JTAG.

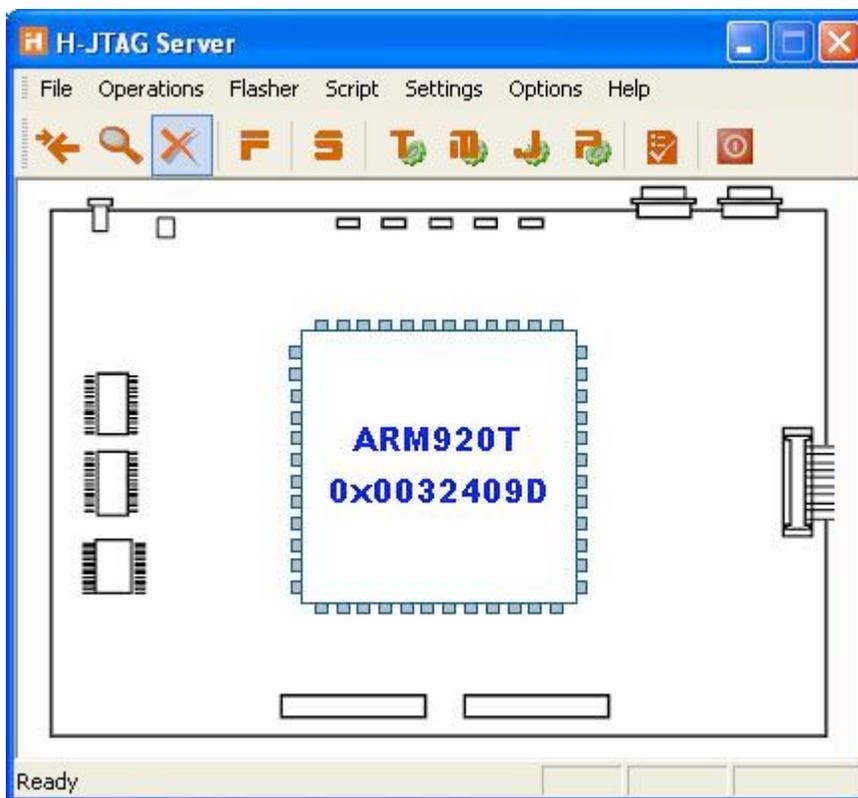
Industrial ARMWorks [www.andahammer.com](http://www.andahammer.com)

The supervivi boot loader supplied on the early FriendlyARM Mini2440s (Those till Aug/Sept 2009) will not load the newer supervivi64M and supervi128M or the matching kernels and Qtopia. The new version needs to be burned in the NOR Flash first, and this means JTAG. Here we assume you are using Windows XP or Vista. Note: This also works for the Micro2440.

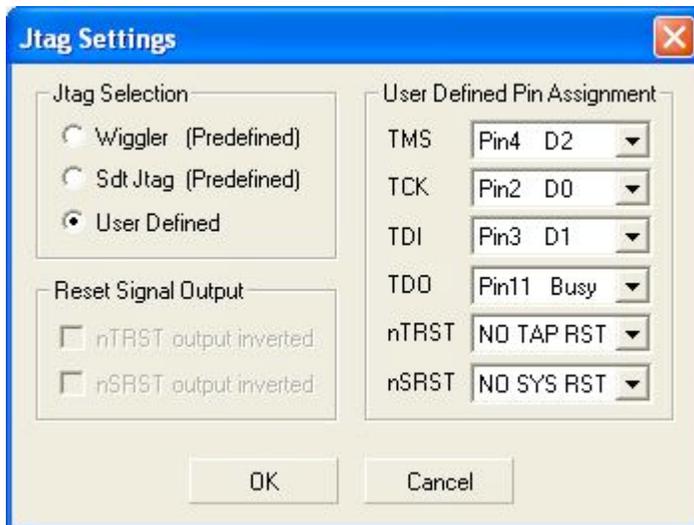
Copy the H-JTAG folder from the Windows Tools on the DVD to a convenient location. I put it in the *programs* folder.

Set your Mini2440 to NOR and connect the JTAG cable from a PC parallel port to the 10 pin JTAG connector and power on the Mini2440. Power on the Mini2440.

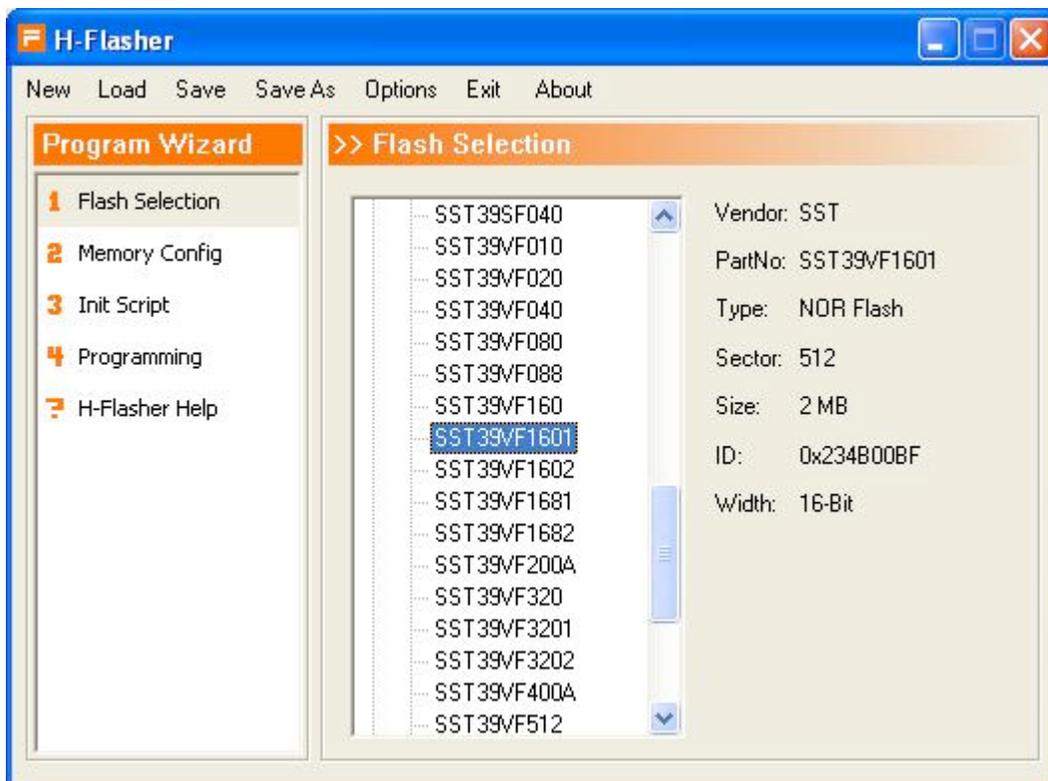
Launch H-JTAG.exe If the ARM920T is not recognized, try “Detect Target” under the Operations manual.



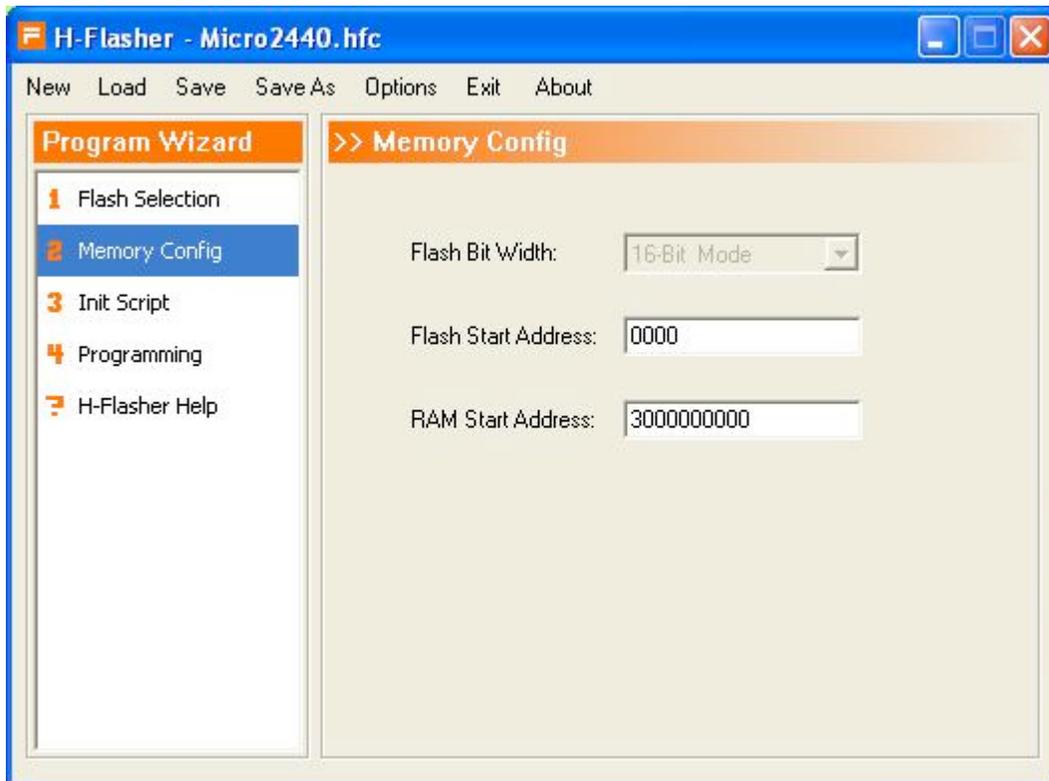
Settings Menu: Set them like this.



Start H-Flasher from H-JTAG and run down the numbered items on the left. Find the type of NOR chip and select it. Probably the SST39VF1601.



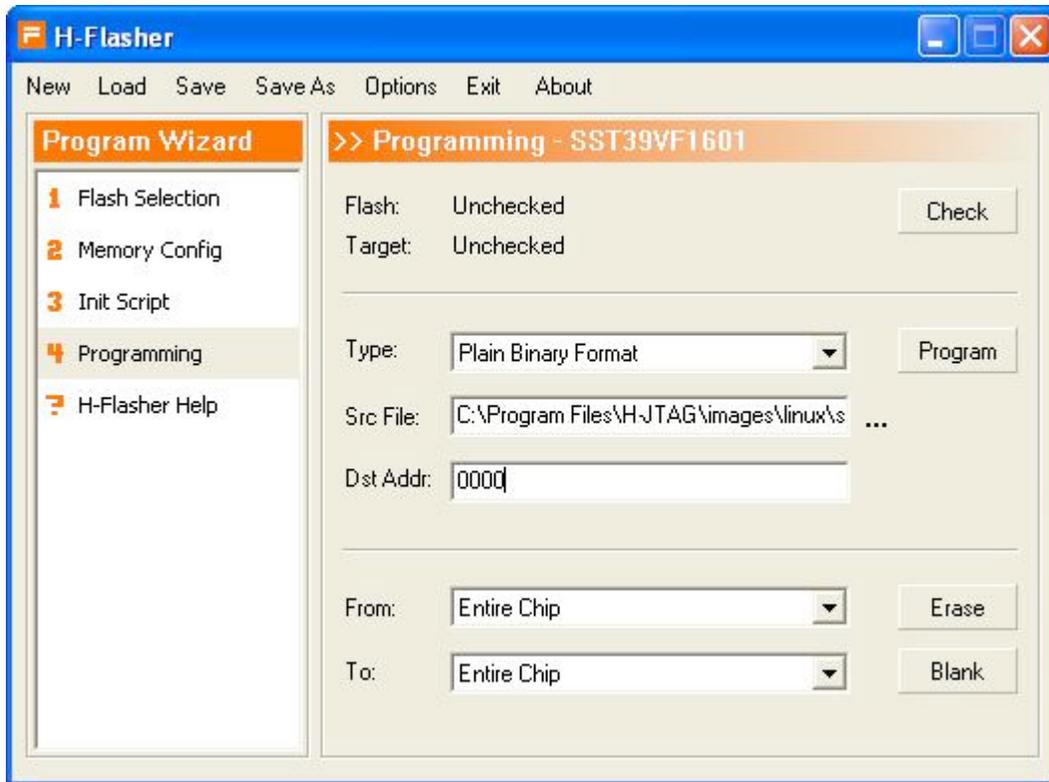
Memory Config: Next is the NOR start address. According to the memory map, when NOR is selected, it starts at 00000000 and RAM starts at 300000000 (9 zeros).



Next section, either no init script, or the **H-Flasher\_mini2440** configuration file.

No picture. Leave blank if you don't have the configuration file. And save this session as a configuration file when you are done.

Section 4 is programming. Select **Plain Binary Format**. Source file is supervivi-64M or 128M. Look in images/linux on the DVD for your downloads. When browsing, be sure to select All Files (\*.\*) under **File Types**.



Destination address is simply 0000. Leave the From /To addresses as Entire Chip. (You can save this configuration and give it a name).

Use the Program button to erase and program the NOR with the new boot loader.

That should do it. Now power off the Mini, remove the JTAG cable, switch to NAND. Connect the serial and USB cables (they could have been on all the time) and launch DNW. Power on the Mini. Perform a “connect” for the serial in DNW and see that serial and USB are OK. Reset the Mini2440. You should get the supervivi menu.

Select x to auto-partition NAND.

Select v and upload supervivi-64M (or 128-M for the 128 MByte NAND version)  
Select k and load the kernel: zImage\_A70 for 7”. zImage\_N35 for NEC and zImage\_T35 for the Toppoly 3.5” (all new systems). You could have the NEC or the Tp in 3.5. If the video is offset left/right, try the other kernel. Now select Y and load your file system, Qtopia in this case.

Power off, Switch to NAND, power on.