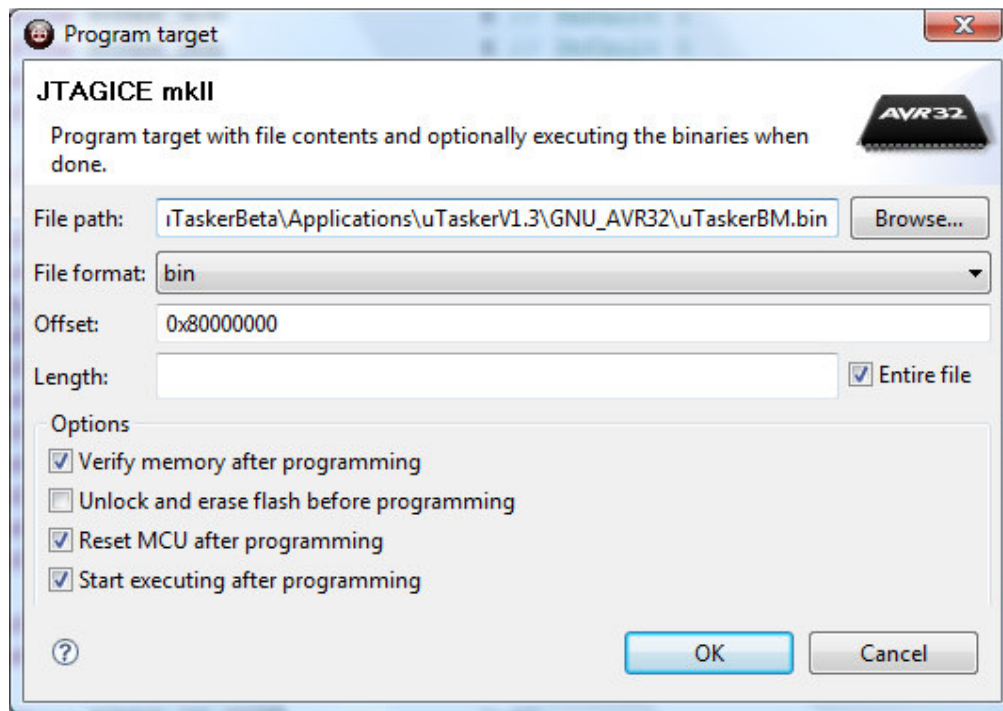


## AVR32 Demo on EVK1105 – with emphasis on TFT!

(provisional)

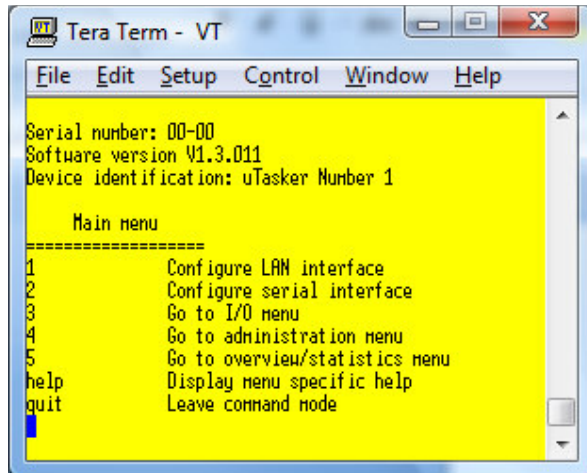
Follow the simple step by step guide to make you own personal LCD picture frame using the demo SW:

1. From Eclipse using, for example the AVR JTAGICE mkII, load the file “uTaskerBM.bin” to the EVK1105. It is recommended to first perform an erase the first time loading. The following screen shot shown that the offset should be set to 0x80000000.



This binary file contains also the uTasker boot loader, which allows subsequent uploads to be performed comfortably via web browser.

2. The debugger can be removed already since it is no longer needed for the demo. With the EVK1105 powered via USB (the one next to the Ethernet connector) the board will appear as virtual COM and can be communicated at 115200 Baud, 8 bit, no parity, one stop bit, XON/XOFF. Hitting the enter key from a terminal emulator shows the uTasker menu as follows:



The EVK1105 will have a short test message displayed in its TFT and LED0 will flash 2.5 times a second. LEDs 2 and 3 ARE ON AND led1 IS OFF. These LEDs can later be controlled from the web server as well as in the menu above (I/O).

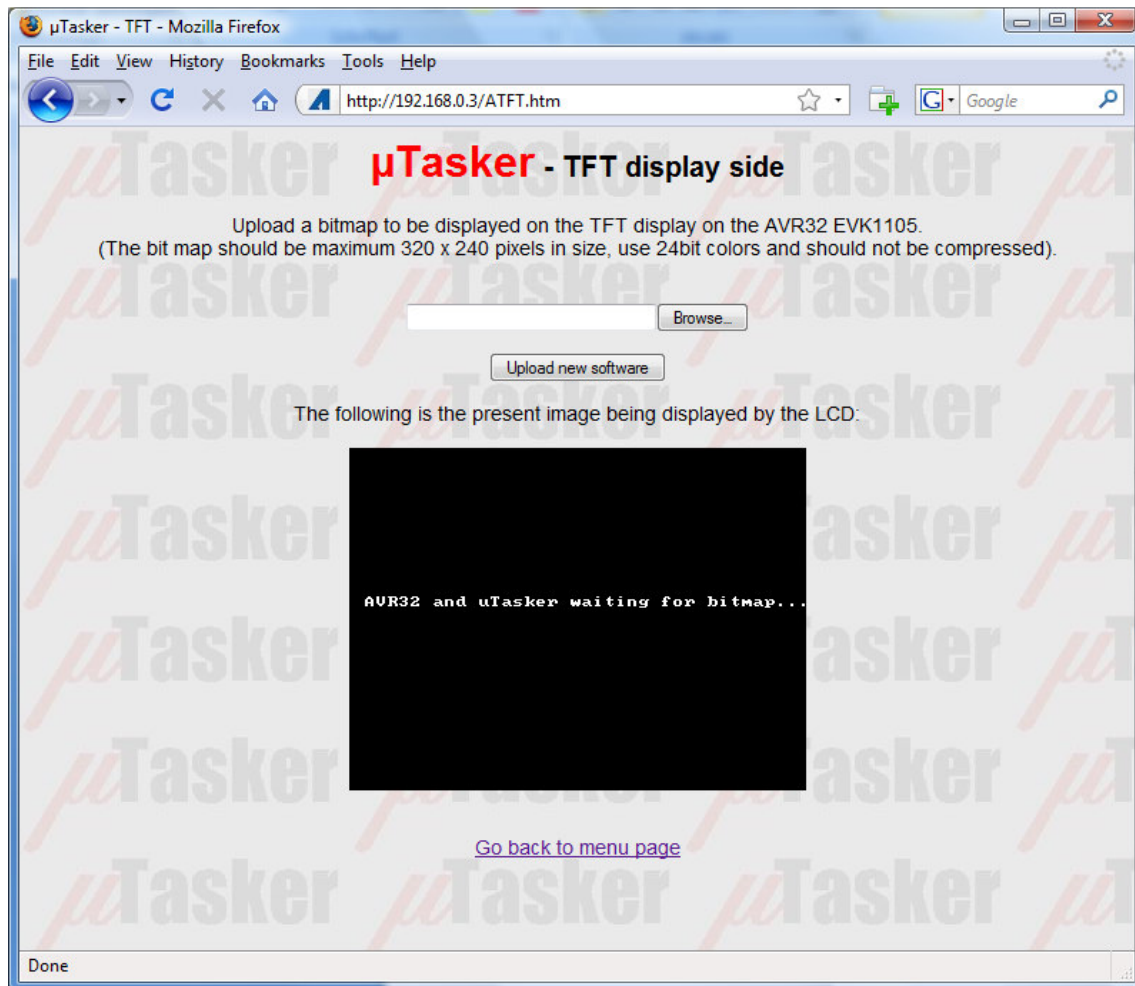
3. The IP address of the demo defaults to 192.168.0.3 with sub-net mask 255.255.255.0 and gateway 192.168.0.1 but these settings can be adjusted in the LAN menu if not suitable. Note that the new setting should be validated within 3 minutes after a restart (also in the LAN menu) so that it doesn't revert back to the original address.
4. Connected to a 10M or 100M LAN execute the bat file Copy\_all.bat in the web pages folder to copy all web pages to the target – if the IP address was changed, edit the ftp.txt file with the target IP address. All web pages are now stored in the internal FLASH and will not normally need to be loaded again.

5. Now browse to the target using a standard web browser, where the start side will look like this:



An alternative GIF image can be loaded (up to 100k in size) if desired. For example try loading the supplied one called "Alternative AVR32"

6. Browser now to the TFT demo page, which will display the present TFT image:



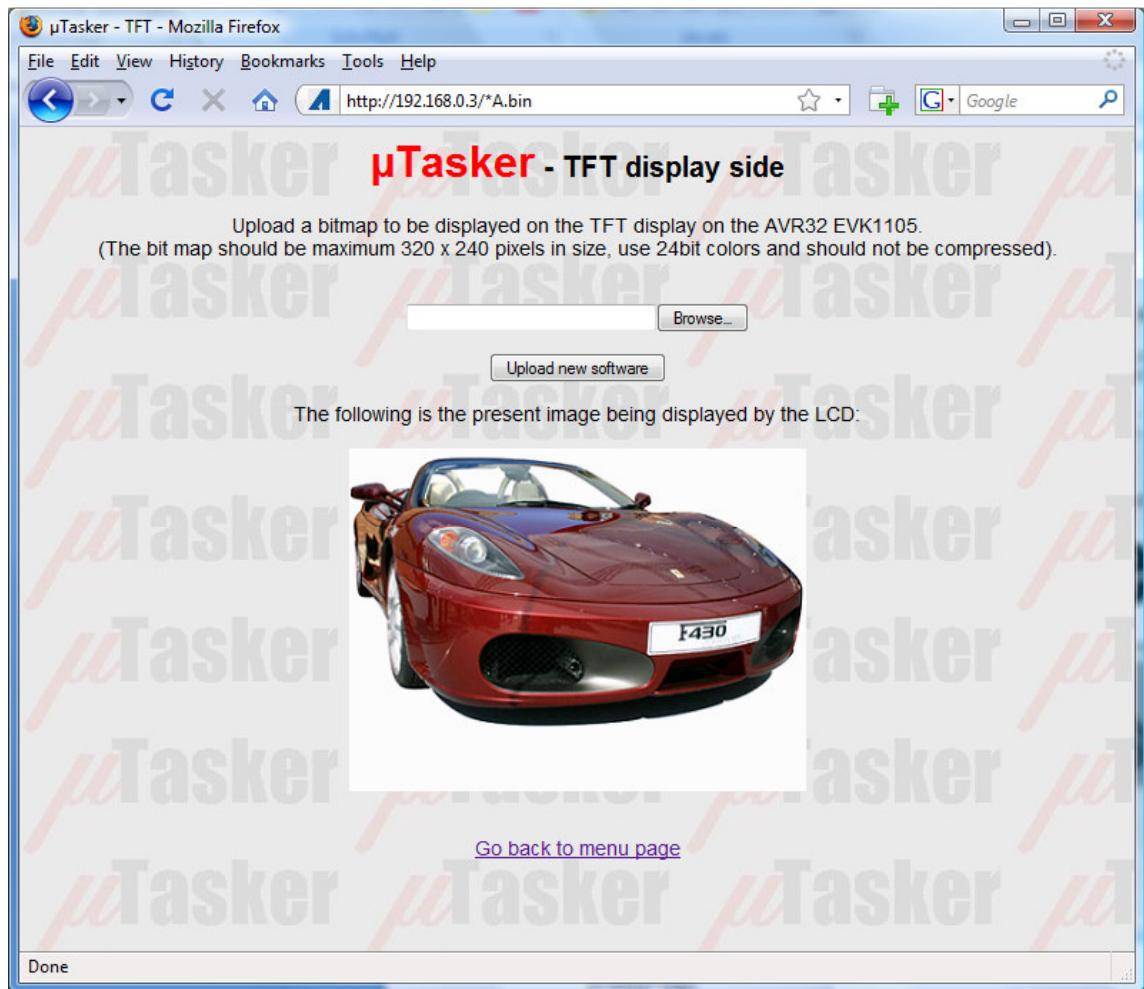
7. From the image folder, where there are two prepared 320 x 240 24 bit color bitmaps (you can also make your own from existing images and photos – just make size the size fits correctly by rescaling of necessary) upload one to the EVK1105. You will see it being displayed on the board and also the image will be updated in the web browser window. Try the second image too to get an idea of the quality (note that in fact the TFT is displaying 16 bit color but this conversion is performed automatically – the bit map which is displayed has thus lost a small amount of color resolution due to the TFT operating mode, but this is not greatly noticeable).

Below are the two images from the image directory supplied, as viewed in the browser window. The same image appears on the TFT of course:



uTasker logo





One of those cars that we would all like to (be able to) own.

Conclusion: The AVR32 is a great chip to work with and this demo shows what can be achieved with about 60k of FLASH and about 20k of SRAM (from its 512k internal FLASH and 64k internal SRAM). As well as the TFT demo there are a lot of other things in the demo, including SW upload via Ethernet, TELNET (quit the serial menu to connect to the menu via Telnet, SMTP, FTP, NetBIOS, DHCP, DNS, and more.. ). And now you also have your own LCD picture frame which you can update from any web browser...