“How change the font set on the eBay OSD Modules”

The new character set needs to be downloaded to the NVRAM area of the MAX7456 OSD display chip. This will remove all the characters and pictograms that the flying hobbyists have either added or further changed for their own particular usage. Remember from the article in ***CQ-DATV 12*** that we firstly made the two solder jumper connections and are now powering this module from a known good +5V power supply.

The programming code & required default Font File for this project comes from OSDPREPCODE.ZIP

The archive above contains MAX7456FONTS.INO & OSDTEST.INO both of which are Ardunio source code files that you load using the Software & Programming environment.

Using the normal Ardunio software http://arduino.cc/en/main/software

1. Load the code file MAX7456FONTS.INO

   From the Ardunio **Tools>Serial Port** menu make sure your FTDI COM Port is correctly selected.

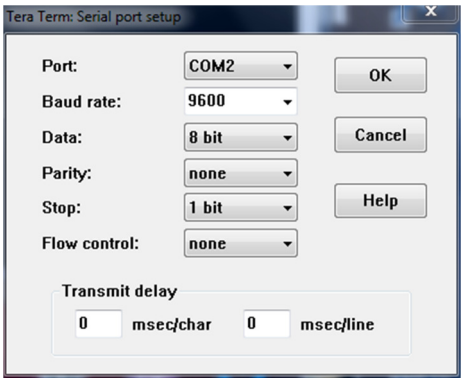
   From the Ardunio **Tools>Board** menu next make sure the board type is set to
   Ardunio pro or pro mini (5V 16 MHz) W/ Atmega328

2. Now with your FTDI breakout board correctly connected upload this code onto the OSD module using **File>Upload** or by pressing the upload Icon 

3. Download a free copy of Tera Term http://en.sourceforge.jp/projects/ttssh2/releases/
   and fully install this software. Please note this is a Windows ™ only application.

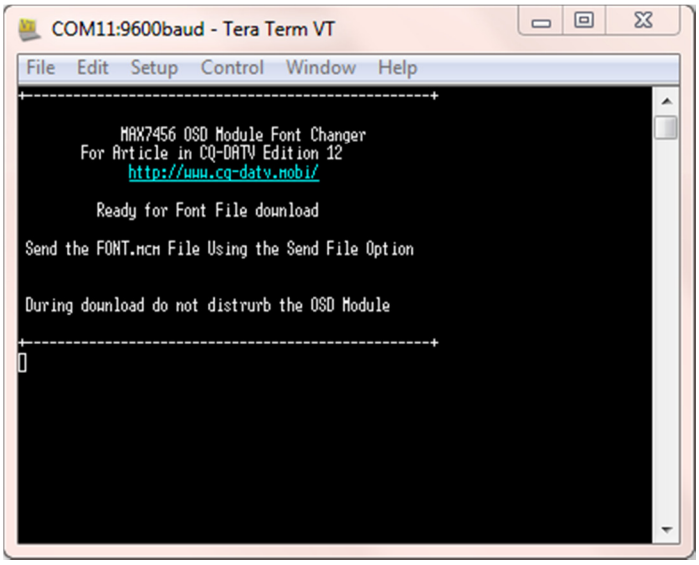
4. With Tera Term open select the Com Port where the FTDI Serial – TTL board is physically connected. This will be a COM Port number. If you do not get this then a check of the FTDI system drivers are required. This will be the same number as we had previously selected in **step 1** above.

5. Using **Setup>Serial Port** Set the Terminal Baud Rate to 9600,8,N,1,N

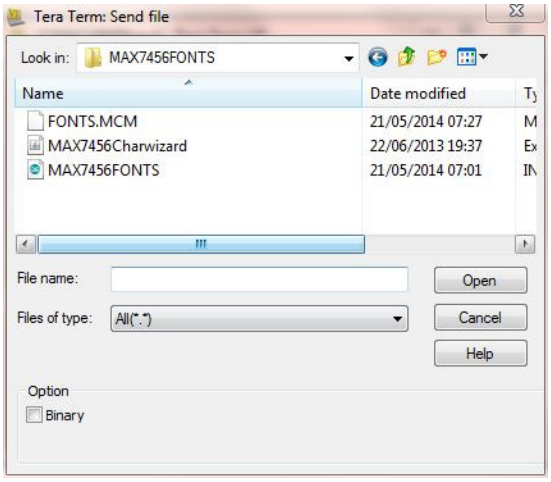


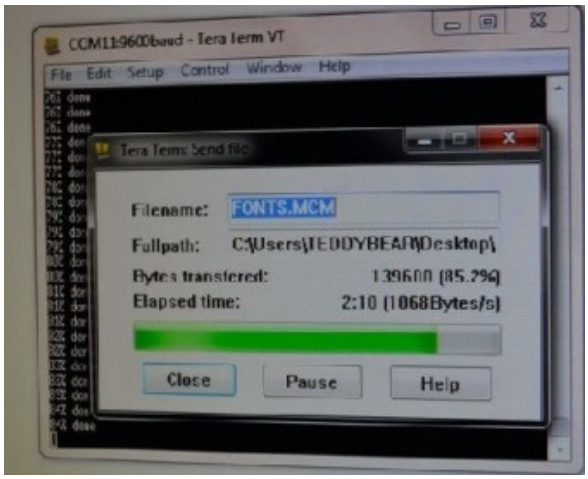
6. Restart your OSD Module by pressing the small reset button with the Tera Term application still open & running.

7. You will see some instructions on the terminal screen that tell you to download the new font file. These Font definition files always have an extension ending in .MCM



8. Select from Tera Term **File send file** & locate the **FONT.MCM** font file that you have already extracted from this code download.





9. Send this to the OSD Module and wait until the send file box has closed. Now press your **Return** key you will see a finished message. This may take several minutes to actually complete downloading to the module – whilst waiting do not disturb the module. Once complete you will also see the new character set shown on your video monitor.

10. This has now replaced all of the character set to a generally more usable base.

11. Now load the OSDTEST.INO file in to the Ardunio software and change the text starting from Line 66 onwards to display your required Caption or Callsign. Then to compile and move this code across to the module use **File>Upload** or by pressing the upload icon 

You should now see your caption on screen with the changes you made to the displayed text. But this will now have all the correct characters shown. Now you can start to use the module for your captions or Callsign display needs.

Generally you would only need to flash the NVRAM character set once, unless you want to create your own special characters to build a Logo for example.

If you have problems then I will happily try to assist you via email. Please make sure you have followed these comprehensive instructions **EXACTLY** first though. The more details you provide on the problem you have will also better enable me to provide you with targeted and hence relevant assistance mailto:mikeg7gtn@gmail.com

73's Mike G7GTN