

GLIPIC Windows Application

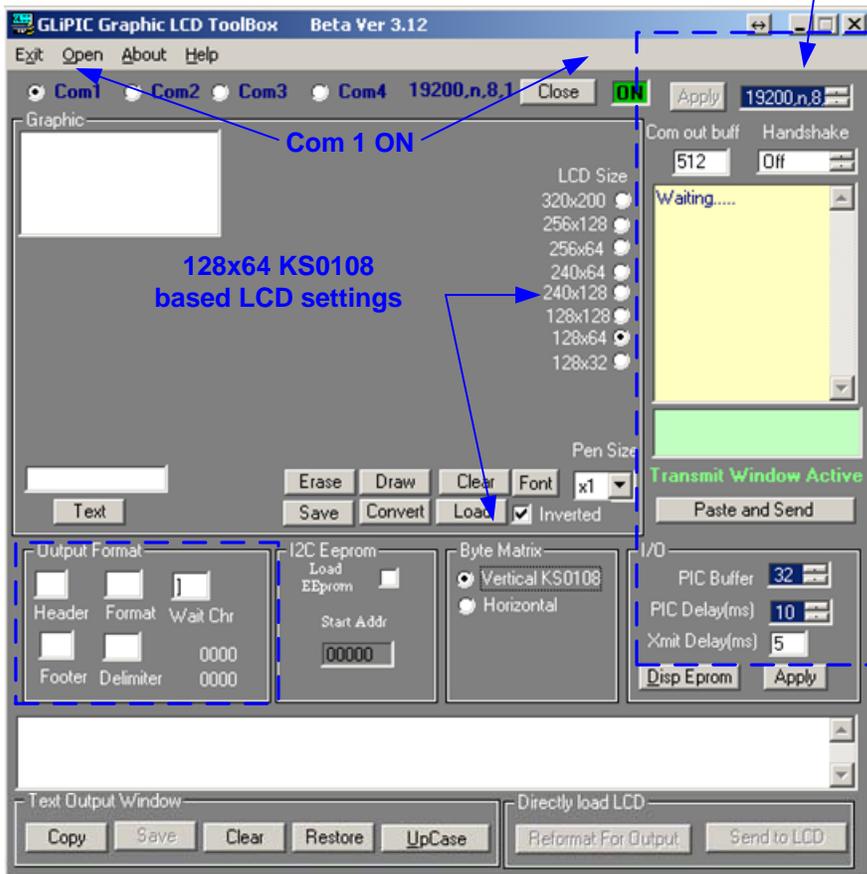
(c)COMPSys Workbench 2012

The GLIPIC application allows one to display simple bit mapped (1 bit color) images on an LCD connected to a GL1 or GL2 controller board which is loaded with the appropriate firmware. This document will demonstrate the procedures using a 128x64 LCD display and the GL2 board programmed with the GL2_GLIPIC.HEX code. Note: This application was written as an 'in-house' testing tool and was not intended for general release. Therefore, it may seem complicated with numerous options. However, it can be used to easily draw and load images to an LCD which is connected to the appropriate GL board with the correct firmware.



- (1) Open the GLIPIC3.EXE Windows app on your PC and select the appropriate com port number and click the Open button. Use the default com settings.
- (2) Connect the GL2 board to your PC's com port using a standard RS232 cable. Apply power to the board **nothing will appear** on the LCD. In GLIPIC the "Waiting...." message in the yellow status window will change to "Load image..."

Do not change the default settings in the two dotted areas



- (3) Adjust the GLIPIC settings for a KS0108 128x64 LCD. Check the 128x64 option as well as Vertical Byte Matrix option.

- (4) You may now draw an image in the graphic box or you may load a 128x64 bit mapped BMP file.

Drawing: After you have completed your design you must SAVE it as '<file name>.bmp'. You may now LOAD it back so that it can be processed to display on the LCD.

Loading a bmp:

The bmp image must be the correct size for the LCD being used, such as 128x64 pixels. Most paint programs allow one to create images using custom settings. In MS Paint the settings would be in the 'Image/Attributes' section'. Select 128w x 64h Pixels, Black/White.

In GLIPIC click the LOAD button (not the OPEN button on the menu) and navigate to the bmp file. The image will appear in the graphic area.

- Step 1 Click the 'CONVERT' button
 - Step 2 Click the 'Reformat...' button
 - Step 3 Click the 'Send to LCD' button
- The image should appear on the LCD

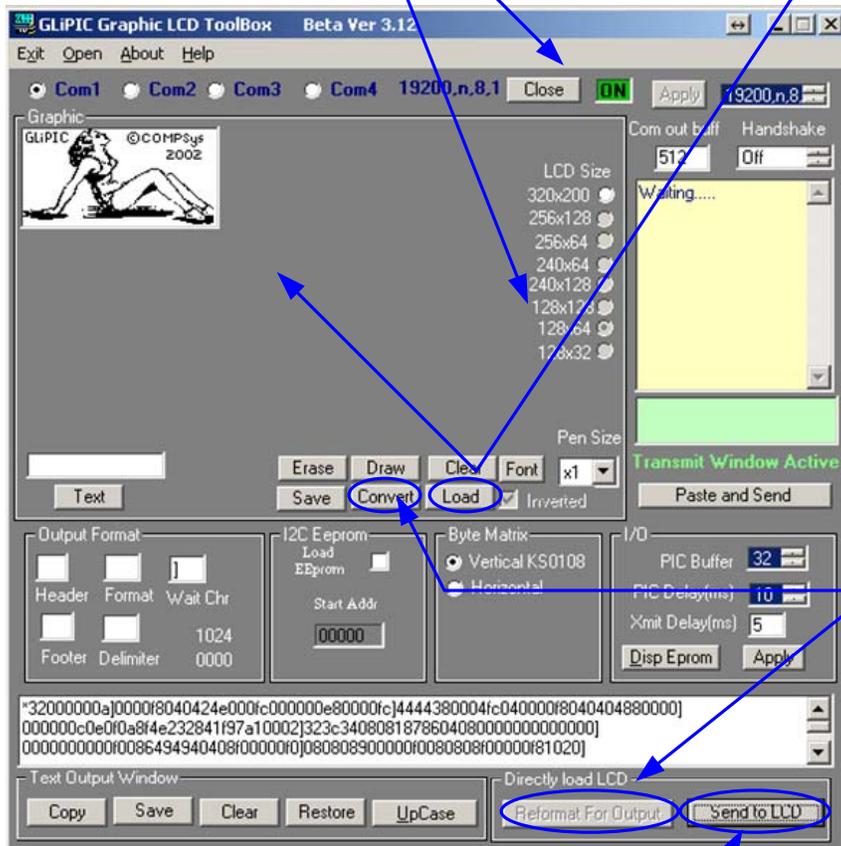
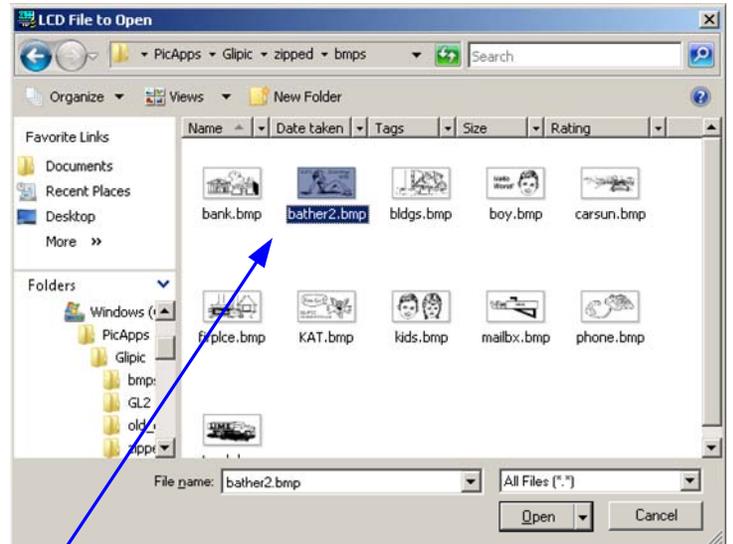
Before loading the next image it best to CLEAR the image as well as the output text area.

There are several other buttons and settings that are for formatting and exporting the hexadecimal file to use in the program code. Other settings are buffer and timing options that should not require any changes. For the most part you will not need to use these.

GLIPIC: Loading and displaying a bmp image to the LCD

1. Connect the GL2 board to the PC and then OPEN the appropriate COM port in GLIPIC (leave all other default settings)

Make sure to adjust the LCD settings. For a KS0108 128x64, select 128x64 LCD size and also check the Vertical Byte Matrix.



2. Click the LOAD button and navigate to the bmp.

3. Next, click the CONVERT button to convert the image to hexadecimal and then click REFORMAT FOR OUTPUT (lower menu).

The buttons above are to format and save the hexadecimal code so that it can be used in a PIC application.

4. Finally, click SEND TO LCD and the image should appear on the display.

