

FGIO_USB diagnostic tool, is a free, open source application that use Cocoa framework to communicate with the FGIO_USB Board firmware .

There are several functions on firmware, some for I/O management, some for EEPROM raw data access, same are “Organized data eeprom” and in the end, there are function for manage LCD graphic module.

I/O Management

This is the screenshot of I/O port. When the FGIO_USB board is connected, the firmware version is read out and displayed.

Read tm = Read Internal stored tm User setting for capture/playback data samples

Write tm =Change the internal tm User value

Reset Device=reset FGIO_USB board

Delete all EEPROM data=Is a low level formatting of external EEPROM

Input zone

Press READ INPUT for acquire data from the board, the read value is displayed in several format (numeric decimal and hexadecimal value) and bits value.

Setting the autorefresh time (in milliseconds) before click on the autorefresh check box.

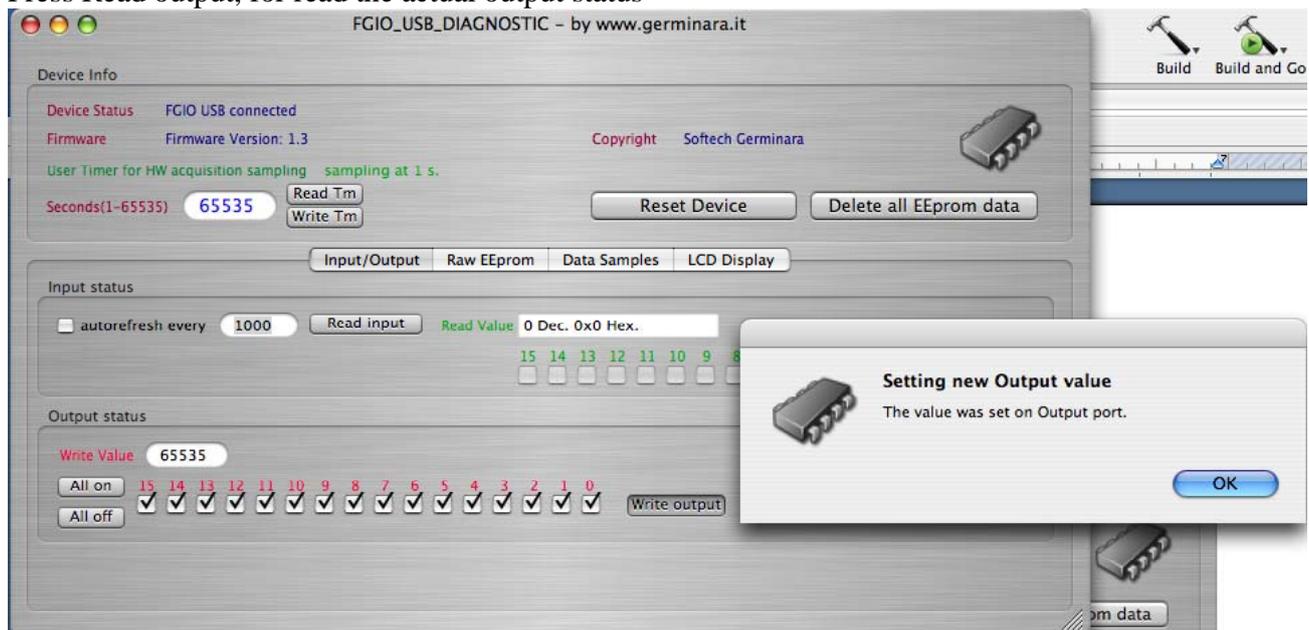
When the check box is checked, the software read continuously the value of 16 input port (with the specified time interval).

Output zone

User can set the value to write on 16 output digital port, in different way.

- Write the decimal value and then press Write output button
- Clicking on bits representation of 16 output port and then press Write output button
- Pressing All on, to set all 16 output port as high level
- Pressing All off, to set all 16 output port as low level

Press Read output, for read the actual output status



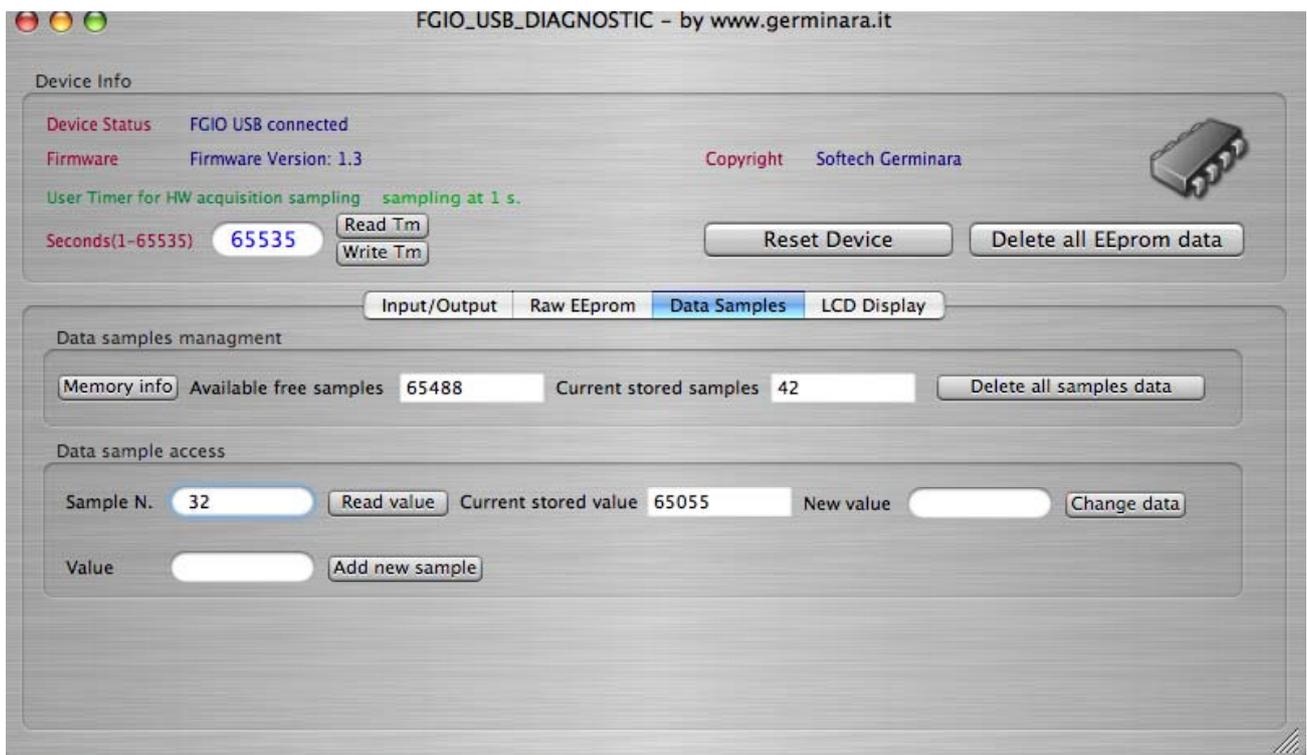
Samples Management

The FGIO_USB Board is able to be connect with another open source project called FGDIANASYM that is a logical data analyzer. Unfortunately there is only a WINDOWS version.

If you are interested on it please visit my web site at <http://www.germinara.it/fgdianasym.htm>

You are able to read out the data samples previous saved on FGIO_USB board during the acquisition time. You can also delete all data, or change a specified sample data.

If you change samples data, the new data value will be used during the playback mode on the board.



LCD management

FGIO_USB board have a color LCD graphic display (128x128) pixel.

In the FGIO_USB board, it's used to manage the Menu for the board operations, i.e. acquire data, set time interval, set playback mode etc.

With the FGIO_USB_DIAGNOTIC tool, user is able to manage directly all the LCD features implemented by my firmware.

Press On check box, to switch on/off the LCD module

Press Inverse On, to switch on/off the inverse mode

Clear Screen to clear the LCD display

Function test

String Mode

Put a string on text field

Set x and y origin in position fields

Set color (foreground and background) use the base color table value

Press EXECUTE

Pixel Mode

Set pixel position (X e Y) in position fields

Set foreground color

Press EXECUTE

Line Mode

Set start position (x,y) in position fields

Set end position (x,y) in to fields

Set foreground color

Press EXECUTE

Rectangle Mode

Set start position (x,y) in position fields

Set end position (x,y) in to fields

Set foreground color

Press EXECUTE

Fill Rect Mode

Set start position (x,y) in position fields

Set end position (x,y) in to fields

Set foreground color

Press EXECUTE

Circle Mode

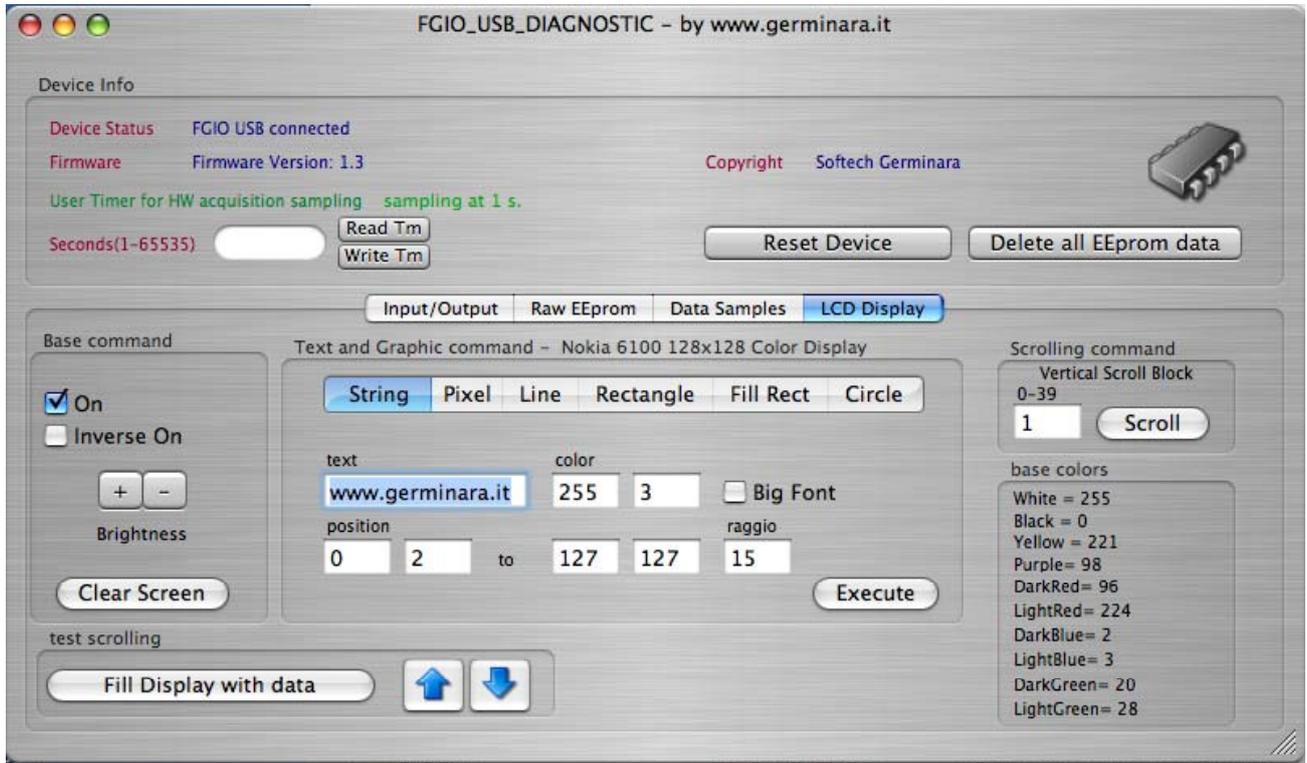
Set start position (x,y) in position fields

Set end position (x,y) in to fields

Set radiant (ops. = raggio) value

Set foreground color

Press EXECUTE



For more information or comments or suggestions please contact me at

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Have funny,
Francesco Germinara