

Author: John Leung
Company: TechToys Company
Web: www.TechToys.com.hk
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/*
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* This project modified from the original Microchip Graphics Primitive Layer
* Demo. Instead of using PMP module, octal latch device 74HC573 is
* used to 'convert' 8-bit data to 16-bit data. Discrete I/O method has been
* used for this project therefore we need to use ILI9320P_LE.c and
* ILI9320P_LE.h files in which all control lines such as RD, WR, RS etc
* declared individually. Pins definition summarized as follows:
*
* Use discrete I/O for interface
* Function      mcu pins      LCD pins
* =====
* DATA LINES  PMD[7:0]      DB[15:8] and Q[7:0] of 74HC573 wired to DB[7:0]
* LE           RG15      LE of 74HC573, this latches lower byte to LCD
* RESET       RA7       /RESET
* CHIP SELECT  RD12      /CS
* COMMAND/DATA RF5/PMA8  RS
* WR STROBE    RD4/PMPWR /WR
* RD STROBE    RD5/PMPRD /RD
* Backlight   OC2/RD1   EN
*
* Remarks: JP2 should be CLOSED for we are using 74HC573 to convert 8-bit to 16-bit
*
* Modification in only two macros and one function are required:
* 1. SetIndex(index) under ILI9320P_LE.h
* 2. WriteData(byte1, byte0) under ILI9320P_LE.h
* 3. ResetDevice(void) under ILI9320P_LE.c
*
* These are the only changes required to make this project work with
* discrete I/O method instead of PMP.
* Since the octal latch is an one-way device, no reading from LCD possible
* therefore the function WORD GetPixel(SHORT x, SHORT y) also removed from
* the file ILI9320P_LE.c (this function is not needed anyway).
*
* The hardware platform was PIC24-Eval-B2 Rev A with TY320T-240320-BO Rev 2C;
* so we may use pwm for backlight control or simply keep OC2/RD1 pin low to keep
* LCD backlight ON during demonstration. The latter method has been used in this
* demo. Thus one may see we need to put extra code
*
*   LED_TRIS_BIT = 0;
*   LED_LAT_BIT  = 0;
*
* at ResetDevice(void) to keep EN pin low to turn MOSFET ON for LED backlight.
*****
*/
```