/\*

u8g\_com\_raspberrypi\_hw\_spi.c

Universal 8bit Graphics Library

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Assumes, that

MOSI is at PORTB, Pin 3

and

SCK is at PORTB, Pin 5

Update for ATOMIC operation done (01 Jun 2013)

U8G\_ATOMIC\_OR(ptr, val)

U8G\_ATOMIC\_AND(ptr, val)

U8G\_ATOMIC\_START()

U8G\_ATOMIC\_END()

\*/

#include "u8g.h"

#if defined(U8G\_RASPBERRY\_PI)

#include <wiringPiSPI.h>

#include <wiringPi.h>

#include <stdio.h>

#include <stdlib.h>

#include <errno.h>

uint8\_t u8g\_com\_raspberrypi\_hw\_spi\_fn(u8g\_t \*u8g, uint8\_t msg, uint8\_t arg\_val, void \*arg\_ptr)

{

switch(msg)

{

case U8G\_COM\_MSG\_STOP:

break;

case U8G\_COM\_MSG\_INIT:

// check wiringPi setup

if (wiringPiSetup() == -1)

{

printf("wiringPi-Error\n");

exit(1);

}

if (wiringPiSPISetup (0, 100000) < 0)

{

printf ("Unable to open SPI device 0: %s\n", strerror (errno)) ;

exit (1) ;

}

u8g\_SetPIOutput(u8g, U8G\_PI\_RESET);

u8g\_SetPIOutput(u8g, U8G\_PI\_A0);

break;

case U8G\_COM\_MSG\_ADDRESS: /\* define cmd (arg\_val = 0) or data mode (arg\_val = 1) \*/

u8g\_SetPILevel(u8g, U8G\_PI\_A0, arg\_val);

break;

case U8G\_COM\_MSG\_CHIP\_SELECT:

/\* Done by the SPI hardware \*/

break;

case U8G\_COM\_MSG\_RESET:

u8g\_SetPILevel(u8g, U8G\_PI\_RESET, arg\_val);

break;

case U8G\_COM\_MSG\_WRITE\_BYTE:

wiringPiSPIDataRW (0, &arg\_val, 1) ;

break;

case U8G\_COM\_MSG\_WRITE\_SEQ:

wiringPiSPIDataRW (0, arg\_ptr, arg\_val);

break;

case U8G\_COM\_MSG\_WRITE\_SEQ\_P:

wiringPiSPIDataRW (0, arg\_ptr, arg\_val);

break;

}

return 1;

}

#else

uint8\_t u8g\_com\_raspberrypi\_hw\_spi\_fn(u8g\_t \*u8g, uint8\_t msg, uint8\_t arg\_val, void \*arg\_ptr)

{

return 1;

}

#endif