LCDWIKI TOUCH lib Manual

1.Introduction

The LCDWIKI TOUCH lib is the hardware level lib of the touch screen modules ,it need be paired with the KBV lib and the GUI lib for each display modules.

The LCDWIKI TOUCH lib use 4-wire spi to communicate.

Run the touch screen calibration program and put the calibration parameter into the file of cali_para.h after the calibration has passed.

2.FUNCTIONS DECLARATION

definiens	LCDWIKI_TOUCH(int8_t tcs, int8_t tclk, int8_t tout, int8_t tdin, int8_t tirq)
function	The class constructor when using display modules which has touch screen
parameters	tcs : the touch screen chip selection pin in Development board tclk : the clock pin of spi bus in Development board tout : the read pin of spi bus in Development board tdin : the write pin of spi bus in Development board rd tirq : the interrupt pin of touch screen in Development board rd
returned value	None
notes	None

definiens	void TP_Init(uint8_t r,uint16_t w, uint16_t h)
function	Initialize the touch screen modules
parameters	r : the display rotation of LCD screen w : the width of LCD screen h : the height of LCD screen
returned value	None
notes	**None**

definiens	uint8_t TP_Scan(uint8_t mode)
function	Scan the interrupt of touch screen
parameters	m:0- scan screen coordinate

	1- scan physical coordinates
returned value	The state of touch screen
notes	None

definiens	void TP_Write_Byte(uint8_t data)
function	Write a byte data to the touch IC
parameters	data:the data to be writen
returned value	None
notes	None

definiens	uint16_t TP_Read_ADC(uint8_t cmd)
function	Read the ADC value from the touch IC
parameters	cmd：the command of read the ADC value
returned value	the ADC value of read
notes	None

definiens	uint16_t TP_Read_XY(uint8_t xy)
function	Read the ADC value of x coordinate or y coordinate from the touch IC
parameters	xy: the command of read the ADC value
returned value	the ADC value of read

notes	None

definiens	uint8_t TP_Read_Coordinate(uint16_t *x, uint16_t *y)
function	Read the ADC value of x coordinate and y coordinate from the touch IC
parameters	x: the address of touch x coordinate y: the address of touch y coordinate
returned value	1-read successfully 0-read failed
notes	None

definiens	uint8_t TP_Read_Coordinate2(uint16_t *x, uint16_t *y)
function	Read the ADC value of x coordinate and y coordinate from the touch IC for reducing error
parameters	x: the address of touch x coordinate y: the address of touch y coordinate
returned value	1-read successfully 0-read failed
notes	None

definiens	void TP_Set_Rotation(uint8_t val)
function	Set the rotation of touch screen
parameters	val:the value of rotation
returned value	None
notes	None

definiens	uint8_t TP_Get_Rotation(void) const
function	get the rotation of touch screen
parameters	None
returned value	the value of rotation for reading
notes	None

definiens	void TP_Set_State(uint8_t val)
function	Set the state of touch screen
parameters	val: the state of touch screen
returned value	None
notes	None

definiens	uint8_t TP_Get_State(void) const
function	get the state of touch screen
parameters	None
returned value	the value of state for reading
notes	None