UTFT Buttons

Add-on Library for UTFT: Buttons

Manual

PREFACE:

This library is an add-on to UTFT and will not work on its own. This add-on library also requires the UTouch library.

This library adds simple but easy to use buttons to extend the use of the UTFT and UTouch libraries.

You can always find the latest version of the library at http://electronics.henningkarlsen.com/

If you make any modifications or improvements to the code, I would appreciate that you share the code with me so that I might include it in the next release. I can be contacted through http://electronics.henningkarlsen.com/contact.php.

For version information, please refer to **version.txt**.

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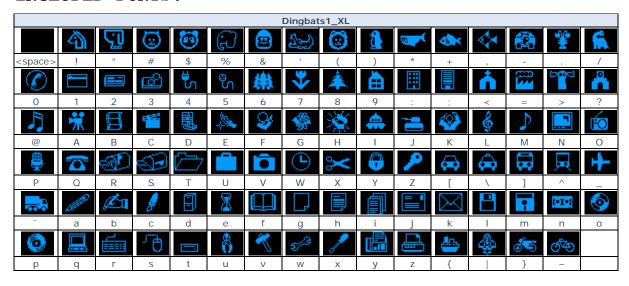
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DEFINED LITERALS:

Status flags BUTTON_DISABLED: 0x0001 BUTTON_SYMBOL: 0x0002 BUTTON_SYMBOL_REP_3X: 0x0004 BUTTON_BITMAP: 0x0008 (Should not be used manually) BUTTON_NO_BORDER: 0x0010 (Only valid for bitmap buttons) BUTTON_UNUSED: 0x8000 (Should not be used manually)

INCLUDED FONTS:



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FUNCTIONS:

UTFT_Buttons library

```
addButton(x, y, width, height, label[, flags]);

Add a new text or symbol button.

Parameters: X : x-coordinate for the upper left corner of the button y : y-coordinate for the upper left corner of the button width: width of the button in pixels height: height of the button in pixels label: button text or character for symbol flags: <optional>
Can use any combination of BUTTON_DISABLED, BUTTON_SYMBOL and BUTTON_SYMBOL_REP_3X. Use | to combine. Default is <none>.

Returns: (INT) buttonID, -1 if no button could be added

Usage: int butl = myButtons.addButton( 10, 20, 300, 30, "Button 1"); // add a new button "Button 1"

Notes: Buttons will not be drawn on the screen until drawButton() or drawButtons() is called.
```

```
addButton(x, y, width, height, data[, flags]);
Add a new bitmap button.
                           : x-coordinate for the upper left corner of the button : y-coordinate for the upper left corner of the button
 arameters:
                    width : width of the bitmap in pixels
                   height: height of the bitmap in pixels
                   data : array containing the bitmap-data
                    flags : <optional>
                             Can use any combination of BUTTON_DISABLED or BUTTON_NO_BORDER. Use | to combine. Default is <none>.
Returns
                   (INT) buttonID, -1 if no button could be added
                   int but1 = myButtons.addButton( 10, 20, 300, 30, bitmap); // add a new bitmap button
Usage
                   Buttons will not be drawn on the screen until drawButton() or drawButtons() is called. You can use the online-tool "ImageConverter 565" or "ImageConverter 565.exe" supplied with UTFT to
Notes
                   convert pictures into compatible arrays. The online-tool can be found on my website.
```

```
drawButtons();

Draw all currently added buttons on the screen.

Parameters: None

Usage: myButtons.drawButtons(); // Draw all buttons
```

```
drawButton(buttonID);

Draw a single button on the screen.

Parameters: buttonID: ID of the button to draw

Usage: myButtons.drawButton(but1); // Draw button with buttonID but1
```

```
enableButton(buttonID[, redraw]);

Set button state to enabled/clickable.

Parameters: buttonID: ID of the button to enable redraw : <optional> true : redraw button immediately false: do not redraw button yet (Default)

Usage: myButtons.enableButton(but1, true); // Enable button with buttonID but1 and redraw it
```

```
disableButton(buttonID[, redraw]);

Set button state to disabled/unclickable.

Parameters: buttonID: ID of the button to disable redraw : <optional> true : redraw button immediately false: do not redraw button yet (Default)

Usage: myButtons.disableButton(but1); // Disable button with buttonID but1 but do not redraw it
```

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buttonEnabled(buttonID);

Check the enabled/disabled status of a button.

buttonID: ID of the button to disable

Returns: (BOOLEAN) true if button is enabled, otherwise false myGLCD.fillScr(VGA_RED); // Fill the screen with red

relabelButton(buttonID, label[, redraw]);

Relabel a button.

Parameters: buttonID: ID of the button to enable

: new button text or character for symbol label

redraw : <optional>

true : redraw button immediately

false: do not redraw button yet (Default)

myButtons.relabelButton(but1, "New Label"); // Relabel button with buttonID but1 but do not redraw

deleteButton(buttonID);

Delete a button

Parameters: buttonID: ID of the button to delete

myButtons.deleteButton(but1); // Delete button with buttonID but1

Already drawn buttons will not be delete from the screen, but they will no longer be detected by

calling checkButtons()

deleteAllButtons();

Delete all current buttons.

Parameters: None

Usage: myButtons.deleteButtons(); // Delete all buttons

Notes Already drawn buttons will not be delete from the screen, but they will no longer be detected by

calling checkButtons()

checkButtons();

Check if any button is being pressed.

Parameters: None

Returns: (INT) buttonID of pressed button, -1 if no button is pressed

int pressed = myButtons.checkButtons(); // Check if any buttons are pressed

setTextFont(fontname);

Select which font to use for button labels.

Parameters: fontname: Name of the array containing the font you wish to use myButtons.setTextFont(BigFont); // Select the font called BigFont Usage

You must declare the font-array as an external or include it in your sketch.

setSymbolFont(fontname);

Select which font to use for button symbols.

fontname: Name of the array containing the font you wish to use Parameters

Usage $\verb|myButtons.setSymbolFont(Dingbats1_XL)|| // | Select the font called Dingbats1_XL||$ Notes

You must declare the font-array as an external or include it in your sketch.

setButtonColors(text, inactive, border, highlight, background);

Set the colors used to draw the buttons.

arameters: : RGB565-encoded color to use for button text and symbols

inactive : RGB565-encoded color to use for button text and symbols on disabled buttons border : RGB565-encoded color to use for button borders

highlight: RGB565-encoded color to use for button borders when selected

background: RGB565-encoded color to use for button background

myButton.setButtonColors(VGA_WHITE, VGA_GRAY, VGA_WHITE, VGA_RED, VGA_BLUE); // Set default colors