

Using Textpad and Color Syntax Highlighting

BL652 Module

Application Note

v1.0

INTRODUCTION

If you intend to use Textpad to edit and develop *smartBASIC* source code, then the goal of this document is to explain how to configure Textpad's color syntax highlighting for *smartBASIC* code

REQUIREMENTS

- Windows PC (XP or newer) with Textpad version 7.0 or newer installed. You can download a trial version from the following URL: <http://www.textpad.com/download/index.html#downloads>

OVERVIEW

When editing and developing source code for programs most modern text editors can display the code with color syntax highlighting.

The color scheme is based on the underlying syntax of the language for which the code has been written. *smartBASIC* has a BASIC flavour and in addition, for each implementation, there are platform-specific extension functions.

Textpad can be configured using a .syn file which defines the color syntax highlighting for a specifically named programming language. All BL652 firmware upgrade zip files from Laird contain a file called **smartBASIC(textpad).syn** which can be used to configure Textpad to display *smartBASIC* source code. For example, all *smartBASIC* functions and routines are named in the .syn file so that when writing code, if the color of the function does not change as it is supposed to, it is a good indication that you have misspelled the function.

A typical look and feel of *smartBASIC* source fragment in Textpad when configured appropriately is shown in Figure 1. For example, **UartCloseEx()** is an extension function displayed in a different color from the token **function** which is part of the core language.

```
57 //*****
58 // Handler definitions
59 //*****
60
61 //-----
62 // Uart Inactivity timer handler
63 //-----
64 function handlerUartTimer() as integer
65     dim rc
66     '//Close the uart, and set up TX/RX/RTS lines as gpio and for a hi-lo transition
67     '//on the RX line to be detected
68     if UartCloseEx(1) == 0 then
69         rc=GpioSetFunc(21,2,1) '//TX - set high on default
70         rc=GpioSetFunc(23,2,0) '//RTS - set low by default
71         rc=GpioSetFunc(22,1,2) '//RX - Pull high input & irq on hi2lo transition
72         rc=GpioAssignEvent(UART_GPIO_ASSIGN_CHANNEL,22,1)
73         if rc != 0 then
74             print "\nGpioAssignEvent() Failed"
75         endif
76     endif
77 endfunc 1
```

Figure 1: Standard smartBASIC source code with color syntax highlighting

TEXTPAD SETUP

Note: Textpad only has to be configured one time for color syntax highlighting. The configuration remains intact each time Textpad is used.

To configure Textpad for color syntax highlighting, follow these steps:

1. If necessary, install Textpad (version 7.0) and save it in the following folder: **C:\Program Files\Textpad 7**.
2. From the BL652 firmware upgrade zip file, copy the smartBASIC(Textpad).syn file to the following folder: **C:\Program Files\Textpad 7\system**.

Note: You must perform this action each time a new firmware zip is released by Laird. Each newly-released firmware may contain new extension functions which will require highlighting.

3. Open Textpad and close all current Textpad documents including the empty document that Textpad initiates.
4. From the menu, select **Configure > Preferences**.
5. From the Preferences dialog box in left side list box, click **Document Classes**.
6. In the User Defined Classes list box, add the word *smartBASIC*.
7. In the far left list box, click the bordered + beside the Document Classes item to expand it and display a sublist.
8. From that sublist, click smartBASIC.
9. In the Files in class smartBASIC list box, add the following lines:
 - *.sb
 - *.slib
10. Click the bordered + beside the *smartBASIC* to expand the far left list box and click **Syntax**.
11. Select the **Enable syntax highlighting** checkbox.
12. In the Syntax definition file dropdown box, enter or select the file **smartBASIC(Textpad).syn** from the folder where you saved it in step 2.

13. In the list box select **Colors** and then from the 'Item:' list box select '**Keywords 1**' or any item that you wish to change the color for and do so using dropdown boxes on the right.
14. Select **OK**.
15. Close and restart Textpad.

Loading a .sb or a .sblib file from the sample apps now result in the source code being displayed with color syntax highlighting.

Further Information

Further information relating to *smartBASIC* and the BL652 module can be found at the Laird website at <http://www.lairdtech.com/products/bl652-ble-module>.

REVISION HISTORY

Version	Date	Notes	Approver
1.0	12 Sept 2016	Initial Release	Jonathan Kaye