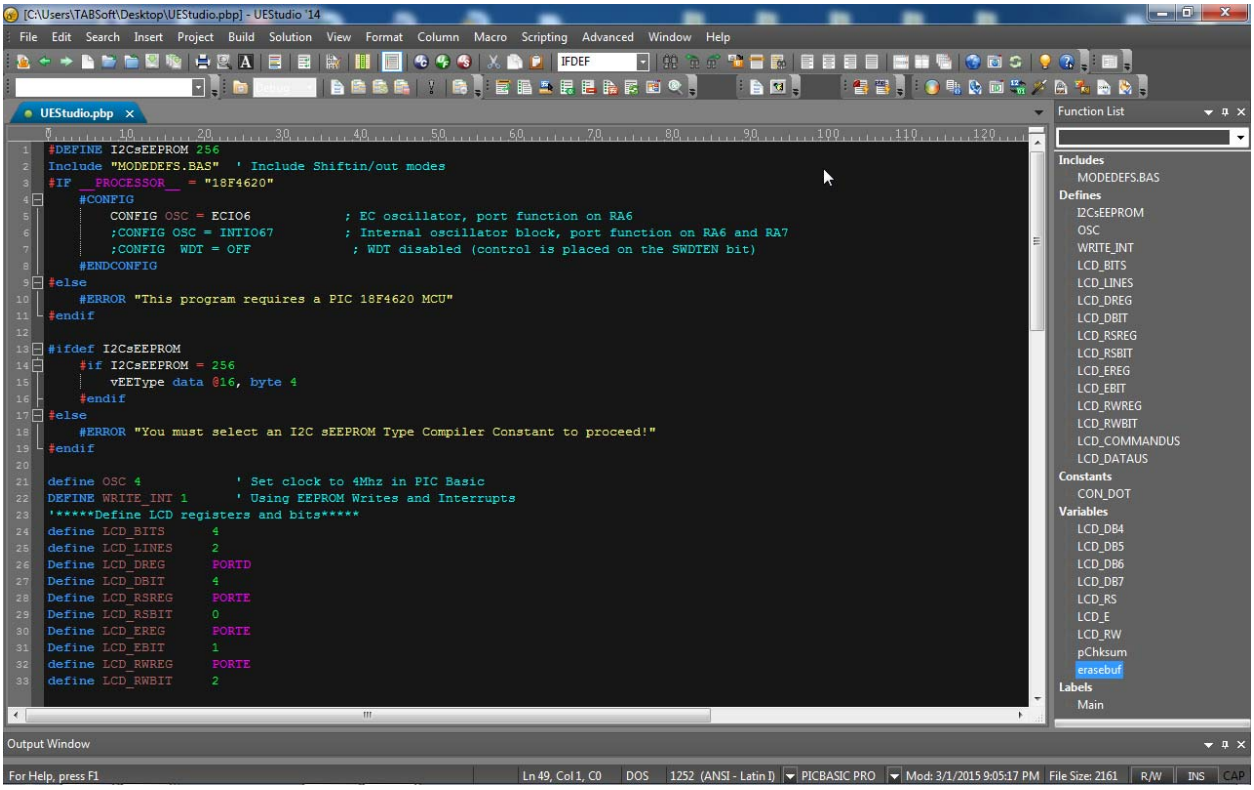
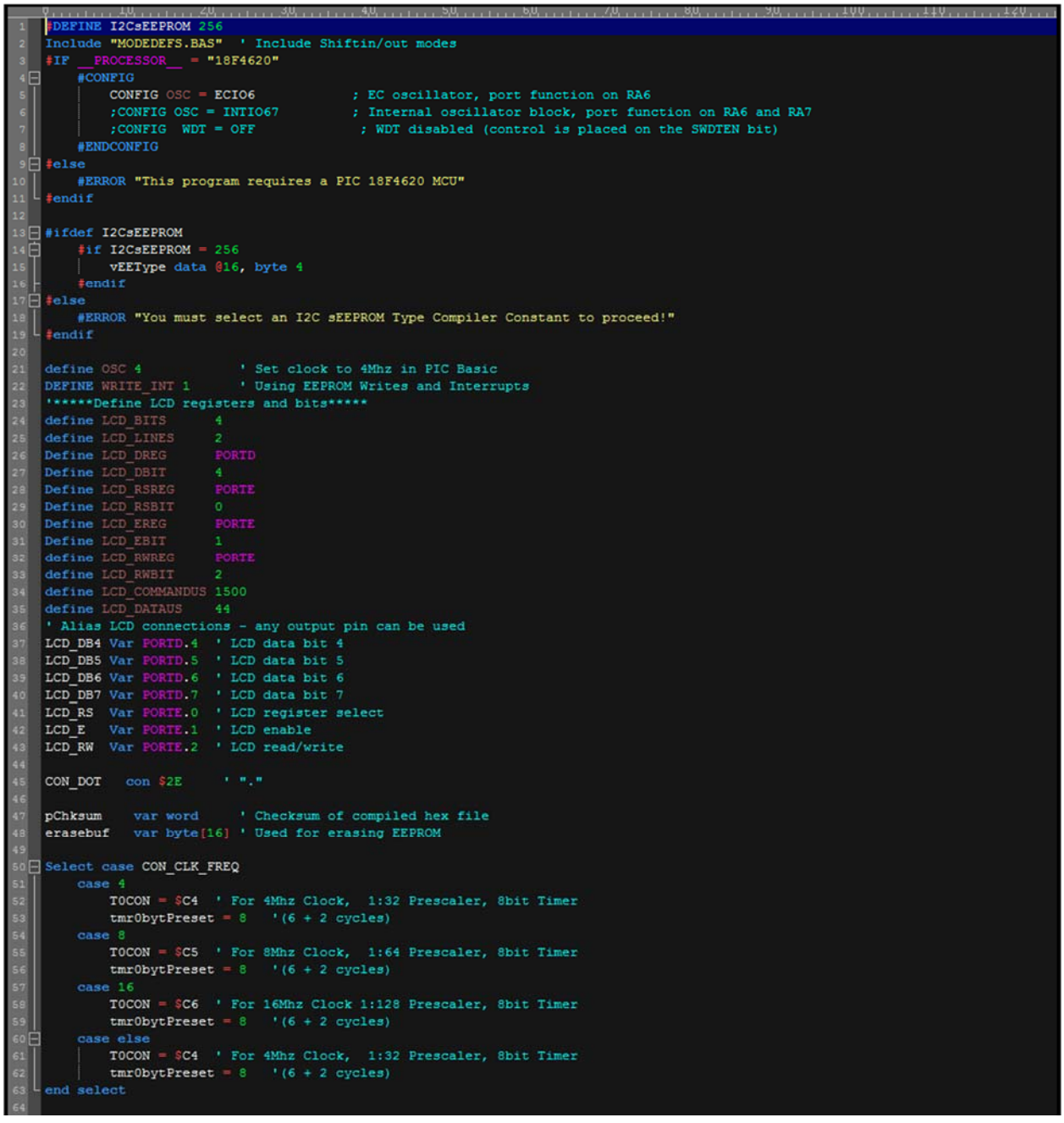
## Appendix A

**UEStudio Screenshot 1** - Example screenshot of a PBP source code file. Show the colored syntax highlighting, code folding and code explorer tree.



**UEStudio Screenshot 2** - Example screenshot of a PBP source code file. Shows the colored syntax highlighting and code folding.



```
#DEFINE I2CsEEPROM 256
Include "MODEDEFS.BAS"  ' Include Shiftin/out modes
#IF __PROCESSOR__ = "18F4620"
    #CONFIG
        CONFIG OSC = ECIO6          ; EC oscillator, port function on RA6
        ;CONFIG OSC = INTIO67       ; Internal oscillator block, port function on RA6 and RA7
        ;CONFIG  WDT = OFF           ; WDT disabled (control is placed on the SWDTEN bit)
    #ENDCONFIG
#else
    #ERROR "This program requires a PIC 18F4620 MCU"
#endif

#ifdef I2CsEEPROM
    #if I2CsEEPROM = 256
        vEEType data @16, byte 4
    #endif
#else
    #ERROR "You must select an I2C sEEPROM Type Compiler Constant to proceed!"
#endif

define OSC 4             ' Set clock to 4Mhz in PIC Basic
DEFINE WRITE_INT 1       ' Using EEPROM Writes and Interrupts
'*****Define LCD registers and bits*****
define LCD_BITS      4
define LCD_LINES     2
Define LCD_DREG      PORTD
Define LCD_DBIT      4
Define LCD_RSREG     PORTE
Define LCD_RSBIT     0
Define LCD_EREG      PORTE
Define LCD_EBIT      1
define LCD_RWREG     PORTE
define LCD_RWBIT     2
define LCD_COMMANDUS 1500
define LCD_DATAUS    44
' Alias LCD connections - any output pin can be used
LCD_DB4 Var PORTD.4  ' LCD data bit 4
LCD_DB5 Var PORTD.5  ' LCD data bit 5
LCD_DB6 Var PORTD.6  ' LCD data bit 6
LCD_DB7 Var PORTD.7  ' LCD data bit 7
LCD_RS  Var PORTE.0  ' LCD register select
LCD_E   Var PORTE.1  ' LCD enable
LCD_RW  Var PORTE.2  ' LCD read/write

CON_DOT   con $2E     ' "."

pChksum    var word     ' Checksum of compiled hex file
erasebuf   var byte[16] ' Used for erasing EEPROM

Select case CON_CLK_FREQ
    case 4
        T0CON = $C4  ' For 4Mhz Clock,  1:32 Prescaler, 8bit Timer
        tmr0bytPreset = 8   '(6 + 2 cycles)
    case 8
        T0CON = $C5  ' For 8Mhz Clock,  1:64 Prescaler, 8bit Timer
        tmr0bytPreset = 8   '(6 + 2 cycles)
    case 16
        T0CON = $C6  ' For 16Mhz Clock 1:128 Prescaler, 8bit Timer
        tmr0bytPreset = 8   '(6 + 2 cycles)
    case else
        T0CON = $C4  ' For 4Mhz Clock,  1:32 Prescaler, 8bit Timer
        tmr0bytPreset = 8   '(6 + 2 cycles)
end select
```

**UEStudio Screenshot 3** - Example screenshot of a PBP source code file.  Shows the Code Explorer Tree.