Setting Text Color

Controlling Text Color in a Console Window

In a console window, you can control text color using two main methods:

SetConsoleTextAttribute Function: This function allows you to set the foreground and background colors for all subsequent text output in the console window. It takes the console output handle and a color attribute as parameters. The color attribute specifies both foreground and background colors and is stored in the low-order byte of the wAttributes parameter.

WriteConsoleOutputAttribute Function: This function enables you to set the attributes (including text color) for specific cells in the console screen buffer. You provide an array of attributes, a length, starting coordinates, and a count of the number of cells affected.

Example Program: Let's create a simple program that demonstrates how to use these functions to set text colors. In this example, we'll display characters with different colors in a console window:

```asm
883  ; SetTextColors.asm - Demonstrates setting text colors in a console window
884  INCLUDE Irvine32.inc
885
886  .data
887  outHandle HANDLE ?
888  cellsWritten DWORD ?
889  xyPos COORD <10, 2>
890
891  ; Array of character codes
892  buffer BYTE 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
893  BYTE 16,17,18,19,20
894  BufSize DWORD ($-buffer)
895
896  ; Array of attributes (text colors)
897  attributes WORD 0Fh,0Eh,0Dh,0Ch,0Bh,0Ah,9,8,7,6
898  WORD 5,4,3,2,1,0F0h,0E0h,0D0h,0C0h,0B0h
899
900  .code
901  main PROC
902      ; Get the Console standard output handle
903      INVOKE GetStdHandle, STD_OUTPUT_HANDLE
904      mov outHandle, eax
905
906      ; Set the colors of adjacent cells
907      INVOKE WriteConsoleOutputAttribute, outHandle, ADDR attributes, BufSize, xyPos, ADDR cellsWritten
908
909      ; Write character codes 1 through 20
910      INVOKE WriteConsoleOutputCharacter, outHandle, ADDR buffer, BufSize, xyPos, ADDR cellsWritten
911      INVOKE ExitProcess, 0
912  main ENDP
913  END main
```

This program sets different text colors for characters 1 to 20 and displays them in a console window. The text colors are specified in the attributes array. The characters and their associated colors are written to the console screen buffer, resulting in colorful text output.

This program is a simple example to get you started with text color manipulation in a console window. You can modify the attributes array to set different colors for your text as needed.