```
 1   // cl /c utilwin32.c
 2
 3   #include <windows.h>
 4
 5   static HANDLE hConsole = 0;
 6   static int instanceCount = 0;
 7
 8   void gotoxy(int x, int y)
 9   {
10       COORD coord;
11
12       if( instanceCount == 0 )
13       {
14           hConsole = GetStdHandle( STD_OUTPUT_HANDLE );
15           instanceCount = 1;
16       }
17       coord.X = x - 1;
18       coord.Y = y - 1;
19
20       SetConsoleCursorPosition( hConsole, coord );
21   }
22
23   void clrscr()
24   {
25       COORD coordScreen = { 0, 0 }; /* here's where we'll home the cursor */
26       BOOL bSuccess;
27       DWORD cCharsWritten;
28       CONSOLE_SCREEN_BUFFER_INFO csbi; /* to get buffer info */
29       DWORD dwConSize; /* number of character cells in the current buffer */
30
31       if( instanceCount == 0 )
32       {
33           hConsole = GetStdHandle( STD_OUTPUT_HANDLE );
34           instanceCount = 1;
35       }
36
37       /* get the number of character cells in the current buffer */
38       bSuccess = GetConsoleScreenBufferInfo(hConsole, &csbi);
39
40       dwConSize = csbi.dwSize.X * csbi.dwSize.Y;
41       /* fill the entire screen with blanks */
42       bSuccess = FillConsoleOutputCharacter(hConsole, (TCHAR)' ',
43           dwConSize, coordScreen, &cCharsWritten);
44
45       /* get the current text attribute */
46       bSuccess = GetConsoleScreenBufferInfo(hConsole, &csbi);
47
48       /* now set the buffer's attributes accordingly */
49       bSuccess = FillConsoleOutputAttribute(hConsole, csbi.wAttributes,
50           dwConSize, coordScreen, &cCharsWritten);
51
52       /* put the cursor at (0, 0) */
53       bSuccess = SetConsoleCursorPosition(hConsole, coordScreen);
54
55       return;
56   }
57
58   void delay(int milliSecond)
59   {
60       Sleep(milliSecond);
61   }
62
63   WORD setTextColor(WORD color)
64   {
65       CONSOLE_SCREEN_BUFFER_INFO csbi;
66       WORD oldColor;
67
68       if ( instanceCount == 0 )
69       {
70           hConsole = GetStdHandle( STD_OUTPUT_HANDLE );
71           instanceCount = 1;
72       }
73
74       if (GetConsoleScreenBufferInfo(hConsole, &csbi))
75           oldColor = csbi.wAttributes;
76       else
77           oldColor = FOREGROUND_RED | FOREGROUND_GREEN |
78               FOREGROUND_BLUE | FOREGROUND_INTENSITY;
79
80       if (color==0x00) color = FOREGROUND_RED | FOREGROUND_GREEN |
81               FOREGROUND_BLUE | FOREGROUND_INTENSITY;
82
83       /* set text and background color */
84       SetConsoleTextAttribute(hConsole, color);
85
86       /*
87        FOREGROUND_BLUE(0x01), FOREGROUND_GREEN(0x02), FOREGROUND_RED(0x04), FOREGROUND_INTENSITY(0x08),
88        BACKGROUND_BLUE(0x10), BACKGROUND_GREEN(0x20), BACKGROUND_RED(0x40), BACKGROUND_INTENSITY(0x80),
89          在第二個參數中有這些屬性可以搭配，搭配的方式可以利用 "|"
90          ex: FOREGROUND_RED | FOREGROUND_GREEN | FOREGROUND_BLUE
91       */
92       return oldColor;
93   }
94
95   /*
96       WORD oldColor;
97       oldColor = setTextColor(0x00e0);
98       printf("Hello");
99       setTextColor(oldColor);
100  */
101
102  // 進一步的 console 操作請查看 MSDN Library "Consoles and Character Mode support"
103  // also a complete demo project is in MSDN Library "Console sample (console functions)"
```