

c/c++ programming by examples

we share the c/c++ coding by examples

print color string without ncurses

Posted on [January 20, 2007](#)

Printing color strings uses only printf, without any alternative libraries such as ncurses? Yes, we can do that in any unix based operating system that support ANSI codes, I am not sure whether it works on either windows or mac, have no chance to try at the moment.

By feeding some magic characters to printf, you can manipulate your fore color, background color and even attributes. Lets look at a simple example to print "Hello World" in Bright Red with background black.

```
#define BRIGHT 1
#define RED 31
#define BG_BLACK 40
printf("%c[%d;%d;%dmHello World", 0x1B, BRIGHT, RED, BG_BLACK);
```



Okay, the code above print the string with bright red but the color setting will remain, to reset back the color to default, refers the code as bellow:

```
printf("%c[%dm", 0x1B, 0);
```

The fore color, background color and attributes codes are shown as bellow

```
Text attributes
0      All attributes off
1      Bold on
4      Underscore (on monochrome display adapter only)
5      Blink on
7      Reverse video on
```

```
8      Concealed on
```

Foreground colors

```
30      Black
31      Red
32      Green
33      Yellow
34      Blue
35      Magenta
36      Cyan
37      White
```

Background colors

```
40      Black
41      Red
42      Green
43      Yellow
44      Blue
45      Magenta
46      Cyan
47      White
```

How's the color magic works? 0x1B is a special code that used to do all the color settings. 0x1B is hex code equivalent to decimal 27. With character(27) and a open square bracket "[", initiate the setting. The rest of the values are (attribute);(fore color);(background color) and it ends the setting with "m". So entire thing will be look like this:

```
printf("%c[%d;%d;%dm", 27, 1, 33, 40);
```

With that the rest of your print line will be in bright yellow with background color black.

I have transparent background, What if I want my default background instead of any color? Simple, ignore the background color, How?

```
printf("%c[%d;%dmHello World%c[%dm\n", 27, 1, 33, 27, 0);
```

The line above will print bright yellow "Hello World" with default bg color.

Reference:

[Print Color Text in Command Line](#)

[ANSI CODES](#)

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11 THOUGHTS ON "PRINT COLOR STRING WITHOUT NCURSES"

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sohan

on **July 12, 2007 at 11:09 pm** said:

.....excellent



John Hoffmann

on **August 16, 2007 at 11:35 pm** said:

Tyvm 😊 Works great in PHP (cli) as well for those without the ncurses lib compiled in, or the PECL library.



s.m

on **November 11, 2009 at 9:18 am** said:

nice
but can u write the full program
I mean with #includ
int main()
.....
please I need it alot
thanks * _



Dan

on **March 24, 2010 at 3:09 pm** said:

```
#include "stdio.h"
#define BRIGHT 1
#define RED 31
#define BG_BLACK 40
int main()
{
    printf("%c[%d;%d;%dmHello World", 0x1B, BRIGHT,RED,BG_BLACK);
}
```



RoSe

on **October 30, 2010 at 8:37 pm** said:

Can u help me with this code.A program to read a string as well as color and to print it in that font color.Once system receives these two arguments in the function , compiler will return the required result as follows:-

Input:

Enter the string: Can't believe it's possible in C.

Enter the colour: Red

Output: Can't believe it's possible in C.//(this has to be in "RED"colour)



Mattias

on **November 2, 2010 at 12:03 am** said:

Doesn't work in Dev-C++ (as .C).

What is wrong?

Copied the code above and then corrected some, such as the "-signs and the x between 0 and 1B, but only writes

a "leftarrow" and then: [1;31;40mHello World
and still in only white on black background.



jacinto

on **December 13, 2010 at 1:12 pm** said:

thank you very much, mister



Ket

on **February 23, 2011 at 3:42 pm** said:

You can also define your definition of function for example:

```
bufig_printf (const char *tekst) {  
    printf ("%c[%d;%d;%d;%dm%s", 0x1B, 1, 4, 5, GREEN, tekst);  
    printf ("%c[%dm", 0x1B, 0); // Restoring default settings  
}
```



herophuong

on **September 13, 2011 at 3:20 pm** said:

thanks very much