
termcolor

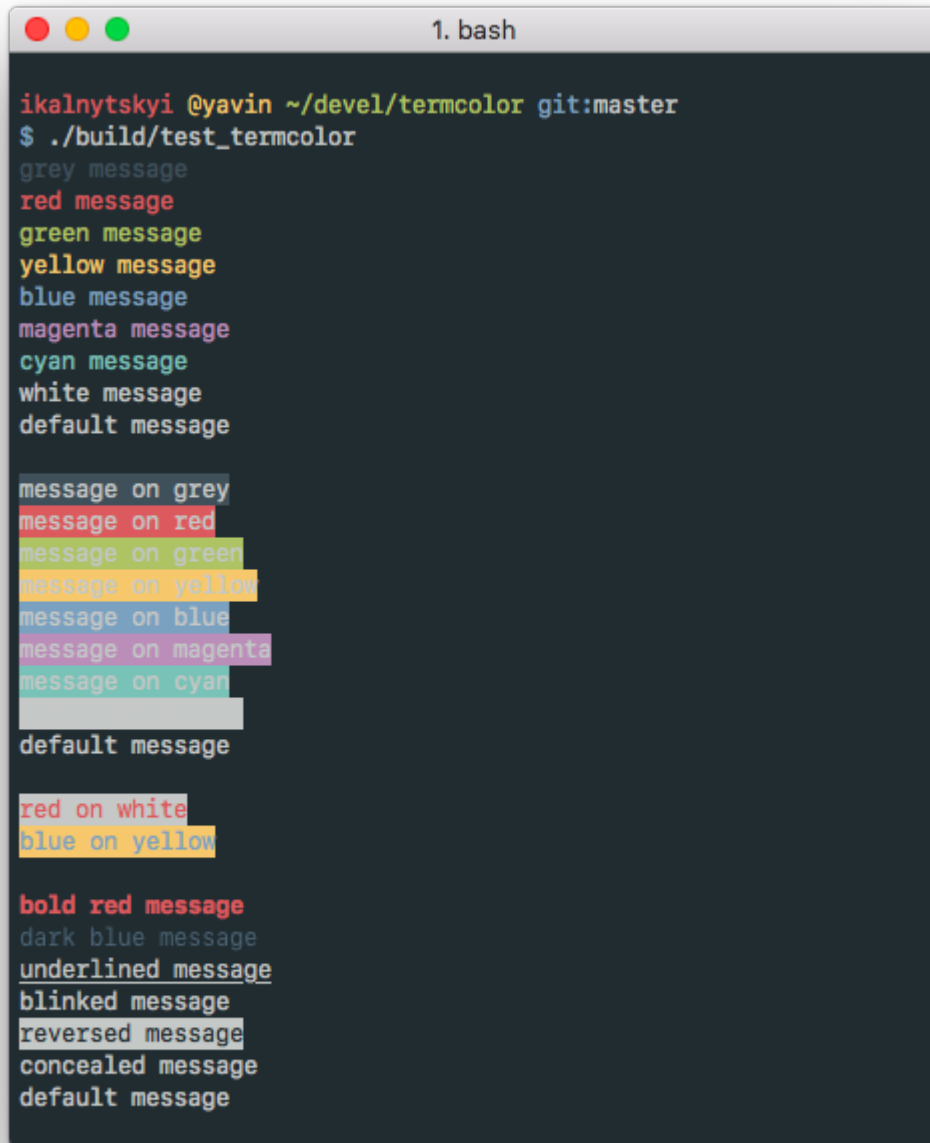
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A screenshot of a terminal window titled "1. bash". The terminal shows the output of the command `./build/test_termcolor`. The output consists of several lines of text, each demonstrating a different color or formatting option. The first section shows messages in various colors: grey, red, green, yellow, blue, magenta, cyan, white, and default. The second section shows messages with different background colors: grey, red, green, yellow, blue, magenta, cyan, and default. The third section shows messages with different foreground colors: red on white and blue on yellow. The fourth section shows messages with different formatting: bold red, dark blue, underlined, blinked, reversed, concealed, and default.

```
ikalnytskyi @yavin ~/devel/termcolor git:master
$ ./build/test_termcolor
grey message
red message
green message
yellow message
blue message
magenta message
cyan message
white message
default message

message on grey
message on red
message on green
message on yellow
message on blue
message on magenta
message on cyan
message on default
default message

red on white
blue on yellow

bold red message
dark blue message
underlined message
blinked message
reversed message
concealed message
default message
```

Termcolor is a header-only C++ library for printing colored messages to the terminal. Written just for fun with a help of the Force. Termcolor uses ANSI color formatting, so you can use it on every system that is used such terminals (most *nix systems, including Linux and Mac OS).

Note: On Windows, Windows API is used instead of escape codes but some limitations are applied (not everything is supported). That's why it's recommended to enter virtual terminal processing mode and set `TERMCOLOR_USE_ANSI_ESCAPE_SEQUENCES` macro to trick termcolor to use ANSI color codes.

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around.

INSTALLATION

- Add `termcolor.hpp` (grab it from `include/termcolor/termcolor.hpp`) to the project and use stream manipulators from the `termcolor` namespace.
- You can also use [vcpkg](#) to install the library:

```
$ vcpkg install termcolor
```

- Or if you are on macOS, you can use [Homebrew](#) for that purpose:

```
$ brew install termcolor
```

- For up-to-date information about existing packages, refer to the the following picture:

HOW TO USE?

It's very easy to use. The idea is built upon C++ stream manipulators. Typical «Hello World» application looks like this:

```
#include <iostream>
#include <termcolor/termcolor.hpp>

int main(int /*argc*/, char** /*argv*/)
{
    std::cout << termcolor::red << "Hello, ";           // 16 colors
    std::cout << termcolor::color<100> << "Colorful ";    // 256 colors
    std::cout << termcolor::color<211, 54, 130> << "World!"; // true colors
    std::cout << std::endl;
    return 0;
}
```

The application above prints a string using different colors. There is one caveat though. You must not forget to reset colors, otherwise they will be applied to other prints as well.

```
std::cout << termcolor::red << "Hello, Colorful World!" << std::endl;
std::cout << "I'm RED too!" << std::endl;
```

Correct version of the code above should look like this:

```
std::cout << termcolor::red << "Hello, Colorful World!" << termcolor::reset << std::endl;
std::cout << termcolor::reset << "Here I'm!" << std::endl;
```

By default, Termcolor ignores any colors for non-tty streams (e.g. `std::stringstream`), so the following snippet

```
std::stringstream ss;
ss << termcolor::red << "unicorn";
std::cout << ss.str();
```

will print «unicorn» using default color, not red. In order to change this behaviour one can use `termcolor::colorize` manipulator that enforces colors no matter what.

WHAT MANIPULATORS ARE SUPPORTED?

The manipulators are divided into four groups:

- *foreground*, which changes text color;
- *background*, which changes text background color;
- *attributes*, which changes some text style (bold, underline, etc);
- *control*, which changes termcolor's behaviour.

Also, there are color manipulators for [16 colors](#), [256 colors](#) and [true colors](#) palettes.

Note: While termcolor supports true color, it's required for the terminal emulator you use to run your software to support true color too. So please ensure it's supported before filing an issue.

3.1 Foreground manipulators

3.1.1 16 colors

1. `termcolor::grey`
2. `termcolor::red`
3. `termcolor::green`
4. `termcolor::yellow`
5. `termcolor::blue`
6. `termcolor::magenta`
7. `termcolor::cyan`
8. `termcolor::white`
9. `termcolor::bright_grey`
10. `termcolor::bright_red`
11. `termcolor::bright_green`
12. `termcolor::bright_yellow`
13. `termcolor::bright_blue`
14. `termcolor::bright_magenta`

15. `termcolor::bright_cyan`
16. `termcolor::bright_white`

3.1.2 256 colors

1. `termcolor::color<256_COLOR_CODE>`

3.1.3 true colors

1. `termcolor::color<RED, GREEN, BLUE>`

3.2 Background manipulators

3.2.1 16 colors

1. `termcolor::on_grey`
2. `termcolor::on_red`
3. `termcolor::on_green`
4. `termcolor::on_yellow`
5. `termcolor::on_blue`
6. `termcolor::on_magenta`
7. `termcolor::on_cyan`
8. `termcolor::on_white`
9. `termcolor::on_bright_grey`
10. `termcolor::on_bright_red`
11. `termcolor::on_bright_green`
12. `termcolor::on_bright_yellow`
13. `termcolor::on_bright_blue`
14. `termcolor::on_bright_magenta`
15. `termcolor::on_bright_cyan`
16. `termcolor::on_bright_white`

3.2.2 256 colors

1. `termcolor::on_color<256_COLOR_CODE>`

3.2.3 true colors

1. `termcolor::on_color<RED, GREEN, BLUE>`

3.3 Attribute manipulators

(Windows API does not support these manipulators except for `underline`)

1. `termcolor::bold`
2. `termcolor::dark`
3. `termcolor::italic`
4. `termcolor::underline`
5. `termcolor::blink`
6. `termcolor::reverse`
7. `termcolor::concealed`
8. `termcolor::crossed`

3.4 Control manipulators

(Windows API does not support these manipulators)

1. `termcolor::colorize`
2. `termcolor::nocolorize`

CAVEATS

1. On Windows, due to internal usage of `<windows.h>`, global namespace could be polluted with *min/max* macros. If such effect is desireable, please consider using `#define NOMINMAX` before `#include <termcolor.hpp>`.