

# qocolours.sty Package

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# 1 Introduction

This package defines a set of colour schemes which resemble many of those provided by the Microsoft Office suite of software. Each scheme defines 10 base colours, as well as 5 variations of each. These are then used by some of other packages within the QoLaTeX family of packages. The colours defined by each scheme are as follows, with a short description of their general usage in the QoLaTeX family of packages.

<b>ForegroundColour</b>	The default text colour for all non-paragraph text (i.e., in diagrams, box titles and similar).
<b>BackgroundColour</b>	The default background or page colour for all non-paragraph text (i.e., in diagrams, box titles and similar).
<b>Accent1</b>	The primary accent colour
<b>Accent2</b>	The secondary accent colour. Also used for hyperlinks in the <code>---</code> package by default.
<b>Accent3</b>	Further accent colours.
<b>Accent4</b>	Further accent colours.
<b>Accent5</b>	Further accent colours.
<b>Accent6</b>	Further accent colours.
<b>Hyperlink</b>	An alternative colour for external links. This is not always provided uniquely for all schemes; for schemes without a unique <b>Hyperlink</b> colour, a <a href="#">blue</a> colour is used as default.
<b>FollowedHyperlink</b>	An alternative colour for external links. In MS Office, this would be used for links which have already been clicked. This is not always provided uniquely for all schemes; for schemes without a unique <b>Hyperlink</b> colour, a <a href="#">dark blue</a> colour is used as default.

Each colour then has 5 variants, indicated by a “\_1” to “\_5” suffix. These colour variants are derived from the core colour by changing only the lightness of the colour in the HSL colour model; the hue and saturation are unchanged. For these variations, “20% darker” means that the lightness is brought 20% closer to 0, and “20% lighter” means that the lightness is 20% closer to 1. Thus, unless a core colour has a lightness of 0 or 1, the variants will never have a lightness of 0 or 1 (except after rounding). The variants are defined in one of three ways depending on the lightness of the core colour.

- For most core colours, there are two darker variants (25% and 50% darker), and three lighter variants (40%, 60%, and 80% lighter).
- For core colours with lightness above  $l = 0.8$ , 5 darker variants are defined at 10%, 25%, 50%, 75%, and 90% darker.
- For core colours with lightness below  $l = 0.2$ , 5 lighter variants are defined at 10%, 25%, 50%, 75%, and 90% lighter.

This approximates the behaviour of the Microsoft Office colour themes as closely as possible.

Each scheme has two variants; “light” and “dark”, which for now simply swap the **ForegroundColour** and **BackgroundColour** and change the order of the core colour variants. In the “light” variant of each scheme, these variants are all arranged from darkest to lightest, such that **Accent1\_1** will be the darkest variant, and **Accent1\_5** the lightest. In the “dark” variants of each scheme, this is reversed; this should mean that relative contrast is conserved as closely as possible when switching between light and dark variants.

## 2 Usage

The package can be loaded with `\usepackage{qocolours}`. By default, this will load the `light` variant of the `twilight` scheme. To load a different scheme, one can use the keyword `scheme`. For the light and dark variants, two flags are provided; `light` and `dark`. So, to load the scheme which closely resembles the MS Office theme *aspect* in its dark variant, one can use `\usepackage[scheme = aspect, dark]{qocolours}`. The flags `light` and `dark` can also take boolean values, so one can also use `light = false` or similar.

In addition, the scheme can be changed part way through a document using the command `\UseColourScheme`, which takes one required argument; the name of the new scheme. For example, the scheme can be changed to resemble the MS Office theme *Black Tie* using `\UseColourScheme{black_tie}`.