The (x)color Extension Package normalcolor
Revision r11

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Abstract

Packages color and xcolor provide excellent features for managing and using colours. There is only one little feature sometimes missing: Setting up the default colour of \texttt{normalcolor}. The only purpose of normalcolor is to extend both packages by exactly this single feature.

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1 Loading normalcolor

You can load package normalcolor as you load all other packages, too:

\usepackage{normalcolor}

Note: It does not matter whether you load color\footnote{http://ctan.org/pkg/color} or \texttt{xcolor}\footnote{http://ctan.org/pkg/xcolor} before or after normalcolor. Even using neither color nor xcolor would not blame normalcolor, but then it would be completely useless.

2 Setting up the Normal Colour

This command has the same arguments like \texttt{color}. See the documentation of either package color\footnote{http://ctan.org/pkg/color} or package xcolor\footnote{http://ctan.org/pkg/xcolor} (depending on the one you are using)
for the syntax. But in opposite to \color it does not change the current colour but the colour of all implicit or explicit usages of \normalcolor.

If you use the command before \begin{document} it will also change the initial colour of the document.

This command, which has no argument, changes the colour of \normalcolor into the current colour. If you use it before \begin{document} it will be delayed until \begin{document} and therefore also changes the current colour at the start of the document. But after \begin{document} it will only change \normalcolor without changing the current colour.

3 Example

Try the following example and have a look at the page numbers in the table of contents and the page footer. All these, except the section page numbers in the table of contents, are printed using \normalcolor:

\begin{Verbatim}
1 \listfiles
2 \documentclass{article}
3 4 \usepackage{normalcolor}
5 \setnormalcolor{green}
6 \usepackage{xcolor}
7 8 \usepackage{blindtext}
9 \begin{document}
10 \color{blue}
11 \tableofcontents
12 \blinddocument
13 \setnormalcolor{red}
14 \blinddocument
15 16 \resetnormalcolor
17 \blinddocument
18 \end{document}
\end{Verbatim}

4 Implementation

The package does not have any options. So we just call

\begin{Verbatim}
19 \ProcessOptions\relax
\end{Verbatim}

This is the very simple first version of the command. Before \begin{document} it simply delays itself until \begin{document}.

\begin{Verbatim}
20 \DeclareRobustCommand*{\resetnormalcolor}{\AtBeginDocument{\resetnormalcolor}}
\end{Verbatim}

To make this work, we need to redefine it at \begin{document}:

\begin{Verbatim}
21 \AtBeginDocument{\%
22 \let\resetnormalcolor\relax
\end{Verbatim}
\DeclareRobustCommand*{\resetnormalcolor}{%
  \ifdefined\default@color
    \ifdefined\current@color
      \let\default@color\current@color
    \fi
  \fi
}%
\setnormalcolor
\@@setnormalcolor
\DeclareRobustCommand*{\setnormalcolor}{%
  \@ifnextchar[\]
    \@@setnormalcolor\@setnormalcolor
%}
\newcommand*{\@@setnormalcolor}[2][{}]{%
  \AtBeginDocument{%
    \begingroup
      \expandafter\ifx\csname color\endcsname\relax\else
        \color[{#1}]\def\default@color{\current@color}
      \fi
    \endgroup
  }%
}\newcommand*{\@setnormalcolor}[1][{}]{%
  \AtBeginDocument{%
    \begingroup
      \expandafter\ifx\csname color\endcsname\relax
        \renewcommand*{\@@setnormalcolor}[2][{}]{%
          \let\@setnormalcolor\@gobble
        }
      \else
        \renewcommand*{\@@setnormalcolor}[2][{}]{%
          \begingroup
            \color[{#1}]\edef\reserved@a{%
              \noexpand\endgroup
              \noexpand\def\noexpand\default@color{\unexpanded{\current@color}}%
            }%
          \fi
        }
      \fi
    \endgroup
  }%
}\setnormalcolor
\DeclareRobustCommand*{\resetnormalcolor}{%
  \ifdefined\default@color
    \ifdefined\current@color
      \let\default@color\current@color
    \fi
  \fi
}%
\newcommand*{\resetnormalcolor}{%
  \ifdefined\default@color
    \ifdefined\current@color
      \let\default@color\current@color
    \fi
  \fi
}%
\begin{document}
Note, that changing the default colour before loading either color or xcolor does not work, because these packages set \default@color themselves at \begin{document}. But indeed in this case it is much more simple, because we just have to set up the wanted colour.
\begin{document}
\AtBeginDocument{%
  \begingroup
    \expandafter\ifx\csname color\endcsname\relax
      \renewcommand*{\@@setnormalcolor}[2][{}]{%
        \let\@setnormalcolor\@gobble
      }
    \else
      \renewcommand*{\@@setnormalcolor}[2][{}]{%
        \begingroup
          \color[{#1}]\edef\reserved@a{%
            \noexpand\endgroup
            \noexpand\def\noexpand\default@color{\unexpanded{\current@color}}%
          }%
        \fi
      }
    \fi
  \endgroup
}%
\newcommand*{\resetnormalcolor}{%
  \ifdefined\default@color
    \ifdefined\current@color
      \let\default@color\current@color
    \fi
  \fi
}%
\setnormalcolor
\@@setnormalcolor
\begin{document}
After \begin{document} we need another definition of \@@setnormalcolor and \@setnormalcolor. In this case we need to change \default@color without changing \current@color. This may be done using a trick.
\AtBeginDocument{%
  \begingroup
    \expandafter\ifx\csname color\endcsname\relax
      \renewcommand*{\@@setnormalcolor}[2][{}]{%
        \let\@setnormalcolor\@gobble
      }
    \else
      \renewcommand*{\@@setnormalcolor}[2][{}]{%
        \begingroup
          \color[{#1}]\edef\reserved@a{%
            \noexpand\endgroup
            \noexpand\def\noexpand\default@color{\unexpanded{\current@color}}%
          }%
        \fi
      }
    \fi
  \endgroup
}%
\resetnormalcolor
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\resetnormalcolor
Change History

r0          r11
  General: Start of project    General: First release

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Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

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