The clrstrip package

Jonathan P. Spratte∗
Released 2020-01-23

Contents
1 Introduction 1
2 Examples 2
3 Documentation 2
  3.1 Macros and Environments ........................................... 2
  3.2 Options .................................................................... 3
  3.3 Dependencies .......................................................... 4
4 Implementation 4
  4.1 Initializing Variables .................................................... 4
  4.2 Internal Macros .......................................................... 5
  4.3 Initializing Keys ............................................................ 6
  4.4 User Level Macros ....................................................... 6

1 Introduction

This package provides the colorstrip environment, that places its contents into a full page width colour strip. It requires the macro \color to be defined and working, but doesn't load a package doing so on its own. So for everything to work out properly, you'd have to load a package like color or xcolor in your preamble, too.

It is meant to be lightweight and fast. So while packages like tcolorbox provide very pretty output, this package has a simple look achieved with less than 100 lines of code.

It is written as a docstrip file: executing latex clrstrip.dtx generates the clrstrip.sty file and typesets this documentation; execute tex clrstrip.dtx to only generate clrstrip.sty.

∗E-mail: jspratte@yahoo.de
2 Examples

The following is an example showing the results of

\begin{colorstrip}{red!5}
\blindduck
\end{colorstrip}

with \texttt{xcolor} and \texttt{duckuments} loaded:

There once was a very smart but sadly blind duck. When it was still a small duckling it was renowned for its good vision. But sadly as the duck grew older it caught a sickness which caused its eyesight to worsen. It became so bad, that the duck couldn't read the notes it once took containing much of inline math. Only displayed equations remained legible. That annoyed the smart duck, as it wasn't able to do its research any longer. It called for its underduckling and said: “Go, find me the best eye ducktor there is. He shall heal me from my disease!”

The title of this documentation was typeset with

\vspace*{-6cm}\%
\begin{colorstrip}{blue!15}
[%
  inner bot=1cm, outer bot=\bigskipamount, width=\paperwidth,
  inner top=6cm, left=-\dimexpr\marginparwidth+\marginparsep\relax
%]
\centering
LARGE The \pkg{clrstrip} package\\[\bigskipamount]
\large
Jonathan P. Spratte\footnotemark\\[\medskipamount]
Released \csname clrstrip@date\endcsname
\end{colorstrip}
\footnotetext{E-mail: jspratte@yahoo.de}

and the code boxes in this section (except this one) are surrounded by

\begin{colorstrip}{gray!15}[inner bot=0pt, inner top=2ex, outer bot=2pt]
\begin{verbatim}
\end{verbatim}
\end{colorstrip}

3 Documentation

3.1 Macros and Environments

\colorstripSet{\colorstripSet{(key=value)}}

This macro can be used to set the options listed in subsection 3.2 outside of \texttt{colorstrip} (the package makes no global assignments).
This environment typesets its contents inside a \vbox which gets surrounded by a \strip of the specified \langle color \rangle which reaches across the full page width. \langle color model \rangle and \langle color \rangle are the arguments passed to \color. In the second optional argument \langle key=value \rangle you can specify any of the options listed in subsection 3.2. If you leave a blank line after this environment the next paragraph will be indented, else this indentation will be suppressed (this has been changed starting with version 2019-11-03, in earlier versions you’d have to use \noindent to suppress the paragraph indentation). The result is not page breakable.

### 3.2 Options

The package doesn’t support load time options. The following options can be either set with \colorstripSet or inside of colorstrip.

- **inner=\langle skip \rangle**
  - Sets both \texttt{inner top} and \texttt{inner bot} to \langle skip \rangle. Initially this is set to \texttt{\medskipamount}.

- **inner top=\langle skip \rangle**
  - Specifies additional padding between the upper border of the \strip and its contents.

- **inner bot=\langle skip \rangle**
  - Specifies additional padding between the lower border of the \strip and its contents.

- **outer=\langle skip \rangle**
  - Sets both \texttt{outer top} and \texttt{outer bot} to \langle skip \rangle. Initially this is set to \texttt{\medskipamount}.

- **outer top=\langle skip \rangle**
  - Specifies the vertical skip above the colour \strip.

- **outer bot=\langle skip \rangle**
  - Specifies the vertical skip below the colour \strip.

- **width=\langle width \rangle**
  - Sets the \texttt{\hsize} (and also \texttt{\linewidth} inside of the environment) of the \vbox for the contents, resulting in the specified \langle width \rangle. If \langle width \rangle is 0pt (which is the initial value) the width is the current surrounding \texttt{\linewidth}.

- **left=\langle skip \rangle**
  - Specifies a horizontal skip from the left border of the text field for the contents. If \langle skip \rangle is 1sp (which is the initial value) the \vbox is horizontally centred (not its contents).

- **afterheading**
  - Doesn’t accept any value. If used the indentation of the first line in a colorstrip will be prevented using the \LaTeX macros \texttt{@afterindentfalse and @afterheading}. This is the package default since version 2018-09-25. There was another change to this key in version 2020-01-23, since which the key will throw an error if you provide a value.
Doesn’t accept any value. If used the indentation of the first line in a colorstrip will be prevented using the \TeX primitives \noindent and \ignorespaces. This was the package default before version 2018-09-25. There was another change to this key in version 2020-01-23, since which the key will throw an error if you provide a value.

3.3 Dependencies

clrstrip depends on the expkv package. This has changed since version 2020-01-23, before that version clrstrip had been using keyval. Though keyval is faster than expkv, expkv is a lot faster than xkeyval which replaces keyval and its performance as soon as any other package is loaded.

In addition clrstrip needs a package defining \color such as color or xcolor but doesn’t load one on its own.

4 Implementation

4.1 Initializing Variables

\clrstrip@box Stores the contents of colorstrip.
\newsavebox{clrstrip@box}
(End definition for \clrstrip@box. This variable is documented on page ??.)

\clrstrip@innerT Stores the upper inner padding. Gets reused to store the overall height of the colour strip locally.
\newlength{clrstrip@innerT}
\clrstrip@innerTmedskipamount
(End definition for \clrstrip@innerT. This variable is documented on page ??.)

\clrstrip@innerB Stores the lower inner padding. Gets reused to store the overall depth of the colour strip locally.
\newlength{clrstrip@innerB}
\clrstrip@innerB\clrstrip@innerT
(End definition for \clrstrip@innerB. This variable is documented on page ??.)

\clrstrip@outerT Stores the upper outer padding.
\newlength{clrstrip@outerT}
\clrstrip@outerT\clrstrip@innerT
(End definition for \clrstrip@outerT. This variable is documented on page ??.)

\clrstrip@outerB Stores the lower outer padding.
\newlength{clrstrip@outerB}
\clrstrip@outerB\clrstrip@innerT
(End definition for \clrstrip@outerB. This variable is documented on page ??.)
\clrstrip@width Stores the width the text block inside of the colour strip should be wide. Might be reused to calculate the skip to centre the text block locally.
\newlength\clrstrip@width
(End definition for \clrstrip@width. This variable is documented on page ??.)

\clrstrip@left Stores the left skip from the left border of the text field. Might be reused to store the necessary left skip for centred alignment locally.
\newlength\clrstrip@left
\clrstrip@left1sp
(End definition for \clrstrip@left. This variable is documented on page ??.)

\clrstrip@arg Stores the first optional and the mandatory argument to colorstrip for later use.
\newcommand*{\clrstrip@arg}{}
(End definition for \clrstrip@arg. This variable is documented on page ??.)

### 4.2 Internal Macros

\clrstrip@key Shortcut to define new keys with expkv.
\clrstrip@keyNV
\newcommand*{\clrstrip@key}{\protect\ekvdef{clrstrip}}
\newcommand*{\clrstrip@keyNV}{\protect\ekvdefNoVal{clrstrip}}
(End definition for \clrstrip@key and \clrstrip@keyNV. These functions are documented on page ??.)

\clrstrip@start Used to grab the second optional argument to colorstrip. Sets the specified keys and starts the grabbing of the contents inside the \vbox.
\newcommand*{\clrstrip@start}[1][]{%
  \colorstripSet{#1}%
  \ifdim\clrstrip@width=\z@
    \clrstrip@width\linewidth
  \fi
  \setbox\clrstrip@box\vbox\bgroup
  \hasize\clrstrip@width
  \linewidth\hasize
  \color@setgroup
  \clrstrip@preventIndent
}
(End definition for \clrstrip@start. This function is documented on page ??.)

\clrstrip@afterheading\clrstrip@noindent These two macros are the two options to suppress the indentation in a colorstrip.
\newcommand*{\clrstrip@afterheading}{\@afterindentfalse\afterheading}
\newcommand*{\clrstrip@noindent}{\noindent\ignorespaces}
(End definition for \clrstrip@afterheading and \clrstrip@noindent. These functions are documented on page ??.)

\clrstrip@preventIndent Used to prevent the indentation of the first line in a colorstrip. It will be let to one of \clrstrip@afterheading or \clrstrip@noindent.
\newcommand*{\clrstrip@preventIndent}{}
\let\clrstrip@preventIndent\clrstrip@afterheading
(End definition for \clrstrip@preventIndent. This function is documented on page ??.)
4.3 Initializing Keys

\clrstrip@key{inner}{\clrstrip@innerT#1\relax\clrstrip@innerB#1\relax}
\clrstrip@key{outer}{\clrstrip@outerT#1\relax\clrstrip@outerB#1\relax}
\clrstrip@key{inner top}{\clrstrip@innerT#1\relax}
\clrstrip@key{inner bot}{\clrstrip@innerB#1\relax}
\clrstrip@key{outer top}{\clrstrip@outerB#1\relax}
\clrstrip@key{outer bot}{\clrstrip@outerB#1\relax}
\clrstrip@key{width}{\clrstrip@width#1\relax}
\clrstrip@key{left}{\clrstrip@left#1\relax}
\clrstrip@keyNV{afterheading}{\let\clrstrip@preventIndent\clrstrip@afterheading}
\clrstrip@keyNV{noindent}{\let\clrstrip@preventIndent\clrstrip@noindent}

4.4 User Level Macros

\colorstripSet Shortcut for expkv's \ekvset.
\protected\def\colorstripSet{\ekvset{clrstrip}}
(End definition for \colorstripSet. This function is documented on page 2.)

\colorstrip
\newenvironment{colorstrip}[2][]{
\protect\colorstripSet
\% Save the arguments for the usage in \end{colorstrip}. If the first argument is empty \color won't get an optional argument, else store both the optional and the mandatory one in \clrstrip@arg.
\def\clrstrip@arg{#1}\
\ifx\clrstrip@arg\@empty
\def\clrstrip@arg{{#2}}\
\else
\def\clrstrip@arg{[#1]{#2}}\
\fi
\% Start grabbing the contents.
\clrstrip@start
}
\colorstripEndgroup
\% End grabbing the contents.
\color@endgroup
\egroup
\% Start a new paragraph (if none was started yet) and add the upper outer padding.
\par
\vskip\clrstrip@outerT
\noindent
\% Draw the colour Strip using a coloured \vrule.
\begingroup
\expandafter\color\clrstrip@arg
\advance\clrstrip@innerT\ht\clrstrip@box
\advance\clrstrip@innerB\dp\clrstrip@box
\rlap{\%\hspace{-\paperwidth}}\vrule
\vskip\clrstrip@outerB
\egroup
\begin{verbatim}
\begin{group}
width 2\textwidth
height \clrstrip@innerT
depth \clrstrip@innerB
\endgroup
\endinput
\end{verbatim}

Output the contents of the colour strip.
\begin{verbatim}
\ifdim\clrstrip@left=1sp
\advance\clrstrip@width-\linewidth
\clrstrip@left=.5\clrstrip@width
\fi
\rlap{\hskip\clrstrip@left\copy\clrstrip@box}%
\par\vskip\clrstrip@outerB\@endpetrue}
\end{verbatim}

Start a new paragraph and add the lower outer padding. Also use \LaTeX's \@endpetrue mechanism to let the user control whether the text after this environment will be indented or not.

\begin{verbatim}
\par\vskip\clrstrip@outerB\@endpetrue
\end{verbatim}

(End definition for colorstrip. This function is documented on page 3.)

\begin{verbatim}
\endinput
\end{verbatim}

(\pkg)