# The clrstrip package

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## Contents

## 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 simplistic 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`.

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## 2 Examples

The following is an example showing the results of

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

with xcolor and 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 `colorstrip` (the package makes no global assignments).

2

**colorstrip**   `\begin{colorstrip}[⟨color model⟩]{⟨color⟩}[⟨key=value⟩]`

This environment typesets its contents inside a `\vbox` which gets surrounded by a strip of the specified ⟨*color*⟩ which reaches across the full page width. ⟨*color model*⟩ and ⟨*color*⟩ are the arguments passed to `\color`. In the second optional argument ⟨*key=value*⟩ 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=⟨skip⟩`
> Sets both `inner top` and `inner bot` to ⟨*skip*⟩. Initially this is set to `\medskipamount`.

`inner top=⟨skip⟩`
> Specifies additional padding between the upper border of the strip and its contents.

`inner bot=⟨skip⟩`
> Specifies additional padding between the lower border of the strip and its contents.

`outer=⟨skip⟩`
> Sets both `outer top` and `outer bot` to ⟨*skip*⟩. Initially this is set to `\medskipamount`.

`outer top=⟨skip⟩`
> Specifies the vertical skip above the colour strip.

`outer bot=⟨skip⟩`
> Specifies the vertical skip below the colour strip.

`width=⟨width⟩`
> Sets the `\hsize` (and also `\linewidth` inside of the environment) of the `\vbox` for the contents, resulting in the specified ⟨*width*⟩. If ⟨*width*⟩ is `0pt` (which is the initial value) the width is the current surrounding `\linewidth`.

`left=⟨skip⟩`
> Specifies a horizontal skip from the left border of the text field for the contents. If ⟨*skip*⟩ 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 `\@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.

noindent

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 xkevyal 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

1 ⟨*pkg⟩

## 4.1 Initializing Variables

\clrstrip@box     Stores the contents of colorstrip.

2 `\newsavebox\clrstrip@box`

(*End definition for* `\clrstrip@box`.)

\clrstrip@innerT     Stores the upper inner padding. Gets reused to store the overall height of the colour strip locally.

3 `\newlength\clrstrip@innerT`
4 `\clrstrip@innerT=\medskipamount`

(*End definition for* `\clrstrip@innerT`.)

\clrstrip@innerB     Stores the lower inner padding. Gets reused to store the overall depth of the colour strip locally.

5 `\newlength\clrstrip@innerB`
6 `\clrstrip@innerB=\clrstrip@innerT`

(*End definition for* `\clrstrip@innerB`.)

\clrstrip@outerT     Stores the upper outer padding.

7 `\newlength\clrstrip@outerT`
8 `\clrstrip@outerT=\clrstrip@innerT`

(*End definition for* `\clrstrip@outerT`.)

\clrstrip@outerB     Stores the lower outer padding.

9 `\newlength\clrstrip@outerB`
10 `\clrstrip@outerB=\clrstrip@innerT`

(*End definition for* `\clrstrip@outerB`.)

<dl>

\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.

```
11 \newlength\clrstrip@width
```

(*End definition for* \clrstrip@width.)

\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.

```
12 \newlength\clrstrip@left
13 \clrstrip@left=1sp
```

(*End definition for* \clrstrip@left.)

\clrstrip@arg    Stores the first optional and the mandatory argument to colorstrip for later use.

```
14 \newcommand*\clrstrip@arg{}
```

(*End definition for* \clrstrip@arg.)

## 4.2 Internal Macros

\clrstrip@key
\clrstrip@keyNV    Shortcut to define new keys with expkv.

```
15 \newcommand*\clrstrip@key{\protected\ekvdef{clrstrip}}
16 \newcommand*\clrstrip@keyNV{\protected\ekvdefNoVal{clrstrip}}
```

(*End definition for* \clrstrip@key *and* \clrstrip@keyNV.)

\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.

```
17 \newcommand\clrstrip@start[1][]
18   {%
19     \colorstripSet{#1}%
20     \ifdim\clrstrip@width=\z@
21       \clrstrip@width=\linewidth
22     \fi
23     \setbox\clrstrip@box\vbox\bgroup
24       \hsize=\clrstrip@width
25       \linewidth=\hsize
26       \color@setgroup
27       \clrstrip@preventIndent
28   }
```

(*End definition for* \clrstrip@start.)

\clrstrip@afterheading
\clrstrip@noindent    These two macros are the two options to suppress the indentation in a colorstrip.

```
29 \newcommand*\clrstrip@afterheading{\@afterindentfalse\@afterheading}
30 \newcommand*\clrstrip@noindent{\noindent\ignorespaces}
```

(*End definition for* \clrstrip@afterheading *and* \clrstrip@noindent.)

\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.

```
31 \newcommand*\clrstrip@preventIndent{}
32 \let\clrstrip@preventIndent\clrstrip@afterheading
```

(*End definition for* \clrstrip@preventIndent.)

</dl>

## 4.3 Initializing Keys

```
33 \clrstrip@key{inner}{\clrstrip@innerT=#1\relax\clrstrip@innerB=\clrstrip@innerT}
34 \clrstrip@key{outer}{\clrstrip@outerT=#1\relax\clrstrip@outerB=\clrstrip@outerT}
35 \clrstrip@key{inner top}{\clrstrip@innerT=#1\relax}
36 \clrstrip@key{inner bot}{\clrstrip@innerB=#1\relax}
37 \clrstrip@key{outer top}{\clrstrip@outerB=#1\relax}
38 \clrstrip@key{outer bot}{\clrstrip@outerB=#1\relax}
39 \clrstrip@key{width}{\clrstrip@width=#1\relax}
40 \clrstrip@key{left}{\clrstrip@left=#1\relax}
41 \clrstrip@keyNV{afterheading}{\let\clrstrip@preventIndent\clrstrip@afterheading}
42 \clrstrip@keyNV{noindent}{\let\clrstrip@preventIndent\clrstrip@noindent}
```

## 4.4 User Level Macros

\colorstripSet    Shortcut for expkv's \ekvset.

```
43 \protected\ekvsetdef\colorstripSet{clrstrip}
```

(*End definition for* \colorstripSet. *This function is documented on page* 2.)

colorstrip

```
44 \newenvironment{colorstrip}[2][]
45   {%
```

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.

```
46     \def\clrstrip@arg{#1}%
47     \ifx\clrstrip@arg\@empty
48       \def\clrstrip@arg{{#2}}%
49     \else
50       \def\clrstrip@arg{[{#1}]{#2}}%
51     \fi
```

Start grabbing the contents.

```
52     \clrstrip@start
53   }
54   {%
```

End grabbing the contents.

```
55     \color@endgroup
56     \egroup
```

Start a new paragraph (if none was started yet) and add the upper outer padding.

```
57     \par
58     \vskip\clrstrip@outerT
59     \noindent
```

Draw the colour strip using a coloured \vrule.

```
60     \begingroup
61       \expandafter\color\clrstrip@arg
62       \advance\clrstrip@innerT\ht\clrstrip@box
63       \advance\clrstrip@innerB\dp\clrstrip@box
64       \rlap
65         {%
66           \hskip-\paperwidth
67           \vrule
```

6

```
68              width  2\paperwidth
69              height \clrstrip@innerT
70              depth  \clrstrip@innerB
71         }%
72      \endgroup
```

Output the contents of the colour strip.

```
73      \ifdim\clrstrip@left=1sp
74        \advance\clrstrip@width-\linewidth
75        \clrstrip@left=-.5\clrstrip@width
76      \fi
77      \rlap{\hskip\clrstrip@left\copy\clrstrip@box}%
```

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.

```
78      \par
79      \vskip\clrstrip@outerB
80      \@endpetrue
81    }
```

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

```
82  \endinput
```

83  ⟨/pkg⟩