The `contour` package*

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Abstract

This package is based on an idea of Richard Pfeiffer (`richard.pfeiffer@t-online.de`). It generates a colored contour around a given text in order to enable printing text over a background without the need of a color box around the text.

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1 Introduction

Sometimes it is necessary to print text over a background that is not pure white e. g. in gnuplot plots. It is not always wished to plot the text in a rectangular box since this can cover important information or loog poor. This package provides a solution to cover less space with the text and ensure readable text in the same time.

The used technique is quite simple. In a circle with the radius $0.03\,\mathrm{em}$ around the original text position the same text is printed evenly distributed 16 times.

*This file has version 1.02 last revised 1999/12/13, documentation dated 1999/12/13.

2 User interface

To use this package place

```
\usepackage{contour}
```

in the preamble of your document. No options are necessary.

The package provides the command

```
\contour{<color>}{<text>}
```

which produces the text `<text>` with a colored border around.

3 Example

The command

```
\colorbox{black}{This text is not visible \contour{yellow}{but this is}}
```

produces:

This text is not visible but this is

Another example shows figure 1.

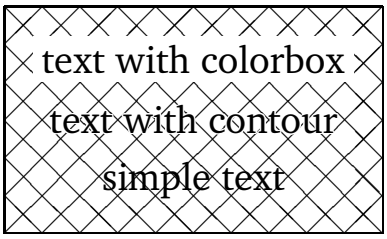

Figure 1: Comparison of the commands `\colorbox{white}{<text>}` and `\contour{<text>}`

In figure 2 you can see the looking of the output depending on the number of copies.

a) 1 white copy b) 2 white copies c) 3 white copies

e) 4 white copies f) 8 white copies g) 16 white copies

Figure 2: Looking of the contour with different numbers of copies

4 The implementation

Heading of the package:

```
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{contour}
          [\filedate\space version \fileversion]
\message{Package `contour', Version \fileversion\space of \filedate.}
```

This package requires the color package from the graphics bundle:

```
\RequirePackage{color}
```

Set text to a specified relative position without using space:

```
\newcommand{\ol@lupos}[3]{\makebox[0pt][l]{\hspace*{#1}\raisebox{#2}[0pt]{#3}}}
%old version (did not work with characters with depth (e.g. g, y, q))
%\newcommand{\ol@lupos}[3]{\makebox(0,0)[lb]{\hspace*{#1}\vspace*{#2}#3}}
%old version (did not work within \makebox macro:
%\newcommand{\ol@lupos}[3]{\hbox to 0pt{\hskip#1\vbox to 0pt{\vskip#2\vbox
%      to 0pt{\vss\noindent#3}\vss}\hss}}
```

Rename `\color` command to `ol@color`. This is down in order to prevent the background text color from being changed:

```
\def\FAus{\let\ol@color=\color%
           \def\color##1##2{##2}}%
```

Restor `color` command:

```
\def\FEin{\let\color=\ol@color}
```

Define new offset length:

```
\newlength{\ol@d}
```

`\contour` The new macro for producing text with a white contour

```
\newcommand{\contour}[2]{%
```

Specifiing the offset length relative to the text size

```
  \setlength{\ol@d}{0.03em}%
```

Put the text many times around the current text position.
$0°$, $90°$, $180°$ and $270°$:

```
  \ol@lupos{1\ol@d}{0\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{-1\ol@d}{0\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0\ol@d}{1\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0\ol@d}{-1\ol@d}{\color{#1}\FAus#2\FEin}%
```

$45°$, $135°$, $225°$ and $315°$:

```
  \ol@lupos{0.707\ol@d}{0.707\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0.707\ol@d}{-0.707\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0.707\ol@d}{0.707\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0.707\ol@d}{-0.707\ol@d}{\color{#1}\FAus#2\FEin}%
```

$22.5°$, $67.5°$, $112.5°$, $157.5°$ ...:

```
  \ol@lupos{0.383\ol@d}{0.924\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0.383\ol@d}{-0.924\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{-0.383\ol@d}{0.924\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{-0.383\ol@d}{-0.924\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0.924\ol@d}{0.383\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{0.924\ol@d}{-0.383\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{-0.924\ol@d}{0.383\ol@d}{\color{#1}\FAus#2\FEin}%
  \ol@lupos{-0.924\ol@d}{-0.383\ol@d}{\color{#1}\FAus#2\FEin}%
  %
  #2%
}
```

The end of the style file

```
\endinput
```