

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 look poor. This package provides a solution to cover less space with the text and ensure readable text in the same time.

*This file has version v1.04 last revised 2003/11/09.

The used technique is quite simple. In a circle around the original text position the same text is printed evenly distributed 16 or 32 times. The default radius for the circle is 0.03 em.

2 User interface

To use this package place

```
\usepackage{contour}
```

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

The package provides the commands

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

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

which produce the text <text> with a colored contour around. The * variant makes 32 instead of 16 copies.

The radius of the circle (= thickness of the contour) can be changed using the command `\contourlength{<length>}`, where <length> is a length understood by L^AT_EX. The length is not expanded when defining the contour length but when using it. For example when using 0.05em, 0.05 em of the font used in the command `\contour` are used.

3 Example

The command

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

produces:



Another example is shown in figure 1.

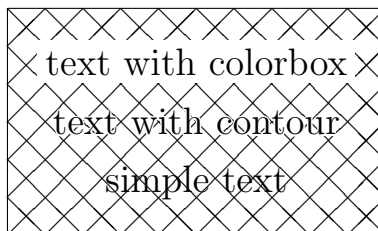


Figure 1: Comparison of the commands `\colorbox{white}{<text>}` and `\contour{<text>}`

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

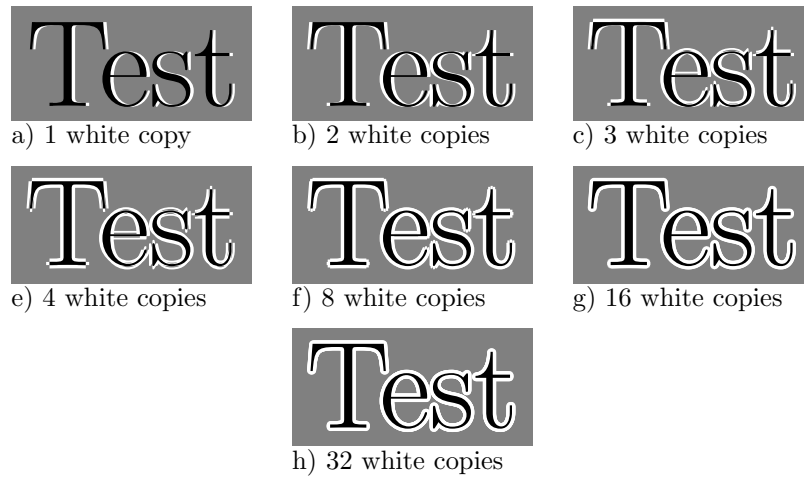


Figure 2: Looking of the contour with different numbers of copies

4 The implementation

Heading of the package:

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{contour}
3 [2003/11/09 v1.04 Print contoured text]
```

This package requires the color package from the graphics bundle:

```
4 \RequirePackage{color}
```

Set text to a specified relative position without using space:

```
5 \newcommand{\con@put}[3]{\makebox[0pt][l]{\hspace*{#1}\raisebox{#2}[0pt]{#3}}}
```

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

```
6 \def\con@off{\let\con@color=\color%
7           \def\color##1##2{##2}}%
```

Restor color command:

```
8 \def\con@on{\let\color=\con@color}
```

`\contourlength` Define the commands for changing the base length:

```
9 \newcommand{\contourlength}[1]{\def\contourbaselength{#1}}
10 \contourlength{0.03em}
```

Define new offset length:

```
11 \newlength{\con@length}
```

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

Devide between a normal and a star version.

```
12 \newcommand{\contour}{\@ifstar{\@contour[*]}{\@contour}}
```

The command itself. The optional parameter is used for the star version
`\contour*`.

```
13 \newcommand{\@contour}[3][\@empty]{%
```

Specifying the offset length relative to the text size

```
14 \setlength{\con@length}{\contourbaselength}%
```

Put the text many times around the current text position.

0°, 90°, 180° and 270°:

```
15 \con@put{1\con@length}{0\con@length}{\color{#2}\con@off#3\con@on}%
```

```
16 \con@put{-1\con@length}{0\con@length}{\color{#2}\con@off#3\con@on}%
```

```
17 \con@put{0\con@length}{1\con@length}{\color{#2}\con@off#3\con@on}%
```

```
18 \con@put{0\con@length}{-1\con@length}{\color{#2}\con@off#3\con@on}%
```

45°, 135°, 225° and 315°:

```
19 \con@put{0.707\con@length}{0.707\con@length}{\color{#2}\con@off#3\con@on}%
```

```
20 \con@put{0.707\con@length}{-0.707\con@length}{\color{#2}\con@off#3\con@on}%
```

```
21 \con@put{-0.707\con@length}{0.707\con@length}{\color{#2}\con@off#3\con@on}%
```

```
22 \con@put{-0.707\con@length}{-0.707\con@length}{\color{#2}\con@off#3\con@on}%
```

22.5°, 67.5°, 112.5°, 157.5° ...:

```
23 \con@put{0.383\con@length}{0.924\con@length}{\color{#2}\con@off#3\con@on}%
```

```
24 \con@put{0.383\con@length}{-0.924\con@length}{\color{#2}\con@off#3\con@on}%
```

```
25 \con@put{-0.383\con@length}{0.924\con@length}{\color{#2}\con@off#3\con@on}%
```

```
26 \con@put{-0.383\con@length}{-0.924\con@length}{\color{#2}\con@off#3\con@on}%
```

```
27 \con@put{0.924\con@length}{0.383\con@length}{\color{#2}\con@off#3\con@on}%
```

```
28 \con@put{0.924\con@length}{-0.383\con@length}{\color{#2}\con@off#3\con@on}%
```

```
29 \con@put{-0.924\con@length}{0.383\con@length}{\color{#2}\con@off#3\con@on}%
```

```
30 \con@put{-0.924\con@length}{-0.383\con@length}{\color{#2}\con@off#3\con@on}%
```

11.25°, 33.75°, 56.25° ...:

```
31 %
```

```
32 \ifx#1\@empty%
```

```
33 \else%
```

```
34 \con@put{0.195\con@length}{0.981\con@length}{\color{#2}\con@off#3\con@on}%
```

```
35 \con@put{0.195\con@length}{-0.981\con@length}{\color{#2}\con@off#3\con@on}%
```

```
36 \con@put{-0.195\con@length}{0.981\con@length}{\color{#2}\con@off#3\con@on}%
```

```
37 \con@put{-0.195\con@length}{-0.981\con@length}{\color{#2}\con@off#3\con@on}%
```

```
38 \con@put{0.981\con@length}{0.195\con@length}{\color{#2}\con@off#3\con@on}%
```

```
39 \con@put{0.981\con@length}{-0.195\con@length}{\color{#2}\con@off#3\con@on}%
```

```
40 \con@put{-0.981\con@length}{0.195\con@length}{\color{#2}\con@off#3\con@on}%
```

```
41 \con@put{-0.981\con@length}{-0.195\con@length}{\color{#2}\con@off#3\con@on}%
```

```
42 \con@put{0.556\con@length}{0.831\con@length}{\color{#2}\con@off#3\con@on}%
```

```
43 \con@put{0.556\con@length}{-0.831\con@length}{\color{#2}\con@off#3\con@on}%
```

```
44 \con@put{-0.556\con@length}{0.831\con@length}{\color{#2}\con@off#3\con@on}%
```

```
45 \con@put{-0.556\con@length}{-0.831\con@length}{\color{#2}\con@off#3\con@on}%
```

```
46 \con@put{0.831\con@length}{0.556\con@length}{\color{#2}\con@off#3\con@on}%
```

```
47 \con@put{0.831\con@length}{-0.556\con@length}{\color{#2}\con@off#3\con@on}%
```

```
48 \con@put{-0.831\con@length}{0.556\con@length}{\color{#2}\con@off#3\con@on}%
```

```
49 \con@put{-0.831\con@length}{-0.556\con@length}{\color{#2}\con@off#3\con@on}%
```

```
50 \fi%
```

```
51 %
```

```
52 \makebox[\width][l]{#3}%
53 }
```

| | | | |
|------|--------------------------|-------------------------------------|--|
| 1.04 | General: Avoid usage of | \contour: Avoid line break of inner | |
| | \textversion etc. 3 | text 5 | |

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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