

# The `pst-light3d` package

version 0.11

A PSTricks package for three dimensional  
lighten effect on characters and PSTricks  
graphics\*

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## **Abstract**

This package allow to add a three dimensional lighten effect on characters (PostScript fonts), using the `PstLightThreeDText` macro, and curves (opened or closed), using the `PstLightThreeDGraphic` macro, with various customization parameters.

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\*Documentation revised by Herbert Voß

## 1 Examples

The word "Test" is rendered in a 3D serif font. The letters are white with a thick black outline. The 3D effect is achieved by having a gray shadow on the left side of each letter, suggesting a light source from the right.


```
1 \DeclareFixedFont{\Bf}{T1}{ptm}{b  
  }{n}{3cm}  
2 \PstLightThreeDText[fillstyle=  
  solid,fillcolor=white]{\Bf Test}
```

The word "Test" is rendered in a 3D serif font. The letters are a solid dark gray. The 3D effect is achieved by having a lighter gray shadow on the left side of each letter.

```
1 \DeclareFixedFont{\Bf}{T1}{ptm}{b  
  }{n}{3cm}  
2 \PstLightThreeDText[linestyle=  
  none,fillstyle=solid, fillcolor=  
  darkgray]{\Bf Test}
```

Two examples of 3D text "Test" are shown. The top "Test" is light green with a black outline and a gray shadow. The bottom "Test" is magenta with a black outline and a gray shadow.

```
1 \psset{linestyle=none,fillstyle=  
  solid,fillcolor=LightGreen}%  
2 \PstLightThreeDText[  
  LightThreeDAngle=0]{\Bf Test  
  }\\[0.5cm]  
3 \PstLightThreeDText[  
  LightThreeDAngle=90]{\Bf Test}
```

Two examples of 3D text "Test" are shown, rotated. The top "Test" is light green with a black outline and a gray shadow, rotated 45 degrees. The bottom "Test" is magenta with a black outline and a gray shadow, rotated 45 degrees.

```
1 \psset{linestyle=none,fillstyle=  
  solid,fillcolor=magenta,}%  
2 \PstLightThreeDText[  
  LightThreeDXLength=0.5,  
  LightThreeDYLenght=-1]{\Bf Test  
  }\\[1cm]  
3 \PstLightThreeDText[  
  LightThreeDXLength=-1,  
  LightThreeDYLenght=0.5]{\Bf Test  
  }
```

123

123

```
1 \DeclareFixedFont{\Sf}{T1}{phv}{b  
   }{n}{3cm}  
2 \psset{linestyle=none,fillstyle=  
   solid,fillcolor=cyan}%  
3 \PstLightThreeDText[  
   LightThreeDColorPsCommand=1.2  
   div setgray]{\Sf 123}\\[1cm]  
4 \PstLightThreeDText[  
   LightThreeDColorPsCommand=2.5  
   div setgray]{\Sf 123}
```

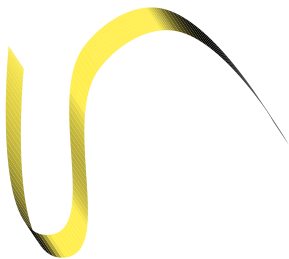
987

987

```
1 \DeclareFixedFont{\Rm}{T1}{ptm}{m  
   }{n}{3cm}  
2 \psset{linestyle=none,fillstyle=  
   solid}%  
3 \PstLightThreeDText[fillcolor=  
   Violet,  
   LightThreeDColorPsCommand=%  
4   2.5 div 0.7 exch 0.8  
   sethsbcolor]{\Rm 987}\\[1cm]  
5 \PstLightThreeDText[fillcolor=  
   DarkGreen,  
   LightThreeDColorPsCommand=%  
6   2 div 0.5 exch 0.2 exch  
   sethsbcolor]{\Rm 987}
```

PSTricks

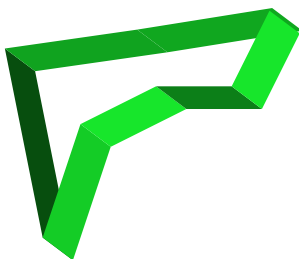
```
1 \DeclareFixedFont{\Rmb}{T1}{ptm}{m}{n}{4cm}  
2 \PstLightThreeDText[linestyle=none,fillstyle=solid,fillcolor=  
   Gold, LightThreeDColorPsCommand=%  
3   1.2 div 0.15 exch 0.7 exch sethsbcolor]{\Rmb PSTricks}
```



```

1 \psset{unit=0.5cm,linestyle=solid,
   fillstyle=none}%
2 \pspicture(-0.1,-3.5)(7.2,3)
3 \PstLightThreeDGraphic[
   LightThreeDXLength=0.4,
   LightThreeDColorPsCommand=%
4   1.2 div 0.15 exch 0.7 exch sethsbcolor
   ]{%
5   \pscurve(0,2)(1,-3)(2,2)(4,3)(7,0)}
6 \endpspicture

```



```

1 \psset{unit=0.5cm,linestyle=solid,
   fillstyle=none}%
2 \pspicture(0,-3.5)(7.7,3)
3 \PstLightThreeDGraphic[
   LightThreeDXLength=0.8,
   LightThreeDColorPsCommand=%
4   2 div 0.35 exch 0.9 exch sethsbcolor
   ]{\pspolygon(0,2)(1,-3)(2,0)(4,1)
   (6,1)(7,3)}
5 \endpspicture

```



```

1 \psset{unit=0.5cm,linestyle=solid,
   fillstyle=none}%
2 \pspicture(0.5,-3.6)(3.8,3)
3 \PstLightThreeDGraphic[
   LightThreeDColorPsCommand=%
4   2.6 div 0.12 exch 0.7 exch sethsbcolor
   ]{\psellipse(2,0)(1.5,3)}
5 \endpspicture

```



```

1 \SpecialCoor
2 \def\PstCoordinates{}%
3 \Multido{\nDistance=0.00+0.02,\iAngle
   =0+20}{200}{%
4   \edef\PstCoordinates{\PstCoordinates(\nDistance;\iAngle)}}
5 \psset{unit=0.5cm}%
6 \pspicture(-3.8,-4)(4.1,3.7)
7 \PstLightThreeDGraphic[LightThreeDLength
   =0.2, LightThreeDColorPsCommand=%
8   1.2 div 0.3 exch 0.7 exch sethsbcolor
   ]{\expandafter\pscurve\PstCoordinates
   }
9 \endpspicture

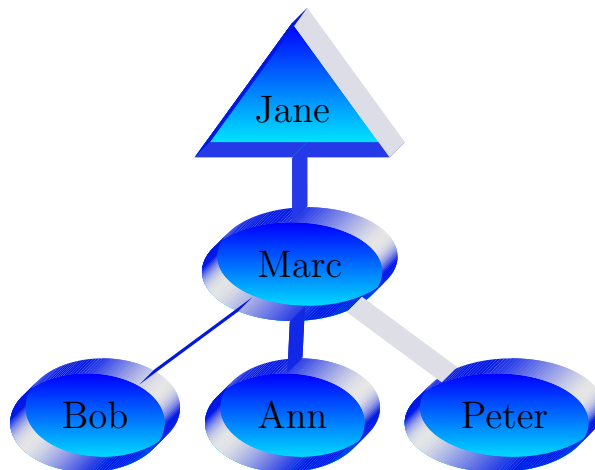
```



```

1 \SpecialCoor
2 \def\PstCoordinates{}%
3 \Multido{\nDistance=0.00+0.02,\iAngle
   =0+20}{200}{%
4   \edef\PstCoordinates{\PstCoordinates(\nDistance;\iAngle)}}
5 \psset{unit=0.5cm}%
6 \pspicture(-3.8,-4)(4.1,3.7)
7 \PstLightThreeDGraphic[LightThreeDLength
   =0.2, LightThreeDAngle=30,
   LightThreeDColorPsCommand=%
8   /Counter Counter 0.00005 add def 2 mul
   Counter exch 0.7 exch sethsbcolor]{
   %
9   \pstVerb{ /Counter 0 def }%
10  \expandafter\pscurve\PstCoordinates}
11 \endpspicture

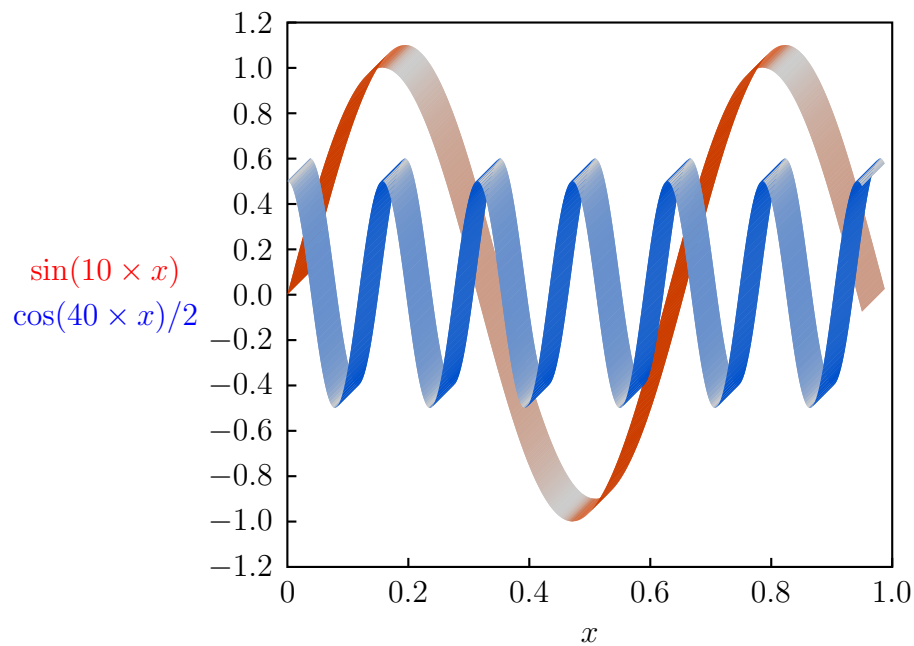
```



```

1 \PstLightThreeDGraphic[LightThreeDXLength=0.2,
   LightThreeDYLength=-0.2, LightThreeDColorPsCommand=%
2   1.2 div 0.65 exch 0.9 sethsbcolor]{%
3   \large \let\TovalORIG\Toval \def\Toval#1{\TovalORIG{\
   raise2mm\hbox{\hskip2mm#1}}}%
4   \let\TtriORIG\Ttri \def\Ttri#1{\TtriORIG{\raise3mm\hbox
   {#1}}}%
5   \psset{framesep=0.15,fillstyle=gradient,gradmidpoint=0,
   gradbegin=cyan,gradend=blue}%
6   \pstree[treesep=0.5]{\Ttri{Jane}} {\psset{framesep=0.25}%
7   \pstree{\Toval{Marc}} {\Toval{Bob}\Toval{Ann}\Toval{Peter
   }}}

```



```

1 \psset{xunit=8cm,yunit=3cm}%
2 \pspicture(-0.45,-1.6)(1,1.3)%
3 \psaxes[Dx=0.2,Oy=-1.2,Dy=0.2,tickstyle=top, axesstyle=frame
  ](0,-1.2)(1,1.2)%
4 \psset{plotpoints=500,LightThreeDXLength=0.3,
  LightThreeDYLength=-0.3}%
5 \PstLightThreeDGraphic[LightThreeDColorPsCommand=1.5 div 0.05
  exch 0.8 sethsbcolor]{%
6   \psplot{0}{0.95}{x 10 mul 57.296 mul sin}}%
7 \PstLightThreeDGraphic[LightThreeDColorPsCommand=1.5 div 0.6
  exch 0.8 sethsbcolor]{%
8   \psplot{0}{0.95}{x 40 mul 57.296 mul cos 2 div}}%
9 \rput(-0.3,0.1){\textcolor{red}{$\sin(10 \times x)$}}%
10 \rput(-0.3,-0.1){\textcolor{blue}{$\cos(40 \times x) / 2$}}%
11 \rput(0.5,-1.5){$x$}%
12 \endpspicture

```