pst-turtle

Turtle graphics; v.0.02

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Contents

pst-turtle loads by default the following packages: pstricks, and pst-xkey. All should be already part of your local TEX installation. If not, or in case of having older versions, go to http://www.CTAN.org/ and load the newest version.
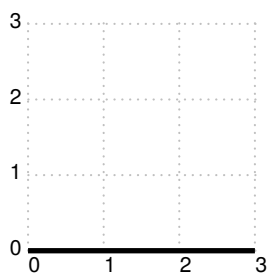
Thanks to

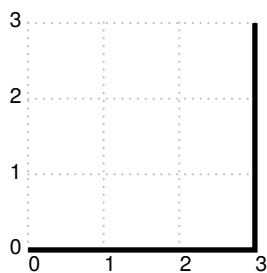## 1 Usage

```
\psTurtle [Options] (x₀, y₀){Turtle code}
```

The turle commands must be in PostScript notation, where you can use the short or long version of the commands:

```
/bk { back } bind def
/fd { forward } bind def
/lt { left } bind def
/pd { pendown } bind def
/pu { penup } bind def
/rt { right } bind def
```
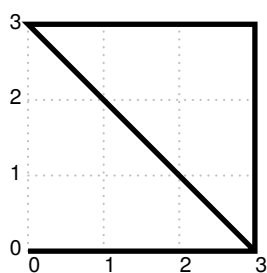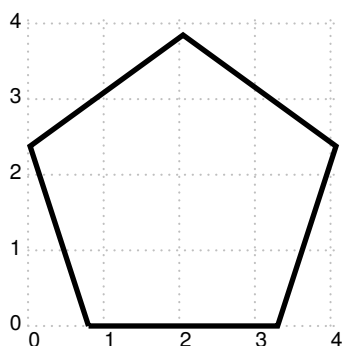
The default unit is cm.

```
\begin{pspicture}[showgrid](3,3)
\psTurtle[linewidth=2pt,arrows=->](0,0){ 3 forward }
\end{pspicture}
```
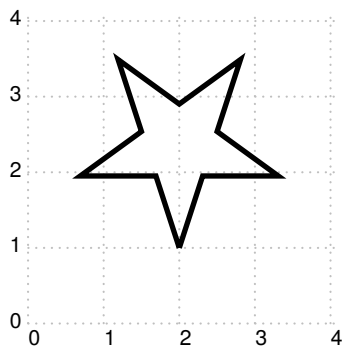
```
\begin{pspicture}[showgrid](3,3)
\psTurtle[linewidth=2pt,arrows=->](0,0){
  3 fd
  90 left 3 fd }
\end{pspicture}
```
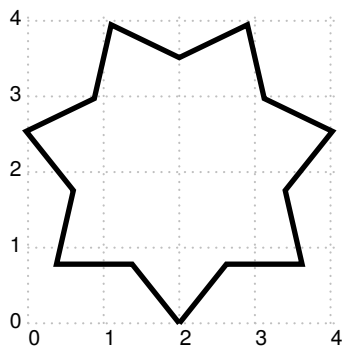
```
\begin{pspicture}[showgrid](3,3)
\psTurtle[linewidth=2pt,arrows=->](0,0){
  3 fd
  90 left 3 fd
  90 left 3 fd
  135 left 18 sqrt fd}
\end{pspicture}
```
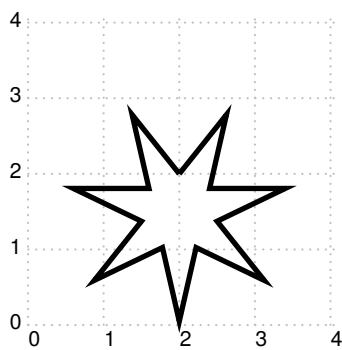
```
\begin{pspicture}[showgrid](4,4)
\psTurtle[linewidth=2pt](0.8,0){
  5 { 2.5 fd 72 left } repeat
}
\end{pspicture}
```
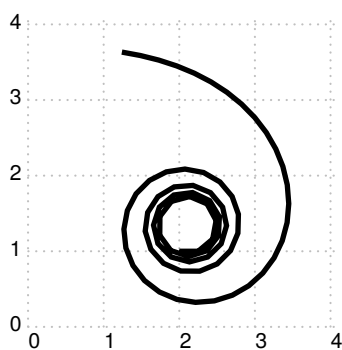
```
\begin{pspicture}[showgrid](4,4)
\psTurtle[linewidth=2pt](2,1){
  5 { 72 left 1 fd 72 right 1 fd 72 left} repeat
}
\end{pspicture}
```

```
\begin{pspicture}[showgrid](4,4)
\psTurtle[linewidth=2pt](2,0){
  /Angle { 360 7 div } bind def
  7 { Angle left 1 fd Angle right 1 fd Angle left} repeat
}
\end{pspicture}
```
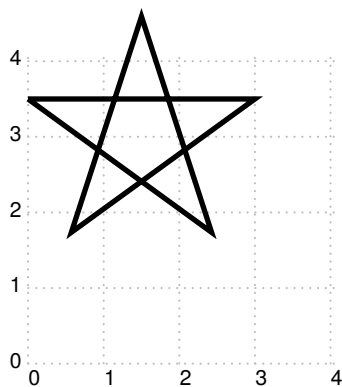
```
\begin{pspicture}[showgrid](4,4)
\psTurtle[linewidth=2pt](2,2){
  /Angle { 360 7 div } bind def
  7 { Angle left 1 fd Angle 3 mul right 1 fd Angle left} repeat
}
\end{pspicture}
```
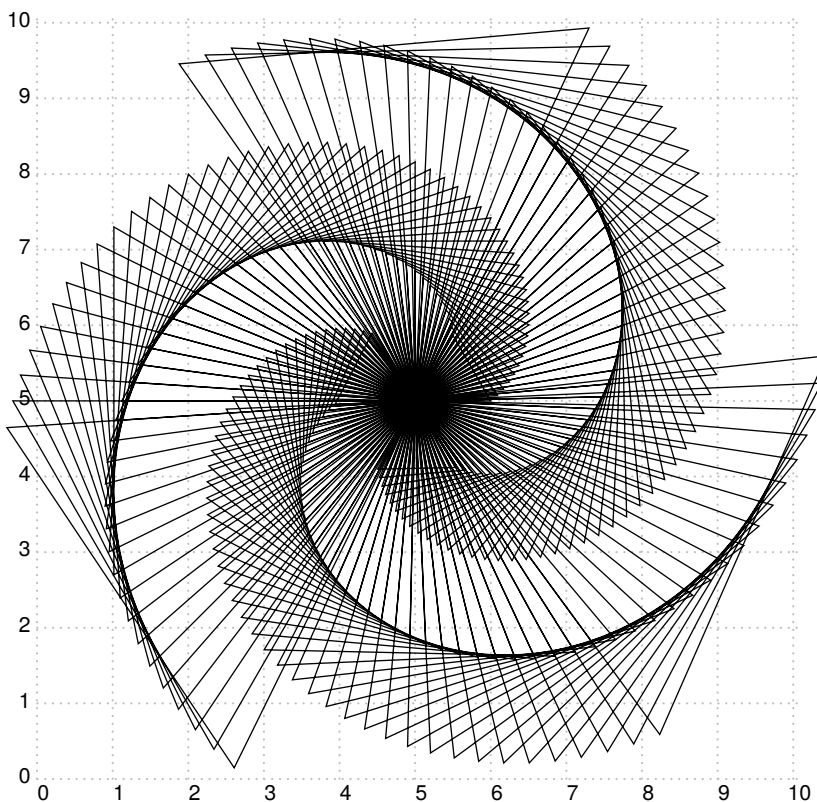
```
\begin{pspicture}[showgrid](4,4)
\psTurtle[linewidth=2pt](2,1){
  /Angle 40 def
  75 { 0.25 fd Angle left /Angle Angle 0.5 sub def } repeat
}
\end{pspicture}
```

```
\begin{pspicture}[showgrid](4,4)
\psTurtle[linewidth=2pt](0,3.5){
  5 { 3 fd 144 right } repeat
}
\end{pspicture}
```
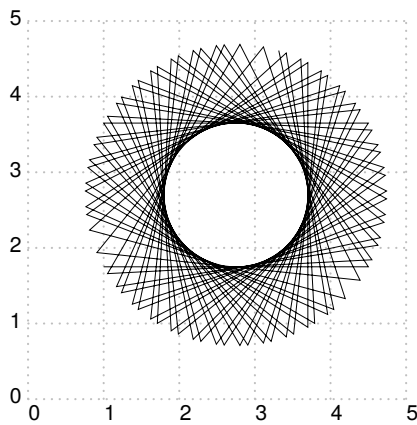
```
\begin{pspicture}[showgrid](5,5)
\psTurtle[linewidth=0.2pt](1,1.75){
  75 { 3.5 fd 123 left } repeat
}
\end{pspicture}
```

```
\begin{pspicture}[showgrid](10,10)
\psTurtle[linewidth=0.5pt](5,5){
 /L 1 def
 150 { L fd 120 left L fd 120 left L fd
       /L L 0.03 add def 1.25 rotate }
       repeat
}
\end{pspicture}
```

References

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      Publishing Company, 2007.

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      (**june** 2002), **pages** 27–34.

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      1989.

[5]   Herbert Voß. "Die mathematischen Funktionen von PostScript". **in***Die TEXnische Komödie*: 1/02 (**march**
      2002).

[6]   Herbert Voß. *pst-tools – Helper functions*. 2012. URL: /graphics/pstricks/contrib/pst-tools.

[7]   Herbert Voß. *PSTricks – Grafik für TEX und LaTEX*. 7 **edition**. Heidelberg **and** Berlin, 2016.

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[12]   Timothy van Zandt. `multido.tex - a loop macro, that supports fixed-point addition`. 1997. URL: /graphics/p
        stricks/generic/multido.tex.

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        ion/PSTricks.

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        /graphics/pstricks/generic/pst-plot.tex.

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