News - 2020
new macros and bugfixes for the basic package.

Herbert Voß

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Contents

Part I.
pstricks – package

1. pstricks.sty – pstricks-pdf.sty

With the package `pstricks-pdf` you can now use

```
pdflatex --shell-escape <file>
```
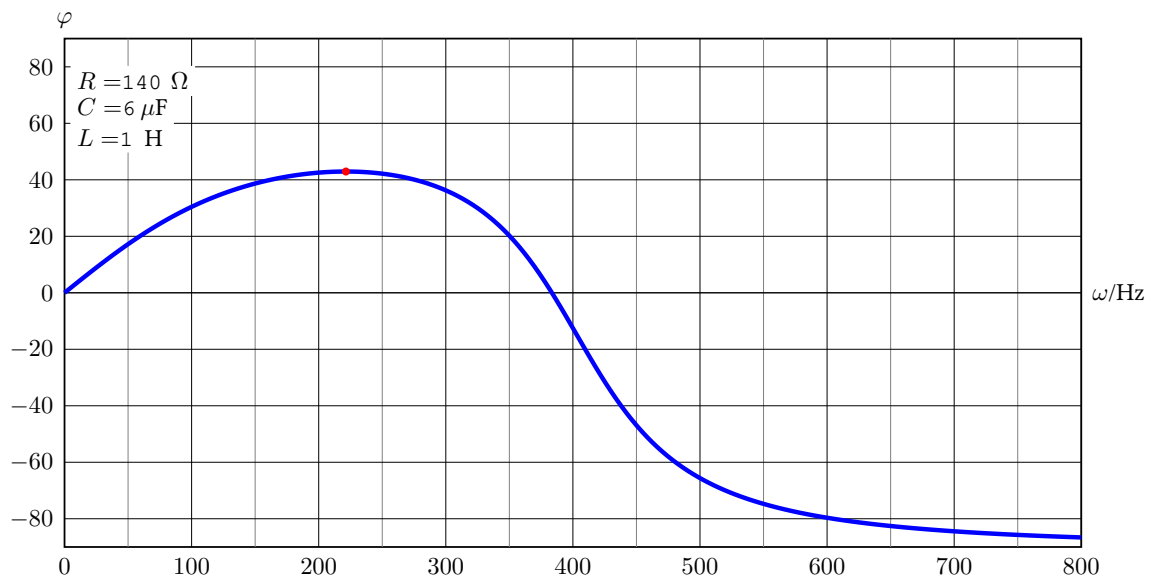
This document was created this way. Remember that you have to use the environment `postscript` if you do not use the environment `pspicture` or a lot of PS-code outside this environment:

```
\begin{postscript}
\pstVerb{/LL 1 def /RR 140 def /CCmy 6 def /RsqC RR dup mul 1000 div CCmy mul 1000 div def
/omegam LL RR div 1000 mul RR div CCmy div 1000 mul 1 sub sqrt RR mul 3 sqrt div LL div def
/phiomegafunc {/omega exch def LL RsqC sub omega CCmy mul 1000 div omega mul 1000 div
    LL mul LL mul sub omega mul dup 0 ge {RR atan}{RR atan 360 sub} ifelse} def
/phimax omegam phiomegafunc def}
\begin{center}
\begin{psgraph}[axesstyle=frame,yAxisLabel=$\varphi$,xAxisLabel=$\omega$/Hz,
      yticksize=0 16cm,xticksize=-90
      90,subticksize=1,Dy=20,Dx=100,xsubticks=2](0,0)(0,-90)(800,90){16cm}{8cm}
```

```
\psplot[linecolor=Blue1,plotpoints=200,linewidth=2pt]{0}{800}{x phiomegafunc}
\uput{0pt}[0](10,75){$R=$\psPrintValue{RR}\hspace{2em}$\Omega$}
\uput{0pt}[0](10,65){$C=$\psPrintValue{CCmy}\hspace{0.75em}$\mu$F}
\uput{0pt}[0](10,55){$L=$\psPrintValue{LL}\hspace{0.75em}\text{H}$}
\pscircle*[linecolor=Red1](!omegam phimax){2pt}
\end{psgraph}
\end{center}
\end{postscript}
```
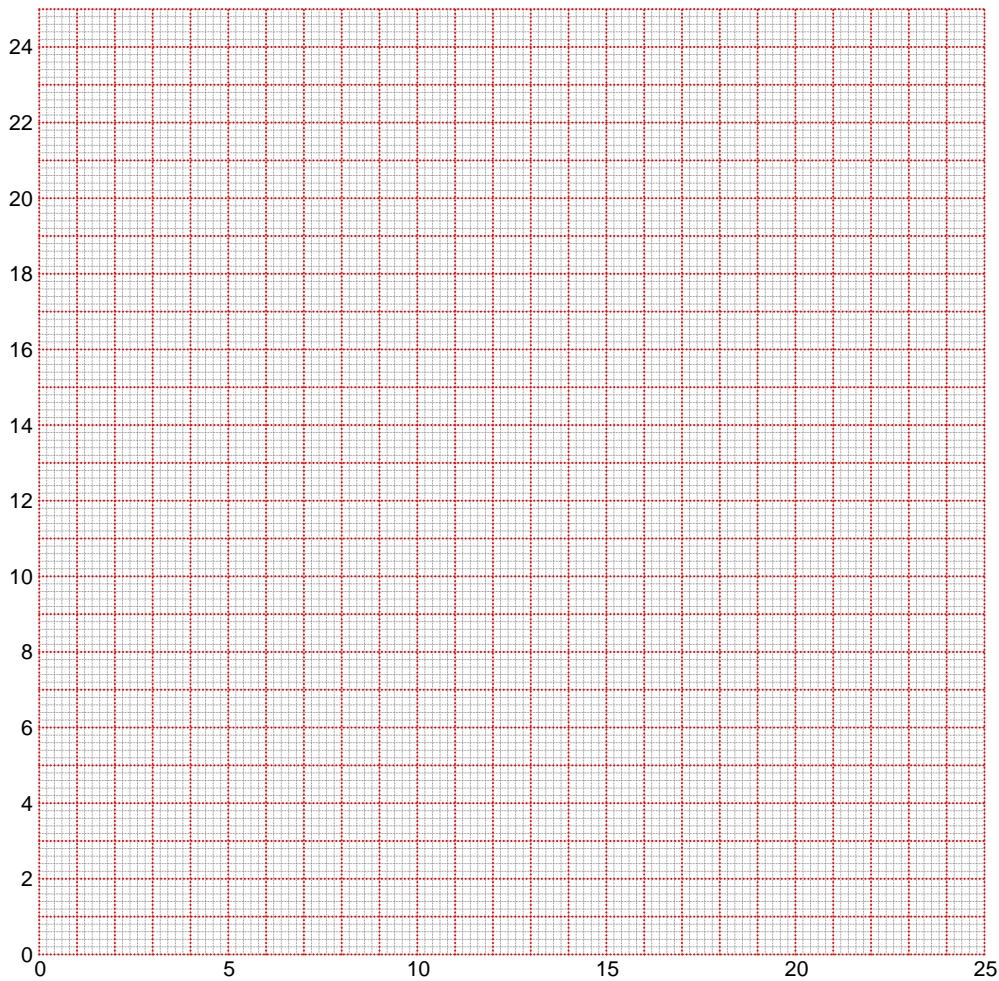

(Example by Poul Riis)

2. `pstricks.tex` (v. 2.99 – 2020/06/09)

New optional arguments `griddx` and `griddy`, which are only valid for `\psgrid`:

```
\psset{unit=5mm}
\newpsstyle{gridstyle}{gridlabels=8pt, gridfont=Helvetica, gridcolor=red,
  subgridcolor=gray, subgriddiv=5, gridwidth=.8pt, subgridwidth=.4pt,
  griddots=10, subgriddots=5,
  griddx=5, griddy=2 }
\begin{pspicture}[showgrid](25,25)
\end{pspicture}
```

3. `pstricks.pro`

The function `Grid` supports GridDX and GridDY.

The current version 1.32 should handle transparency for all Ghostscript versions. For versions > 9.52 you need for `ps2pdf` the optional argument `-dALLOWPSTRANSPARENCY` instead of `-dNOSAFER`, which is still needed if you want to write Postscript files from within the TeX-run.

References

[1] Michel Goosens et al. *The LaTeX Graphics Companion*. 2nd ed. Reading, Mass.: Addison-Wesley Publishing Company, 2007.

[2] Laura E. Jackson and Herbert Voß. "Die Plot-Funktionen von `pst-plot`". In: *Die TeXnische Komödie* 2/02 (June 2002), pp. 27–34.

[3] Nikolai G. Kollock. *PostScript richtig eingesetzt: vom Konzept zum praktischen Einsatz*. Vaterstetten: IWT, 1989.

[4] Herbert Voß. "Die mathematischen Funktionen von Postscript". In: *Die TeXnische Komödie* 1/02 (Mar. 2002), pp. 40–47.

[5]   Herbert Voß. *PSTricks – Grafik für TEX und LATEX*. 7th ed. Heidelberg and Berlin: DANTE – Lehmanns Media, 2016.

[6]   Herbert Voß. *PSTricks – Graphics for LATEX*. 1st ed. Cambridge/UK: UIT, 2011.

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[8]   Herbert Voß. *LATEX Quick Reference*. 1st ed. Cambridge/UK: UIT, 2011.

[9]   Herbert Voß. *LATEX Referenz*. 3rd ed. Heidelberg and Berlin: DANTE – lehmanns media, 2014.

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