Color extensions with the `xcolor` package —
`pstricks` examples

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v3.01 (2023/11/15)

Figure 1: Modified version of an example from the `pstricks` manual; requires `pst-tree`

```
\begin{pspicture}(-0.5,-2)(3,2)
\cnode(0,0){.5cm}{root}
\cnode*[linecolor=red](3,1.5){4pt}{A}
\cnode*[linecolor=red!72.5375!blue](3,0){4pt}{B}
\cnode*[linecolor=red](3,-1.5){4pt}{C}
\psset{nodesep=3pt}
\ncline[linecolor=green!50!red]{root}{A}
\ncline[linecolor=blue]{root}{B}
\ncline[linecolor=-green!50!red]{root}{C}
\end{pspicture}
```

Figure 2: Moving from one color to its complement; requires `pst-slpe`

```
\begin{pspicture}(4,1)
\psframe[fillstyle=slope,
slopeangle=30,
slopebegin=red!72.5375!blue,
slopeend=-red!72.5375!blue](4,1)
\end{pspicture}
```

*This file is part of the `xcolor` distribution which can be downloaded from the CTAN mirrors (macros/latex/contrib/xcolor/) or the homepage www.ukern.de/tex/xcolor.html. Please send error reports and suggestions for improvements to https://github.com/latex3/xcolor/issues.
Figure 3: Explicit color specification via a loop command; requires \texttt{multido}

\begin{verbatim}
\psset{unit=1.75}\
\begin{pspicture}(0,-1)(2,1)
\multido{\rHue=0.00+0.01}{100}\
{\pscircle[linewidth=0.01,
  linecolor={[hsb]{\rHue,1,1}}](1,0){\rHue}}
\end{pspicture}
\end{verbatim}

Figure 4: Color series — modified version of an example from the \texttt{pst-fill} manual; note that the \texttt{\multirput} command does not give the desired result here

\begin{verbatim}
\definecolorseries{sheep}{rgb}{step}{rgb}{.95,.85,.55}{.17,.47,.37}
\resetcolorseries{sheep}
\psset{unit=0.4}
\begin{pspicture}(-3,-6)(0,7.5)
\Multido{\ry=6.0+-1.5}{5}\
{\rput(0,\ry)\Multido{\rHue=0.00+0.01}{100}\
{\pscircle*[\rHue=0.00+0.01,\rdr=1,\rwidth=0.01]{0.12\runit}}}
\end{verbatim}
Figure 5: Interaction with native PostScript code — $\gamma$-corrected wavelengths

\newcount\WL \unitlength.75pt
\def\WaveToPS#1\%
  {\definecolor{tmp}{rgb:wave}{#1}\extractcolorspecs{tmp}\tmpm\tmpc
   \expandafter\WaveToPSi\tmpc,}
\def\WaveToPSi#1,#2,#3,\{
pstVerb{/Red{#1}def /Green{#2}def /Blue{#3}def}}
\def\DisplayBar#1#2\%
  {\linethickness{1.25\unitlength}\WL=360
   \pstVerb{/Gamma{#1}def}
   \multiput(360,#2)(1,0){456}\
       {\WaveToPS{\the\WL}{\color{lambda}\line(0,1){50}}\global\advance\WL1}
   \linethickness{0.25\unitlength}\WL=360
   \multiput(360,#2)(20,0){23}\
       {\picture(0,0)
        \line(0,-1){5}\
        \multiput(5,0)(5,0){3}\{\line(0,-1){2.5}\}\
        \put(0,-10){\makebox(0,0){\the\WL}}\global\advance\WL20
        \endpicture}
   \put(350,#2){\makebox(0,50){[r]{$\gamma$=#1}}}
\pstVerb{/Corr{dup 0 gt {Gamma exp}if}def}
\definecolor[ps]{lambda}{rgb}{Red Corr Green Corr Blue Corr}
\begin{picture}(510,345)(310,-10)
\sffamily\tiny
\DisplayBar{0.4}{0}\%
\DisplayBar{0.6}{70}\%
\DisplayBar{0.8}{140}\%
\DisplayBar{1.0}{210}\%
\DisplayBar{1.2}{280}\%
\end{picture}