Color extensions with the \texttt{xcolor} package — \texttt{pstricks} examples

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Figure 1: Modified version of an example from the \texttt{pstricks} manual; requires \texttt{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 \texttt{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}

\footnote{This file is part of the \texttt{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={\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}
\newcommand*\Sheep{\begin{pspicture}(3,1.5)
\pscustom[liftpen=2,fillstyle=solid,fillcolor=sheep!!+]{\pscurve(0.5,-0.2)(0.6,0.5)(0.2,1.3)(0,1.5)(0,1.5)(0.4,1.3)(0.8,1.5)(2.2,1.9)(3.1,5)(3.2,1.3)(3.6,0.5)(3.4,-0.3)(3,0)(2.2,0.4)(0.5,-0.2))
\pscircle*(2.65,1.25){0.12\psunit}% Eye
\psccurve*(3.5,0.3)(3.35,0.45)(3.5,0.6)(3.6,0.4)% Muzzle
\pscurve(3,0.35)(3,0.1)(3.6,0.05)% Mouth
\pscurve(2.3,1.3)(2.1,1.5)(2.15,1.7)
\pscurve(2.1,1.7)(2.35,1.6)(2.45,1.4)% Ear
\end{pspicture}}
\definecolorseries{sheep}{rgb}{step}[rgb]{0.95,0.85,0.55}{0.17,0.47,0.37}
\resetcolorseries{sheep}
\psset{unit=0.4}
\begin{pspicture}(-3,-6)(0,7.5)
\Multido{\ry=6.0+-1.5}{5}{\rput(0,\ry){\Sheep}}
\resetcolorseries{sheep}
\multirput(-6,-6)(3,0){5}{\Sheep}
\end{pspicture}
\end{verbatim}
Figure 5: Interaction with native PostScript code — γ-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]{\small$\gamma$\,=\,#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}