News – 2021
new macros and bugfixes for the basic package.

September 24, 2021

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Part I. 
\texttt{pstricks} – package

This version of the News was run with \texttt{lua\LaTeX} \textit{without} using Ghostscript. The PDF file was created in a direkt way by Lua. If you want to try it, then look at \url{https://github.com/zauguin/luapstricks}.

By default the dots are now taken from a Type1 version of the font file. For \texttt{lualatex} it uses the OpenType version.

The dot part is now in an own file \texttt{pstricks-dots.tex}.

1. \texttt{pstricks.sty}

The optional argument \texttt{gsfonts} can be used to load only the symbol font from GhostScript. Otherwise the one from URW or the system is used, which is the default.

2. \texttt{pstricks.tex} (v. 3.08 – 2021/09/10)

2.1. Colors

There are two new macros to get the color values:

\begin{verbatim}
\psgetRGBColorValues{<color macro>}
\psgetCMYKColorValues{<color macro>}
\end{verbatim}

An Example:

\begin{verbatim}
\psset{linestyle=red!40}
\psgetRGBColorValues\pslinecolor
1 0.6 0.6
\colorlet{Blue}[cmyk](blue)
\psset{linestyle=Blue!40}
\psgetCMYKColorValues\pslinecolor
0.4 0.4 0 0
\end{verbatim}
2.2. Arrows

There are new arrow types and a new optional argument `tipcolor`:

```latex
\begin{pspicture}[showgrid](4.2,3.25)
\psline{-T>}(0,1)(4,1)
\psline[arrowscale=2]{<}(0,2)(4,2)
\psline[tipcolor=red,arrowscale=2]{<}(0,3)(4,3)
\end{pspicture}
```

`pstricks` defines the following “arrows”:

<table>
<thead>
<tr>
<th>Value</th>
<th>Example</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>&lt;--&gt;</td>
<td></td>
<td>Arrowheads.</td>
</tr>
<tr>
<td>&gt;&gt;-&lt;</td>
<td></td>
<td>Reverse arrowheads.</td>
</tr>
<tr>
<td>&lt;&lt;--&gt;</td>
<td></td>
<td>Double arrowheads.</td>
</tr>
<tr>
<td>&gt;&gt;&gt;&lt;&lt;&lt;</td>
<td></td>
<td>Double reverse arrowheads.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>-</em></td>
<td></td>
</tr>
<tr>
<td>[-]</td>
<td></td>
<td>Square brackets.</td>
</tr>
<tr>
<td>]-[</td>
<td></td>
<td>Reversed square brackets.</td>
</tr>
<tr>
<td>( )</td>
<td></td>
<td>Rounded brackets.</td>
</tr>
<tr>
<td>)-(</td>
<td></td>
<td>Reversed rounded brackets.</td>
</tr>
<tr>
<td>o-o</td>
<td></td>
<td>Circles, centered on endpoints.</td>
</tr>
<tr>
<td><em>-</em></td>
<td></td>
<td>Disks, centered on endpoints.</td>
</tr>
<tr>
<td>oo-oo</td>
<td></td>
<td>Circles, flush to endpoints.</td>
</tr>
<tr>
<td><strong>-</strong>*</td>
<td></td>
<td>Disks, flush to endpoints.</td>
</tr>
<tr>
<td></td>
<td>&lt;&lt;-&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;&gt;&lt;</td>
<td></td>
</tr>
<tr>
<td>h-h</td>
<td></td>
<td>left/right hook arrows.</td>
</tr>
<tr>
<td>H-H</td>
<td></td>
<td>left/right hook arrows.</td>
</tr>
<tr>
<td>v-v</td>
<td></td>
<td>left/right inside vee arrows.</td>
</tr>
<tr>
<td>V-V</td>
<td></td>
<td>left/right outside vee arrows.</td>
</tr>
<tr>
<td>f-f</td>
<td></td>
<td>left/right inside filled arrows.</td>
</tr>
<tr>
<td>F-F</td>
<td></td>
<td>left/right outside filled arrows.</td>
</tr>
<tr>
<td>t-t</td>
<td></td>
<td>left/right inside slash arrows.</td>
</tr>
<tr>
<td>T-T</td>
<td></td>
<td>left/right outside slash arrows.</td>
</tr>
<tr>
<td>&lt;D-D&gt;</td>
<td></td>
<td>curved arrows.</td>
</tr>
<tr>
<td>&lt;D&lt;&lt;D-D&gt;D</td>
<td></td>
<td>curved doubled arrows.</td>
</tr>
<tr>
<td>D&gt;-&lt;D</td>
<td></td>
<td>curved arrows, tip inside.</td>
</tr>
<tr>
<td>&lt;T-T&gt;</td>
<td></td>
<td>curved lines.</td>
</tr>
</tbody>
</table>
With version 3.04 all arrow specific base code is moved to the file pstricks-arrows, which is not of interest for the default user.

2.3. Symbolfont

Use by default the URW or system symbol font for \psdot. This can be changes by using the optional argument gsfons:

\usepackage[gsfonts]{pstricks}

\newif\ifpstGSfonts
\pstGSfontsfalse % or true for using GS font

\input pstricks
...

2.4. Fillstyle penrose

There was a bug if this fillstyle was used together with a line sequence.
One of the best new plays I have seen all year: cool, poetic, ironic . . . proclaimed The Guardian upon the London premiere of this extraordinary play about a Czech director and his actress wife, confronting exile in America.

3. LuaL\LaTeX

Currently one has to use package auto-pst-pdf-1ua if a document with PStricks-code should be run directly with LuaLaTeX, without using GhostScript. This version has experimental basic support for the lua package luapstricks.1ua, available from https://github.com/zauguin/luapstricks.

References