

PSTricks - version 1.10
new macros and bugfixes for pstricks

Herbert Voß*

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Abstract

This new version 1.10 has some minor but important changes; it is not compatible to older versions when using the vertical shift option for the `pspicture` environment.

*Herbert.Voss@perce.de

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1 New and modified option for pspicture

Table 1 shows the two new options for the `pspicture` environment.

Table 1: Optionen der `pspicture`-Umgebung

<i>name</i>	<i>meaning</i>	<i>default</i>
<code>shift</code>	vertical shift	0
<code>showgrid</code>	show grid	false

1.1 `shift`

This option is the known one from older PSTricks version, but now with the usual syntax for options. The `shift` is relative to the height of the defined `pspicture` environment, its lower left corner is by default on the base line. For older versions the shift depends with its value to the baseline, a negative value raised up the `pspicture` box. Now the `shift` option works similar to the known `\raisebox` makro, except that `shift` is relative to the box height. A positive `shift` value raises up the box and vice versa for a negative value.

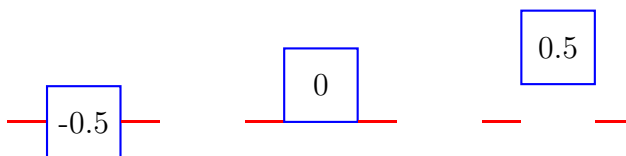


Figure 1: Meaning of the `shift` option

```

1 \textcolor{red}{\rule{5mm}{1pt}}%
2 \begin{pspicture}[shift=0.5](-0.5,-0.5)(0.5,0.5)
3   \psframe[linecolor=blue](-0.5,-0.5)(0.5,0.5)\rput(0,0){-0.5}
4 \end{pspicture}%
5 \textcolor{red}{\rule{5mm}{1pt}}
6 \hspace{1cm}%
7 \textcolor{red}{\rule{5mm}{1pt}}%
8 \begin{pspicture}(-0.5,-0.5)(0.5,0.5)
9   \psframe[linecolor=blue](-0.5,-0.5)(0.5,0.5)\rput(0,0){0}
10 \end{pspicture}\textcolor{red}{\rule{5mm}{1pt}}
11 \hspace{1cm}%
12 \textcolor{red}{\rule{5mm}{1pt}}%
```

```

13 \begin{pspicture}[shift=-0.5](-0.5,-0.5)(0.5,0.5)
14   \psframe[linecolor=blue](-0.5,-0.5)(0.5,0.5)\rput(0,0){0.5}
15 \end{pspicture}%
16 \textcolor{red}{\rule{5mm}{1pt}}

```

1.2 showgrid

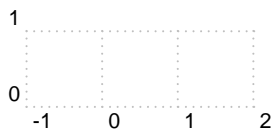
This new version of PSTricks defines internally a special grid style

```

1 \newsstyle{gridstyle}{%
2   subgriddiv=0,gridcolor=lightgray,griddots=10,gridlabels=8pt}

```

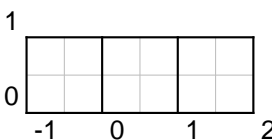
which can be overwritten by the user. This style is only used for the `showgrid` option of the `pspicture` environment. The macro `\psgrid` doesn't use this predefined style and works in the usual way. However, the user can use it like all other self defined styles: `\psgrid[style=gridstyle]`.



```

1 \begin{pspicture}[showgrid=true](-1,0)(2,1)
2 \end{pspicture}

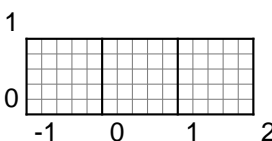
```



```

1 \newsstyle{gridstyle}{%
2   subgriddiv=2,subgridcolor=lightgray}
3 \begin{pspicture}[showgrid=true](-1,0)(2,1)
4 \end{pspicture}

```



```

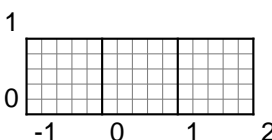
1 \newsstyle{gridstyle}{}
2 \begin{pspicture}[showgrid=true](-1,0)(2,1)
3 \end{pspicture}

```

```

1 \begin{pspicture}(-1,0)(2,1)
2 \end{pspicture}

```



```

1 \begin{pspicture}(-1,0)(2,1)
2   \psgrid
3 \end{pspicture}

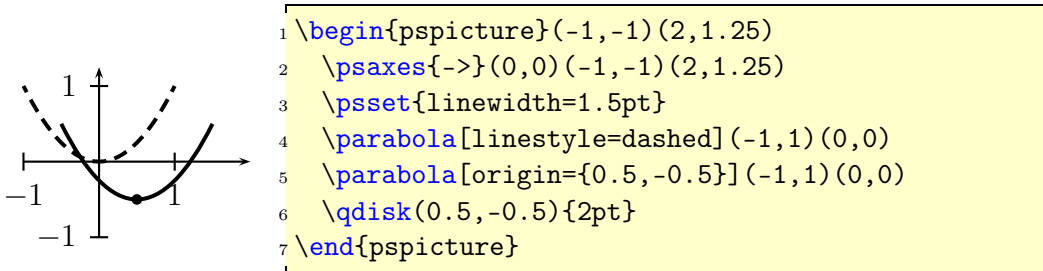
```

Depending to the internal structure of the `pspicture` environment it is not possible to set the `shift` option global by `\psset`, it must always be locally defined with optional part of the parameter, as seen in the above examples.

2 Bugfixes

2.1 origin

There were several mailings in the past to the `origin` option, which worked the other way round than expected. Now the coordinates work relative to the current origin.

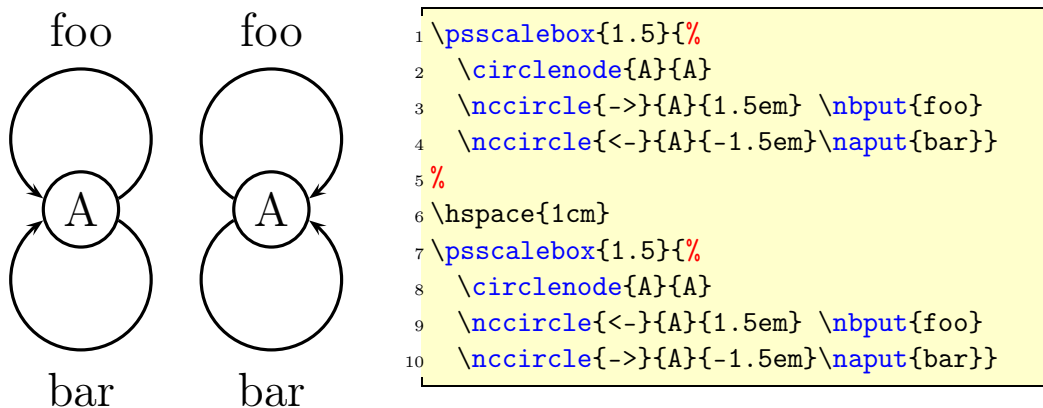


2.2 Empty parameter

To prevent some problems with empty arrow definitions in macros like `\psline[...]{...}`, which makes no sense, but should be possible, there is now a check before setting the values.

2.3 \nccircle

With some modification to `\psarciv` it is now possible to get the loops in any direction and above or below the node.



2.4 `\psscalebox` and `\psscaleboxto`

To prevent clashes with the `graphicx` package, which also defines a `\scalebox` macro with different syntax, `PSTricks` now defines `\psscalebox` and `\psscaleboxto`. For some compatibility reasons the old names are still supported. With the new names it doesn't matter if `pstricks` is loaded before or after `graphicx`.