Subject: Vector symbol
Posted by snfinder@naver.com on Sun, 05 Feb 2006 08:48:23 GMT
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Hi~ all~!

I need to express v vector on y-title.
(Vector representation when we handwrite it on the paper)
I know textoidl. But I could not display the charater through it.
Please let me know how to express that special character.

Thank you~

like this~

```
---------->
v           v
 v         v
  v       v
   v     v
    v v
     v
```

I think textoidl is not enough to express all that I want.
Is there any better procedure to express special character?
And where can I learn the method to plot that characters?
Please let me know any website or book~~

Best wishes, [*_*]

Subject: Re: Vector symbol
Posted by Maarten[1] on Mon, 06 Feb 2006 11:18:48 GMT
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Paolo Grigis wrote:
> Maarten Sneep wrote:
>> Since you already seem to know (La)TeX, you may be able to use psfrag
>> to postprocess the eps output from IDL, using the full (La)TeX for the
>> labels.
>
> After reading this post I tried it out, because there are many situations
> where this might be a valuable addition for a plot, but I have mixed
> feelings about that... the application of psfrags to IDL plots is not
> 100% straigthforward (a bit of editing of the EPS file itself often

> required) and it bothers me that I have to embed the original plot in a LaTeX
> document to have the final version. Is there a simple way of producing an
> eps file (with the same size as the original plot) from the dvi output of
> a LaTeX file containing just the original plot and the psfrag substitution
> commands?

Warning: getting offtopic. Furter question are better directed to
comp.text.tex

Tip 1: use single letter labels in IDL: this makes it a lot easier to
generate the substitution text. Also ensure that you use hardware fonts
(say, times) in your plot. Numbers along the axis can be a bit more
painful, although if you ensure that the values are scaled to a range
where exponents are not needed, you'll probably be just fine (just add
the scale factor to the axis label).

Tip 2: The following latex file may help:

```
\documentclass{article}
\usepackage{geometry}
\usepackage{graphicx}
\usepackage{psfrag}

\pagestyle{empty}
\geometry{paperwidth=12cm,paperheight=8cm,margin=0pt}
\begin{document}
% define labels here
\includegraphics[width=12cm,height=8cm]{figure.eps}
\end{document}
```

Adapt sizes to your liking, make sure the lines you use in IDL are
thick enough.

Process with
    latex
and
    dvips -o figure-labeled.eps figure.dvi

This should produce a ps file with width 12 cm and height 8 cm. Convert
to pdf ans used with pdflatex as you please, although I think the ps
outout can be included with latex+dvips as well (despite teh fact that
it isn't eps). The -E flag may be interesting for dvips as well.

Maarten

Subject: Re: Vector symbol
Posted by Paolo Grigis on Mon, 06 Feb 2006 15:15:59 GMT

Maarten wrote:
> Paolo Grigis wrote:
>
>> Maarten Sneep wrote:
>>
>>> Since you already seem to know (La)TeX, you may be able to use psfrag
>>> to postprocess the eps output from IDL, using the full (La)TeX for the
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>> After reading this post I tried it out, because there are many situations
>> where this might be a valuable addition for a plot, but I have mixed
>> feelings about that... the application of psfrags to IDL plots is not
>> 100% straigthforward (a bit of editing of the EPS file itself often
>> required) and it bothers me that I have to embed the original plot in a LaTeX
>> document to have the final version. Is there a simple way of producing an
>> eps file (with the same size as the original plot) from the dvi output of
>> a LaTeX file containing just the original plot and the psfrag substitution
>> commands?
>
>
> Warning: getting offtopic. Furter question are better directed to
> comp.text.tex
Oh yes, but since the people in this newsgroup are so kind...

>
> Tip 1: use single letter labels in IDL: this makes it a lot easier to
> generate the substitution text. Also ensure that you use hardware fonts
> (say, times) in your plot. Numbers along the axis can be a bit more
> painful, although if you ensure that the values are scaled to a range
> where exponents are not needed, you'll probably be just fine (just add
> the scale factor to the axis label).
Agreed on that, works well with [c] as positional parameter in the \psfrag
command.

>
> Tip 2: The following latex file may help:
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> \usepackage{geometry}
> \usepackage{graphicx}
> \usepackage{psfrag}
>
> \pagestyle{empty}
> \geometry{paperwidth=12cm,paperheight=8cm,margin=0pt}
> \begin{document}
> % define labels here
> \includegraphics[width=12cm,height=8cm]{figure.eps}
> \end{document}

Thanks Maarten, the geometry package is the one I was missing!

Ok, now I've become a true believer, one can indeed get very nice
results going the psfrag way.

In the end I settled for using something like:

latex doc.tex

dvips -o fig.ps doc.dvi

ps2epsi fig.ps fig.epsi

perl -ne 'print unless /^%%BeginPreview/../^%%EndPreview/' < fig.epsi > fig.eps

rm fig.epsi

This uses ps2epsi to handle the final ps->eps transformation
(I found the perl statement somehwere on the web, it just removes
the embedded *preview* in the eps file, which is not just useless,
but really dangerous, since some windows programs seems to mistake
it for the *real* picture...)

I've put a dummy example online at

http://www.astro.phys.ethz.ch/staff/pgrigis/private/fig.eps

which shows the kind of results one can get without *too much* effort
(well, after getting used to it), and it indeed looks nicer than anything
one could conjure up using the Herschey fonts.

Thanks again,
Paolo

>
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> thick enough.
>
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> and
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>

> Maarten
>