Subject: Re: Line plot with arrows
Posted by Russell[1] on Thu, 22 Sep 2011 19:37:32 GMT

On Sep 22, 11:20 am, Robin Wilson <ro...@rtwilson.com> wrote:
> Hi all,
>
> I'm trying to use IDL (and specifically David's Coyote Graphics system)
> to plot a line graph showing the passage of rays of light through a
> modelled atmosphere. I can easily get the data out to plot a simple line
> graph which joins up the points that the ray passed through, but I want
> to be able to put arrows on the lines so that it can be seen which
> direction the light is going.
>
> Is there any (relatively easy) way to put arrows on lines in a line plot
> in IDL? Ideally I'd like to replace each segment of line with an arrow,
> but I guess I could have arrows just at each point instead. For the
> latter I would think of overplotting some points, but I'd need to rotate
> the arrows correctly each time, and I've no idea how to do that.
>
> Any ideas?
>
> Robin
>
> P.S. David - working on your review now (using the book as a reference
> for programming today to test it out!)
> ------------------
> Robin Wilson
> A PhD student studying complexity in remote sensingwww.rtwilson.com/academic

Hi Robin.

If I understand you correctly, you have a bunch of data (I'll call
them x and y) which have vector directions associated with them (call
them dx and dy). And you want to plot little arrows, where the tail
of the arrow is at (x,y) and the length and direction of the arrow is
somehow related to (dx,dy). Correct? If so then have a look at
velovect.pro

 http://physics.nyu.edu/grierlab/idl_html_help/V5.html#wp7875 71

Good luck, Russell

Subject: Re: Line plot with arrows
Posted by Fabzou on Mon, 26 Sep 2011 09:58:18 GMT

Hi,

I think that PARTVELVEC from the IDL Astro Lib is more adapted.

http://idlastro.gsfc.nasa.gov/ftp/pro/plot/partvelvec.pro

Via the /DATA keyword, you may place your arrows the way you want to,
but this may be a bit tricky regarding the directions, I don't know how
PARTVELVEC may react in /DATA space... But probably pretty good I am sure.

The major problem with VELOVECT is that it exepects you to plot nice
regular 2-D Grids, which is probably not the case here.

Besides, PARTVELVEC is highly CG compatible ;)

Fabz

On 09/22/2011 09:37 PM, Russell wrote:
> On Sep 22, 11:20 am, Robin Wilson<ro...@rtwilson.com> wrote:
>> Hi all,
>>
>> I'm trying to use IDL (and specifically David's Coyote Graphics system)
>> to plot a line graph showing the passage of rays of light through a
>> modelled atmosphere. I can easily get the data out to plot a simple line
>> graph which joins up the points that the ray passed through, but I want
>> to be able to put arrows on the lines so that it can be seen which
>> direction the light is going.
>>
>> Is there any (relatively easy) way to put arrows on lines in a line plot
>> in IDL? Ideally I'd like to replace each segment of line with an arrow,
>> but I guess I could have arrows just at each point instead. For the
>> latter I would think of overplotting some points, but I'd need to rotate
>> the arrows correctly each time, and I've no idea how to do that.
>>
>> Any ideas?
>>
>> Robin
>>
>> P.S. David - working on your review now (using the book as a reference
>> for programming today to test it out!)
>> ------------------
>> Robin Wilson
>> A PhD student studying complexity in remote sensingwww.rtwilson.com/academic
>
> Hi Robin.
>
> If I understand you correctly, you have a bunch of data (I'll call
> them x and y) which have vector directions associated with them (call

> them dx and dy). And you want to plot little arrows, where the tail
> of the arrow is at (x,y) and the length and direction of the arrow is
> somehow related to (dx,dy). Correct? If so then have a look at
> velovect.pro
>
> http://physics.nyu.edu/grierlab/idl_html_help/V5.html#wp7875 71
>
> Good luck, Russell