Subject: Plotting Velocity Vectors - More Help
Posted by gnaa38 on Fri, 09 Jul 1993 11:08:58 GMT
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Thanks to all the people who replied to my first posting but im still having trouble trying to emulate my Fortran/Gino program with IDL/PVWave.
I will try to elaborate a bit. The original program is actually very simple.

I have an existing Fortran/Gino program that i am using to plot velocity vectors.
I also have an evaluation copy of IDL & PV-Wave and am trying to rewrite the original program.
Im not sure how to emulate part of my program however and wonder if anyone can advise.
My vectors need arrows to show direction and velocity. I achieve this in the Fortran program by scaling the vectors appropriately. This gives me two sets of X and Y coordinates. The second set are calcaulated by adding the scaling.
I then plot the vectors by moving to the first set of X and Y's and then using the Gino Arrow command to draw an arrow to the second set of X and Y's. This gives me the required direction, and the speed is represented by the length of the arrow.
If this can be done in PV-Wave i'd be greatful to know how.

Here is the above mentioned Fortran Code.

```
 DO 110 INDEX=1,N
       CALL GRAMOV(X(INDEX),Y(INDEX))
 C  scale the velocity vectors so the longest is 10mm
  X2=X(INDEX) + (U(INDEX) / VMAGMAX) * (10.0 * SCAL)
  Y2=Y(INDEX) + (V(INDEX) / VMAGMAX) * (10.0 * SCAL)
  CALL ARROW(X2,Y2,2,1)
 110 CONTINUE
```

Here is a small sample of the data file.

```
 ********************************************************** ******************
Test: BVI P7491 UPPER
Approx. Tunnel Speed: 47 m/s
Vortex Strength: 6.7 m^2/s
Notes: Approximate starburst correction

 ********************************************************** ******************
      X(mm)        Y(mm)        Ux(mm/s)       Vy(mm/s)
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```

-251.828500	-4.391304	1142.694000	100.049300
-241.181200	-8.326087	1027.821000	-74.817380
-242.475700	-1.760869	1129.224000	-589.092300
-218.775100	1.086959E-01	2868.505000	1196.826000
-212.658600	-5.434780E-01	4546.877000	-684.455100

Any help will be greatly appreciated.

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