
Subject: Overplot non-gridded vector data on map using MSVELOVECT.pro

Posted by [Tyler](#) on Tue, 06 Nov 2007 00:55:16 GMT

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Hello All:

I am attempting to plot some GPS station velocity vectors over some existing data on a map. I found the MSVELOVECT procedure which seems to do what I want. However, I am struggling to understand how to use it. In particular, how to set up the velocity vectors, U & V.

The data I have is:

- 1) GPS station LON/LAT values
- 2) East magnitude of velocity
- 3) North magnitude of velocity

The program requires the velocity data be in 2-D, but I am unsure what the first dimension value is or the second dimension. Does anyone know how to use this?

I have provided below a snippet of how I tried to set up the data by fooling it with a data vector for U & V, but it was smarter than me.

Or am I using the wrong program altogether?

Any help is greatly appreciated.

Cheers,

t.

```
IF (zc EQ 0) THEN BEGIN
  U = FLTARR(long(NV), 1, /NO)
  V = FLTARR(long(NV), 1, /NO)
  X = FLTARR(long(NV), /NO)
  Y = FLTARR(long(NV), /NO)

  ;; Northern Section
  ;; East Velocity
  U(0,0) = -2.44
  U(1,0) = -1.82

  ;; North velocity
  V(0,0) = 2.66
  V(1,0) = 2.11

  ;; GPS Station Lon
```

```
X(0) = -123.8352
X(1) = -123.0747

;; GPS Station Lat
Y(0) = 39.7769
Y(1) = 38.9952
;; Overplot the GPS data
MSVELOVECT, U, V, X, Y, COLOR = !P.COLOR, /OVERPLOT
ENDIF
```
