Subject: Plotting a long vector on PV-WAVE
Posted by Christos Siopis on Mon, 01 Dec 1997 08:00:00 GMT
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Greetings,

I have a long real-number vector (of more than 10,000 elements) that I would like to plot (e.g., versus time). However, if I plot the whole thing the display gets crammed... The best way I can think of to view the data is to see it as a time series: plot only a few data points at a time and "pan" (scroll) the viewing window to the right.

I tried to do something like that, using the Z buffer to avoid the flickering, but the program runs very slow (it takes about 1/3 or 1/2 of a second between consecutive frames on a Pentium/Linux machine). Is this normal? Here is the procedure I used (PV-WAVE):

```
PRO pan, x, n, win, stp

  ; x   = fltarr(n)
  ; n   = number of datapoints (e.g., 10000)
  ; win = viewing window size (e.g., 100 data points at a time)
  ; stp = how much to shift to the right between successive
  ;       snapshots (e.g., 10)

  thisdev = !D.Name
  for i = 0, n-win-1 do begin
    set_plot, 'z'
    plot, x(i:i+win), psym=-2
    snap = tvrd(0,0,640,512)
    set_plot, thisdev
    tv, snap
    if (get_kbrd(0) ne "") then return
  endfor
END
```

What's also funny is that the "TV, snap" command worked instantaneously on a low-end Sun workstation but it would need half a second or more to "unroll" on a much faster DEC Alpha machine. Could it be that the Alpha's display holds more information?

Thank you,
Christos
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