Subject: Re: How to make this work? Oplot question.
Posted by rmmoss on Wed, 02 Aug 1995 07:00:00 GMT
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In article <1995Aug2.161654.29779@news.wrc.xerox.com>, jeyadev@kaveri (Surendar Jeyadev) writes:
|> I would greatly appreciate if someone can give me a hint on how to
|> accomplish the following task in PV Wave.
|>
|>
|> x = findgen(100)/10.0 x = findgen(100)/10.0
|> y = exp(-0.1*x)*sin(4*x)
|> plot, x, y ; plot decaying sin in !d.window=0
|>
|> wset, 1
|> y = exp(0.1*x)*cos(4*x)
|> plot, x, y ; plot rising cos in !d.window=1
|>
|> wset, 0
|> oplot, x, 0.1*x ; plot straight line in !d.window=0
|>
|> end
|>
|> So, the question is, can I accomplish what I would like to do in a
|> simple way. Or do I have to store the scaling information for window "0"
|> and set that each time I return to it? Unfortunately, the scale factors
|> are vastly different for the two windows.
|>
|> Thanks
|> --
|>
|> Surendar Jeyadev jeyadev@wrc.xerox.com

Yep, saving the plotting system variables is exactly what you do. Its not that bad, however. The following simple-minded way will suffice.

```
x = findgen(100)/10.0
y = exp(-0.1*x)*sin(4*x)
plot, x, y

;save the settings
pstate0 = !P
xstate0 = !X
ystate0 = !Y
zstate0 = !Z

wset, 1
y = exp( 0.1*x)*cos(4*x)
```

```
plot, x, y

;save new settings
pstate1 = !P
xstate1 = !X
ystate1 = !Y
zstate1 = !Z

;now proceed to overplot at will :)

wset, 0

;restore old settings
!P = pstate0
!X = xstate0
!Y = ystate0
!Z = zstate0

oplot, x, 0.1*X
```

etc, etc. As usual, there are more complicated ways of doing this, but you get the idea ;)

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Subject: Re: How to make this work? Oplot question.
Posted by korpela on Thu, 03 Aug 1995 07:00:00 GMT
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In article <1995Aug2.161654.29779@news.wrc.xerox.com>,
Surendar Jeyadev <jeyadev@kaveri> wrote:
> I would greatly appreciate if someone can give me a hint on how to
> accomplish the following task in PV Wave.

I wrote a little routine to do what you want. (I use IDL, so it may not be perfect in PV Wave, but it should work) As long as you use less than 10 windows, it should work without modification.

```
>
>       x = findgen(100)/10.0
>       y = exp(-0.1*x)*sin(4*x)
>       plot, x, y              ; plot decaying sin in !d.window=0
      savestate
>
```

```
>       wset, 1
>       y = exp(0.1*x)*cos(4*x)
>       plot, x, y                ; plot rising   cos in !d.window=1
       savestate
>
>       wset, 0
       restorestate
>       oplot, x, 0.1*x           ; plot straight line in !d.window=0
>
>       end
```

Here are the routines

```
pro savestate
common savestates,pstate,xstate,ystate,zstate,setpstate
if not(keyword_set(setpstate)) then begin
  pstate=replicate(!p,10)
  xstate=replicate(!x,10)
  ystate=replicate(!y,10)
  zstate=replicate(!z,10)
  setpstate=1
endif
n=!d.window
pstate(n)=!p
xstate(n)=!x
ystate(n)=!y
zstate(n)=!z
end
```

```
pro restorestate
common savestates,pstate,xstate,ystate,zstate,setpstate
if not(keyword_set(setpstate)) then begin
  pstate=replicate(!p,10)
  xstate=replicate(!x,10)
  ystate=replicate(!y,10)
  zstate=replicate(!z,10)
  setpstate=1
endif
n=!d.window
!p=pstate(n)
!x=xstate(n)
!y=ystate(n)
!z=zstate(n)
end
```

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Eric Korpela | An object at rest can never be
korpela@ssl.berkeley.edu | stopped.
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