Subject: Re: Flipping and combining plots
Posted by Don J Lindler on Fri, 24 May 2002 13:52:44 GMT
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Try the updated code below where the x and y axes are switched
it the call to plot and the PSYM=10 is done by dupplicating the x and y
values.
Also, the first plot was modified to not label the last x-axis value so that
it
does not overlap the first label of the second plot.

Don Lindler
lindler@rockit.gsfc.nasa.gov

```
pro test                        ;Combine a scatter + Y histogram plot
x = indgen(100)                 ;X axis
y = abs(randomn(seed,100)*10)     ;Create scattered Y data
xdivide = 0.7    ;Scatter plot is 0.7 of X plot area, histogram plot is 0.3
plot,x,y,/nodata,xtick_get=v   ;Set up plotting coordinates but don't plot

;Get left and right margins in normalized coordinates
 margins = [min(!x.window)-min(!x.region), $
           min(!y.window)-min(!y.region),  $
           max(!x.region)-max(!x.window),  $
           max(!y.region)-max(!y.window)]

;Get total plot size

 ysize = 1. - margins[1] - margins[3]
 xsize = 1. - margins[0] - margins[2]


;Set up plot position for scatter plot

 pos = [0,0,xdivide*xsize,ysize] +  $
             [margins[0],margins[1],margins[0],margins[1]]

  plot,x,y,psym=1,pos=pos,xtickname=[replicate('',n_elements(v )-1),' ']

;Now set up plot position for (rotated) histogram plot, flip X and Y values

 Pos = [ xdivide*xsize,0,xsize,ysize] + $
       [margins[0],margins[1],margins[0],margins[1]]

 h = histogram(y,min=!Y.crange[0],max = !Y.crange[1])   ;Histogram of Y
values
 n = !Y.crange[1] - !y.crange[0]
 xx = !Y.crange[0] + indgen(n)    ;Xrange for histogram
```

```
 xx = [transpose(xx)-0.5,transpose(xx)+0.5]
 yy = [transpose(h),transpose(h)]
 plot,yy,xx,yrange = !y.crange,ystyle=1,ytickname=[' ',' ','
'],yticks=2,/noerase, $
   pos = pos
 return
 end
```

"Wayne Landsman" <landsman@mpb.gsfc.nasa.gov> wrote in message
news:3CED0A80.950535C2@mpb.gsfc.nasa.gov...
>
> I want to create an X-Y scatter plot, and have an associated plot of the
> Y
> histogram values placed snug next to it. This means that the
> histogram plot needs to be flipped 90 degrees so that the (original)
> X-axis of
> the histogram is snug against the right Y axis of the scatter plot.
> My
> approach has been to use the /XYEXCH keyword of the T3D procedure to
> flip the X
> and Y axis. This seems to work O.K. but the plot annotation now looks
> correct
> only if viewed through a mirror (for !P.FONT=-1 or 1) or is not
> positioned
> correctly (for !P.FONT = 0). I suppose that I could suppress the
> annotation and then rewrite it myself without the T3D keyword present.
>