

FERRET TIPS

1.Using/showing Dataset:

USE [filename]

ex:

USE "temp.nc"

SHOW DATA

2.Layout setting

SET VIEWPORT [option]:

option: UL: set view port in upper left; UR: set view port in upper right;

LL: set view port in lower left; LR: set view port in lower right

FULL: all creen area

ex:

SET VIEWPORT UL

SET VIEWPORT LR

SET VIEWPORT LEFT

SET VIEWPORT RIGHT

DEFINE VIEWPORT/XLIMITS=.5:1/YLIMITS=.5:1.0 V1

DEFINE VIEWPORT/XLIMITS=0.:1/YLIMITS=.0:0.5 V2

SET VIEWPORT V1 or V2

CANCEL VIEWPORT V1 or V2 #go back to default

3.Plotting data

SHADE 2D-variable-name[I,J,K=...]

PLOT 1D-variable-names[I,J,K=...]

ex:

SHADE CARBON_SLOW[I=1:100, J=1:100, K=@SUM, L=1]

PLOT CARBON_SLOW[I=@SUM, J=@SUM, K=@SUM], CARBON_ACTIVE[
I=@SUM, J=@SUM, K=@SUM], ...

4.Plotting the same variable from different datasets

PLOT variable[d=1], variable[d=2], ...

ex:

PLOT, CARBON_SLOW[I=@SUM, J=@SUM, K=@SUM, d=2]

5.Setting color bar level with SHADE method

SHADE/LEV=(min,max,del) 2D-variable-name

ex:

SHADE/LEV=(0.0, 4.0, 0.1) LAI[I=1:100, J=1:100, K=5, L=1]

PLOT/VLIMIT=0.1:0.5:0.1 LAI

6.Overlap plot with two axis

GO LEFT_AXIS_PLOT 1-D-vaiaable-name[L=1:n]

GO RIGHT_AXIS_PLOT 1-D-vaiaable-name[L=1:n]

ex:

GO LEFT_AXIS_PLOT FLUXNET[I=@SUM, J=@SUM]

```
GO RIGHT_AXIS_PLOT FLUXSOIL[ I=@SUM, J=@SUM]
```

7. Setting Europe Region with SHADE method

```
SHADE/X=10W:30E/Y=35N:75N 2D-variable-names
```

ex:

```
SHADE/X=10W:30E/Y=35N:75N LAIPIX
```

```
SET VIEWPORT UL; SHADE/X=-10E:30 /Y=35N:75N GPP[k=49]*365; SET  
VIEWPORT UR;  
SHADE/X=-10E:30 /Y=35N:75N  
GPP[k=50]*365; SET VIEWPORT LL; SHADE/X=-10E:30 /Y=35N:75N GPP[k=51]*365;  
SET VIEWPORT LR; SHADE/X=-10E:30 /Y=35N:75N GPP[k=52]*365; PPL SHASET  
RESET
```

8. Scatter plot

```
PLOT/VS var1,var2
```

```
PLOT/I=1:10/J=1:30/VS var1,var2
```

9. Overlap symbol

```
PLOT/OVER//SYMBOLS=2/COL=red var1
```

10. user define PALETTE

```
setenv FER_PALETTE "$FER_PALETTE your_local_path_for_the_spk_file"
```

check Palette loaded

```
rainbow_white.spk
```

```
0.0 95.0 95.0 95.0
```

```
10.0 30.0 20.0 100.0
```

```
33.0 0.0 60.0 30.0
```

```
66.0 100.0 100.0 0.0
```

```
90.0 100.0 0.0 0.0
```

```
100.0 90.0 0.0 0.0
```

```
#load color palette in ferret
```

```
PALETTE rainbow_white
```

```
PALETTE modulo
```

```
show avariable palette
```

```
"Fpalette ""
```

11. set the horizontal/vertical plot range

```
PLOT/ HLIMITS=low:hi:del /VLIMITS=low:hi:del
```

12. Multiple Axis plots

```
go left_axis_plot v1, v2...
```

```
go right_axis_plot v1, v2...
```

13. Labeling the text

```
LABEL xpos, ypos, justify, rotate, height "text"
```

LABEL ,,-1,0, 0.5 "text A" (unit in inch)

LABEL "text" --> use mouse to define the other plot parameters

14. Irregular Coordinate

Shade/Contour/Fill

SHADE Tair[I,J], NAV_LON[I,J], NAV_LAT[I,J]

15. /TRANPOSE

16. !!Define Viewport to plot separate sub-caption

define view/x=0.05:0.55/y=0.5:0.9 v1

define view/x=0.55:0.95/y=0.5:0.9 v2

define view/x=0.05:0.55/y=0.1:0.5 v3

define view/x=0.55:0.95/y=0.1:0.5 v4

17. !!!Set the region to plot data:

set region/x=70e:170e/y=5n:55n !!! Asia

set region/x=-180e:180e/y=-180n:180n !!! Global

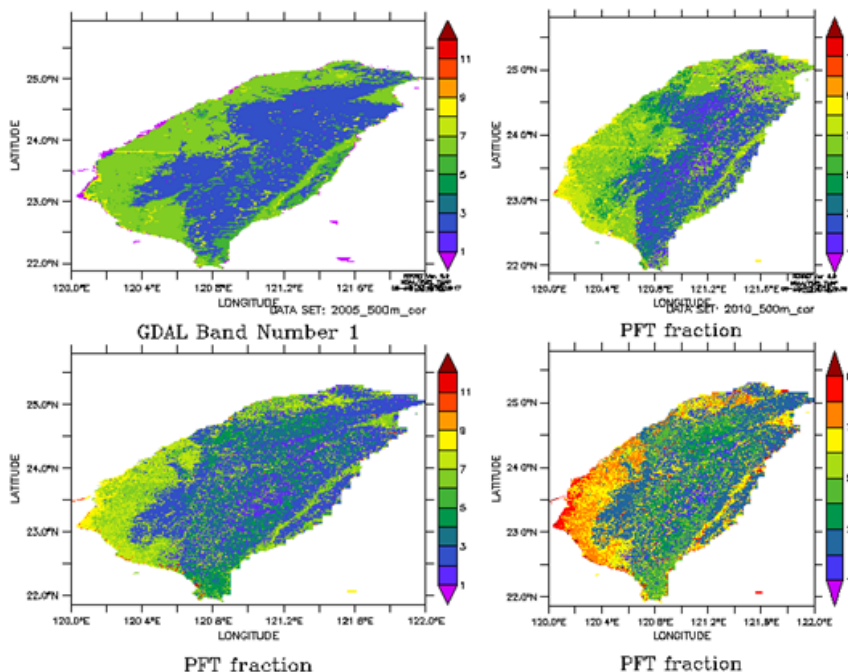
18. !!set the first sub-caption and plot some variables:

set view v1

go margins 0.8 0.5 1 1 !!!adjust the margins

19. go land 1 " " 1 !!!Add contours lands and countries

contour/nolabel/over/color=black/level=(-2,2,0.2)dash(-2,2,0.2)del(0) Tmax[d=2] !!!Plot Tmin
with contour lines and dashed negative (and delete the contour "0")



Thanks Nico add those tips

++++++ 2019/11/17 update ++++++

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GO LEFT_AXIS_PLOT 1-D-variable-name[L=1:n]

GO RIGHT_AXIS_PLOT 1-D-variable-name[L=1:n]

ex:

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SHADE/X=10W:30E/Y=35N:75N 2D-variable-names

ex:

SHADE/X=10W:30E/Y=35N:75N LAIPIX

SET VIEWPORT UL; SHADE/X=-10E:30 /Y=35N:75N GPP[k=49]*365; SET
VIEWPORT UR;

```
SHADE/X=-10E:30 /Y=35N:75N
```

```
GPP[k=50]*365; SET VIEWPORT LL; SHADE/X=-10E:30 /Y=35N:75N  
GPP[k=51]*365;
```

```
SET VIEWPORT LR; SHADE/X=-10E:30 /Y=35N:75N GPP[k=52]*365; PPL  
SHASET RESET
```

8. Scatter plot

```
PLOT/VS var1,var2
```

```
PLOT/I=1:10/J=1:30/VS var1,var2
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```
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10. user define PALETTE

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setenv FER_PALETTE "$FER_PALETTE your_local_path_for_the_spk_file"
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```
rainbow_white.spk
```

```
0.0  95.0  95.0  95.0
```

```
10.0  30.0  20.0  100.0
```

```
33.0   0.0  60.0  30.0
```

```
66.0 100.0 100.0   0.0
```

```
90.0 100.0   0.0   0.0
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100.0 90.0 0.0   0.0
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```
#load color palette in ferret
```

```
PALETTE rainbow_white
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show avariable palette

```
"Fpalette '*"
```

11. set the horizontal/vertical plot range

PLOT/ HLIMITS=low:hi:del /VLIMITS=low:hi:del

12. Multiple Axis plots

go left_axis_plot v1, v2...

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LABEL xpos, ypos, justify, rotate, height "text"

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define view/x=0.55:0.95/y=0.5:0.9 v2

define view/x=0.05:0.55/y=0.1:0.5 v3

define view/x=0.55:0.95/y=0.1:0.5 v4

17. !!!Set the region to plot data:

set region/x=70e:170e/y=5n:55n

!!! for Taiwan

set region/x=110e:140e/y=25n:55n

!for global

set region/x=180w:180e/y=90s:90n

18. !!set the first sub-caption and plot some variables:

set view v1

go margins 0.8 0.5 1 1 !!!adjust the margins

19. go land 1 " " 1 !!!Add contours lands and countries

contour/nolabel/over/color=black/level=(-2,2,0.2)dash(-2,2,0.2)del(0) Tmax[d=2] !!!Plot Tmin
with contour lines and dashed negative (and delete the contour "0")

Thanks Nico add those tips

Moving average:

def axis/t=0:365.2425/edges/npoints=365/t0=1-jan-0001/units=days/modulo tdaily

let prc=precip[d=1,gt=tdaily@mod]

let prrm1=prc[l=@sbx:5]

let pr_pntd=prrm1[l=3:365:5] !pentad

Projection

USE coads_climatology

SET REGION/X=0:360/Y=-90:90/L=1

GO mp_orthographic 210 45

SET GRID sst

GO mp_aspect

Example:

GO mp_orthographic 210 45

go mp_grid tlai

go mp_aspect

shade/noaxis tlai,x_page,y_page

yes? set view bl

yes? go mp_orthographic 300 45

yes? go margins .2, .6, .2, .2


```

yes? let masked_sst = sst * mp_mask

yes? shade/nolab/nokey/noaxes masked_sst, x_page, y_page

yes? go mp_graticule

yes? go mp_fland 120 gray

yes? label/nouser `($PPL$XLEN)*0.5`,-0.4,0,0,.20 OrthoGraphic

20 CANCEL MODE LOGO

shade/SET_UP LAI

GO unlabel 5; GO unlabel 4; GO unlabel 3; GO unlabel 2

PPL SHADE

21 PLOT SUBSET TAIWAN LAI

define view/x=0.25:0.75/y=0.05:0.99 v1

set view v1

use
"2009/1/31/LAI_200901310000_GLOBE_VGT_V2.0/c_gls_LAI_200901310000_GLOBE_VG
T_V2.0.1.nc"

shade/SET_UP/I=33600:33860/J=9150:9565 LAI

GO unlabel 5; GO unlabel 4; GO unlabel 3; GO unlabel 2

PPL SHADE

frame/file="/work/ychen/tw_plot/2009-01-20.gif"

cancel view

22 Track plot

file/var="tc_lat,tc_lon" "/work/ychen/tw_plot/2009_morakot.txt"

plot/vs/line/noaxis/nolab/over/color=blue/thick=2/symbol=87/size=0.2/l=1:11 tc_lon,tc_lat

23. COLOR BAR LEVELS

/LEVELS=(-inf)(lo, hi, delta)(inf)

```