
Subject: Re: latitude/ longitude legend outside the map
Posted by [K. Bowman](#) on Wed, 13 Feb 2002 14:50:14 GMT
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In article <MPG.16d421b2f215464f989804@news.frii.com>,
David Fanning <david@dfanning.com> wrote:

> A little fooling around will quickly give you what you want.

^^^^^^

Having the espresso this morning, eh?

Let's just say that map labeling in MAP_SET looks exactly like NCAR Graphics
ca. 1980, and that getting labels to look really good is a pain.

This is an old program that I haven't used in a while, but it will give
you a starting point.

Ken

```
.*****  
,  
PRO TOMS5EPSFMAP, ..., SH = sh, NH = nh  
  
; This procedure draws a global (default), SH, or NH map.  
; It has been customized for the EPSF device.  
  
; Put your data in the ... above  
  
title = 'map title'  
  
  
; Set map projection  
  
daspect = FLOAT(!D.Y_SIZE)/FLOAT(!D.X_SIZE)  
IF KEYWORD_SET(nh) THEN BEGIN  
  x0 = 0.10  
  y0 = 0.05  
  x1 = 0.90  
  y1 = 0.85  
  !P.POSITION = [x0, y0, x1, y1]  
  MAP_SET, 90, 0, -90, /AZIMUTHAL, $ ;Set the map projection  
  LIMIT = [ 0, -180, 90, 180], /NOBORDER, /ISOTROPIC  
  j1 = nyy5/2 ;Southern edge of data area  
  j2 = nyy5-1 ;Northern edge of data area  
ENDIF ELSE IF KEYWORD_SET(sh) THEN BEGIN
```

```

x0 = 0.10
y0 = 0.05
x1 = 0.90
y1 = 0.85
!P.POSITION = [x0, y0, x1, y1]
MAP_SET, -90, 0, 90, /AZIMUTHAL, $          ;Set the map projection
LIMIT = [-90, -180, 0, 180], /NOBORDER, /ISOTROPIC
j1 = 0                                     ;Southern edge of data area
j2 = nyy5/2                             ;Northern edge of data area
ENDIF ELSE BEGIN
aspect = 0.5                             ;Set the aspect ratio
x0 = 0.06
y0 = 0.48 - 0.45*(aspect/daspect)
x1 = 0.96
y1 = 0.48 + 0.45*(aspect/daspect)
!P.POSITION = [x0, y0, x1, y1]
MAP_SET, 0, 0, /CYLINDRICAL, $           ;Set the map projection
LIMIT = [-90, -180, 90, 180], /NOBORDER, /ISOTROPIC
j1 = 0                                     ;Southern edge of data area
j2 = nyy5-1                             ;Northern edge of data area
ENDELSE

```

; Draw map here

```

IF KEYWORD_SET(nh) THEN BEGIN

```

```

DEVICE, FONT_SIZE=14
ch_size = CONVERT_COORD(!D.X_CH_SIZE, !D.Y_CH_SIZE, /DEVICE, /TO_NORMAL)
dy = ch_size(1)
XYOUTS, 0.5, 0.95, title, /NORMAL, ALIGNMENT = 0.5

```

```

DEVICE, FONT_SIZE=10
ch_size = CONVERT_COORD(!D.X_CH_SIZE, !D.Y_CH_SIZE, /DEVICE, /TO_NORMAL)
dy = ch_size(1)
xy = CONVERT_COORD(FLOAT(0.0), 0.0, /DATA, /TO_NORMAL)
xlabel = STRTRIM(STRING(0) + deg, 1)
XYOUTS, xy(0)+0.05, xy(1)-(0.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

xy = CONVERT_COORD(FLOAT(180.0), 0.0, /DATA, /TO_NORMAL)
xlabel = STRTRIM(STRING(180) + deg, 1)
XYOUTS, xy(0)-0.05, xy(1)-(0.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

xy = CONVERT_COORD(FLOAT(90.0), 0.0, /DATA, /TO_NORMAL)
xlabel = STRTRIM(STRING(90) + deg + ' E', 1)
XYOUTS, xy(0), xy(1)+(0.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

xy = CONVERT_COORD(FLOAT(-90.0), 0.0, /DATA, /TO_NORMAL)
xlabel = STRTRIM(STRING(90) + deg + ' W', 1)
XYOUTS, xy(0), xy(1)-(1.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

FOR yy = 30, 60, 30 DO BEGIN
  xy = CONVERT_COORD(-135.0, FLOAT(yy), /DATA, /TO_NORMAL)
  IF(yy LT 0) THEN hemi = ' S' ELSE IF(yy GT 0) THEN hemi = ' N' ELSE hemi = ' '
  ylabel = STRTRIM(STRING(ABS(yy)) + deg + hemi, 1)
  XYOUTS, xy(0)-0.0075, xy(1)-dy/2, ylabel, /NORMAL, ALIGNMENT = 0.5
ENDFOR

```

```

ENDIF ELSE IF KEYWORD_SET(sh) THEN BEGIN

```

```

  DEVICE, FONT_SIZE=14
  ch_size = CONVERT_COORD(!D.X_CH_SIZE, !D.Y_CH_SIZE, /DEVICE, /TO_NORMAL)
  dy = ch_size(1)
  XYOUTS, 0.5, 0.95, title, /NORMAL, ALIGNMENT = 0.5

```

```

  DEVICE, FONT_SIZE=10
  ch_size = CONVERT_COORD(!D.X_CH_SIZE, !D.Y_CH_SIZE, /DEVICE, /TO_NORMAL)
  dy = ch_size(1)
  xy = CONVERT_COORD(FLOAT(0.0), 0.0, /DATA, /TO_NORMAL)
  xlabel = STRTRIM(STRING(0) + deg, 1)
  XYOUTS, xy(0)+0.05, xy(1)-(0.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

  xy = CONVERT_COORD(FLOAT(180.0), 0.0, /DATA, /TO_NORMAL)
  xlabel = STRTRIM(STRING(180) + deg, 1)
  XYOUTS, xy(0)-0.05, xy(1)-(0.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

  xy = CONVERT_COORD(FLOAT(90.0), 0.0, /DATA, /TO_NORMAL)
  xlabel = STRTRIM(STRING(90) + deg + ' E', 1)
  XYOUTS, xy(0), xy(1)-(1.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

  xy = CONVERT_COORD(FLOAT(-90.0), 0.0, /DATA, /TO_NORMAL)
  xlabel = STRTRIM(STRING(90) + deg + ' W', 1)
  XYOUTS, xy(0), xy(1)+(0.5*dy), xlabel, /NORMAL, ALIGNMENT = 0.5

```

```

FOR yy = -60, -30, 30 DO BEGIN
  xy = CONVERT_COORD(-135.0, FLOAT(yy), /DATA, /TO_NORMAL)
  IF(yy LT 0) THEN hemi = ' S' ELSE IF(yy GT 0) THEN hemi = ' N' ELSE hemi = ' '
  ylabel = STRTRIM(STRING(ABS(yy)) + deg + hemi, 1)
  XYOUTS, xy(0)-0.0075, xy(1)-dy/2, ylabel, /NORMAL, ALIGNMENT = 0.5
ENDFOR

```

```

ENDIF ELSE BEGIN

```

```

  DEVICE, FONT_SIZE=14
  ch_size = CONVERT_COORD(!D.X_CH_SIZE, !D.Y_CH_SIZE, /DEVICE, /TO_NORMAL)

```

```

dy = ch_size(1)
xy = CONVERT_COORD(0.0, 90.0, /DATA, /TO_NORMAL)
XYOUTS, xy(0), xy(1)+1.5*dy, title, /NORMAL, ALIGNMENT = 0.5

DEVICE, FONT_SIZE=10
ch_size = CONVERT_COORD(!D.X_CH_SIZE, !D.Y_CH_SIZE, /DEVICE, /TO_NORMAL)
dy = ch_size(1)
FOR xx = -180, 180, 90 DO BEGIN
    xy = CONVERT_COORD(FLOAT(xx), -90.0, /DATA, /TO_NORMAL)
    IF(xx LT 0) THEN hemi = ' W' ELSE IF(xx GT 0) THEN hemi = ' E' ELSE hemi = "
    xlabel = STRTRIM(STRING(ABS(xx)) + deg + hemi, 1)
    XYOUTS, xy(0), xy(1)-(1.7*dy), xlabel, /NORMAL, ALIGNMENT = 0.5
ENDFOR

FOR yy = -90, 90, 30 DO BEGIN
    xy = CONVERT_COORD(-180.0, FLOAT(yy), /DATA, /TO_NORMAL)
    IF(yy LT 0) THEN hemi = ' S' ELSE IF(yy GT 0) THEN hemi = ' N' ELSE hemi = ' '
    ylabel = STRTRIM(STRING(ABS(yy)) + deg + hemi, 1)
    XYOUTS, xy(0)-0.0075, xy(1)-dy/2, ylabel, /NORMAL, ALIGNMENT = 1.0
ENDFOR

ENDELSE

END

```
