Subject: Re: Full-Disk Orthographic to Cylindrical Projection
Posted by Tyler Behm on Mon, 11 Mar 2013 21:20:13 GMT
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Edit to OP: cmap=map_proj('Cylindrical') should be cmap=map_proj_init('Cylindrical')

David. Although I have read that article and many others of yours, I still need to read them more. They have been very helpful.

On Monday, March 11, 2013 1:14:16 PM UTC-6, Craig Markwardt wrote:

Do you start with astronomical FITS images with world coordinates? The IDL Astronomy Library provides truly excellent routines for remapping images with FITS world coordinates.

Craig, I am familiar with the Astronomical Library's good coordinate transform routines like wcssph2xy.pro. Unfortunately, these FITS do not have world coordinates.

The solar images can be found at ftp://diglib.nso.edu/Evans_spectroheliograms/CaK/1988/

Most of the header is just info about the viewing geometry. I used "print, headfits('880110.1555c.fts') and got:

```
SIMPLE  =                    T  /  FITS STANDARD  /
BITPIX  =                   16  /  FITS BITS/PIXEL   /
NAXIS   =                    2  /  NUMBER OF AXES  /
NAXIS1  =                 1952  /
NAXIS2  =                 1896  /
BSCALE  =      1.0  /  REAL = TAPE*BSCALE + BZERO  /
BZERO   =      0.0  /
BZERO   =      0.0  /
ORIGIN  = 880110.1555c.fit   /
DATE_OBS =  1988/01/10     /
TIME_OBS =  15:55     /
SOLP =  -71.80     /
SOLB =  -4.10     /
CRPIX1 =  891     /
CRPIX2 =  1044     /
R_SUN =   785     /
SOLR =  785     /
CENTER_X =   891     /
CENTER_Y =   1044     /
DATE_OBS =  '1988-01-10T15:55 '     /
SOLAR_P =  -71.80     /
CDELT =        0     /
TEL_P_ang =        251.59     /
DEL_RX =        0.00     /
```

DEL_RY = 0.00 /
Scatt1 = 35540.30 0.35 /
Scatt2 = 34133.02 0.36 /
Kf_Scatt = 0.92 /
Kf_lin = 0.00 /
Kf_exrtr = 0.00 /
END