Subject: Re: METEOSAT navigation
Posted by Liam E. Gumley on Wed, 23 Apr 2003 14:16:13 GMT
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"Roberto Hernandez" <rhernandez@euve.org> wrote in message
news:9886e8f4.0304230034.1cec4b91@posting.google.com...
> Hello all,
> I'm trying to overlap coastal boundaries to a METEOSAT image (B
> format, that covers the European, North African and Middle East
> regions) with the MAP_SET command.
> I need to use the native projection -geostationary- and specify the
> LIMIT option as an eight-element vector, althouth the top pixels are
> on space. I try to substitute them with the extreme coordinates on
> Earth's visible disc, but the boundaries don't match properly.
>
> Any ideas will be appreciated.

You may have better luck with the SCALE keyword for MAP_SET (instead of LIMIT). As a guide, a map scale of 4E6 corresponds to a map resolution of 1000 meters, assuming 40.0 pixels per centimeter in IDL direct graphics, i.e.,

```
IDL> print, !d.x_px_cm
      40.0000
```

This value may be slightly different on other platforms. So the trick is to create a map projection with the appropriate scale, e.g.

```
clat = 0.0
clon = 140.0    ; longitude for Meteosat 7
scale = 16E6    ; map resolution of 4000 meters
map_set, clat, clon, scale=(scale * (!d.x_px_cm / 40.0)), $
  /orthographic, position=[0.0, 0.0, 1.0, 1.0], /noerase
map_continents
```

This command assumes the center pixel of the image is at [clat, clon], so it may not work if the image has been clipped in some way (i.e., it's not a full disk image).

Another source of information is Kelly Dean's site at

http://www.cira.colostate.edu/special/csuidl/overview.htm

that might be helpful.

Cheers,
Liam.
Practical IDL Programming

Subject: Re: METEOSAT navigation
Posted by Liam E. Gumley on Wed, 23 Apr 2003 14:26:21 GMT
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"Liam Gumley" <Liam.Gumley@ssec.wisc.edu> wrote in message
news:b8677emfi1@news.doit.wisc.edu...
[stuff deleted]
> clon = 140.0 ; longitude for Meteosat 7

Oops, GMS is at 140 East. Meteosat is at 0 degrees longitude.

Cheers,
Liam.
Practical IDL Programming
http://www.gumley.com