
Subject: How to de-swivel a satellite projection?
Posted by [newman](#) **on Fri, 05 Apr 1996 08:00:00 GMT**
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What is the proper way (i.e., one that works) to de-rotate a satellite projection? When using MAP_SET, I supply the tilt and swivel values in the SAT_P variable, and this leads to an "up is up" projection. I would like to generate a "North is up" projection by de-rotating by the swivel value. I have tried supplying this value as the Rot variable, but then CONVERT_COORD returns values out of range (1e12).

Here are two examples:

PRO NO_BOMB

; Look at Boston from high above Los Angeles.
; Tilt and swivel create "up is up" projection.

WINDOW, XSIZE=512, YSIZE=512

```
MAP_SET, 33, -118, 0, sat_p=[2, 27.1144, 18.715], $  
    /grid, /continents, /satellite, /isotropic, $  
    /latdel, /londel, /label, $  
    limit=[42, -78, 45, -72, 42, -56, 40, -74]
```

p = CONVERT_COORD(256, 256, /device, /to_data)

PRINT, p

END

PRO YES_BOMB

; Look at Boston from high above Los Angeles.
; Derotate to create "North is up" projection.

WINDOW, XSIZE=512, YSIZE=512

```
; derotate by swivel value = 18.715  
MAP_SET, 33, -118, -18.715, sat_p=[2, 27.1144, 18.715], $  
    /grid, /continents, /satellite, /isotropic, $  
    /latdel, /londel, /label, $  
    limit=[42, -78, 45, -72, 42, -56, 40, -74]
```

p = CONVERT_COORD(256, 256, /device, /to_data)

PRINT, p

END

Any help much appreciated

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