Subject: Re: X/Y convert to lat/lon
Posted by teddyallen on Tue, 15 Mar 2011 09:36:48 GMT

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On Mar 15, 3:33 am, Fabzou <fabien.mauss...@tu-berlin.de> wrote:
> On 03/15/2011 05:53 AM, teddyallen wrote:
>
>
>
>
>
>> longitude = findgen(144)*2.5 ;creates a 144 element array with values
>> evenly spaced between 0 -> 357.5
>> latitude = ((findgen(73)*2.5)-90.)*(-1.) ;creates a 73 element array
>> with values evenly spaced between -90 -> +90
>> xlon = 342 ;this is the longitude value I would like to subset the
>> array with
>> xlat = 35; this is the latitude value I would like to subset the array
>> with
>> lon1= where(longitude eq xlon) ; provides the longitude index
>> dimension for array
>> lat1=where(latitude eq xlat)
>> test = array[lon1,lat1]   ; results in the subset of the arry given
>> xlon and xlat
>
>> The xlon value should be associated with the nearest 2.5 multiple,
>> which in this case would be xlon=342.5.....obviously not -1.
>> Any suggestions?
>> Thank you
>
> Well, where() is really not supposed to do so. It looks for exact
> matches... where(longitude eq 342.5) MAY work, but only if the sky is
> not falling (http://www.idlcoyote.com/math_tips/sky_is_falling.html).
>
> One method would be:
> IDL> longitude = findgen(144)*2.5
> IDL> m = min(abs(longitude - 342), p)
> IDL> print, longitude[p]
>   342.500
>
> But this is not always exact and there are plenty of better methods,
> especially when you are located on the "sphere"- Hide quoted text -
>
> - Show quoted text -

Dear Fabzou,
THANK YOU so much! I knew the resolution would rest in a few short
lines. I can now add these lines to my growing tank of IDL knowledge.

Let me know if you are ever in Miami and lunch is one me!
cheers,
teddy