
Subject: Re: X/Y convert to lat/lon

Posted by [Kenneth P. Bowman](#) on Tue, 15 Mar 2011 15:38:02 GMT

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In article

<887457ef-3c22-404a-a958-176714fa2053@s18g2000vbe.googlegroups.com>,
teddyallen <teddyallen@yahoo.com> wrote:

> I am reluctant to post this since it seems like a very easy task, but
> unfortunately, I cannot manage to figure it out on my own nor with any
> online search help. (I am away from home and my trusty IDL books are
> not on pdf....bummer!)

I use this function frequently,

Ken Bowman

FUNCTION INDEX_OF_NEAREST, x, x0

```
;+
;NAME:
;  INDEX_OF_NEAREST
;PURPOSE:
;  This function finds the index of the element of x whose value is
;  nearest to x0. This is primarily useful for finding the index of
;  a point in an ordered 1-dimensional array. For example, if x is
;  an array of latitudes, this function will return the index of the
;  element of the array that is closest to the latitude x0.
;  If there are multiple elements in x that are the same distance from
;  x0, this function returns the first one.
;CATEGORY:
;  Array utility.
;CALLING SEQUENCE:
;  i = INDEX_OF_NEAREST(x, x0)
;INPUT:
;  x  : array of values to search.
;  x0 : value to search for.
;KEYWORDS:
;  None.
;OUTPUT:
;  Index of element nearest to x0.
;MODIFICATION HISTORY:
;  KPB, 1999-04.
;-
```

COMPILE_OPT IDL2

i = (WHERE(ABS(x - x0) EQ MIN(ABS(x - x0)), count))[0]

RETURN, i

END
