
Subject: Re: How to spot maximum x value AND corresponding y value?

Posted by [M.](#) on Thu, 18 Feb 2010 12:19:38 GMT

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On Feb 16, 4:26 pm, pp <pp.pente...@gmail.com> wrote:

> On Feb 16, 10:23 am, "M." <markus_men...@yahoo.de> wrote:

>

>> I have an input file (ascii) containing coordinate data (three

>> columns; x, y, z).

>> I want to compute a vector from one point to another. I know the

>> vector should go from the maximum x value to the minimum y value (or

>> vice versa). I took the FLOAT function to find out the min and max

>> values. But how can I find out the corresponding x and y values for my

>> y_min and x_max values?

>

> Your question is not very clear, but I am guessing that what you want

> is to find out which points have the maximum/minimum x and y values.

> Which would be something like:

>

> x_max_val=max(x,x_max_ind,min=x_min_val,subscript_min=x_min_ind)

> y_max_val=max(y,y_max_ind,min=y_min_val,subscript_min=y_min_ind)

>

> Which would give you the maximum value of x in x_max_val and the index

> where that occurs in x_max_ind. That is,

> x_max_val==x[x_max_ind]==max(x).

Uh, that's true. The question was really not clear. I'm not yet firm with scientific terms and IDL language...

But you guessed right and helped me a lot. What I need are two points in a coordinate system, one point has the the maximum x value and one point has the minimum y value. With your suggestion I now know where the min or max values are located in my array. Good.

But:

My data (ascii) is build like a table (3 columns - 1st col = x coordinates; 2nd col = y coordinates; 3rd col = z values and about 1.5 Million rows each column). So I know, with your suggestion, that my x_max_val let's say is located in the 7th row in the 1st col. BUT, how can I find out which y value (2nd col) is in the 7th row. Since these are coordinates I need both the maximum x value and where it occurs on the y axis - that is what I mean with corresponding value. Is there an order like: "result = (y) value in the 2nd col which is located where x_max_val occurs" OR "result = value in the 2nd col which is located at 'x_max_ind'" -->see above .

I tried to find it out by myself, but I just don't know the right command I think.

Can anybody understand what I mean and help me? Thanks.

Markus

P.S. here is how my array looks:

```
array = FLTARR(3, n)
array[0,*] = 1st col with x values from ascii text file
array[1,*] = 2nd col with y values from ascii text file
array[2,*] = 3rd col with z values from ascii text file
```
