Subject: Re: How to find the pixel position
Posted by Aram Panasenco on Tue, 27 Apr 2010 06:24:03 GMT
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sid wrote:
> Hi,
> My data is in fits format. The is of 1024 * 1024 array. The counts
> vary from 5000 to 6000 and I know that 5500 counts is there in my
> data, but I need to know at which pixel this 5500 counts occur
> exactly, without displaying the image, because I need to do this for
> several files. So each time I can't display and check for the pixel
> position. please helpout in this regard.
> regards
> sid

I think what you are saying (correct me if I am wrong) is that you have
a 1024x1024 array, and you want to find where the pixel values are equal
to 5500.

You can use the WHERE function:

```
fitsData = readfits('filename.fits')
countValue = 5500

findIndices = where(fitsData eq countValue)
```

Note that the WHERE function returns one-dimensional subscripts. You can
convert them back to two-dimensional subscripts (if you need to) using
the ARRAY_INDICES function:

```
rectIndices = array_indices([1024,1024],findIndices,/dimensions)
```

Cheers
~Aram Panasenco

Subject: Re: How to find the pixel position
Posted by Craig Markwardt on Tue, 27 Apr 2010 06:26:21 GMT
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On Apr 27, 1:16 am, sid <gunvicsi...@gmail.com> wrote:
> Hi,
> My data is in fits format. The is of 1024 * 1024 array. The counts
> vary from 5000 to 6000 and I know that 5500 counts is there in my
> data, but I need to know at which pixel this 5500 counts occur
> exactly, without displaying the image, because I need to do this for
> several files. So each time I can't display and check for the pixel
> position. please helpout in this regard.

> regards

Have you tried WHERE()?
wh = where(IMG EQ 5500)

The pixel position, or position*s* if there more than one, are stored
in the index array WH. This index array addresses the 2-d array as a
1-d array. If you want the X and Y positions separately, then use the
quotient and remainder after dividing by image width...

;; SIZE_X = 1024
ix = wh MOD SIZE_X ;; Remainder
iy = wh / SIZE_X ;; Quotient

Craig

Subject: Re: How to find the pixel position
Posted by Carsten Lechte on Tue, 27 Apr 2010 09:58:49 GMT
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sid wrote:

> data, but I need to know at which pixel this 5500 counts occur
> exactly, without displaying the image, because I need to do this for

Use WHERE() to find the 1d index of the pixels. If WHERE() delivers a
count of more than zero indices, use ARRAY_INDICES() to convert these
1d indices to x and y indices for your 2d data array.

chl

Subject: Re: How to find the pixel position
Posted by sid on Thu, 29 Apr 2010 06:40:35 GMT
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On Apr 27, 11:24 am, Aram Panasenco <panasencoa...@gmail.com> wrote:
> sid wrote:
>> Hi,
>> My data is in fits format. The is of 1024 * 1024 array. The counts
>> vary from 5000 to 6000 and I know that 5500 counts is there in my
>> data, but I need to know at which pixel this 5500 counts occur
>> exactly, without displaying the image, because I need to do this for
>> several files. So each time I can't display and check for the pixel
>> position. please helpout in this regard.

>> regards
>> sid
>
> I think what you are saying (correct me if I am wrong) is that you have
> a 1024x1024 array, and you want to find where the pixel values are equal
> to 5500.
>
> You can use the WHERE function:
>
> fitsData = readfits('filename.fits')
> countValue = 5500
>
> findIndices = where(fitsData eq countValue)
>
> Note that the WHERE function returns one-dimensional subscripts. You can
> convert them back to two-dimensional subscripts (if you need to) using
> the ARRAY_INDICES function:
>
> rectIndices = array_indices([1024,1024],findIndices,/dimensions)
>
> Cheers
> ~Aram Panasenco

Hi,
I did like this
raw=readfits('filename.fits')
b=where(raw eq 2832.90)
I know that it occurs at raw(5,5)
so now if I do
print,b
it should print 5, since where function returns one dimensional
subscripts.(am I right, correct me if it is wrong)
but instead it is printing -1. Please help me out.
regards
sid

Subject: Re: How to find the pixel position
Posted by Chris[6] on Thu, 29 Apr 2010 17:58:17 GMT
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> Note that the WHERE function returns one-dimensional subscripts. You can
> convert them back to two-dimensional subscripts (if you need to) using
> the ARRAY_INDICES function:
>
> rectIndices = array_indices([1024,1024],findIndices,/dimensions)

Can anyone enlighten me about whether there's any advantage to using the /dimensons keyword in array_indices? I hear people claim it's to prevent passing big arrays around, but those big arrays would be passed by reference, yes? In which case that wouldn't be a problem

chris
