
Subject: Looping through arrays
Posted by [Ben](#) on Sat, 21 Jan 2017 18:05:22 GMT
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I work with defocused stellar images and use IDL to do the photometry. This is a great platform without which I don't think I could have done anything.

But, I am self taught and have tended to just do what works and move on. Now, going back through through my code, I want to become a better person and clean up some of the Fortran-like inclusions.

For example, over a night's observations I might have 50 sets, 5 images each of the same target and I loop through them like this:

```
index = 0
For m = 0, n_groups-1 do begin
  For k = 0, n_imagespergroup-1 do begin
    image[*,*,k] = readfits(Files(index,hdr,/silent)
    index += 1
  endfor ;k
;(do some stuff on this group of images}

endfor ;m (go on to the next group)
```

I'm wondering if there would be a more IDL-like way to accomplish the same thing. Does anyone have any ideas?

Subject: Re: Looping through arrays
Posted by [wlandsman](#) on Sat, 21 Jan 2017 18:46:54 GMT
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The main change I would suggest is to replace

```
image[*,*,k] = readfits(Files[index],hdr,/silent)
```

with

```
image[0,0,k] = readfits(Files[index],/silent)
```

http://www.idlcoyote.com/code_tips/asterisk.html

(I also omit the 'hdr' output parameter. You never use it so no need to create it.)

Loops in IDL are OK so long as you get a lot of work done on each iteration, which your program already does. --Wayne

On Saturday, January 21, 2017 at 1:05:24 PM UTC-5, Ben wrote:

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Subject: Re: Looping through arrays

Posted by [Ben](#) on Sat, 21 Jan 2017 20:20:46 GMT

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Good to know about the asterisks. I have used them extensively and will fix that.

I actually do use the header to read in things like:

```
obsdate = sxpar(hdr,'date-obs')
```

```
ra      = sxpar(hdr,'objctra')
```

```
dec     = sxpar(hdr,'objctdec')
```

```
hour    = double(strmid(obsdate,12,2))
```

```
minute  = double(strmid(obsdate,14,2))
```

```
second  = double(strmid(obsdate,17,2))
```

```
deg     = double(strmid(dec,1,2))
```

```
amin    = double(strmid(dec,4,2))
```

```
asec    = double(strmid(dec,7,4))
```

I left a great deal of stuff out that I thought would just clutter things up.

Thanks for the feedback.
