
Subject: For loop - Question

Posted by [g.nacarts](#) on Tue, 13 Jan 2015 14:02:47 GMT

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Hi

I create a for loop to store my Data in a 3D array [100,200,200]. Then I used my data array to calculate another matrix B as shown below:

```
for i=0, 99 do begin
  ArrayData = C:\Users\..
endfor
```

```
B = total(ArrayData[0:4,*,*],1)/5.
```

A question that I have is once I used the ArrayData outside the for loop does it contains all the elements of the array or just those on the place [100,120,120]?

Thanks

Subject: Re: For loop - Question

Posted by on Tue, 13 Jan 2015 14:44:15 GMT

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Den tisdag 13 januari 2015 kl. 15:02:48 UTC+1 skrev g.na...@gmail.com:

> Hi

>

> I create a for loop to store my Data in a 3D array [100,200,200]. Then I used my data array to calculate another matrix B as shown below:

>

> for i=0, 99 do begin

> ArrayData = C:\Users\..

> endfor

I assume the right hand side of "ArrayData = C:\Users\.." is really some operation where you read values from a file. But more important for your question, the left hand side has no subscripts so your loop would create a new array for each i, instantly forgetting the previous array. Is this really what you do?

>

> B = total(ArrayData[0:4,*,*],1)/5.

>

> A question that I have is once I used the ArrayData outside the for loop does it contains all the elements of the array or just those on the place [100,120,120]?

Why don't you inspect the array and see for yourself where there is data?

Subject: Re: For loop - Question
Posted by [Yngvar Larsen](#) on Tue, 13 Jan 2015 14:46:21 GMT
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On Tuesday, 13 January 2015 15:02:48 UTC+1, g.na...@gmail.com wrote:

```
> Hi
>
> I create a for loop to store my Data in a 3D array [100,200,200]. Then I used my data array to
calculate another matrix B as shown below:
>
> for i=0, 99 do begin
>   ArrayData = C:\Users\..
> endfor
```

I assume you mean something like this:

```
ArrayData = fltarr(100,200,200)
for i=0,99 do ArrayData[i,*,*] = my_get_data_from_file_function(file[i])
```

assuming that all the files contain data of the same size (200 x 200).

```
> B = total(ArrayData[0:4,*,*],1)/5.
```

This is the average of the first 5 images. Is this what you want?

```
> A question that I have is once I used the ArrayData outside the for loop does it contains all the
elements of the array or just those on the place [100,120,120]?
```

I'm not really sure what you are asking about? ArrayData contains the elements you read into it in your loop. In the pseudocode you posted, it looks like you overwrite the array on each iteration in the loop. This is likely not what you want.

--
Yngvar

Subject: Re: For loop - Question
Posted by [g.nacarts](#) on Tue, 13 Jan 2015 15:14:21 GMT
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```
> assuming that all the files contain data of the same size (200 x 200).
```

Right.

```
>> B = total(ArrayData[0:4,*,*],1)/5.
>
> This is the average of the first 5 images. Is this what you want?
```

Yes, this is what I want.

> In the pseudocode you posted, it looks like you overwrite the array on each iteration in the loop. This is likely not what you want.

Yes, this is what I have noticed. I don't want to overwrite it I want to store everything and use it afterwards.

Subject: Re: For loop - Question
Posted by [g.nacarts](#) on Tue, 13 Jan 2015 15:16:32 GMT
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I forgot to write something in my for loop:

```
for i=0, 99 do begin
  ArrayData = C:\Users\..

  Data = ArrayData[i,*,*]
endfor
```

Subject: Re: For loop - Question
Posted by [Yngvar Larsen](#) on Wed, 14 Jan 2015 08:55:24 GMT
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On Tuesday, 13 January 2015 16:16:33 UTC+1, g.na...@gmail.com wrote:

```
> I forgot to write something in my for loop:
>
> for i=0, 99 do begin
>   ArrayData = C:\Users\..
>
>   Data = ArrayData[i,*,*]
> endfor
```

Hm. This is not very coherent. You don't show what you do with the "Data" variable. You are overwriting it on every iteration. And what does "C:\Users\.." contain? Single images of size (200,200)? In that case, your loop should be something like what I wrote in my previous post:

```
ArrayData = fitarr(100,200,200)
for i=0,99 do ArrayData[i,*,*] = my_get_data_from_file_function(file[i])
```

where "my_getdata_from_file_function" is a function that can read your files (you haven't told us what kind of files you have).

Why don't you post your actual loop and tell us what you want to do? It is hard to tell what you did and what you are trying to do. See

<http://xyproblem.info>

--

Yngvar
