Subject: Convert Function to Procedure
Posted by dmfl0590 on Tue, 17 May 2016 16:33:50 GMT
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Hi

I have the following function:

```
FUNCTION CREATE_NEW, Im1, Im2, B, step=step, itmax=itmax
Bnew = B
 ffd_precompute,Im1,size(REFORM(B[0,*,*]), /dimensions)
 ffd_grad_precompute, size(REFORM(B[0,*,*]), /dimensions)
 for it=1L, itmax do begin
  FIRST_FUN, Im1, Im2, Bnew, G=G
  Bnew = SECOND_FUN(Im1, Im2, Bnew, G, conv=converged,step=step)
  if converged then return, Bnew
 endfor
return, Bnew
END
```

Then I changed this Function to Procedure like this:

```
PRO CREATE_NEW, Im1, Im2, B, step=step, itmax=itmax
Breg = B
ffd_precompute,Im1,size(REFORM(B[0,*,*]), /dimensions)
ffd_grad_precompute, size(REFORM(B[0,*,*]), /dimensions)
 for it=1L, itmax do begin
  FIRST_FUN, Im1, Im2, Bnew, G=G
  Bnew = SECOND_FUN(Im1, Im2, Bnew, G, conv=converged,step=step)
  if converged then begin
    B=Bnew
    return
  endif
 endfor
 B=Bnew
END
```

I don't get the same results for some reason. I thought that I can put the output variables in the calling statement. The output variable in this case is the B. However, I don't get the output variable. Can anyone help with this?

Subject: Re: Convert Function to Procedure
Posted by wlandsman on Tue, 17 May 2016 17:57:06 GMT
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On Tuesday, May 17, 2016 at 12:33:52 PM UTC-4, dmfl...@gmail.com wrote:

> Hi
>
> I have the following function:
>
> FUNCTION CREATE_NEW, Im1, Im2, B, step=step, itmax=itmax
> Bnew = B
> ffd_precompute,Im1,size(REFORM(B[0,*,*]), /dimensions)
> ffd_grad_precompute, size(REFORM(B[0,*,*]), /dimensions)
> for it=1L, itmax do begin
> FIRST_FUN, Im1, Im2, Bnew, G=G
> Bnew = SECOND_FUN(Im1, Im2, Bnew, G, conv=converged,step=step)
> if converged then return, Bnew
> endfor
> return, Bnew
> END
>
> Then I changed this Function to Procedure like this:
>
> PRO CREATE_NEW, Im1, Im2, B, step=step, itmax=itmax
> Breg = B
> ffd_precompute,Im1,size(REFORM(B[0,*,*]), /dimensions)
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> for it=1L, itmax do begin
> FIRST_FUN, Im1, Im2, Bnew, G=G
> Bnew = SECOND_FUN(Im1, Im2, Bnew, G, conv=converged,step=step)
> if converged then begin
> B=Bnew
> return
> endif
> endfor
> B=Bnew
> END
>
>
> I don't get the same results for some reason. I thought that I can put the output variables in the calling statement. The output variable in this case is the B. However, I don't get the output variable. Can anyone help with this?

What do you mean you "don't get the output variable" Do you mean that the variable B is undefined? or that the values are not the same as the output of CREATE_NEW()?

> PRO CREATE_NEW, Im1, Im2, B, step=step, itmax=itmax
> Breg = B

What is the variable Breg ? Why didn't you set this to Bnew like in the function?

I would put stop statements (or breakpoints) in your procedure, and make sure that values are what you expect (or the same as the function) at each step.

Subject: Re: Convert Function to Procedure
Posted by dmfl0590 on Wed, 18 May 2016 07:46:40 GMT
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Yes, I meant that the values are not the same as the output of CREAT_NEW().