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Subject: Re: Looping over parameters without EXECUTE()

Posted by [R.Bauer](#) on Mon, 02 May 2005 20:19:18 GMT

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Dear Wayne

you should have a look on this. Probably you need to add an error handler by catch if not all arguments are used. Or you write a CASE with all tested against n\_elements.

```
pro doit,p1,p2,p3,p4,p5,p6,p7,p8,p9,p10,p11
  v=ROUTINE_info('doit',/param)
  for i=0,v.num_args do $
    print,scope_varfetch(v.args[i])
  end
```

The scop\_varfetch routine was new in 6.1.

cheers

Reimar

Wayne Landsman wrote:

> The one case where I haven't figured out how to remove EXECUTE() from a  
> program (to allow use with the Virtual Machine) is where one wants to  
> loop over supplied parameters. For example, to apply the procedure  
> 'myproc' to each supplied parameter (which may have different data  
> types) one can use EXECUTE() to write each parameter to a temporary  
> variable:

```
>
> *****
>
> pro doit,p1,p2,p3,p4,p5,p6,p7,p8,p9,p10,p11
>
> ;Loop over input parameters
> Np = N_params()
> colname = 'p' + strtrim(indgen(Np)+1,2)
>
> for i=0,Np-1 do begin
>   result = execute('p=' + colname[i] )
>   myproc,p
> endfor
> *****
```

> Is there a way to avoid EXECUTE() here -- say to identify the 4th  
> parameter as e.g., \$4 ? Of course, one can always avoid the loop and  
> explicitly write out the call for each parameter:  
>

> myproc,p1  
> myproc,p2  
> ....  
> but this probably becomes unreasonable at around 20 parameters.  
>  
> One solution is to have the program read an array of pointers rather  
> than multiple parameters. But this has the disadvantages of losing  
> backwards compatibility, as well as making the program somewhat more  
> complicated to use. My current default solution is to make a pointer  
> keyword available and say that data must be passed this way instead of  
> via parameters, if the user wants to use the VM.  
>  
> Thanks, --Wayne

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a IDL library at Forschungszentrum Juelich  
[http://www.fz-juelich.de/icg/icg-i/idl\\_icglib/idl\\_lib\\_intro.html](http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html)

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Subject: Re: Looping over parameters without EXECUTE()  
Posted by [Wayne Landsman](#) on Mon, 02 May 2005 21:17:39 GMT  
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Reimar Bauer wrote:

> Dear Wayne  
>  
> you should have a look on this. Probably you need to add an error handler by  
> catch if not all arguments are used. Or you write a CASE with all tested  
> against n\_elements.  
>  
> pro doit,p1,p2,p3,p4,p5,p6,p7,p8,p9,p10,p11  
> v=ROUTINE\_info('doit',/param)  
> for i=0,v.num\_args do \$  
> print,scope\_varfetch(v.args[i])  
> end  
>  
> The scop\_varfetch routine was new in 6.1.  
>  
> cheers  
>  
> Reimar  
>

Thanks, Reimar. I think that will do the trick. Cheers, --Wayne

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