
Subject: Re: Looping over parameters without EXECUTE()

Posted by [R.Bauer](#) on Tue, 03 May 2005 18:00:28 GMT

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JD Smith wrote:

> On Tue, 03 May 2005 15:43:33 +0200, Thomas Pfaff wrote:

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>>

>> JD Smith schrieb:

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>>> On Mon, 02 May 2005 12:10:43 -0400, 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:

>

>

>> How about putting all those parameters into a (named or anonymous)
>> struct? Then you can have different types for each parameter and you're
>> still able to loop over the elements.

>>

>> pro doit, param_struct

>> for i=0, n_tags(param_struct) -1 do begin

>> arg = param_struct.(i) ;->this way you can even store result values

>> myproc, arg

>> param_struct.(i) = arg

>> endfor

>> end

>>

>> Would that be a possibility, or am I missing something?

>

>

> That works OK, and if you used TEMPORARY() you could cut down the data
> copying penalty. There are two main problems with this approach: 1) the
> user has to create a potentially large struct as input and then unpack it
> as output, which is not convenient from the command line, especially for
> output arguments, and 2) the type and size of each argument cannot be
> changed, thanks to the nature of structs.

>

> JD

You could change the type and size of each argument of a struct with some of our library tools. e.g. `replace_tagvalue`. But your are right this is done with a trick by duplicating the structure in a new one. But in this case it is overkill.

Reimar

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a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

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