Subject: Looping over parameters without EXECUTE()
Posted by Wayne Landsman on Mon, 02 May 2005 16:10:43 GMT
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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