
Subject: Evaluating a variable

Posted by [Richard](#) on Thu, 22 Jan 2004 17:18:07 GMT

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I want to evaluate a (string) variable to then perform an operation on (another) variable whose name is the result of that evaluation.

Let me clarify...

I have a number of 1-D floating-point arrays. I want to take each array in turn and do stuff with it, something like this:

```
PRO blah
```

```
array1=[1,4,3,5.3,42,234,32,..(etc)]
```

```
array2=[1,6,4.65]
```

```
array3=[9.1,4,2.02,5,6]
```

```
arrays=['array1','array2','array3']
```

```
arrayno=-1
```

```
REPEAT BEGIN
```

```
arrayno=arrayno+1
```

```
; Pick which array I want to operate on, in order
```

```
; *****
```

```
,
```

```
    thisarray=arrays(arrayno)
```

```
; *****
```

```
;
```

```
; Do stuff on the selected array
```

```
    ROUTINE_DOSTUFF,thisarray
```

```
; Loop through all the arrays.
```

```
    ENDREP UNTIL arrayno=2
```

```
END
```

Except, of course, that this doesn't work, because (in the highlighted line) the variable 'thisarray' is set to be the string value 'array1' (etc), instead of having the actual array1 copied into it.

If I try this instead...

```
arrays=[array1,array2,array3]
```

```
thisarray=arrays(start,stop)
```

...this works, except I have to fiddle around calculating start and stop by finding the sizes of the array and all the preceding arrays, which isn't very nice.

Ahah, I think, I'll put them into one big 2-D array so I /know/ where each one starts. But, alas, their lengths are very variable, so I'd end up with a huge array, much of which would be 0, which seems a bit wasteful).

The same problem comes if I set up pointers to a structure:

```
arraystruct={array1:PTR_NEW(array1),array2:PTR_NEW(array2).. .}
```

```
thisarray=arraystruct.arrayX ???
```

I'm having a brainfade here. What's the best way of doing this in IDL? All I want to do is evaluate a string variable to read the value of the variable that it evaluates to (say that three times quickly)

Thanks in advance,
Richard

Subject: Re: Evaluating a variable
Posted by [Chris Lee](#) on Fri, 23 Jan 2004 09:24:47 GMT
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> All I want to do is evaluate a string variable to read the value of the
> variable that it evaluates to (say that three times quickly) Thanks in
> advance,
> Richard

Hi,

I think what you want is what David suggests, but if you really want to evaluate a string and use the variable named therein...

```
array1=[1,4,3,5.3,42,234,32,..(etc)]
array2=[1,6,4.65]
array3=[9.1,4,2.02,5,6]
arrays=['array1','array2','array3']
for i=0, 2 do begin
  string="thisarray = ", arrays[i]
  test=execute(string)
  ;you should check test for success and do something with it.
  routine_dostuff, thisarray
endfor
```

Chris.
