
Subject: Re: dynamically naming variables
Posted by [Paul Van Delst\[1\]](#) on Mon, 03 Mar 2003 21:48:14 GMT
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Steve Nesbitt wrote:

```
>  
> Howdy folks,  
>  
> I was wondering if there was a way to dynamically name a variable in  
> IDL, something like:  
>  
> varnames=['temp1','temp2','temp3']  
>  
> for i=0, n_elements(varnames)-1 do begin  
>  
>     `varnames[i]`=bytarr(25)  
>  
> endfor  
>  
> I would appreciate any help on this, or a way to get around this issue.
```

Use the EXECUTE command to execute a command you create in a string variable.

paulv

--

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Subject: Re: dynamically naming variables
Posted by [Steve Nesbitt](#) on Mon, 03 Mar 2003 21:56:38 GMT
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ahhh...thanks! Saves me from dynamically generating the code each time using a shell script (a major pain).

Paul van Delst wrote:

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> Steve Nesbitt wrote:  
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> Use the EXECUTE command to execute a command you create in a string variable.
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> paulv
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```

Subject: Re: dynamically naming variables
Posted by [Pavel Romashkin](#) on Mon, 03 Mar 2003 23:22:38 GMT
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Don't use runtime name definition. I was told by a developer at RSI that, if you find the need for this in your program, this means you need a better design. I am ever so thankful for this advice.
If you use runtime naming, you will have to use Execute again to refer to the variable. And you will get into a lot of trouble the next time you have to reuse the program, or pass that variable out of the program.
Try making a structure instead:

```
varnames=['temp1','temp2','temp3']
struct = {name : "", value : ptr_new(/allocate)}
data = replicate(struct, n_elements(varnames))
for i=0, n_elements(varnames)-1 do begin
    data.name = varnames[i]
    *data.value = bytarr(25) ; Or anything at all.
endfor
```

Now, you can refer to your data using the name tag of the structure. Locate the right structure in the array using WHERE and use the result to get to VALUE.
This is not the only way. You can use the linked list from Dave Fanning's web site.
Another simple way I can see that will avoid searching with WHERE would use a... widget tree. Create one and populate children's UVALUE with the data. Then, you can search using /FIND_BY_UNAME keyword to Widget_Info. I am not sure it is more efficient than WHERE, but takes about 5 lines of code less :-)
Cheers,
Pavel

Steve Nesbitt wrote:

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> IDL, something like:
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> I would appreciate any help on this, or a way to get around this issue.
>
> Cheers,
> -Steve
>
> --
```

```
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```

Subject: Re: dynamically naming variables

Posted by [Steve Nesbitt](#) on Tue, 04 Mar 2003 00:10:21 GMT

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Pavel Romashkin wrote:

```
> Don't use runtime name definition. I was told by a developer at RSI
> that, if you find the need for this in your program, this means you need
> a better design. I am ever so thankful for this advice.
```

Thanks for the much more elegant alternative. I use structures regularly, but was just looking for a quick fix for a problem that required a read/write of several gigabytes of data. I won't do it again, I promise! I won't! :)

Cheers,

-Steve
