
Subject: Variable name to string
Posted by [Chad Bender](#) on Tue, 17 Jul 2001 20:50:33 GMT
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Hello-

Can anyone please point me towards the solution of the following problem?

Say I want to create a program that will write the contents of a named array to a file of the same name. This could be accomplished by having the program prompt the user for both the variable name (getting the array by reference) and the file name (getting the string naming the output file), and the user just puts the same thing twice. However, I would like to be able to do it so the user only has one prompt. The program asks what variable should be output, the user gives the variable name, and somehow the program is able to get a string with contents equivalent to the variable name for use in opening the output file.

Seems like it should be an easy problem, but for the life of me I can't figure it out.

In case it matters, I'm running IDL 5.4 under RedHat Linux 6.2.

Thanks
Chad Bender
Dept of Physics and Astronomy
State University of New York @ Stony Brook

Subject: Re: Variable name to string
Posted by [R.Bauer](#) on Wed, 18 Jul 2001 13:16:58 GMT
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> In case it matters, I'm running IDL 5.4 under RedHat Linux 6.2.
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> Thanks
> Chad Bender
> Dept of Physics and Astronomy
> State University of New York @ Stony Brook

execute won't work by runtime

If the program should work by runtime you should think a bit about using
of structures

PRO example

```
str=""  
READ , 'INPUT:', str  
  
value=10  
  
struct={str:value}  
PRINT, TAG_NAMES(struct)  
PRINT, struct.(0)  
END
```

For structures useful routines are:

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/text2tagname.tar.gz
struct={txt2tagname(str):value}

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/text_position.tar.gz

```
x=tag_names(struct)
pos_x=tag_position(struct,x)
```

```
for i=0,n_elements(pos_x)-1 do begin
  print,x[i]
  print,struct.(pos_x[i])
endfor
```

For further routines and licensing please have a look at
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.html

regards

Reimar

--

Reimar Bauer

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email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg1/>

=====
a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.html

<http://www.fz-juelich.de/zb/text/publikation/juel3786.html>
=====

read something about linux / windows
<http://www.suse.de/de/news/hotnews/MS.html>

Subject: Re: Variable name to string
Posted by [Craig Markwardt](#) on Wed, 18 Jul 2001 14:04:30 GMT
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Chad Bender <cbender@mail.astro.sunysb.edu> writes:

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- > same
- > thing twice. However, I would like to be able to do it so the user only
- > has one prompt.

This appears to be basic string manipulation, which can be accomplished using the "+" symbol.

```
:: Get variable name.  
varname = "  
read, varname
```

```
:: Derive file name from variable name  
filename = varname + '.dat'
```

Now, as the others have pointed out, the harder question is really, how do you get at a variable for which you only have the name? EXECUTE can work if the variable and your code are at the same level. For example, this code

```
return_code = execute('DATA = '+varname)
```

will put the data into a variable named DATA. Also, sneaky use of ROUTINE_NAMES can do it. But honestly, you should try to re-work your concept so you don't have to do that if you can.

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: Variable name to string
Posted by [Pavel A. Romashkin](#) on Wed, 18 Jul 2001 15:52:00 GMT
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Craig Markwardt wrote:

>
> But honestly, you should try to re-work your
> concept so you don't have to do that if you can.

Craig again hit the nail on the head. This whole idea of saving to files which name is defined at runtime precludes further use of these files from inside a program. They can only be used by the operator, because there is no way to tell the code what file names are, and moreover, what are variable names going to be once those files are restored. I ran into this before, and found out that there always is a better way to organize the data.

Cheers,
Pavel

Subject: Re: Variable name to string
Posted by [Chad Bender](#) on Wed, 18 Jul 2001 19:32:55 GMT
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Thanks Craig. That is just what I was looking for. Running the program at the main level is not a problem for me. Basically, I have a bunch of data stored in array's and saved in an IDL save file. I just needed something to conveniently get them out of IDL and into individual text files, while retaining the information contained in the array names.

Chad

On 18 Jul 2001, Craig Markwardt wrote:

>
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> Craig
>
>
> --
> -----
> Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
> Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
> -----
>
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