Subject: Re: IDL- variable variable names Posted by davidf on Thu, 07 Nov 1996 08:00:00 GMT

View Forum Message <> Reply to Message

I wrote in a previous article:

```
> But..., I got about this close:
>
    FUNCTION MAGIC, file
>
    number = 0
>
    ok = EXECUTE(file + ' = 0')
>
    RESTORE, file
>
    RETURN, number
>
    END
>
>
    IDL> a = 10
>
    IDL> number = a
>
    IDL> Save, a, number, Filename='a'
>
    IDL> b = 'a'
>
    IDL> c = Magic(b)
>
    IDL> IF c EQ 10 THEN Print, "It's magic!"
>
      It's magic!
>
```

Here is an obvious modification that I overlooked that nudges it even closer. And I added some help for the 8.3 crowd! :-)

```
FUNCTION MAGIC, file
number = 0
RESTORE, file + '.sav'
RETURN, number
END
IDL> a = 10
IDL> number = a
IDL> Save, number, Filename='a.sav'
IDL> b = 'a'
IDL> c = Magic(b)
IDL> IF c EQ 10 THEN Print, "It's magic!"
  It's magic!
```

This almost borders on the useful now. What do you have in mind for this, Hendrik?

David ***********

- * David Fanning, Ph.D.
- 2642 Bradbury Court, Fort Collins, CO 80521
- * Phone: 970-221-0438 Fax: 970-221-4762
- * E-Mail: davidf@dfanning.com
- *
- Sometimes I go about pitying myself, and all along my
- soul is being blown by great winds across the sky.
- * -- Ojibway saying

Subject: Re: IDL- variable variable names Posted by davidf on Thu, 07 Nov 1996 08:00:00 GMT View Forum Message <> Reply to Message

Hendrik Roepcke <alpha@jungle.toppoint.de> writes:

- > i want to play with IDL Variable names.....Look:
- > a=10
- > b="a"
- > c=print,MAGIC("b")
- > if c eq 10 then print," its magic!"

>

> So: How to programm this function MAGIC????

This looks like deja vu all over again. Here is the answer: Ain't no way, no how!

But..., I got about this close:

FUNCTION MAGIC, file number = 0 ok = EXECUTE(file + ' = 0') RESTORE, file

RETURN, number

END

IDL> a = 10

IDL> number = a

IDL> Save, a, number, Filename='a'

IDL> b = 'a'

IDL > c = Magic(b)

IDL> IF c EQ 10 THEN Print, "It's magic!"

It's magic!

David

- * David Fanning, Ph.D.
- * 2642 Bradbury Court, Fort Collins, CO 80521
- * Phone: 970-221-0438 Fax: 970-221-4762
- * E-Mail: davidf@dfanning.com

*

- * Sometimes I go about pitying myself, and all along my
- * soul is being blown by great winds across the sky.
- -- Ojibway saying

Subject: Re: IDL- variable variable names
Posted by MICHEL KRUGLANSKI on Fri, 08 Nov 1996 08:00:00 GMT
View Forum Message <> Reply to Message

Try:

a = 10 b = 'a' c = 0 r = execute('c='+b) print,r,c

Michel K.

Subject: Re: IDL- variable variable names
Posted by alpha on Sun, 10 Nov 1996 08:00:00 GMT
View Forum Message <> Reply to Message

davidf@fortnet.org (David Fanning) writes:

- > I wrote in a previous article:
- > Here is an obvious modification that I overlooked that nudges it
- > even closer. And I added some help for the 8.3 crowd! :-)

yes... this ugly 8.3 guys.... sometimes they even 8.203 packets...

- > FUNCTION MAGIC, file
- > number = 0
- > RESTORE, file + '.sav'
- > RETURN, number
- > END
- > IDL> a = 10
- > IDL> number = a

- IDL> Save, number, Filename='a.sav' IDL> b = 'a'>
- IDL> c = Magic(b)>
- IDL> IF c EQ 10 THEN Print, "It's magic!"

> It's magic! >

- > This almost borders on the useful now. What do you have
- > in mind for this, Hendrik?

hmmm OK, it seems it does not suffer on the 131-problem!

i will do some meditation on that...

Panther (alias Hendrik)

Panther in the Jungle -BELIEVE AND DECEIVE- __.-' .-/"; http://www.ang-physik _.-' _..-. \ .uni-kiel.de/~hendrik ((..-' (< ; ..

Subject: Re: IDL- variable variable names Posted by meron on Sun, 10 Nov 1996 08:00:00 GMT View Forum Message <> Reply to Message

In article <davidf-ya023080000711961510130001@news.frii.com>, davidf@fortnet.org (David Fanning) writes:

> I wrote in a previous article:

>> But..., I got about this close: >> FUNCTION MAGIC, file >> number = 0>> ok = EXECUTE(file + ' = 0')>> RESTORE, file >> RETURN, number >> **END** >>

>>

IDL> a = 10>>

IDL> number = a >>

IDL> Save, a, number, Filename='a' >>

IDL> b = 'a'>>

IDL> c = Magic(b)>>

IDL> IF c EQ 10 THEN Print, "It's magic!" >>

>>

```
It's magic!
>>
>
> Here is an obvious modification that I overlooked that nudges it
> even closer. And I added some help for the 8.3 crowd! :-)
>
>
    FUNCTION MAGIC, file
    number = 0
>
    RESTORE, file + '.sav'
>
    RETURN, number
>
    END
>
>
    IDL> a = 10
    IDL> number = a
>
    IDL> Save, number, Filename='a.sav'
>
    IDL> b = 'a'
>
    IDL> c = Magic(b)
>
    IDL> IF c EQ 10 THEN Print, "It's magic!"
>
>
      It's magic!
>
> This almost borders on the useful now. What do you have
> in mind for this, Hendrik?
Oh, you can get useful stuff using EXECUTE, and there is no need to go
through saving and restoring. Here is an example
Function One_of, v_0, v_1, v_2, v_3, v_4, v_5, v_6, v_7, value = val
;+
; NAME:
: ONE OF
: PURPOSE:
Called with up to 8 variables V_0 through V_7, ONE_OF checks which
variable is defined (only one is supposed to be).
 CATEGORY:
Programming.
 CALLING SEQUENCE:
 Result = ONE_OF( V_0 [, V_1, ... V_7] [, VALUE = VAL])
; INPUTS:
  V 0 through V 7
 Arbitrary, all are optional.
OPTIONAL INPUT PARAMETERS:
 See above.
KEYWORD PARAMETERS:
 VALUE
Optional output, see below.
OUTPUTS:
; Returns the serial number (range 0 through 7) of the defined variable,
```

```
; or -1 if none is defined. If more than one variable is defined, ONE OF
issues an error message and returns to the main level.
 OPTIONAL OUTPUT PARAMETERS:
  VALUE
The name of the variable to receive the value of the single defined
 variable, or a null string if none is defined.
 COMMON BLOCKS:
None.
SIDE EFFECTS:
: None.
: RESTRICTIONS:
; Currently ONE OF is restricted to a maximum of 8 variables. If needed,
; the number can be increased.
PROCEDURE:
Straightforward.
MODIFICATION HISTORY:
Created 15-JUL-1991 by Mati Meron.
; Modified 30-JUL-1991 by Mati Meron. The dependence of the original
code on the EXECUTE system routine has been eliminated in order to
; assure compatibility with the OUTPUT routine.
; Modified 15-NOV-1993 by Mati Meron. Since IDL now allows for recursive
; calls to EXECUTE, the original code has been restored.
  on_error, 1
  vnams = ['v_0', v_1', v_2', v_3', v_4', v_5', v_6', v_7']
  exlist = lonarr(8)
  exind = -11
  val = "
  for i = 0, n params() - 1 do idum = $
execute('exlist(i) = n_elements(' + vnams(i) + ')')
  wex = where(exlist gt 0, nex)
  if nex eq 1 then begin
 exind = wex(0)
idum = execute('val = ' + vnams(exind))
  endif else if nex gt 1 then message, 'Only one variable may be defined!'
  return, exind
end
```

Mati Meron | "When you argue with a fool, meron@cars.uchicago.edu | chances are he is doing just the same"