
Subject: Re: ASSOC

Posted by [davidf](#) on Fri, 22 Sep 2000 07:00:00 GMT

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yu175372@yorku.ca (yu175372@yorku.ca) writes:

> hello people this is not clear to me but i figure some of the IDL GURU's
> can help me out.

Humm. Maybe. But the IDL GURU's prefer to know WHO
they are helping out. I'm guessing a name would provide
better service in the future. :-)

> i have an bsq file with the dimensions of 554*521*42 and
> tried to use the ASSOC function since i knew the dimensions and so
> created a structure :
> 2 variables of x=FLTARR(554) and y=FLTARR(521) and REPLICATED the
> structure 42 times into a third variable and then tried the ASSOC
> function with it and it ran fine except for when i tried to access any
> data it would give me the error of
> "File expression not allowed in this context: RESULT."
> and if i peaked into it using the variable watch it would crash IDL
> every time. Kinda makes me wish that anything in IDL work as it's
> designed to.
> I'm using IDL 5.2
> PRO Profiles
> ;dealing with a 3D array of sorts.
> z= 42 ;depth of the array
> data={mo,x:FLTARR(554),y:FLTARR(521)}
> data_cube=REPLICATE(data,z) ;this is to hold the bsq
> help,data_cube
> help,data
>
> filepath=DIALOG_PICKFILE(/MUST_EXIST,TITLE='SELECT DATA FILE')
> GET_LUN,unit
> OPENR,unit,filepath
> result=ASSOC(unit,data_cube)
> ;READU,unit,data_cube,TRANSFER_COUNT=count
> CLOSE,unit
> FREE_LUN,unit
>
> a=result(0).y[0:6]
> print,a
> print,result.(0).x[*]
> END

Unfortunately, I think you have misinterpreted just about
everything you have read about the IDL associated variable

method. In the first place, it is not designed to read in an entire data cube like this. If this is what you want to do, you would be much better off just doing this:

```
OpenR, unit, filepath, /Get_Lun
data_cube = FltArr(554, 521, 42)
ReadU, unit, data_cube
Free_Lun, unit
```

If you wanted to read just one of the 554 by 551 arrays, then the associated variable method would allow you to do that without reading the entire data set. (Not reading the entire data set is pretty much the point of the associated variable method.) Then you would do it like this:

```
OpenR, unit, filepath, /Get_Lun
array = Assoc(unit, FltArr(554, 521))
```

What you do in the associated variable method is map a virtual data structure onto the data file. Another way of saying this is that you associate a variable organization onto the bytes in the file. The reading of the data occurs when the data is needed. For example, suppose you want to display the 25th image in the file. Then you would type this:

```
TV, array(24)
```

The ability to read only a portion of the file, and then only when that data is needed, makes the file I/O efficient.

IDL does tend to work as it is designed to. Even if it doesn't always work as we expect it to. The discrepancy can be especially large if we haven't taken the time to read the documentation.

Cheers,

David

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