Subject: Re: array dimensions
Posted by John-David T. Smith on Mon, 09 Apr 2001 16:25:01 GMT
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Paul van Delst wrote:
>
> Martin Schultz wrote:
>>
>> "Richard G. French" wrote:
>>>
>>> David Fanning wrote:
>>>> > dimensions = Size(myarray, /Dimensions)
>>>>
>>>> Cheers,
>>>
>>> David is the master of keywords - I've used SIZE all these years without
>>> knowing that there was a /DIMENSIONS keyword. I guess the only way to
>>> know about these things is to read through the documentation over and
>>> over again and take notes on potentially useful keywords and options.
>>>
>>> Which brings me to my question - does anyone out there have a favorite
>>> keyword on a routine that we mere mortals might not know about, but
>>> which
>>> might make our lives much easier? Any suggestions welcome, except for
>>> HISTOGRAM and PLOT!
>>>
>>> Dick French
>>
>> Not a favorite keyword, but a favorite tool: Get a decent system (if
>> you haven't one), install emacs with idlwave, run the routine-info
>> collection, and then you have all the keywords you never knew but
>> always dreamt about literally at your fingertips.
>
> Similar to typing "?" at the IDL prompt and getting similar info - with examples no less!
> Gasp!

Not even *sort of* similar. Yes, it's the same information (Carsten
simply process the pdf manuals to get the documentation). But the
access is amazingly better. Example:

IDL> d=size(myvar,/

Hmm what was that keyword to size? I'll hit [Tab] to see. Up comes:

Possible completions are:
DIMENSIONS FILE_LUN
L64 N_DIMENSIONS
N_ELEMENTS STRUCTURE

TNAME TYPE

Aha, DIMENSIONS, I think that's it. Why don't I right click on it to find out. Up pops in the help window with help on size() displayed, and queued up to:

> DIMENSIONS
> Set this keyword to return the dimensions of Expression. If Expression is scalar, the result is a scalar containing a 0. For arrays, the result is an array containing the array dimensions. ...

OK, dimensions it is, middle click on it:

IDL> d=size(myvar,/DIMENSIONS

Aren't there some other arguments to size()? I don't recall. I'll just show the calling syntax. [C-c ?]. Here comes:

Usage: Result = SIZE(Expression)
Keywords: DIMENSIONS FILE_LUN L64 N_DIMENSIONS N_ELEMENTS STRUCTURE TNAME TYPE
Source: Builtin

Hmm. I guess not. But what is that STUCTURE keyword all about. I don't remember that one. Why not right click on it (it's blue, which means it exists in the help).

> STRUCTURE
> Set this keyword to return all available information about Expression in a structure.

OK, I'll file that away for a rainy day. As you can see, you soon become intimately aware of all the keywords in all your favorite routines, and able to summon them into existence with a few keystrokes. One positive side effect of keyword completion is that I am no longer lazy when it comes to partial keywords (OK I'm still lazy, but IDLWAVE is not). No longer is my code littered with framents like "a=size(var,/DIME)" and other non-sequiturs.

This is not to mention help with finding the correct routine in the first place. I haven't thrown away my regular on-line data-files, I just visit them only about once a month.

To see (and work through) even more examples, have a look at the tutorial:
http://www.strw.LeidenUniv.nl/~dominik/Tools/idlwave/idlwave .html#SEC3

JD

P.S. There are a couple of new features in the offing for an IDLWAVE release. If you've ever been tired of the wait for routine info to load, look for a nice improvement "real soon now". A nice new drag-to-print feature for instant debugging fun is also in the works. Stay tuned.
