Subject: Re: Explanation received. (re prev. post)
Posted by sigut on Mon, 05 Dec 1994 08:18:49 GMT
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In article <Pine.SOL.3.91.941202162651.15342D-100000@chroma> Russ
Welti <rwelti@chroma.mbt.washington.edu> writes:

>> The IDL ABS function is a wrapper to the C ABS function. This is the
>> value that is returned by that function. I beleive the reason is
>> that the absolute value is not really defined for byte data. However,
>> I can't really explain what is going on and why it is returning this
>> value. You would see the same behavior in a C program. The solution
>> is to convert your arguements to integers before taking the absolute
>> value.
>
>   I guess this makes sense, although I wish the manuals
>   made note of it, instead of saying that any type may be used with
>   ABS. For example, it mentions passing strings and complexes to ABS.
>   Would they also return garbage? Then what's the point?
>
>   Maybe it's all so IDL can avoid having a runtime error. But it is
>   sometimes hard to track down problems like this when a function
>   like ABS returns something *reasonable*, but wrong.

As a matter of fact byte is a byte as long as you don't start doing
arithmetics with it. Once you start with arithmetics, it has to decide
if it is a "signed" or "unsigned" byte. If you want to run it through
the "abs" function, you are implying that it is signed. In that moment
your 244 turns into -12 (signed byte interval is -128 to 127). So I
would argue that the program (IDL or PV-Wave) behaves correctly.

Pehaps there should be a warning given somwhere, that byte arithmetic
might bite you.

George

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