Subject: Re: IDL is giving me a syntax error out of nowhere
Posted by Jean H. on Mon, 15 Sep 2008 19:40:11 GMT
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Hi,

maybe you should check the descriptions of Integers, Longs, Floats and Double... there is nothing wrong with your program:

> IDL> getoccid, 1228694696.289
> The occultation with ID 1.22869e+09 is:
> -999

max float is 10^38 (fine), with 7 decimal places of significance. The result you expect has more than 7 decimal digits.

> IDL> getoccid, 1228694696.289L
> getoccid, 1228694696.289L
> % Syntax error.

Long is a 32 bits INTEGER... no places for decimals. It is a normal behavior. Try a = 1.2L ... it will give you the same error!

> IDL> getoccid, long(1228694696.289)
> The occultation with ID 1228694656 is:
> -999

Same problem as the first one. Your number is, by default, a float. The result you get (ending in 656) is well within the float accuracy.
Also, by making it a long, you do trim the decimals.

> IDL> getoccid, 1228694696.289UL
> getoccid, 1228694696.289UL
> % Syntax error.

Same as above. No decimals in an Unsigned Long.

> I know what is wrong with the first command, but the last 3 should not
> have any problems, especially syntax problems. If you see the third
> call to the procedure (with the long(...) argument), the display at the
> end of the routine has the wrong number so it is not taking in the
> correct value for the argument. I used this routine last year and it
> was working fine, but I can't remember the trick to get it to work.
>
> Any insights into this problem would be greatly appreciated,
> Ryan.

So, what you really want is, I guess, to pass a DOUBLE. Try
getoccid, 1228694696.289D

doubles have up to 14 decimal places of significance.

Of course, it also depend on what you are doing in your function with
that value... don't type cast it anymore!

Jean
