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Subject: Re: Checking datatypes (datatype.pro)  
Posted by [meron](#) on Thu, 13 Jul 1995 07:00:00 GMT  
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In article <Pine.SOL.3.91.950713122559.14751A-100000@chroma>, Russ Welti  
<rwelti@chroma.mbt.washington.edu> writes:

>  
> Someone posted about the danger of IDL variables and  
> parameters being of unexpected datatypes. There is  
> a little function, 'datatype' (probably based on HELP)  
> which is handy for verifying that the type is what  
> you expect it is at critical times, such as upon  
> entering a routine.  
>  
> For example:  
>  
> IDL> j=1L  
> IDL> if datatype(j) NE 'LON' then message,'Invalid datatype for j.'  
> IDL>  
> IDL> j=1.0  
> IDL> if datatype(j) NE 'LON' then message,'Invalid datatype for j.'  
> % \$MAIN\$: Invalid datatype for j.  
>  
>  
> I find it very helpful.  
> Thank you, Ray Sterner, and here it is:

... routine body omitted ...

Alternatively, one can use the following quick and dirty thingy

---

Function Type, x

```
;+  
; NAME:  
; TYPE  
; PURPOSE:  
; Finds the type class of a variable.  
; CATEGORY:  
; Programming.  
; CALLING SEQUENCE:  
; Result = TYPE(X)  
; INPUTS:  
;   X  
; Arbitrary, doesn't even need to be defined.  
; OPTIONAL INPUT PARAMETERS:
```

```
; None.
; KEYWORD PARAMETERS:
; None.
; OUTPUTS:
; Returns the type of X as a long integer, in the (0,9) range.
; OPTIONAL OUTPUT PARAMETERS:
; None.
; COMMON BLOCKS:
; None.
; SIDE EFFECTS:
; None.
; RESTRICTIONS:
; None.
; PROCEDURE:
; Extracts information from the SIZE function.
; MODIFICATION HISTORY:
; Created 15-JUL-1991 by Mati Meron.
;-

    dum = size(x)
    return, dum(dum(0) + 1)
end
```

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Mati Meron | "When you argue with a fool,  
meron@cars3.uchicago.edu | chances are he is doing just the same"

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