
Subject: Re: print, long(1.0e10)
Posted by [thompson](#) on Mon, 09 Aug 1999 07:00:00 GMT
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Gary Fu <gfu@seadas.gsfc.nasa.gov> writes:

> I got different results from the following example on SGI IRIX and PC
> Linux:
> a = 1.0e10
> b = long(a)
> print, b ; 2147483647 for IRIX, -2147483648 for Linux

> It looks like that IRIX and Linux handle it differently when assigning a
> floating value greater (or less) than the boundary of a long integer to
> a long variable. Should I always check the range of 'a' before
> assigning it to a 'long' variable to make the result consistent on IRIX
> and Linux ?

It appears that Digital Unix gives yet another answer:

```
IDL> a = 1.0e10
IDL> b = long(a)
% Program caused arithmetic error: Floating illegal operand
IDL> print, b
  1410065408
```

which makes sense, since that's A modulo 2^{32} .

William Thompson
