
Subject: Re: Unknown #INFO

Posted by [steinhh](#) on Thu, 12 Nov 1998 08:00:00 GMT

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In article <72d8sr\$9at\$1@agate.berkeley.edu>
korpela@albert.ssl.berkeley.edu (Eric J. Korpela) writes:

```
> In article <MPG.10b3c2392717b0898971a@news.frii.com>,
> David Fanning <davidf@dfanning.com> wrote:
>>
>> IDL> Help, !Values, /Structure
>> ** Structure !VALUES, 4 tags, length=24:
>> F_INFINITY    FLOAT      1.#INFO
>> F_NAN         FLOAT      1.#QNaN
>> D_INFINITY    DOUBLE     1.#INF000
>> D_NAN        DOUBLE     1.#QNaN00
>>
>> I don't know. This may be a Windows thing. Looks a little
>> Bill Gatesh, doesn't it. :-)
>
> Yes it does look windowish. It probably has something to do
> with the compiler they used to make their windows version. What
> concerns me is how this affects reading and writing of text files.
> In the past I have relied on IDL correctly parsing 'Inf' and 'NaN'
> in input files. You can see the obvious portability problem.
>
> I'm not sure if IEEE specifies the text representation of 'Inf'
> and 'NaN' or if a program is required to be able to correctly parse
> them on input.
>
> Out of curiosity, could you try the following?
>
> print,float('Inf')
> print,float('1.#INF0')
>
> My sun gives this:
> IDL> print,!version
> { sparc sunos unix 5.0 Apr 28 1997}
> IDL> print,!values
> {      Inf      NaN      Infinity      NaN}
> IDL> print,float('Inf')
>      Inf
> IDL> print,float('1.#INF0')
>      1.00000
```

I guess you're right on the spot with the assumption that the compiler (or rather, the c library) makes the difference:

```
IDL> print,!version
{ alpha OSF unix 5.1.1 Jul 20 1998}
IDL> print,!values
{      INF      NaNQ      INF      NaNQ}
IDL> print,float(['INF','Inf','NaN','nanq'])
% Type conversion error: Unable to convert given STRING to Float.
% Detected at: $MAIN$
      INF      INF      0.00000      NaNQ
```

So apparently, case doesn't matter, but the particular *spelling* convention does make a difference, and that's even between two unix flavors! What a bummer.. So much for the days when ascii files were portable.. :-)

One other caveat:

```
IDL> print,float(['-Inf','Inf'],-float('Inf'))
      INF      INF
      -INF
```

So the sign isn't picked up. But this again may be platform specific.... then again, I never expected it to be possible to do float('NaNQ') in the first place :-)

Regards,

Stein Vidar
