Subject: Re: what is Floating illegal operand question? Posted by Haje Korth on Tue, 19 Apr 2005 11:51:54 GMT

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Mike and James,

Thanks for the clarification. I was thrown off by the emphasized on floating numbers on the mathworld web site. Deep inside it did not make any sense, so I blamed it on the lecture I mussed have missed in college. :-)
Mike's explanation makes perfect sense, so thanks for straightening me out...

Cheers, Haje

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"Michael Wallace" <mwallace.no.spam@no.spam.swri.edu.invalid> wrote in
message news:1168aupboi2v87b@corp.supernews.com...
> (0/0) is just as undefined as (0.0/0.0) is. However, there is no way
> to express NaN or Infinity when working with integers. The IEEE floating
> point specification allows for NaN and Infinity, but the integer spec does
> not. Without a NaN option, IDL (and other languages as well), default to
  evaluating (0/0) as 0 even though this is technically incorrect.
> -Mike
>
> Haje Korth wrote:
>> Well, if I understand this right, 0/0 is defined and the result is 0, so
>> that the division by zero message is only informational. On the other
>> hand 0./0. is not defined for floating point numbers and results in an
>> error (see http://mathworld.wolfram.com/DivisionbyZero.html). Correct me
>> if I am wrong.
>>
>> Haje
>>
>>
>>> You're getting it from a floating point divide by zero. When using
>>> integers, IDL actually tells you that you tried to divide by zero. For
>>> some reason, they have a different message for floating point.
>>>
>>> IDL> x = 0 / 0
>>> % Program caused arithmetic error: Integer divide by 0
>>> IDL> x = 0.0 / 0.0
>>> % Program caused arithmetic error: Floating illegal operand
>>>
>>> -Mike
>>
```

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