Subject: DLL, IEEE question
Posted by karl on Tue, 01 Apr 1997 08:00:00 GMT

I'm having a very strange problem with linkimage and
DLL's. My DLL contains a call to a function from the IMSL
library that is linked when the DLL is built. What seems
to be happening is that somehow the internal IDL function that
checks for IEEE infinities and NaN's gets mangled when I use
linkimage to link my DLL.

Here's a simple example of what happens:

```
IDL> print,1.0/0.0
% Program caused arithmetic error: Floating divide by 0
% Detected at  $MAIN$
        INF
IDL>linkimage,'my_func','my_func.dll'
IDL> print,1.0/0.0
```

IDL dies here

This is all happening under NT 4.0 and I'm using IMSL
library functions that come with microsoft powerstation.
Another interesting clue is that I can apparently "fix"
the probelm by generating an underflow after executing
the linkimage and before generating any infinities, i.e.
somehow the underflow turns the internal IDL IEEE checking
back on (or something). This is a kludge that is obviously
not a long term solution, so my question is - has anybody
had this problem and solved it and/or does anybody know how
I can learn more about the IDL internal IEEE functions (at
least enough to try and figure out what's going on here) ?
Thanks in advance for any tips,

- KY

PS - I appreciate any responses but please don't reply
    with "Make sure your code dosen't generate
    infinities" , i.e. the whole point of the
    IEEE standard is to be able to trap and respond to
    such things; it is in fact in an IDL function that
    my program calls that the divide by 0 occurs...

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