## Subject: Re: Strange Bug with numeric double constants Posted by thompson on Mon, 22 Mar 1999 08:00:00 GMT

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Alex Schuster <alex@rosa.mpin-koeln.mpg.de> writes:

- > Hi!
- > I just experienced some weird IDL behaviour:
- > IDL> help, 1.0d+2.0d
- > help, 1.0d+2.0d
- > ^
- > % Syntax error.
- > IDL> help, 1d+2d
- > help, 1d+2d
- > ^
- > % Syntax error.
- > Strange, isn't it? There's no problem with byte constants:
- > IDL> help, 1b+2b
- > <Expression> BYTE = 3
- > An additional blank helps:
- > IDL> help, 1d +2d
- > <Expression> DOUBLE = 3.0000000
- > I didn't try IDL 5.2, but it happened with 4.0 and 5.1 on Unix and
- > Windows. I guess IDL expects an exponential notation like 1d0, and is
- > confused by the nonnumeric plus character.

Wouldn't it be more proper to write these numbers as

IDL> help, 1.0d0+2.0d0

As others have pointed out, IDL is getting confused by putting the +2 immediately after the "d"--it thinks it's part of the exponent. I guess that IDL usually knows what you meant if you leave the exponent off, but not always as you found out.

Cheers,

Subject: Re: Strange Bug with numeric double constants Posted by Martin Schultz on Mon, 22 Mar 1999 08:00:00 GMT

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Alex Schuster wrote:
> Hi!
> I just experienced some weird IDL behaviour:
> IDL> help, 1.0d+2.0d
> help, 1.0d+2.0d
>
> % Syntax error.
> [...]
 I'd just say it's normal. Since '+' or '-' are two allowed characters
in the exponential, IDL wants to interpret everything after '+' as the
exponent, and you are limited to integer exponents here.
Just for fun: if you try
help,1.d*2.d it will work!
Martin.
      -----
Dr. Martin Schultz
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Internet-homepage: http://www-as.harvard.edu/people/staff/mgs/
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Subject: Re: Strange Bug with numeric double constants Posted by R.Bauer on Mon, 22 Mar 1999 08:00:00 GMT

Alex Schuster wrote:

```
> Hi!
>
 I just experienced some weird IDL behaviour:
> IDL> help, 1.0d+2.0d
> help, 1.0d+2.0d
> % Syntax error.
> IDL> help, 1d+2d
> help, 1d+2d
>
 % Syntax error.
  Strange, isn't it? There's no problem with byte constants:
> IDL> help, 1b+2b
  <Expression> BYTE
                           = 3
> An additional blank helps:
> IDL> help, 1d +2d
> <Expression> DOUBLE =
                                   3.0000000
 I didn't try IDL 5.2, but it happened with 4.0 and 5.1 on Unix and
> Windows. I guess IDL expects an exponential notation like 1d0, and is
  confused by the nonnumeric plus character.
>
       Alex
                   Wonko@weird.cologne.de
                                                   PGP Key available
  Alex Schuster
              alex@pet.mpin-koeln.mpg.de
If you look to the exponent definition it isn't strange because
help, 1d+2
<Expression>
               DOUBLE =
                                 100.00000
It isn't allowed to use the D to define double more than once in a
definiton of a number.
If you won't use blank to separate the numbers you can use ()
help, (1d)+(2d)
<Expression>
               DOUBLE =
                                 3.0000000
```

## R.Bauer

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