
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,

William Thompson

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.

--

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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
> --
> Alex Schuster  Wonko@weird.cologne.de      PGP Key available
>                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
```

