Subject: Re: double precision complex #s
Posted by agraps on Sun, 16 Apr 1995 07:00:00 GMT
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psharer@eos.arc.nasa.gov (Peter J. Sharer) writes:

> I am using the complex declaration for an array of complex numbers,
> but am running into a problem with floating point overflows in a
> polynomial calculation. Does anyone know of a way to create a complex
> variable with double precision?

> Thanks for your help,

> Peter Sharer

Peter,

Try handling the real and imaginary parts this way (it's convoluted, but it works :))

```
IDL> a = [1,2,3]
IDL> b = [4,5,6]
IDL> c = complex(a,b)
IDL> print, c
(      1.00000,      4.00000)(      2.00000,      5.00000)(      3.00000,
6.00000)
```

To get double precision reals, use some of the rules of complex algebra,

```
IDL> print,  double(abs((c+conj(c))/2.0))
       1.0000000       2.0000000       3.0000000
```

To get double precision imaginary, use idl's imaginary function,

```
IDL> print, double(imaginary(c))
       4.0000000       5.0000000       6.0000000
```

(There are more zeros than what's being printed here, but you get the idea.)

Amara

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"The map is not the territory." --Alfred Korzybski
