Subject: Re: Physical constants in IDL with !CONST
Posted by Paul Van Delst[1] on Thu, 20 Dec 2012 20:31:14 GMT
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Hello,

On 12/20/12 14:10, Chris Torrence wrote:
> On Thursday, December 20, 2012 10:36:21 AM UTC-7, Heinz Stege wrote:
>
> Hi Heinz,
>
> That's a really good point. I had the same dilemma about "eV" when I
> put it in. I like your idea of getting rid of "e".

For what it's worth, I agree with Heinz. But for a (slightly) different reason.

The symbol for elementary charge on the NIST site is "e". Thus that should be what is used in !C.

Consistent adherence to a convention (in this case: all this stuff comes from the NIST/CODATA site) is A Good Thing (tm).

> Also, yes, I'll make the "DtoR" and "RtoD" consistent. Maybe "DegRad"
> and "RadDeg", so at least they are somewhat human-readable?

I prefer the former to the latter simply because of the preposition "to" indicating a direction of conversion.

<aside mode="tangential">
I've never been a big fan of making constant names short because people want to save some keystrokes. In fact, that violates most advice/conventions on naming in the usual texts ("Code Complete", "Clean Code", etc etc)

I'm a verbose sort so the following is what I use:

```
REAL(fp), PARAMETER :: PI = 3.14159265358979323846264338327 9_fp
REAL(fp), PARAMETER :: TWOPI = TWO * PI
REAL(fp), PARAMETER :: DEGREES_TO_RADIANS = PI / 180.0_fp
REAL(fp), PARAMETER :: RADIANS_TO_DEGREES = 180.0_fp / PI
```

(I have similar in IDL code so I'm sure of the precision)

So if it's human readability you want, why not DEGREES_TO_RADIANS and RADIANS_TO_DEGREES?

I realise just about everyone will disagree with me.

And that's o.k. :o)
</aside>

cheers,

paulv
