Subject: Re: units conversion
Posted by Paul van Delst on Thu, 01 Mar 2001 14:39:19 GMT
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Craig Markwardt wrote:

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> Jason Li <jylimd@yahoo.com> writes: >> Hi, >>
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- >> MODTRAN package outputs atmospheric profile in tape 6. The physical unit
- >> used for the gas concentration is in ATM CM/KM. I want to convert it to any
- >> one of the following units:

>> >> (

>> g/Kg >> ppmv,

>> g/m3

>>

- > I'm still wondering: what's the big deal? If you need three
- > conversions, then you can probably figure the scale factors once for
- > all three and just put them in your code. [It must be harder than
- > this.]

It is a big deal and it is harder than that. Units conversion, particularly for the numerous and arcane ones used in various meteorological and atmospheric spectroscopic fields, is a lot more trickier than people think. Particularly when integrated quantities are involved and interpolations must be performed etc.

- > In fact, given that that this was cross-posted to
- > meteorology, is it even related to IDL at all?

Maybe he reads the MODTRAN output in IDL for plotting the results.

paulv

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Paul van Delst A little learning is a dangerous thing;

CIMSS @ NOAA/NCEP Drink deep, or taste not the Pierian spring;

Ph: (301)763-8000 x7274 There shallow draughts intoxicate the brain,

Fax:(301)763-8545 And drinking largely sobers us again.

pvandelst@ncep.noaa.gov Alexander Pope.