
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:

>
> Jason Li <jylimd@yahoo.com> writes:
>> Hi,
>>
>> 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.
