
Subject: COMMON block question

Posted by [Paul van Delst](#) on Tue, 30 Jan 2001 15:53:46 GMT

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Hey there,

I am doing the following in an initialisation function:

```
COMMON rtm_transmittance_data, predictor_index, $
      transmittance_coefficients

result = read_transmittance_coefficients( 'transmittance_coefficients', $
      predictor_index,          $
      transmittance_coefficients )

IF ( result NE SUCCESS ) THEN $
  MESSAGE, 'Error reading transmittance coefficients.', $
  /NONAME, /NOPRINT
```

If I run the function I see the following:

```
IDL> print, initialize_rtm()
% Compiled module: COMPUTE_ABSORBER_SPACE.
% Compiled module: READ_TRANSMITTANCE_COEFFICIENTS.
% Compiled module: OPEN_COEFFICIENT_FILE.
% Compiled module: READ_SPECTRAL_COEFFICIENTS.
1
IDL> common rtm_transmittance_data
IDL> help
% At $MAIN$
PREDICTOR_INDEX (RTM_TRANSMITTANCE_DATA)
      LONG      = Array[6, 142, 3]
TRANSMITTANCE_COEFFICIENTS (RTM_TRANSMITTANCE_DATA)
      DOUBLE    = Array[6, 301, 142, 3]
Compiled Procedures:
  $MAIN$
```

Compiled Functions:

```
COMPUTE_ABSORBER_SPACE  INITIALIZE_RTM      OPEN_COEFFICIENT_FILE
READ_SPECTRAL_COEFFICIENTS  READ_TRANSMITTANCE_COEFFICIENTS
```

How does IDL go about creating COMMON blocks when the size/type of the common block elements are not known until, in this case, they're read in. Understand I'm coming from Fortran-90 background where I declare everything up front in its own module (sort of like a f77/IDL common block but better). Does IDL simply create pointers to the data elements up front and then fills in the blanks after the data has actually been read in/defined? The documentation doesn't give much info.

Thanks for any insights. All metphysical replies forwarded to DF. :o)

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. |
| Email: pvandelst@ncep.noaa.gov | Alexander Pope. |
