
Subject: Function referencing/automatic definition question.
Posted by [Paul Van Delst\[1\]](#) on Thu, 29 May 2003 15:00:43 GMT
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Hello,

```
IDL> print, !version  
{ x86 linux unix linux 5.5a Feb 7 2002    32    32}
```

I have a file called emiscoeff__define.pro that contains the named structure (EmisCoeff) definition. ****Preceding**** the actual definition procedure in the same source file is a bunch of utility functions that allow me to allocate, assign, and destroy the structure. I invoke the automatic definition thusly:

```
EmisCoeff = { EmisCoeff }
```

which produces the message:

```
% Compiled module: EMISCOEFF__DEFINE.
```

Fair enough. The very next statement in my code calls a function in the emiscoeff__define.pro file that allocates space in the structure:

```
Result = Allocate_EmisCoeff( n_Wind_Speeds, $  
                             n_Coefficients, $  
                             n_Channels, $  
                             EmisCoeff )  
IF ( Result NE SUCCESS ) THEN $  
  MESSAGE, 'Error allocating EmisCoeff structure', $  
  /NONAME, /NOPRINT
```

When this statement is reached I get the message:

```
% COMPUTE_THETA_COEFFICIENTS: Variable is undefined: ALLOCATE_EMISCOEFF.
```

where "Compute_Theta_Coefficients" is the name of my calling function.

If I then do a "help":

```
IDL> help  
% At $MAIN$  
EMISCOEFF    STRUCT    = -> EMISCOEFF Array[1]  
Compiled Procedures:  
  $MAIN$ COUNT_EMISCOEFF_SENSORS EMISCOEFF__DEFINE  
PLOT_EMISSIVITY_FIT_RESIDUALS  
  THETA_FUNCTION
```

Compiled Functions:

```
ALLOCATE_EMISCOEFF  ASSIGN_EMISCOEFF
ASSOCIATED_EMISCOEFF  CHECK_VECTORS
COMPUTE_EMISSIVITY_COEFFICIENTS COMPUTE_EMISSIVITY_FIT
COMPUTE_THETA_COEFFICIENTS
CONVERT_STRING  DESTROY_EMISCOEFF  IS_NCDF  READ_NCDF
VALID_STRING
```

You can see that the function ALLOCATE_EMISCOEFF is in the list of compiled functions.

So my question is: what's the go here? Why doesn't my calling procedure "see" the compiled functions that precede my structure definition? I thought the whole point of sticking these routines *before* the procedure in my emiscoeff__define.pro file that actually does the definition meant that they would be compiled?

Any insights appreciated,

paulv

p.s. When I manually compile the emiscoeff__define.pro file I get the following:

```
IDL> .run emiscoeff__define
% Compiled module: ASSOCIATED_EMISCOEFF.
% Compiled module: DESTROY_EMISCOEFF.
% Compiled module: ALLOCATE_EMISCOEFF.
% Compiled module: ASSIGN_EMISCOEFF.
% Compiled module: COUNT_EMISCOEFF_SENSORS.
% Compiled module: EMISCOEFF__DEFINE.
```

How come I don't get this list when I do the automatic compilation via

```
EmisCoeff = { EmisCoeff }
```

???

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Paul van Delst
CIMSS @ NOAA/NCEP/EMC
Ph: (301)763-8000 x7748
Fax:(301)763-8545
