
Subject: Adding a structure inside a previous one
Posted by [titan](#) on Thu, 10 Jun 2010 15:13:33 GMT
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Hy everybody,
I'm trying to define a my new projection using IDL.
Using the ENVI routines "ENVI_GET_PROJECTION" and
"ENVI_GET_MAP_INFO", respectively, I can get all the info I need:

** Structure ENVI_PROJ_STRUCT, 9 tags, length=184, data length=174:

```
NAME      STRING  'MAP Global'
TYPE      INT      99
PARAMS    DOUBLE  Array[15]
UNITS     INT      0
DATUM     STRING  'WGS-84'
USER_DEFINED INT    0
PE_COORD_SYS_OBJ
          ULONG64      0
PE_COORD_SYS_STR
          STRING  ""
PE_COORD_SYS_CODE
          ULONG    0
```

ENVI> help,/st,ENVI_map_info

** Structure ENVI_MAP_INFO_STRUCT, 11 tags, length=328, data
length=310:

```
PROJ      STRUCT  -> ENVI_PROJ_STRUCT Array[1]
MC        DOUBLE  Array[4]
PS        DOUBLE  Array[2]
ROTATION   DOUBLE  0.00000000
PSEUDO     INT     0
KX         DOUBLE  Array[2, 2]
KY         DOUBLE  Array[2, 2]
BEST_ROOT  INT     0
O_RPC      OBJREF  <NullObject>
NS         LONG    0
NL         LONG    0
```

So I write the following lines in order to obtain the same output:

```
;;
*****
my_map_info_proj=CREATE_STRUCT('NAME','MAP Global','TYPE',
99,'PARAMS',DBLARR(15),'UNITS',0,'DATUM','WGS-84','USER_DEFINED',
0,'PE_COORD_SYS_OBJ',ULONG64(0)$
          ,'PE_COORD_SYS_STR','','PE_COORD_SYS_CODE',ULONG(0),NAME='MY
_PROJ_INFO_STRUCT')
```

```

my_map_info_proj.params(0)=6371228.0
my_map_info_proj.params(1)=6371228.0
my_map_info_proj.params(6)=30
my_img_pixel_size=[25067.525,25067.525]

my_map_units=ENVI_TRANSLATE_PROJECTION_UNITS('meters')

;; *****Create the total MAP_INFO STRUCTURE*****

map_info=CREATE_STRUCT('MC',DBLARR(4),'PS',DBLARR(2),'ROTATI ON',
0.00000000,'PSEUDO',0,'KX',DBLARR(2,2),'KY',DBLARR(2,2),$
                'BEST_ROOT',0,'O_RPC',OBJ_NEW(),'NS',
0L,'NL',0L,NAME='MY_MAP_INFO_STRUCT')

my_map_info.PTRARR(0)=AMSRE_map_info_proj_ptr
my_map_info.mc(0)=(1.50000000)
my_map_info.mc(1)=(1.50000000)
my_map_info.mc(2)=(-1732159.7750)
my_map_info.mc(3)=(7332251.0625)
my_map_info.ps(0)=(25067.525)
my_map_info.ps(1)=(25067.525)
;;

```

Looking at the help information on the structures I create I get:

**** Structure MY_PROJ_INFO_STRUCT, 9 tags, length=184, data length=174:**

```

NAME      STRING  'MAP Global'
TYPE      INT      99
PARAMS    DOUBLE  Array[15]
UNITS     INT      0
DATUM     STRING  'WGS-84'
USER_DEFINED INT    0
PE_COORD_SYS_OBJ
            ULONG64      0
PE_COORD_SYS_STR
            STRING  "
PE_COORD_SYS_CODE
            ULONG    0

```

which corresponds to the output of ENVI_GET_PROJECTION;

**** Structure MY_MAP_INFO_STRUCT, 10 tags, length=136, data length=132:**

```

MC        DOUBLE  Array[4]
PS        DOUBLE  Array[2]
ROTATION   FLOAT   0.000000
PSEUDO     INT     0

```

KX	DOUBLE	Array[2, 2]
KY	DOUBLE	Array[2, 2]
BEST_ROOT	INT	0
O_RPC	OBJREF	<NullObject>
NS	LONG	0
NL	LONG	0

My question is: how can I pass to the MY_MAP_INFO_STRUCT the structure MY_PROJ_INFO_STRUCT in order to get the same result as in ENVI_MAP_INFO_STRUCT (i.e. the presence of the tag:PROJ STRUCT -> ENVI_PROJ_STRUCT Array[1])??

thank you very much
