
Subject: Adding a structure inside a previous one
Posted by [titan](#) on Thu, 10 Jun 2010 15:13:33 GMT
[View Forum Message](#) <> [Reply to Message](#)

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

Subject: Re: Adding a structure inside a previous one

Posted by [titan](#) on Wed, 16 Jun 2010 07:27:12 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jun 10, 5:13 pm, titan <thunder...@inwind.it> wrote:

```

> 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),'ROTATION',
> 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

```

Could anyone help me??

thank you

Subject: Re: Adding a structure inside a previous one

Posted by [titan](#) on Mon, 28 Jun 2010 13:51:29 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jun 16, 9:27 am, titan <thunder...@inwind.it> wrote:

> On Jun 10, 5:13 pm, titan<thunder...@inwind.it> wrote:

>

>

>

>

>

>> 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_STRU--CT')
>
>> 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
>
> Could anyone help me??
>
> thank you- Hide quoted text -
>
> - Show quoted text -
```

Hi all!

I solved the problem on my own..it was necessary to use the
ENVI_MAP_INFO_CREATE routine using the "PROJ" keyword equal to the
MY_PROJ_INFO_STRUCT together with the other keywords..
