
Subject: Two named structures with the same name that won't concatenate. Any suggestions?

Posted by [J. Solbrig](#) on Thu, 28 Aug 2008 23:56:01 GMT

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So, I'm really confused. The current code I am building repeatedly uses the line:

```
cld      = [[cld], [startCld(flist[i], pInd, lat[pInd],  
lon[pInd], date[pInd], time[pInd]))]]
```

where "cld" is an array of named structures and "startCld" is a function that creates a named structure. In both cases, the array is named "cirrusStruct." The concatenation above works 70 times in a row, however, on the 71st time it fails and gives the following error:

```
% Unable to concatenate variables because the dimensions do not agree:  
<STRUCT  Array[1]>.  
% Execution halted at: FINDTHINCIRRUS  467 /home/jsolbrig/geoprof-  
lidar/findThinCirrus.pro  
%                               $MAIN$
```

Now, after the error has occurred, if I use the "startCld" routine from command line to create a structure "a," then type "help, cld, a, / structure" they appear to be exactly alike, however still will not concatenate.

```
IDL> help, cld, a  
CLD      STRUCT  = -> CIRRUSSTRUCT Array[70]  
A        STRUCT  = -> CIRRUSSTRUCT Array[1]
```

```
IDL> help, cld, a, /str  
;Help info for "help, cld, /str"  
** Structure CIRRUSSTRUCT, 12 tags, length=112, data length=108:  
  STARTDATE    LONG      20060701  
  STARTTIME    DOUBLE    0.016666668  
  STARTFILE    STRING    '/sn1/jsolbrig/GEOPROF-Lidar/  
jul06/2006182000103_00927_CS_2B-GEOPROF-  
LIDAR_GRANULE_P1_R04_E00.hdf.zip'  
  ENDFILE      STRING    '/sn1/jsolbrig/GEOPROF-Lidar/  
jul06/2006182000103_00927_CS_2B-GEOPROF-  
LIDAR_GRANULE_P1_R04_E00.hdf.zip'  
  STARTPROF    DOUBLE    151.00000  
  ENDPROF      DOUBLE    151.00000  
  STARTLAT     DOUBLE    -1.4628147  
  ENDLAT       DOUBLE    -1.4628147  
  STARTLON     DOUBLE    25.093336  
  ENDLON       DOUBLE    25.093336
```

```

MAXTHK      DOUBLE      0.0000000
MINTHK      DOUBLE      0.0000000

```

```
;Help info for "help, a, /str"
```

```
** Structure CIRRUSSTRUCT, 12 tags, length=112, data length=108:
```

```

STARTDATE   LONG        20060701
STARTTIME   DOUBLE      9.8166666
STARTFILE    STRING     '/sn1/jsolbrig/GEOPROF-Lidar/
jul06/2006182081529_00932_CS_2B-GEOPROF-
LIDAR_GRANULE_P1_R04_E00.hdf.zip'
ENDFILE      STRING     ""
STARTPROF    DOUBLE      35189.000
ENDPROF      DOUBLE      0.0000000
STARTLAT     DOUBLE      18.281832
ENDLAT       DOUBLE      0.0000000
STARTLON     DOUBLE      -118.93538
ENDLON       DOUBLE      0.0000000
MAXTHK       DOUBLE      0.0000000
MINTHK       DOUBLE      0.0000000

```

```
;Concatenating arrays of structures
```

```
DL> cld = [[cld], [a]]
```

```
% Unable to concatenate variables because the dimensions do not agree:
```

```
A.
```

```
% Execution halted at: FINDTHINCIRRUS 467 /home/jsolbrig/geoprof-
lidar/findThinCirrus.pro
```

```
% $MAIN$
```

After what I've said above, there are still a couple more points that should be made.

- 1) The routine I am working on has previously concatenated up to 4,000 structures into the same array.
- 2) One of the 70 previous structures is coming directly from the same portion of the code that is failing.

```
endif else if true1[pInd] eq 0 and true2[pInd] eq 1 then begin
```

```
    ;continuing previous cloud
```

```
    prevBase = layBase[cirrusLays[1], pInd]
```

```
    prevTop = layTop[cirrusLays[1], pInd]
```

```
    ;starting second cloud
```

```
    cldMax = n_elements(cld)
```

```
    cld = [[cld], [startCld(flist[i], pInd, lat[pInd],
lon[pInd], date[pInd], time[pInd]))]] ;FAILS HERE
```

```
    prevBase = [prevBase, layBase[cirrusLays[0], pInd]]
```

```
    prevTop = [prevTop, layTop[cirrusLays[0], pInd]]
```

```
    twoCldStep[pInd] = 3
```

If anyone has a suggestion as to how to fix this problem, I would greatly appreciate your input.
