Subject: array of structure changed from 5.4 to 5.5?
Posted by starobs99 on Wed, 27 Feb 2002 08:54:58 GMT
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Hello,

The behaviour of arrays of structure changed from IDL5.4 to IDL5.5? I run the same edulcorated code on the two version (see below), and have different results. And the worst is that I really don't see how to perform the last operation of the code with the new behaviour... Any idea?
Thanks a lot.

```
 ----------------------IDL5.4------------------------------ ------
print,!version
;{ alpha OSF unix Compaq Tru64 5.5 Aug 28 2001      64      64}
s1={str1,t1:0.}
s2=replicate({num:0.,s1:{str1}},10)
s3=replicate(s1,10)
help,s2.s1,s3
;<Expression>    STRUCT    = -> STR1 Array[1, 10]
;S3              STRUCT    = -> STR1 Array[10]
s2.s1=s3
;% Conflicting data structures: structure tag,S3.
 ----------------------IDl5.5------------------------------ ------
print,!version
;{ x86 linux unix 5.4 Sep 25 2000      32      32}
s1={str1,t1:0.}
s2=replicate({num:0.,s1:{str1}},10)
s3=replicate(s1,10)
help,s2.s1,s3
;<Expression>    STRUCT    = -> STR1 Array[10]
;S3              STRUCT    = -> STR1 Array[10]
s2.s1=s3
; No Problems!!!
 ------------------------------------------------------------ -------
```

Subject: Re: array of structure changed from 5.4 to 5.5?
Posted by Craig Markwardt on Tue, 05 Mar 2002 16:40:06 GMT
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starobs99@yahoo.com (starobs99) writes:

> Hello,
>
> The behaviour of arrays of structure changed from IDL5.4 to IDL5.5? I
> run the same edulcorated code on the two version (see below), and have
> different results. And the worst is that I really don't see how to

> perform the last operation of the code with the new behaviour... Any
> idea?
> Thanks a lot.

Greetings!

Yes, this is a change in the behavior of arrays of structures in IDL
from version 5.4 to version 5.5. I discussed this a little in the
following article:

http://groups.google.com/groups?selm=onr8q0kqt6.fsf%40cow.ph ysics.wisc.edu

The short answer is that this is a "semi-good" thing. The previous
behavior was (potentially) totally incorrect, because it was possible
for arrays to magically change into scalars, so this new version is an
improvement.

RSI may have "overdone" it a little with the behavior of structures of
structures within arrays (!), but at least everything is
self-consistent. [The problem comes because every structure, even a
"scalar" structure, is treated like an array of structures.]

I also encountered virtually the same crash that you did. The simple
answer is to reform the array before assigning. A little ugly I
admit, but it works,

s2.s1 = reform(s3,1,n_elements(s3))

Craig

> ----------IDL5.4---------- ------
> print,!version
> ;{ alpha OSF unix Compaq Tru64 5.5 Aug 28 2001 64 64}
> s1={str1,t1:0.}
> s2=replicate({num:0.,s1:{str1}},10)
> s3=replicate(s1,10)
> help,s2.s1,s3
> ;<Expression> STRUCT = -> STR1 Array[1, 10]
> ;S3 STRUCT = -> STR1 Array[10]
> s2.s1=s3
> ;% Conflicting data structures: structure tag,S3.
> ----------IDl5.5---------- ------
> print,!version
> ;{ x86 linux unix 5.4 Sep 25 2000 32 32}
> s1={str1,t1:0.}
> s2=replicate({num:0.,s1:{str1}},10)
> s3=replicate(s1,10)

> help,s2.s1,s3
> ;<Expression>   STRUCT   = -> STR1 Array[10]
> ;S3   STRUCT   = -> STR1 Array[10]
> s2.s1=s3
> ; No Problems!!!
> ---------- -------

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
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