Subject: Re: Limiting concatenation IDL 5.5
Posted by Randall Skelton on Tue, 25 Jun 2002 16:31:22 GMT
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Sorry... it seems I was wrong about the number of levels of concatenation being increased. The seg. fault still exists.

On Tue, 25 Jun 2002, Randall Skelton wrote:

> Hi all,
>
> Having just re-read the dimensional juggling tutorials posted by JD, I
> noticed that in IDL 5.5 (Linux) the limit to the practical concatenation
> dimension was increased from 3 up to 8 ;) Being one of those people who
> occasionally use more than 3 dimensions, this makes my life a whole lot
> easier.
>
> Of course, don't try and go for 9...
>
> IDL> a = findgen(20)
> IDL> print, [[[[[[[[a]]]]]]]]
> Segmentation fault
>
> Does anyone else observe the same?
>
> Cheers,
> Randall
>
>

Subject: Re: Limiting concatenation IDL 5.5
Posted by Randall Skelton on Tue, 25 Jun 2002 17:06:20 GMT
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Ok... I have to ask. Is there actually a nice, clean way to concatenate multidimensional arrays in IDL?

```
a = make_array(2,2,2,2)
b = make_array(2,2,2,5)

data1 = [ [[[a]]] , [[[b]]] ]
```

Obviously the above fails, but what is the solution? Surely some combination of rebin/reform...

On Tue, 25 Jun 2002, Randall Skelton wrote:

> Date: Tue, 25 Jun 2002 16:49:26 +0100
> From: Randall Skelton <rhskelto@atm.ox.ac.uk>
> Newsgroups: comp.lang.idl-pvwave
> Subject: Limiting concatenation IDL 5.5
>
> Hi all,
>
> Having just re-read the dimensional juggling tutorials posted by JD, I
> noticed that in IDL 5.5 (Linux) the limit to the practical concatenation
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> Does anyone else observe the same?
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> Cheers,
> Randall
>
>

Subject: Re: Limiting concatenation IDL 5.5
Posted by thompson on Thu, 27 Jun 2002 22:46:51 GMT
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Randall Skelton <rhskelto@atm.ox.ac.uk> writes:

> Ok... I have to ask. Is there actually a nice, clean way to concatenate
> multidimensional arrays in IDL?

> a = make_array(2,2,2,2)
> b = make_array(2,2,2,5)

> data1 = [[[[a]]] , [[[b]]]]

> Obviously the above fails, but what is the solution? Surely some
> combination of rebin/reform...

How about

c = make_array(2,2,2,7)

c(0,0,0,0) = a
c(0,0,0,2) = b

Of course, you'd want to put this into a routine, with calls to SIZE(), etc.

Bill Thompson

Subject: Re: Limiting concatenation IDL 5.5
Posted by Dick Jackson on Fri, 28 Jun 2002 05:11:17 GMT
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"William Thompson" <thompson@orpheus.nascom.nasa.gov> wrote in message news:afg4krhlu1@skates.gsfc.nasa.gov...
> Randall Skelton <rhskelto@atm.ox.ac.uk> writes:
>
>> Ok... I have to ask. Is there actually a nice, clean way to concatenate
>> multidimensional arrays in IDL?
>
>> a = make_array(2,2,2,2)
>> b = make_array(2,2,2,5)
>
>> data1 = [[[[a]]] , [[[b]]]]
>
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>> combination of rebin/reform...
>
> How about
>
> c = make_array(2,2,2,7)
> c(0,0,0,0) = a
> c(0,0,0,2) = b
>
> Of course, you'd want to put this into a routine, with calls to SIZE(), etc.

[Uh, David, make sure Bill gets a seat on the board of that IDL Experts' group.]

Nice point, Bill! Your idea takes a bit of hackery, I'll take a swipe at some of it:

```
concatSize = Size(a)
concatSize[dim+1] = concatSize[dim+1] + (Size(b))[dim+1]
c=Make_Array(Size=concatSize)
nDims=Size(a,/N_Dimensions)
aDims=Size(a,/Dimensions)
```

```
; This needs to be generalized for all
; possible values of nDims from 1 to 8, (4 assumed)
; either by a CASE statement or tricky
; string handling and Execute():

c[0, 0, 0, 0] = a
c[dim eq 0 ? aDims[0] : 0, $
  dim eq 1 ? aDims[1] : 0, $
  dim eq 2 ? aDims[2] : 0, $
  dim eq 3 ? aDims[3] : 0]=b
```

Cheers,
--
-Dick

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