
Subject: Re: basic soubt with fltarr
Posted by [the_cacc](#) on Wed, 10 Apr 2002 13:01:24 GMT
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Muks Raju <mpraju@umich.edu> wrote in message news:<3CB3F827.312818F9@umich.edu>...
> Hello all...i have a basic doubt with fltarr. I have this fltarr
> Actuator = fltarr(100,4)
>
> now i need to remove the first 3 columns. How do i do this. Also i may
> need to add 3 columns at the beginning and at the end or maybe a column
> of data in the middle. Ive seen about a million websites and help pages.
> None of them seem to be of any help. Could somebody please help me.
>
>
> Thanks in advance.
>
> Mux

You're bound to get some very clever responses to this one. Here's possibly the least clever way:

Start with A = FLTARR(100,4).

* To remove the first three columns:

```
new = FLTARR(97,4)
new[:,*] = A[3:*,*]
A = new
```

* To add 3 more columns at the beginning:

```
new = FLTARR(103,4)
new[3:*,*] = A
A = new
```

* To add a column in the middle (at position p):

```
new = FLTARR(101,4)
new[0:p-1,*] = A[0:p-1,*]
new[p+1:*,*] = A[p:*,*]
A = new
```

It is possible to avoid using 'new' in most cases but you may prefer

doing it like this until you are comfortable with incomprehensible array concatenation shennanigans.

Ciao.

Subject: Re: basic soubt with fltarr

Posted by [James Kuyper](#) on Wed, 10 Apr 2002 15:43:07 GMT

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Muks Raju wrote:

> Hello all...i have a basic doubt with fltarr. I have this fltarr
> Actuator = fltarr(100,4)
>
> now i need to remove the first 3 columns. How do i do this. Also i may

Actuator = Actuator(*,3)

Unfortunately, this result in a 2-D array with a trailing dimension of 1, which gets automatically converted by IDL into a 1-D array. I don't know of any way around that.

> need to add 3 columns at the beginning and at the end ...

Actuator = [[fltarr(100,3)], [Actuator], [floatarr(100,3)]]

> ...or maybe a column
> of data in the middle.

Actuator = [[Actuator(*,0:1)], [fltarr(100,1)], [Actuator(*,2:3)]]

Subject: Re: basic soubt with fltarr

Posted by [the_cacc](#) on Thu, 11 Apr 2002 10:43:33 GMT

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James,

One of us has got columns and rows mixed up... are we victims of the column/row major format ? I think so ;)

Ciao.

Subject: Re: basic soubt with fltarr

Posted by [James Kuyper](#) on Thu, 11 Apr 2002 14:21:02 GMT

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trouble wrote:

> James,
>
> One of us has got columns and rows mixed up... are we victims of the
> column/row major format ? I think so ;)

Sorry, I do most of my work in C, so I sometimes get the terminology reversed. Oddly enough, I almost never get mixed up about the ordering in memory, but only about the words used to describe that ordering.

Unfortunately, it's easier to do these tricks along the last dimension than along the first; that's intrinsic to the nature of the problem, and not a defect of IDL itself. There are ways to do it without creating an explicitly named temporary, but they make heavy use of transpose() to turn the problem into a problem of concatenating along the last dimension. That makes them significantly less efficient than the following re-write of my original answer:

> Muks Raju wrote:

>

> Hello all...i have a basic doubt with fltarr. I have this fltarr

> Actuator = fltarr(100,4)

>

> now i need to remove the first 3 columns. How do i do this. Also i may

Actuator(3:*,*)

> need to add 3 columns at the beginning and at the end ...

newAct = fltarr(106, 4);

newAct(3:102,*) = Actuator

> ...or maybe a column

> of data in the middle.

newAct = fltarr(101,4)

newAct(0:49,*) = Actuator(0:49,*)

newAct(51:*,*) = Actuator(50:*,*)

Subject: Re: basic soubt with fltarr

Posted by [Muks Raju](#) on Sat, 13 Apr 2002 00:43:45 GMT

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Hello

Thanks a lot for your help. My prog was running fine under most conditions. But then i realised that it was converting the 2D array to a 1 D array. Again..thanks a lot..

Mux

James Kuyper wrote:

```
> trouble wrote:
>
>> James,
>>
>> One of us has got columns and rows mixed up... are we victims of the
>> column/row major format ? I think so ;)
>
> Sorry, I do most of my work in C, so I sometimes get the terminology
> reversed. Oddly enough, I almost never get mixed up about the ordering
> in memory, but only about the words used to describe that ordering.
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> Unfortunately, it's easier to do these tricks along the last dimension
> than along the first; that's intrinsic to the nature of the problem, and
> not a defect of IDL itself. There are ways to do it without creating an
> explicitly named temporary, but they make heavy use of transpose() to
> turn the problem into a problem of concatenating along the last
> dimension. That makes them significantly less efficient than the
> following re-write of my original answer:
>> Muks Raju wrote:
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>> Hello all...i have a basic doubt with fltarr. I have this fltarr
>> Actuator = fltarr(100,4)
>>
>> now i need to remove the first 3 columns. How do i do this. Also i may
>
> Actuator(3:*,*)
>
>> need to add 3 columns at the beginning and at the end ...
>
> newAct = fltarr(106, 4);
> newAct(3:102,*) = Actuator
>
>> ...or maybe a column
>> of data in the middle.
>
> newAct = fltarr(101,4)
> newAct(0:49,*) = Actuator(0:49,*)
> newAct(51:*,*) = Actuator(50:*,*)
```
