Subject: Re: drop array elements
Posted by Craig Markwardt on Fri, 25 Aug 2000 07:00:00 GMT
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Matthew Kay <mwk@crml.uab.edu> writes:
> Hi,
>
> Would anyone have any suggestions for an easy way
> to drop elements in an array? For example, say 'a'
> is a 14x1024 array and 'b' is a 1x25 array of row
> indicies in 'a' that should be dropped. Is there
> a simple command for re-assigning 'a', without the
> 25 rows indicated in 'b'?

The best way to go after this is to rephrase the question so that BP
(b-primed) is the list of rows to *keep*. Then it's easy:

```
a = a(*,bp)
```

This, in the end, is what JD was getting after. A way to see this
more clearly might be to do it in steps like this:

```
tmp = intarr(1024) + 1       ;; Create a mask with all 1's by default
tmp(b) = 0                   ;; Zero out the discarded rows
bp = where(tmp EQ 1, ct)     ;; Find the kept rows - compute BP
if ct GT 0 then a = a(*,bp)  ;; Extract those rows
```

Good luck,
Craig

--
-- --------------
Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
-- --------------

Subject: Re: drop array elements
Posted by davidf on Fri, 25 Aug 2000 07:00:00 GMT
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Liam E. Gumley (Liam.Gumley@ssec.wisc.edu) writes:

> I just *had* to understand this one. Here's another way of implementing
> this method:
>
> ;- Get number of rows in a
> dims = (size(a, /dimensions))[1]

>
> ;- Create index array for rows of a (1=keep the row, 0=discard the row)
> index = replicate(1L, nrows)
> index[b] = 0L
>
> ;- Locate the indices of rows we wish to keep
> keep = where(index eq 1)
>
> ;- Extract the rows we wish to keep
> a = (temporary(a))[*, keep]

I think JD *must* have thought about the program
like this first. (I mean, he is flesh and bones,
right!?) He then just jammed it all together like
he did to scare anyone else thinking about taking
the IDL EPA exam.

Cheers,

David

P.S. Let's just say I'm glad I'm not up for
re-certification for another two years. :-(

--
David Fanning, Ph.D.
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Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: drop array elements
Posted by Liam E. Gumley on Fri, 25 Aug 2000 07:00:00 GMT
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"J.D. Smith" wrote:
>
> Matthew Kay wrote:
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>> to drop elements in an array? For example, say 'a'
>> is a 14x1024 array and 'b' is a 1x25 array of row
>> indicies in 'a' that should be dropped. Is there
>> a simple command for re-assigning 'a', without the
>> 25 rows indicated in 'b'?
>>
> a=a[*,where(histogram(b,MIN=0,MAX=(size(a,/DIMENSIONS))[1]-1 ,BINSIZE=1) eq 0)]

>
> The real meat here is finding a list of indices which do not contain the
> elements of b. There are many ways to do this, but this is a fast one.

I just *had* to understand this one. Here's another way of implementing
this method:

```
;- Get number of rows in a
dims = (size(a, /dimensions))[1]

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;- Locate the indices of rows we wish to keep
keep = where(index eq 1)

;- Extract the rows we wish to keep
a = (temporary(a))[*, keep]
```

Cheers,
Liam.
http://cimss.ssec.wisc.edu/~gumley

Subject: Re: drop array elements
Posted by davidf on Fri, 25 Aug 2000 07:00:00 GMT
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J.D. Smith (jdsmith@astro.cornell.edu) writes:

> a=a[*,where(histogram(b,MIN=0,MAX=(size(a,/DIMENSIONS))[1]-1 ,BINSIZE=1) eq 0)]

I've been thinking of retiring so I can play more tennis. :-(

Cheers,

David

--
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Subject: Re: drop array elements
Posted by John-David T. Smith on Fri, 25 Aug 2000 07:00:00 GMT
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> indicies in 'a' that should be dropped. Is there
> a simple command for re-assigning 'a', without the
> 25 rows indicated in 'b'?
>
> Much thanks,
> Matt

```
a=a[*,where(histogram(b,MIN=0,MAX=(size(a,/DIMENSIONS))[1]-1 ,BINSIZE=1) eq 0)]
```

The real meat here is finding a list of indices which do not contain the elements of b. There are many ways to do this, but this is a fast one.

JD

--
J.D. Smith /*\ WORK: (607) 255-6263
Cornell University Dept. of Astronomy */ (607) 255-5842
304 Space Sciences Bldg. /*\ FAX: (607) 255-5875
Ithaca, NY 14853 */