Subject: Re: More fun
Posted by davidf on Mon, 20 Nov 2000 08:00:00 GMT
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Martin Schultz (martin.schultz@dkrz.de) writes:

> But I am sure there is a way to do this with histogram ;-)

I misplaced my copy of "101 Weekend Projects with the Histogram
Function" at the last IDL EPA meeting. Has anyone seen it. :-(

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
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: More fun
Posted by Jaco van Gorkom on Mon, 20 Nov 2000 08:00:00 GMT
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How about:

nv = n_elements(v)/interv
result = 0.5 * rebin(v+shift(v, -interv+1), nv, /sample)

cheers,
Jaco

"Martin Schultz" <martin.schultz@dkrz.de> wrote in message
news:3A1969E0.175876A8@dkrz.de...
> "J.D. Smith" wrote:
>>
>> Here's one I just came up against. Suppose you want to rebin a vector
>> to some smaller size, an integer factor smaller. E.g. 100 elements to
>> 20 elements. Now, rather than the average of those elements in each
>> interval, etc., you want merely the average of the first and last member
>> of that interval. E.g., you want:
>>
>> [(v[0]+v[4])/2, (v[5]+v[9])/2, (v[10]+v[14])/2, ...]
>>

>> Rebin by itself can't work, I don't think.
>>
>> Takers?
>>
>> JD
>>
>> P.S. No for loops please. Bonus points if you don't build an explicit
>> index list.
>>
>> --
>> J.D. Smith | WORK: (607) 255-6263
>> Cornell Dept. of Astronomy | (607) 255-5842
>> 304 Space Sciences Bldg. | FAX: (607) 255-5875
>> Ithaca, NY 14853 |
>
>
> Missing the bonus, I would suggest
> nv=N_Elements(v)/5
> res=0.5*(v[lindgen(nv)*5] + v[lindgen(nv)*5+4])
>
> But I am sure there is a way to do this with histogram ;-)
>
> Cheers,
> Martin
>
> --
> [[[[[[[[[
> [[Dr. Martin Schultz Max-Planck-Institut fuer Meteorologie [[
> [[Bundesstr. 55, 20146 Hamburg [[
> [[phone: +49 40 41173-308 [[
> [[fax: +49 40 41173-298 [[
> [[martin.schultz@dkrz.de [[
> [[[[[[[[[

Subject: Re: More fun
Posted by thompson on Mon, 20 Nov 2000 08:00:00 GMT

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"J.D. Smith" <jdsmith@astro.cornell.edu> writes:

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> 20 elements. Now, rather than the average of those elements in each
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> of that interval. E.g., you want:

> [(v[0]+v[4])/2, (v[5]+v[9])/2, (v[10]+v[14])/2, ...]

> Rebin by itself can't work, I don't think.

> Takers?

> JD

> P.S. No for loops please. Bonus points if you don't build an explicit
> index list.

If the number of elements in the array is evenly divisible by the rebin factor
(such as 100 is evenly divisible by 5), then the following should work

```
 TEMP = REFORM(ARRAY, M, N_ELEMENTS(ARRAY)/M)
 RESULT = REFORM(TEMP(0,*) + TEMP(M-1,*)) / 2.
```

William Thompson

Subject: Re: More fun
Posted by Martin Schultz on Mon, 20 Nov 2000 08:00:00 GMT
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"J.D. Smith" wrote:
>
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> [(v+v)/2, (v+v)/2, (v+v)/2, ...]
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> Rebin by itself can't work, I don't think.
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Martin

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