Subject: Re: array problems
Posted by Jean H. on Fri, 11 Jul 2008 19:02:23 GMT

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David Sheerin wrote:
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> Hi All
> I have a palindromic vector of floats, e.g. [a,b,c,b,a], and I would like
> to expand it to include the mean between each value like [(0+a)/2, a,
> (a+b)/2, b, (b+c)/2, c, (c+b)/2, b, (b+a)/2, a, (a+0)/2]. Is there any
> elegant way of doing this without having to resort to clunky for loops?
>
> I also would like to repeat this action on the resulting vector.
>
 Thanks for any tips
> David
>
>
Hi,
1) get your "average".
nbEntries = n elements(data)
avg = (data + shift(data, -1)) / 2.0
2)add the 1st entry and correct the last entry:
avg = [data[0] / 2.0, avg]
avg[nbEntries] = data[nbEntries-1] / 2.0
3)create the new array by coping each original array, with a "step" of 2
cells betweens two values from the same original array
newData = fltarr(nbEntries*2+1)
nnewData[1:nbEntries*2:2] = data
newData[0:nbEntries*2:2] = avg
```

Jean