
Subject: Re: generating symmetric array from function?
Posted by [Liam E. Gumley](#) on Mon, 11 Dec 2000 15:32:53 GMT
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Nick Bower wrote:

>
> how do I generate symmetric 2D array from a function of one variable?
>
> eg. say i want the sinc function in 3 dimensions - how do i generate
> this symmetrically in both x and y dimensions?
>
> presumably, the last step would be a shift by N/2 in both x and y
> directions to move the origin to the centre of the array, but i'm just
> not sure what comes before this and how to do it without nested loops
> over the array elements.

```
v = findgen(41) * 0.5 - 10.0
x = rebin(v, 41, 41, /sample)
y = rebin(reform(v, 1, 41), 41, 41, /sample)
r = sqrt(x^2 + y^2) + 1.0e-6
z = sin(r) / r
surface, z, x, y
```

Cheers,
Liam.
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