Subject: Re: REBIN needs explaining
Posted by b.hinrichsen on Wed, 01 Dec 2004 08:38:14 GMT
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David Fanning <davidf@dfanning.com> wrote in message
news:<MPG.1c16c3fd524557b998988c@news.frii.com>...
> JD Smith writes:
>
>> So here it has just 1 interval producing 10 points, and 10 points are
>> duplicated from the last value. The manual also recommends the
>> solution:
>>
>> If this effect is undesirable, use the INTERPOLATE function.
>
> Well, I *would* use the INTERPOLATE function if I could
> understand it. :-(
>
> The REBIN documentation says this:
>
> **********
> ; A four point vector:
> A = [0, 10, 20, 30]
>
> ; Expand by a factor of 3:
> B = REBIN(A, 12)
>
> PRINT, B
> IDL prints:
>
> 0 3 6 10 13 16 20 23 26 30 30 30
>
> Note that the last element is repeated three times. If this effect is
> undesirable, use the INTERPOLATE function. For example, to produce 12
> equally spaced interpolates from the interval 0 to 30:
>
> B = INTERPOLATE(A, 3./11. * FINDGEN(12))
> PRINT, B
> IDL prints:
>
> 0 2 5 8 10 13 16 19 21 24 27 30
> **********
>
> But,
>
> IDL> Print, 3./11. * FINDGEN(12))
> 0.000000 0.272727 0.545455 0.818182 1.09091
> 1.36364 1.63636 1.90909 2.18182 2.45455 2.72727
> 3.00000

Interpolate considers these values as the new x-array which determines
the values of the y-array. The original x-array is implicitly
understood to be the index of A viz. [0,1,2,3].
>
> How in the world to *those* numbers, when applied to A, produce
> the result I get? Seems like magic to me. :-(
>
> Cheers,
>
> David

Greetings,

Bernd
