Subject: Re: moving average of a large array
Posted by Kenneth P. Bowman on Fri, 24 Nov 2006 03:58:02 GMT
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In article <1164296828.559622.31580@m7g2000cwm.googlegroups.com>,
"Jenny" <envi35@yahoo.ca> wrote:

> Hi, I want to calculate the moving average of a large array:
> data[800,800,365]. The moving average is for the 3rd dimension - day of
> year. But TS_SMOOTH only works for a vector. Anyone knows if there is
> another function in IDL that I could use? I probably can use TS_SMOOTH
> and for loops to get this, but it will be slow. In addition, there are
> invalid data in my array as well.
>
> I've read discussions in this list about adding Dimension and NAN
> keywords to other functions, such as Total, Median, etc., which are
> very useful. Why nobody cares about TS_SMOOTH? Or am I asking a silly
> question? Is there an obvious way to calculate the moving average of a
> large array?
>
>
> Thanks,
> Jenny

If x = FLTARR(800, 800, 365)

try

y = SMOOTH(x, [1, 1, 3])

This runs a boxcar smoother, which has awful spectral characteristics.
You also might want to consider what to do at the edges.

Ken Bowman