Subject: Warning -- Median "Feature"
Posted by J.D. Smith on Tue, 27 May 1997 07:00:00 GMT

I am writing to warn those who use IDL's built in MEDIAN to perform
median filtering of images. It seems that if you specify an even box
size, the image is shifted up and to the right by one pixel (or at least
in some direction, perhaps depending on the exact number you use for the
box size). This effect becomes quite pronounced after a hundred
iterations of the filter or so! The solution is of course to use only
odd box sizes, but the "feature" is not documented anywhere I know of,
so I thought I'd pass it along. I don't know if smooth does the same
thing, but I'd expect it to (likely just a boundary wrapping issue).

JD

P.S. I haven't tried IDL 5's MEDIAN
P.P.S The NASA routine FILTER_IMAGE calls MEDIAN and is hence
susceptible to the same problem