Subject: [Q] hybrid median filter
Posted by Ron Behling on Thu, 22 Jun 1995 07:00:00 GMT
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I have PV-WAVE and I am looking for PV-WAVE/IDL code (or good ideas on how) to implement a hybrid median filter. The "Image Processing Handbook" by John C. Russ describes something he calls a "hybrid median filter" or "edge preserving median". He says this median filter "overcomes the tendency to erase lines that are narrower than the half-width of the neighborhood and to round corners." His results look pretty good. An example of the pixels used in a 5x5 neighborhood are shown below. As I understand it, the algorithm works by taking the median of "a" pixels and median of the "b" pixels (both of which contain "c"), and then the median of those results and the "c" pixels.

a - b - a
- a b a -
b b c b b
- a b a -
a - b - a

I would greatly appreciate any PV-WAVE code to do this filter, or any good ideas about how to code it so it runs quickly. I would also appreciate knowing about other, better ways to do neighborhood averaging while preserving edges.

Sincerely,
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