Subject: Kuwahara Filter
Posted by Joshua Nipper on Thu, 14 Feb 2002 23:07:36 GMT
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Hi there, I'm trying to implement the kuwahara filter, and can't seem to figure out how to get around using for loops, making it very slow. Can anyone suggest a way to speed this up?
Thanks,
Josh Nipper

```
function kuwahara,input,kernelsize
T=systime(1)
s=size(input,/dimensions)
temp=bytarr(s)
identity=intarr(kernelsize)+1
M=indgen(kernelsize)-(kernelsize/2)
mX=M#identity
my=-identity#M
for i=0,s[0]-10 do begin
 for j=0,s[1]-10 do begin
  xpoint=j
  ypoint=i
  region1=input[(xpoint-1)+mX,(ypoint+1)+mY]
  region2=input[(xpoint+1)+mX,(ypoint+1)+mY]
  region3=input[(xpoint-1)+mX,(ypoint-1)+mY]
  region4=input[(xpoint+1)+mX,(ypoint-1)+mY]

 var=[variance(region1),variance(region2),variance(region3),v ariance(region4)
]
   avg=fix([mean(region1),mean(region2),mean(region3),mean(regi on4)])
  location=where(var EQ min(var))
  temp[xpoint,ypoint]=avg[location]
 endfor
endfor
PRINT, SYSTIME(1) - T, 'Seconds'
return,temp

end
```