Subject: Re: fast search
Posted by m.goullant@gmail.com on Thu, 19 Oct 2006 10:51:57 GMT
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Just a little correction in the code: the dist is the mask :):

```
>  This is more and less What I want to do:
>
>   have this geographic data (could be 100000, 2 million, 4 million
>  depends):
>
>
>  PRO example
>
>
>  points = myData()
>
>  ;data structure of an irregular point cloud
>  x = points.x ;X coord
>  y = points.y ;Y coord
>  z = points.z ; Elevation
>
>
>  n = 5 ; number of iterations
>  mask = 4.0 ; diameter. in meters. Like your dist
>  maskType = 0 ; 0 a circle, 1 square
>
>  FOR i=0L,n-1 DO BEGIN
>            newZ = erosion(x,y,z,mask,maskType)
>            ;(...)
>            mask = mask + 2
>  ENDFOR
>
>  END
>
>  FUNCTION erosion,x,y,z,mask,maskType ; Apply erosion to the data
>
>     newZ=z
>     radio = mask /2
>     FOR i=0L,N_ELEMENTS(z)-1 DO BEGIN
>                       kernel = applyKernel(x,y,z,i,radio,maskType)
>  ;center the kernel in the data(i) and get neighbours there are inside
>  of the mask
>                       newZ[i]=MAX(z[kernel])
>     ENDFOR
>     RETURN,newZ
>
>  END
```

```
>
>  FUNCTION applyKernel,x,y,z,i,dist,maskType
>
>    square = WHERE(x LE x[i] + dist AND x GE x[i] - dist AND y LE y[i]
>  + dist AND y GE y[i] - dist)
>
>    IF (maskType EQ 0) THEN BEGIN
>          sqDistance = sqrt((x[square] - x[i])^2 + (y[square] -
>  y[i])^2)
>          neighbors = WHERE(sqDistance LE dist)
>          circle = square[neighbors]
>          RETURN,circle
>    ENDIF
>
>    RETURN,square
>  END
>
>   Because this is an iterative process with a "dist" variable, it's
>  posible implement your code?
>
>
>   Thank's in advance,
>   Marie
```