
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
> possible implement your code?
>
>
> Thank's in advance,
> Marie
```
