
Subject: Why Index array containing same index multiple time results only one arithmetic operation

Posted by [AKJ](#) on Wed, 09 Jun 2010 04:52:30 GMT

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Hi,

I am trying to compute texture of an image with following code

```
img=[[0,0,1,1],[0,0,1,1],[0,2,2,2],[2,2,3,3L]]
texture_map=LONARR(4,4)
dim=size(img, /DIMENSION)
for i=0,dim[0]-1-1 do begin
  tex_idx_c=img[i,*]
  tex_idx_r=img[i+1,*]
  texture_map[tex_idx_c,tex_idx_r]+=1
endfor
print,img
print,texture_map
```

Output

Img=

0	0	1	1
0	0	1	1
0	2	2	2
2	2	3	3

texture_map=

1	0	0	0
1	1	0	0
1	0	3	0
0	0	1	1

Here texture_map[tex_idx_c,tex_idx_r]+=1 is incrementing only once for the first iteration even though pair(0,0) occurs twice. Same is the case with pair(0,1) in second iteration and (1,1) in third iteration. Is there a way to force the idx to increment twice if the pair(idc,idr) occurs more than 1 in each iteration.

So Actual output is

img=

0	0	1	1
0	0	1	1
0	2	2	2
2	2	3	3

texture=

2	0	0	0
2	2	0	0

1	0	3	0
0	0	1	1

This can be achieved by the following code.

```
pro compute_texture,  
img=[[0,0,1,1],[0,0,1,1],[0,2,2,2],[2,2,3,3]]  
texture_map=LONARR(4,4)  
dim=size(img, /DIMENSION)  
for i=0,dim[0]-1-1 do begin  
  for j=0,dim[1]-1 do begin  
    tex_idx_c=img[i,j]  
    tex_idx_r=img[i+1,j]  
    texture_map[tex_idx_c,tex_idx_r]+=1  
  endfor  
endfor  
print, img  
print, texture_map
```

Thanks
AKJ
