
Subject: Re: I don't know why happened error
Posted by [Richard G. French](#) on Wed, 07 Jul 1999 07:00:00 GMT
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Duck-Jin Park wrote:

>
> Hi All!
>
> I don't know why happened error on IDL4.0..
> follow function did not happened error on IDL5.1, but it exist error
> IDL4.0
> what different two version?
> Can you change follow source to IDL4.0?
>
> If i change array "[]" to "()", it did not error..
>
>

That's correct: the [] syntax for elements of array variables did not exist in IDL4.0. It was introduced in IDL5.0 I believe.

Dick French

Subject: I don't know why happened error
Posted by [Duck-Jin Park](#) on Thu, 08 Jul 1999 07:00:00 GMT
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Hi All!

I don't know why happened error on IDL4.0..
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If i change array "[]" to "()", it did not error..

FUNCTION HR_LABEL_REGION,A
;Find the size of the array A. To do this we use the SIZE function.
S=SIZE(A) & N=S[1] & M=S[2] ; The number of columns and rows in A
Q=INTARR(N,M) ; Q will hold the results. It has the same size as A.
L=0 ; L is the value of the current class. Start with L=0.
EQU=INTARR(M*N*M) ; EQU is a place to record the class equivalencies in
pass 1.
th=16
;Label the corner pixel.
IF A[0,0] GT 0 THEN BEGIN
 L=L+1 & Q[0,0]=L

```

EQU[L]=L
ENDIF

;Label the pixels in the first row.
FOR x=1,N-1 DO BEGIN
  IF A[x,0] GT 0 THEN BEGIN
    IF (A[x,0] GE (A[x-1,0]-th))AND (A[X,0] LE (A[X-1,0]+th)) THEN
      Q[x,0]=Q[x-1,0] ELSE BEGIN
        L=L+1
        Q[x,0]=L
        EQU[L]=L
      ENDELSE
    ENDIF
  ENDFOR

; Label the remaining rows
FOR y=1,M-1 DO BEGIN
  ; Label the first pixel in the row
  IF (A[0,y] GE (A[0,y-1]-th)) AND (A[0,Y] LE (A[0,Y-1]+th)) THEN
    Q[0,y]=Q[0,y-1]
    IF (A[0,y] GT 0) AND (A[0,y] LT (A[0,y-1]-th)) OR (A[0,Y] GT
      (A[0,Y-1]+th)) THEN BEGIN
      L=L+1
      Q[0,y]=L
      EQU[L]=L
    ENDIF
  FOR x=1,N-1 DO BEGIN
    ; Label the rest of the elements in row y
    IF A[x,y] GT 0 THEN BEGIN
      IF (A[x,y] GE (A[x-1,y]-th)) AND (A[x,y] LE (A[x-1,y]+th)) AND
        (A[x,y] LT (A[x,y-1]-th)) OR $
        (A[x,y] GT (A[x,y-1]+th)) THEN Q[x,y]=Q[x-1,y]
      IF (A[x,y] LT (A[x-1,y]-th)) OR (A[x,y] GT (A[x-1,y]+th)) AND
        (A[x,y] GE (A[x,y-1]-th)) AND $
        (A[x,y] LE (A[x,y-1]+th)) THEN Q[x,y]=Q[x,y-1]
      IF (A[x,y] GE (A[x-1,y]-th)) AND (A[x,y] LE (A[x-1,y]+th)) AND
        (A[x,y] GE (A[x,y-1]-th)) AND $
        (A[x,y] LE (A[x,y-1]+th)) THEN BEGIN
        IF ((Q[x-1,y]) GE (Q[x,y-1]-th)) AND ((Q[x-1,y]) LE
          (Q[x,y-1]+th)) OR ((Q[x-1,y]-TH) LE (Q[x,y-1])) AND $
          ((Q[x-1,y]+TH) GE (Q[x,y-1])))THEN Q[x,y]=Q[x-1,y] ELSE BEGIN
          ; An equivalence of classes has been discovered.
          L1=Q[x-1,y]<Q[x,y-1] ; Find the smaller class label
          L2=Q[x-1,y]>Q[x,y-1] ; Find the larger class label
          Q[x,y]=L1      ; Set the current pixel class to the smaller
          EQU[L2]=L1      ; Note the equivalency in the array
        ENDELSE
      ENDIF
    ENDFOR
  ENDFOR

```

```
IF (A[x,y] LT (A[x-1,y]-th)) OR (A[x,y] GT (A[x-1,y]+th)) AND $  
(A[x,y] LT (A[x,y-1]-th)) OR (A[x,y] GT (A[x,y-1]+th)) THEN BEGIN  
    L=L+1 ;New class is needed  
    Q[x,y]=L  
    EQU[L]=L  
ENDIF  
ENDIF
```

```
ENDFOR  
ENDFOR
```

```
; This completes the first pass through the image. We now have to  
resolve  
; the class equivalencies.
```

```
EQU=EQU(0:L) ; Shorten the vector to the classes actually created.
```

```
FOR m=L,2,-1 DO BEGIN  
    n=m  
    WHILE (EQU[n] LT n) DO n=EQU[n]  
    EQU[m]=n  
ENDFOR
```

```
FOR m=2,L DO BEGIN  
    D=WHERE(Q EQ m)  
    Q(D)=EQU[m]  
ENDFOR
```

```
RETURN,Q  
END
```
