
Subject: Re: Repeats and Triangulation

Posted by [Ben Tupper](#) on Mon, 26 Feb 2001 23:48:02 GMT

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Thanks Craig,

I think I'll pursue your final suggestion. The tricky part there is that it is possible to have indices repeated not only within column 1 but also appearing in column 2.

Ben

Craig Markwardt wrote:

```
> Ben Tupper <pemaquidriver@tidewater.net> writes:
>> The REPEATS keyword to TRIANGULATION returns a 2,n element
>> array of pairs indices of repeated values. If no values are
>> repeated then REPEATS = [-1,-1]. My question is 'How do I
>> pull out the repeated values efficiently?'
>>
> ...
>> ;make the polygon descriptor (see IDLgrPolyLine)
>> List = Conn[Conn[0]:Conn[1]-1L]
>> Ptr = Ptr_NEW([N_elements(List),List])
>> For i = 1, n_elements(X) -1 DO Begin
>>   List = Conn[conn[i]:Conn[i+1]-1]
>>   *Ptr = [*Ptr, n_elements(List), List]
>> EndFor
>
> Umm, while the procedure does not document how it treats repeated
> points -- which might be considered a documentation bug -- the format
> of the adjacency list is very similar to the output from the
> REVERSE_INDICES keyword of HISTOGRAM. That is, there are bins that
> have no entries, and there is a way to ignore them. How about
> inserting an IF clause which tests for this?
>
> List = Conn[Conn[0]:Conn[1]-1L]
> Ptr = Ptr_NEW([N_elements(List),List])
> For i = 1, n_elements(X) -1 DO IF CONN[i+1] GT CONN[i] then Begin
>   List = Conn[conn[i]:Conn[i+1]-1]
>   *Ptr = [*Ptr, n_elements(List), List]
> EndIf
>
> The above solution works for me.
>
> Your other options are to:
> * pre-check your point list to remove repeats. This might be done
>   similar to UNIQ.
```

```
> * use the REPEATS array to remove duplicates.
> DELMASK = lonarr(n_elements(x))
> DELMASK (REP(1,*)) = 1
> and then check DELMASK(i) EQ 1 before adding the point to your list.
>
> Good luck,
> Craig
>
> --
> -----
> Craig B. Markwardt, Ph.D.      EMAIL:  craigmnet@cow.physics.wisc.edu
> Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
> -----
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