Subject: Re: IDL Way to Remove Rows of an Array
Posted by David Fanning on Tue, 10 May 2011 13:42:29 GMT
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FÖLDY Lajos writes:

>
> On Tue, 10 May 2011, David Fanning wrote:
>
>> Folks,
>>
>> I have other things demanding my attention this morning,
>> so I thought I would offer an IDL challenge. What is
>> the IDL Way to remove arbitrary rows of an array?
>>
>> For example, suppose I have this array:
>>
>> array = Indgen(3,6)
>> print, array
>>
>> 0 1 2
>> 3 4 5
>> 6 7 8
>> 9 10 11
>> 12 13 14
>> 15 16 17
>>
>> What is the IDL Way to remove rows 2 and 5?
>>
>> subarray = ???
>> print, subarray
>>
>> 0 1 2
>> 6 7 8
>> 9 10 11
>> 15 16 17
>
> subarray=array[*,[0,2,3,5]]

OK, here then is a function that can remove arbitrary rows
from a 2D array:

```
;*************************************************************** *
FUNCTION RemoveRows, array, rows

   ; array -- A 2D array from which rows will be removed.
   ; rows -- A vector of row indices to remove from array.
```

```
   ; Need both positional parameters.
   IF N_Params() NE 2 THEN BEGIN
      Print, "Usage: 'RemoveRows, array, rowsToRemove'"
      RETURN, -1
    ENDIF

    ; The array must be at least 2D.
    ndims = Size(array, /N_DIMENSIONS)
    IF ndims NE 2 THEN BEGIN
       void = Dialog_Message('Array must be 2D.')
       Print, "Usage: 'RemoveRows, array, rowsToRemove'"
       RETURN, -1
    ENDIF

    ; The rows must be a vector.
    IF N_Elements(rows) EQ 1 THEN rows = [rows]

    ; Find the rows we are keeping.
    dims = Size(array, /DIMENSIONS)
    allrows = Lindgen(dims[1])
    goodRows = SetDifference(allrows, rows)

    ; Return the subscripted array.
    RETURN, array[*,goodRows]

END
 ;***************************************************** *
```

Cheers,

David

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David Fanning, Ph.D.
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Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
