Subject: Re: array transpose
Posted by William Clodius on Mon, 21 Apr 1997 07:00:00 GMT
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David Fanning wrote:
>
> Christian Soeller <csoelle@sghms.ac.uk> writes:
>
>> Gary Fu <gfu@shark.gsfc.nasa.gov> writes:
>>
>>>>
>>>> RTFM -> transpose function
>>>>
>>>> Christian
>>>
>>> The TRANSPOSE function will transpose to array(Z,Y,X), not array(Y,X,Z).
>>
>> And what about transpose(array,[1,0,2]) ?
>> As I said, it's in the manual; one obviously has to know how to read it ;).
>
> What manual are you reading, Christian? Or perhaps more to the point,
> exactly HOW are you reading it!? I don't find this is *my* manual. :-(
>
> In any case, I can't get this to work. Can you perhaps tell us what
> software you are using and give us a simple example.
> <snip>

David:

Assuming you are using IDL and not PV-Wave (PV-Wave might differ on this point) the Reference Guide or the online documentation accessed by entering
> ?

both give for the TRANSPOSE function

"The TRANSPOSE function returns the transpose of Array. If an optional permutation vector is provided, the dimensions of Array are rearranged as well.

Calling Sequence
    Result = TRANSPOSE(Array [, P])

Arguments
...
    P
    A vector specifying how the dimensions of Array will be permuted. The elements of P correspond to the dimensions of Array; the ith

dimension of the output array is dimension P(i) of the input array. Each element of the vector P must be unique. Dimensions start at zero and can not be repeated.

If P is not present, the order of the indices of Array is reversed. ...

To see how a multi-dimensional transposition works, first create a three-dimensional array A:

A = INDGEN(2, 3, 4)

Take the transpose, reversing the order of the indices

B = TRANSPOSE(A)

Now re-order the dimensions of A, so that the second dimension becomes the first, the third becomes the second and the first becomes the third

C = TRANSPOSE(A, [1, 2, 0])"

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William B. Clodius Phone: (505)-665-9370
Los Alamos Nat. Lab., NIS-2 FAX: (505)-667-3815
PO Box 1663, MS-C323 Group office: (505)-667-5776
Los Alamos, NM 87545 Email: wclodius@lanl.gov