Subject: array transpose
Posted by Gary Fu on Sat, 19 Apr 1997 07:00:00 GMT
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Hi,

Is there a simple way to transpose the array(x,y,z) to array(y,x,z) ?

Thanks.

Gary

Subject: Re: array transpose
Posted by thompson on Thu, 24 Apr 1997 07:00:00 GMT
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Gary Fu <gfu@shark.gsfc.nasa.gov> writes:

> Hi,

> Is there a simple way to transpose the array(x,y,z) to array(y,x,z) ?

> Thanks.

> Gary

Several people have recommended the built-in TRANSPOSE function. Apparently, this was enhanced in IDL 4.0 to allow arrays with more than 2 dimensions, and to include an optional parameter to list the order that the dimensions should be rearranged into.

For older versions of IDL, I've written a routine called REARRANGE which does the same thing. It has two modes of operation:

1. Pure IDL code.

2. Call to C code via CALL_EXTERNAL, if the proper logical name is defined.

It differs from the new TRANSPOSE in only two ways:

1. It numbers the dimensions from 1 instead of 0. (Come-on, RSI, other IDL built-in routines, like TOTAL, number dimensions starting from 1 on.)

2. It allows one to signal that a given dimension should be reversed, by passing it as a negative number.

I suppose it's somewhat obsolete now, but if anyone wants it, it can be found at URL

ftp://sohoftp.nascom.nasa.gov/solarsoft/gen/idl/util/rearran ge.pro

and the CALL_EXTERNAL code can be found at URL

ftp://sohoftp.nascom.nasa.gov/solarsoft/gen/idl_external

Bill Thompson
