Subject: IDL & FORTRAN problems
Posted by William Luh on Thu, 07 Jun 2001 14:12:37 GMT
View Forum Message <> Reply to Message

I have had no problem creating the wrapper dynamic link library and using call_external. The problem is the result I get back from the fortran routine is garbage. I tested the fortran program as a console stand-alone, so there's no bug in the fortran code.

I am working with large image matricies and passing them as arguments to the fortran subroutine by using call_external. I have created smaller test programs (ie: a fortran subroutine that adds two matricies, which I call from IDL using call_external, and the results are correct, so the problem is not in getting the basics to work). Has anyone had any problems with using fortran subroutines that pass something like 3 matricies of size 512x512?

I also checked to see that the matricies were being passed from IDL to fortran correctly. I did this by writing a few entries of the matrix (on the fortran side) to a file, and then checking the entries in the file. And yes, I transposed the matricies in IDL before passing them to the fortran subroutine. I also checked every argument by passing them back from fortran to IDL in different "out" parameters to see if they were being corrupted - they were fine.

The only difference between the original fortran standalone and the new IDL-call-fortran version is that the fortran subroutine was called from a fortran main which opened the image files. The IDL-call-fortran version opens the image files in IDL first and then calls the subroutines. I checked to make sure all the parameters were being passed correctly as described in detail above. What else could be wrong? I'm using the DIGITAL Fortran compiler (from Compaq) in Windows 98.

As a possible workaround, I tried to open the image files directly in fortran so that I don't need to pass in such large matricies. However, fortran complains saying the file is too large. I've also tried to wrap the fortran file in a C program, and then just use spawn from IDL. Again, fortran complains about file being too large (512x512 image) whenever it is in a wrapper.

Thanks,
William