## Subject: Interactive Debugging Tools Posted by David Fanning on Thu, 02 Jul 2009 18:54:39 GMT View Forum Message <> Reply to Message

Folks,

I've been debugging a program this week that uses a large image cube. I peel one image after the other off the cube because I can't load the whole cube into memory at once.

But that's neither here nor there. The point is, there is a problem with some of the image data and I've been trying to track it down. I have some very nice tools for interactively looking at images and their values at specific locations (I am thinking in particular of ImgWin.) The problem is, I can't use ImgWin to look at my image data when I am stopped inside my program, because as a widget program, ImgWin needs access to the command interpreter at the main IDL level. A dilemma, as they say.

If I could only get my image data back to the IDL main IDL command level where I could look at it.

Well, now I can. I wrote a new Coyote Library program this morning, named SaveToMain. I can use it to export any IDL variable from within any IDL procedure or function back to the main IDL level:

IDL> SaveToMain, thisImage

If I call the program as above, the variable is exported to the main level with the same name as it has in the local procedure or function. If I wish to give it a new name, I just do this:

IDL> SaveToMain, thisImage, 'problemImage'

This allows me to be in my stopped code somewhere. Find a variable I want to look at, export it back to the main level of IDL, type RETALL to return to the main IDL level, and use my interactive widget tools to further investigate the variable. I just find this extremely useful. Maybe you will, too.

http://www.dfanning.com/programs/savetomain.pro

Cheers.

David

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