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Subject: Retrieving variables from a subroutine  
Posted by [Andy Heaps](#) on Mon, 19 Feb 2007 14:21:39 GMT  
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I've written some IDL code to retrieve all the variables from a NetCDF file. This takes the form of:

```
ncopen, 'file.nc'  
@ncread
```

where the ncopen routine opens up the NetCDF file and writes all the variable information into a set of system strings in a !variable. The batch file statement @ncread then accesses these strings to read the data so all the variables are available from within the calling routine.

This process is the only way I could think of to get the variables to appear in the calling procedure without having the NetCDF code directly in the user's program. Although this works, I cannot help thinking this is not the most elegant way of doing the job. I'd certainly like to just have one command to do the job, rather than two, if at all possible.

As this program is for the use of undergrad students I don't want to use structures as they'll think IDL is very complicated and we all know that that isn't the case ;-). One of the ideas I had was to somehow get the returning ncopen procedure to call @ncread but I cannot think of a way to do that.

Does anyone know of any IDL magic that could be used to have a single procedural (or other) call, and then somehow end up with the NetCDF variables extracted back in the the calling procedure?

Cheers  
Andy

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