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Subject: Re: basic IDL questions: please help!

Posted by [James Kuyper](#) on Mon, 21 Oct 2002 23:55:54 GMT

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"B.G." wrote:

>

> Hi, Thanks for reading my question.

>

> I start a program with: pro program\_name

> then I've got lots of stuff inbetween that and the "end" at the end of

> the program. After the program quits and returns me to the command

> prompt of IDL, it seems like it has lost all the variables from it's

> memory and I can't work with the variables anymore. I can fix this

That's correct. Variables created in that procedure are local to that procedure. They disappear when the procedure is complete. This is generally a good thing; it allows you to create temporary stuff and not have to worry about getting rid of it. If that's not what you want, you need to make the outputs arguments of the procedure. Thus:

In your procedure:

```
PRO procedure_name, output_array
```

```
  output_array = indgen(10)
```

```
END
```

At the IDL command line:

```
IDL> procedure_name, my_name
```

Inside your procedure, output\_array becomes a reference to 'my\_name'. If you don't already have a variable named my\_name, it gets created when procedure name creates output\_array. If my\_name already exists, it gets replaced by the new value. Either way, when you're done, my\_name contains the output from indgen(10).

...

> Also, if I call a program while inside another program how do I get

> IDL to automatically recompile the inner program (or at least check to

> make sure it doesn't need to be recompiled) when IDL compiles the

> "outer" program?

When you call a routine that has not yet been compiled, IDL searches for a file with that same name and the extension '.pro'. If it finds that file, and finds an appropriate definition of the routine you've specified, it will compile everything in that file up to and including that routine, but nothing that appears after it.

Therefore, if you want to take advantage of this feature, every routine

you call should either appear in the same file, before the function or procedure that calls it, or should be in a separate file with the same name as the routine and an extension of '.pro'.

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