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Subject: Re: linking programs/ procedures  
Posted by [davidf](#) on Wed, 26 Apr 2000 07:00:00 GMT  
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J.D. Smith ([jdsmith@astro.cornell.edu](mailto:jdsmith@astro.cornell.edu)) writes:

> Just trying to defend poor little "@" from the onslaught.

I must be going soft, and my membership in the Curmudgeon Club will certainly be put to a vote, but I'll except this as one possible reason to use the @ sign. :-)

Cheers,

David

--  
David Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: linking programs/ procedures  
Posted by [John-David T. Smith](#) on Wed, 26 Apr 2000 07:00:00 GMT  
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David Fanning wrote:

>  
> Troy Carter ([tcarter@princeton.edu](mailto:tcarter@princeton.edu)) writes:  
>  
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> Uh, no, not exactly. It will put the program.pro code \*into\*  
> the program file as if you had actually typed it there. It  
> doesn't compile anything, and it is completely unnecessary. :-(

Oh David, always making these sweeping statements to entice my refutation...

I suppose you meant that it's unnecessary in the case of running a routine from "program" elsewhere. For this you are correct. But it does have its uses. My favorite is with common blocks (whose use should, of course, be limited). As

everyone knows, once a common block is defined, you can simple reference it with:

```
common my_common
```

i.e. without any of the variables listed out. This saves typing, but more importantly, leaves only one location which needs to be modified when common block variables are added or removed. But there's a catch... you have to compile the defining routine \*first\*... i.e. the point of entry into a suite of programs which share the common block must be a single file/routine. If you try to enter elsewhere, it will generate a compiler error, and refuse to run.. you can't simply "call" a defining routine at the beginning of each routine in the suite either, since it's a compile time, not a run-time error. So, you resort to making \*all\* of the routines a defining routine for the common block, but including all the variables in each common block statement. But this unfortunately means modification requires you to change each and every one (over 30 places for one of my common blocks) so you're back where you started. But enter @ to save the day. In a file, call it my\_common.pro, put:

```
common my_common, var1, var2, var3, thefinalvar
```

or whatever. Then, in each routine which needs it, simply put:

```
@my_common
```

in place of "common my\_common", and you get the best of both worlds.... single point of modification, yet every routine capable of defining the common block. If you need to perform a standard version lookup or some such in all your routines, you could also include it in my\_common.

Just trying to defend poor little "@" from the onslaught.

JD

--

```
J.D. Smith          |*|   WORK: (607) 255-5842  
Cornell University Dept. of Astronomy |*|   (607) 255-6263  
304 Space Sciences Bldg.          |*|   FAX: (607) 255-5875  
Ithaca, NY 14853                |*|
```

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Subject: Re: linking programs/ procedures  
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Troy Carter (tcarter@princeton.edu) writes:

> OK. sorry, it doesn't exactly compile it separately, but I believe it

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> several versions exist in severl places (all of which are in the idl  
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> target the specific file you are after with the "@" include statement.  
> Sure, we should do a better job of keeping often used routines in one  
> place with one version (I am trying to use RCS/CVS now to help out with  
> that), but just to be sure, the "@" makes a lot of sense.

Oh, well, if your life is a mess ... Then, of course, anything that works. :-)

Cheers,

David

P.S. Let's just say if you know what you are doing you can get away with a LOT of things. I'm just not sure our friend is at that stage yet. :-)

--

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Troy Carter  
tcarter@princeton.edu

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At the beginning of your code. This will compile program.pro before running the rest of your code.

-Troy

Sameer Nigam wrote:

>  
> hi!  
> how do i link two-three files during compilation?  
>  
> also if i have a procedure X that is written in a file say X.pro and i  
> want to call it as a subroutine in another procedure Y that is in another  
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> any suggestions would be most welcome

--

Troy Carter

[tcarter@princeton.edu](mailto:tcarter@princeton.edu)

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- > want to call it as a subroutine in another procedure Y that is in another
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- > i do it?

Any "command" name that you wish to call from the IDL command line or from another procedure or function should be in a file of the same name as the command in the IDL "path". If there are multiple procedures and functions in the file, then the procedure or function that has the same name as the file should be the LAST procedure or function in the file.

If a procedure or function is in a file, but it does NOT have the same name as the file, then you can generally assume this is a utility routine for the procedure or function that \*does\* have the same name as the file. That is to say, no one plans to use that "command" outside of this file. If it were found to be more useful than just a utility routine, it would be yanked out of that file and put in another file that was named appropriately.

In this way, you NEVER have to worry about things being compiled when they are needed.

- > any suggestions would be most welcome

Have you thought about a good book about IDL? :-)

Cheers,

David

--

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- > also if i have a procedure X that is written in a file say X.pro and i
- > want to call it as a subroutine in another procedure Y that is in another
- > file Y, can i just call that procedure by reference/name

Yes.

- > and if so how do i do it?

Well, just do it. If you call some procedure X in a program, IDL searches the path for a file x.pro, which it compiles then. Look at \$IDL\_DIR/lib, there are many IDL routines, written in IDL.

If your file X contains a procedure Z, then you need to compile the file x.pro beforehand (.compile x), so IDL can find the routine Z when it needs it.

Alex

--

Alex Schuster    Wonko@weird.cologne.de    PGP Key available  
alex@pet.mpin-koeln.mpg.de

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