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Subject: Listing called functions in .pro file  
Posted by [David Foster](#) on Fri, 08 Nov 1996 08:00:00 GMT  
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Does someone have or know of a routine that can read an IDL .pro file and output a list of called external functions, possibly with their associated filenames?

I often share programs with people, but I always forget to include necessary routines!

If I can't find one, I'll probably write one. Would anyone be interested?

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Subject: Re: Listing called functions in .pro file  
Posted by [davidf](#) on Tue, 12 Nov 1996 08:00:00 GMT  
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MICHEL KRUGLANSKI <M.Kruglanski@oma.be> writes:

```
> The RESOLVE_ALL code does not resolve every thing.  
> For instance, it does not work correctly when you make  
> use of MAP_GRID. The MAP_GRID procedure does not exist;  
> it is "created" by MAP_SET (see below)  
>  
> IDL> map_grid  
> % Attempt to call undefined procedure/function: 'MAP_GRID'.  
> % Execution halted at: $MAIN$  
> IDL> map_set  
> IDL> map_grid
```

Well "created" is not really the right word, I don't think.  
MAP\_GRID is a program module in the MAP\_SET code.  
This suggests to me that MAP\_GRID was originally a  
utility routine for MAP\_SET that became a little more  
useful than the author of the MAP\_SET program originally  
intended.

When utility routines become more generally useful like this they are usually taken out of the original program and put into a file of their own. In this case, the MAP\_GRID code should be taken out of map\_set.pro and put into a file named map\_grid.pro. Then it could still be used by MAP\_SET \*and\* it could be used by any other program that wanted to use it. (Including typing its name at the IDL command line.)

More important for this discussion, it could then be \*found\* by programs like RESOLVE\_ALL using the normal rules for automatic compilation that IDL uses.

Since the MAP\_SET code is available to you in the IDL library, you can do what the original author should have done, and take the MAP\_GRID portion out.

David

\*\*\*\*\*

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\*

\* Sometimes I go about pitying myself, and all along my  
\* soul is being blown by great winds across the sky.  
\* -- Ojibway saying

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Subject: Re: Listing called functions in .pro file  
Posted by [MICHEL KRUGLANSKI](#) on Tue, 12 Nov 1996 08:00:00 GMT  
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Subject: Re: Listing called functions in .pro file  
Posted by [Robert Moss](#) on Wed, 13 Nov 1996 08:00:00 GMT  
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MICHEL KRUGLANSKI wrote:

```
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> IDL> map_grid  
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> IDL> map_set  
> IDL> map_grid
```

What's happening here is that the MAP\_GRID procedure is contained in the same file as the MAP\_SET procedure. It cannot be compiled at the command line automatically (as you showed above) because there is no .pro or .sav file by that name anywhere in your !PATH.

The moral of this story is that when you are using RESOLVE\_ALL you have to think about the order in which things are called in your program... it matters. Of course, if your program compiles from the command line, \_most\_ of it will be resolved by RESOLVE\_ALL... after all, if you havent compiled MAP\_SET, you cant run MAP\_GRID, regardless of where your trying to do it.

--

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This does not necessarily reflect the opinions of Texaco Inc.

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Subject: Re: Listing called functions in .pro file  
Posted by [Peter Mason](#) on Mon, 18 Nov 1996 08:00:00 GMT  
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On Tue, 12 Nov 1996, David Fanning wrote:

```
> MICHEL KRUGLANSKI <M.Kruglanski@oma.be> writes:  
(...RESOLVE_ALL doesn't resolve procedures/functions which are in source files  
containing more than 1 routine and which don't have the same name as the  
source file.)
```

I've hacked RESOLVE\_ALL so that it will work for some of these cases.

It will be slower than the original, but more persistent.

Anyone interested may pick up a copy from our anon FTP site:

Server: demsyd.syd.dem.csiro.au (130.155.34.2)

Subdir: pub/mmtg/idl

File: resolve\_evenmore.pro

Briefly, RESOLVE\_EVENMORE does not crash when it tries to compile a routine which calls another routine which can't be found - it puts the failed-to-compile routine's name on a "bad list" and carries on. It retries any failed routines in later passes.

This sort of problem is commonly due to a reference to some utility/support routine in a file containing routines specific to some module, or in a "library file" of routines. (I quite favour this style of organising routines (along with using "forward\_function"), which is why I modified RESOLVE\_ALL. Purists kindly avert your gazes.)

Usually a module's "main" procedure or a library's "stub" procedure (at the end of the file, and with the same name as the file) is referred to sooner or later, at which point the whole file gets compiled. The routines which failed to compile earlier now stand a better chance of being compiled.

Peter Mason

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"It never hurts to help. Well, not normally." - Eek the cat.

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