
Subject: Re: call_method

Posted by [Mark Hadfield](#) on Fri, 07 Sep 2001 03:42:13 GMT

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From: "Pavel A. Romashkin" <pavel.romashkin@noaa.gov>

> David Fanning wrote:

>

>> IDL doesn't have any trouble keeping straight the difference

>> between procedures and functions with the same name.

>

> Oh... This never occurred to me. I have never even attempted making a

> pro and a function with the same name. Duh...

There's no problem in *having* a procedure and a function with the same name. The problem is in *compiling* them both. Or to be more exact, in having them automatically compiled.

To demonstrate, try the following:

* Save the following code...

```
pro myroutine
  print, "Hello from MYROUTINE procedure"
end
function myroutine
  print, "Hello from MYROUTINE function"
end
```

...into a file called myroutine.pro and put it somewhere on your path.

* At the IDL prompt type "myroutine". The following appears in the console window:

```
% Compiled module: MYROUTINE.
Hello from MYROUTINE procedure
```

* Now type "help, myroutine()". This gives:

```
% Attempt to call undefined procedure/function: 'MYROUTINE'.
% Execution halted at: $MAIN$
```

* Reset the IDL session and call the function & procedure in the opposite order. Same result: the procedure is compiled and the function is not.

* Reverse the order of the procedure and the function in the file, reset the session and call them again. Now the function will be compiled and the procedure will not.

* Reset again and compile myroutine.pro manually. Now you get them both

My interpretation: the first time IDL encounters either a function or a procedure called MYROUTINE, it searches the path for myroutine.pro and then compiles the file until it encounters EITHER a procedure OR a function called myroutine. Having compiled that it does not read any more of the file. Any code that up to & including the first occurrence of myroutine will be compiled; any code after that will not.

So you *can* have a procedure and function of the same name but you'll have to find some way of ensuring that both are compiled.

Class methods follow the same rules, but normally methods are all gathered in one file (myclass__define.pro) which is called when the first instance of this class is created. All method definitions before myclass__define will be compiled so it is OK to have a procedure method and a function method of the same name. And I do it all the time.

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