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Subject: Errors when compiling routines with main-level programs

Posted by [Matthew Argall](#) on Sat, 21 Feb 2015 15:53:08 GMT

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I have adopted the practice of putting main-level programs below utility functions to demonstrate their use. The problem is, only one such routine can be compiled manually at a time, and it must come at the end of the compile list. It can get pretty annoying. Here is a simple example:

```
IDL> .compile uniq, mruniq
% Compiled module: UNIQ.
% Compiled module: MRUNIQ.
% Compiled module: $MAIN$.
```

```
IDL> .compile mruniq, uniq
% Compiled module: MRUNIQ.
% Compiled module: $MAIN$.
% End of file encountered before end of program. File: mruniq.pro
```

```
function UNIQ, ARRAY, IDX
      ^
```

```
% Procedure header must appear first and only once: UNIQ
At: /Applications/exelis/idl82/lib/uniq.pro, Line 68
```

```
if (s[0] eq 0) then return, 0 ;A scalar
      ^
```

```
% Return statement in procedures can't have values.
At: /Applications/exelis/idl82/lib/uniq.pro, Line 73
```

```
else return, n_elements(q)-1
      ^
```

```
% Return statement in procedures can't have values.
At: /Applications/exelis/idl82/lib/uniq.pro, Line 78
```

```
else return, n_elements(q)-1
      ^
```

```
% Return statement in procedures can't have values.
At: /Applications/exelis/idl82/lib/uniq.pro, Line 78
```

```
else return, n_elements(ARRAY)-1
      ^
```

```
% Return statement in procedures can't have values.
At: /Applications/exelis/idl82/lib/uniq.pro, Line 82
```

```
else return, n_elements(ARRAY)-1
      ^
```

```
% Return statement in procedures can't have values.
At: /Applications/exelis/idl82/lib/uniq.pro, Line 82
```

% 6 Compilation error(s) in module \$MAIN\$.

Is there a fix for this? Or should I not be putting main-level programs at the end of functions and procedures?

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Subject: Re: Errors when compiling routines with main-level programs

Posted by [PMan](#) on Sat, 21 Feb 2015 19:52:30 GMT

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Look into the STATIC keyword - you can create an object that has a bunch of static functions that should address your problem.

On Saturday, February 21, 2015 at 10:53:12 AM UTC-5, Matthew Argall wrote:

> I have adopted the practice of putting main-level programs below utility functions to demonstrate their use. The problem is, only one such routine can be compiled manually at a time, and it must come at the end of the compile list. It can get pretty annoying. Here is a simple example:

```
>
> IDL> .compile uniq, mruniq
> % Compiled module: UNIQ.
> % Compiled module: MRUNIQ.
> % Compiled module: $MAIN$.
>
>
> IDL> .compile mruniq, uniq
> % Compiled module: MRUNIQ.
> % Compiled module: $MAIN$.
> % End of file encountered before end of program. File: mruniq.pro
>
> function UNIQ, ARRAY, IDX
>     ^
> % Procedure header must appear first and only once: UNIQ
> At: /Applications/exelis/idl82/lib/uniq.pro, Line 68
>
> if (s[0] eq 0) then return, 0 ;A scalar
>     ^
> % Return statement in procedures can't have values.
> At: /Applications/exelis/idl82/lib/uniq.pro, Line 73
>
> else return, n_elements(q)-1
>     ^
> % Return statement in procedures can't have values.
> At: /Applications/exelis/idl82/lib/uniq.pro, Line 78
>
```

```

>     else return, n_elements(q)-1
>         ^
> % Return statement in procedures can't have values.
> At: /Applications/exelis/idl82/lib/uniq.pro, Line 78
>
>     else return, n_elements(ARRAY)-1
>         ^
> % Return statement in procedures can't have values.
> At: /Applications/exelis/idl82/lib/uniq.pro, Line 82
>
>     else return, n_elements(ARRAY)-1
>         ^
> % Return statement in procedures can't have values.
> At: /Applications/exelis/idl82/lib/uniq.pro, Line 82
> % 6 Compilation error(s) in module $MAIN$.
>
>
>
>
> Is there a fix for this? Or should I not be putting main-level programs at the end of functions and
procedures?

```

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Subject: Re: Errors when compiling routines with main-level programs  
 Posted by [PMan](#) on Mon, 23 Feb 2015 13:56:57 GMT  
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On Saturday, February 21, 2015 at 2:52:33 PM UTC-5, Paul Mallas wrote:

```

> Look into the STATIC keyword - you can create an object that has a bunch of static functions
that should address your problem.

```

```

>

```

> On Saturday, February 21, 2015 at 10:53:12 AM UTC-5, Matthew Argall wrote:

```

>> I have adopted the practice of putting main-level programs below utility functions to
demonstrate their use. The problem is, only one such routine can be compiled manually at a time,
and it must come at the end of the compile list. It can get pretty annoying. Here is a simple
example:

```

```

>>

```

```

>> IDL> .compile uniq, mruniq

```

```

>> % Compiled module: UNIQ.

```

```

>> % Compiled module: MRUNIQ.

```

```

>> % Compiled module: $MAIN$.

```

```

>>

```

```

>>

```

```

>> IDL> .compile mruniq, uniq

```

```

>> % Compiled module: MRUNIQ.

```

```

>> % Compiled module: $MAIN$.

```

```

>> % End of file encountered before end of program. File: mruniq.pro

```

```

>>

```

```

>> function UNIQ, ARRAY, IDX
>>           ^
>> % Procedure header must appear first and only once: UNIQ
>> At: /Applications/exelis/idl82/lib/uniq.pro, Line 68
>>
>> if (s[0] eq 0) then return, 0 ;A scalar
>>           ^
>> % Return statement in procedures can't have values.
>> At: /Applications/exelis/idl82/lib/uniq.pro, Line 73
>>
>>     else return, n_elements(q)-1
>>           ^
>> % Return statement in procedures can't have values.
>> At: /Applications/exelis/idl82/lib/uniq.pro, Line 78
>>
>>     else return, n_elements(q)-1
>>           ^
>> % Return statement in procedures can't have values.
>> At: /Applications/exelis/idl82/lib/uniq.pro, Line 78
>>
>>     else return, n_elements(ARRAY)-1
>>           ^
>> % Return statement in procedures can't have values.
>> At: /Applications/exelis/idl82/lib/uniq.pro, Line 82
>>
>>     else return, n_elements(ARRAY)-1
>>           ^
>> % Return statement in procedures can't have values.
>> At: /Applications/exelis/idl82/lib/uniq.pro, Line 82
>> % 6 Compilation error(s) in module $MAIN$.
>>
>>
>>
>> Is there a fix for this? Or should I not be putting main-level programs at the end of functions
and procedures?

```

I meant compiler options, not keyword for static.  
[http://www.exelisvis.com/docs/Static\\_Methods.html](http://www.exelisvis.com/docs/Static_Methods.html)

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Subject: Re: Errors when compiling routines with main-level programs  
 Posted by [Matthew Argall](#) on Mon, 23 Feb 2015 16:44:07 GMT  
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> I meant compiler options, not keyword for static.  
 > [http://www.exelisvis.com/docs/Static\\_Methods.html](http://www.exelisvis.com/docs/Static_Methods.html)

Unfortunately, they were introduced in IDL 8.3 and I am stuck on IDL 8.2.

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