
Subject: Re: compiling before needing
Posted by [R.Bauer](#) on Tue, 11 Sep 2001 08:50:43 GMT
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Lasse Clausen wrote:

>
> Greetings!
>
> My programm consists of several functions and procedures in
> corresponding files. Is there a way of automatically compiling all files
> (functions/procedures) before they are needed
>
> Thanks
> Lasse Clausen

.compile routine.pro
resolve_all

Reimar
--
Reimar Bauer

Institut fuer Stratosphaerische Chemie (ICG-1)
Forschungszentrum Juelich
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<http://www.fz-juelich.de/icg/icg1/>

=====

a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.html

<http://www.fz-juelich.de/zb/text/publikation/juel3786.html>

=====

read something about linux / windows
<http://www.suse.de/de/news/hotnews/MS.html>

Subject: Re: compiling before needing
Posted by [Todd Clements](#) on Wed, 12 Sep 2001 21:54:21 GMT
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> My programm consists of several functions and procedures in
> corresponding files. Is there a way of automatically compiling all files
> (functions/procedures) before they are needed

Reimar is right - just stick a resolve_all at the beginning of the

function that is called, and IDL will resolve all routines.

I've also written a routine that will do this much, much more manually (which isn't what you wanted, but I thought I'd share anyway). It will let you check if a routine is compiled and you can optionally force it to compile. The /compile keyword will compile it if it's not already compiled, and the /force_compile keyword will compile it even if it's already compiled. The function returns 1 if the routine is compiled and 0 if it is not.

Todd

```
;-----
```

```
function is_routine_compiled, routineName, compile=compile,$
               force_compile=force_compile
compile_opt idl2
```

```
if( typeof( routineName ) ne 7 ) then begin
    print, 'Must pass string to is_routine_compiled'
    return, 0
endif
```

```
rn = strupcase( routineName )
```

```
a = routine_info()
a = [a, routine_info(/functions)]
junk = where( a eq rn )
if( junk[0] ne -1 ) then begin
    ;; We may have found it, but it may not be resolved
    a = routine_info(/unresolved)
    a = [a, routine_info( /unresolved, /functions )]
    junk = where( a eq rn )
    if( junk[0] ne -1 ) then junk = -1 else junk = 1
endif
```

```
if( junk[0] eq -1 or keyword_set(force_compile) ) then begin
    if( keyword_set( compile ) or $
        keyword_set( force_compile ) ) then begin
        resolve_routine, rn, /compile_full_file, /either
        return, is_routine_compiled(rn)
    endif else return, 0
endif else return, 1
end ;;is_routine_compiled
```

Subject: Re: compiling before needing

Posted by [R.Bauer](#) on Thu, 13 Sep 2001 07:43:55 GMT

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Todd Clements wrote:

```
>
>> My programm consists of several functions and procedures in
>> corresponding files. Is there a way of automatically compiling all files
>> (functions/procedures) before they are needed
>
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> function that is called, and IDL will resolve all routines.
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> let you check if a routine is compiled and you can optionally force it
> to compile. The /compile keyword will compile it if it's not already
> compiled, and the /force_compile keyword will compile it even if it's
> already compiled. The function returns 1 if the routine is compiled and
> 0 if it is not.
>
> Todd
>
```

In addition to Todd here is a routine to compile all routines used in a routine and the routine itself. The result is saved as idl Routine sav file.

If it is a procedure it could be started with idl runtime.

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/compile.tar.gz

```
IDL> compile,'str_sep'
```

A routine which finds a lot of information of routines used by one routine is helpon.

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/helpon.tar.gz

look for routine definition

```
IDL> helpon,str_sep
```

```
function str_sep, str, separator, remove_all = remove_all, trim = trim,
esc=esc
```

```
IDL> helpon,str_sep ,/info
```

```
STR_SEP /usr/local/idl/lib/obsolete/str_sep.pro 2000-09-26
```

```
15:08:07
```

```

IDL> helpon,get_dir ,/info
FILE_EXIST
/usr/local/icg/icg/idl_source/idl_links/file_exist.pro
2001-06-22 09:44:02
GET_DIR
/usr/local/icg/icg/idl_source/idl_work/rb_lib/get_dir.pro
2001-06-14 16:02:32
REPLACE_STRING
/usr/local/icg/icg/idl_source/idl_links/replace_string.pro
2001-02-13 16:08:30
STR_SEP
/usr/local/idl/idl/lib/obsolete/str_sep.pro
2000-09-26 15:08:07
GET_TEMPLATE_ONE_VALUE
/usr/local/icg/icg/idl_source/idl_links/get_template_one_value.pro
2000-08-17 10:40:08
BUILD_VECTOR
/usr/local/icg/icg/idl_source/idl_links/build_vector.pro
2000-06-18 08:07:48
CALL_HELP
/usr/local/icg/icg/idl_source/idl_links/call_help.pro
1999-11-06 16:44:28

```

This routine helps us often to find out which routine was last changed and where it comes from.

There are some more keywords.

regards
Reimar

--

Reimar Bauer

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<http://www.fz-juelich.de/icg/icg1/>

=====

a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.html

<http://www.fz-juelich.de/zb/text/publikation/juel3786.html>

=====

Subject: Re: compiling before needing
Posted by [Paul van Delst](#) on Thu, 13 Sep 2001 14:44:28 GMT
[View Forum Message](#) <> [Reply to Message](#)

Reimar Bauer wrote:

>
> Todd Clements wrote:
>>
>>> My programm consists of several functions and procedures in
>>> corresponding files. Is there a way of automatically compiling all files
>>> (functions/procedures) before they are needed
>>
>> Reimar is right - just stick a resolve_all at the beginning of the
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>> to compile. The /compile keyword will compile it if it's not already
>> compiled, and the /force_compile keyword will compile it even if it's
>> already compiled. The function returns 1 if the routine is compiled and
>> 0 if it is not.
>>
>> Todd
>>
>
> In addition to Todd here is a routine to compile all routines used
> in a routine and the routine itself.

Umm.... huh?

What about sticking procedures/functions in their own files.

paulv

--

Paul van Delst Religious and cultural
CIMSS @ NOAA/NCEP purity is a fundamentalist
Ph: (301)763-8000 x7274 fantasy
Fax:(301)763-8545 V.S.Naipaul

Subject: Re: compiling before needing

Posted by [David Fanning](#) on Thu, 13 Sep 2001 15:31:08 GMT

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Paul van Delst (paul.vandelst@noaa.gov) writes:

> Umm.... huh?
>
> What about sticking procedures/functions in their own files.

Too easy. Not a programmer's solution.

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438, E-mail: david@dfanning.com

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: compiling before needing

Posted by [R.Bauer](#) on Thu, 13 Sep 2001 15:57:55 GMT

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David Fanning wrote:

>
> Paul van Delst (paul.vandelst@noaa.gov) writes:
>
>> Umm.... huh?
>>
>> What about sticking procedures/functions in their own files.
>
> Too easy. Not a programmer's solution.
>
> Cheers,
>
> David
>
> --
> David W. Fanning, Ph.D.
> Fanning Software Consulting
> Phone: 970-221-0438, E-mail: david@dfanning.com
> Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
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I am not sure if I understand correctly.

So I show an example

x_def_colortable was compiled by this routine.

This widget has a lot of routines included in the file and a lot of routines

called from different files.

It is used to set up colortables which are created as idl files. For documentation

a png file of the colortable is saved too.

http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_source/idl_html/dbase/download/x_def_colortable.sav

You can start this by `idl -rt=x_def_colortable.sav`

or you restore it by

```
IDL> restore,file='x_def_colortable.sav'
```

```
IDL> x_def_colortable
```

There is a function implemented `x_def_colortable_info`.

This shows you which routines are used and where they are from.

```
IDL> print,x_def_colortable_info()
```

```
x_def_colortable
```

```
Build Date: Mon Jul 9 16:46:09 2001
```

```
Compiled Procedures:
```

```
$MAIN$
```

```
AFORMAT /private/icglib/idl_source/idl_html/dbase/download/plotxy.sav
```

```
Mon Jul 9 13:54:46 2001
```

```
ALT_INHALT_DEF
```

```
/private/icglib/idl_source/idl_html/dbase/download/plotxy.sav Mon Jul 9  
13:54:46 2001
```

```
BUILD_STRUCTURE
```

```
/private/icglib/idl_source/idl_html/dbase/download/pl_init.sav Mon Jul  
9 13:52:14 2001
```

```
BUILD_VECTOR
```

```
/private/icglib/idl_source/idl_html/dbase/download/syst2inf.sav Mon Jul  
9 16:20:53 2001
```

```
CACHE /private/icglib/idl_source/idl_html/dbase/download/plotxy.sav Mon  
Jul 9 13:54:46 2001
```

```
COLOR_SCHEME
```

```
/private/icglib/idl_source/idl_html/dbase/download/plotinit.sav Mon Jul  
9 13:53:11 2001
```

```
CT_BLUE /private/icglib/idl_source/idl_html/dbase/download/plotinit.sav
```

```

Mon Jul 9 13:53:11 2001
CT_BLUE_GREEN_YELLOW_RED
/private/icglib/idl_source/idl_html/dbase/download/plotinit. sav Mon Jul
9 13:53:11 2001
CT_BLUE_RED
/private/icglib/idl_source/idl_html/dbase/download/plotinit. sav Mon Jul
9 13:53:11 2001
.
.
.

X_DEF_COLORTABLE
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001
X_DEF_COLORTABLE_EVENT
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001
X_DEF_COLORTABLE_EVENT_BLUE
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001
X_DEF_COLORTABLE_EVENT_GREEN
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001
X_DEF_COLORTABLE_EVENT_RED
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001
X_DEF_COLORTABLE_SHOW_COLORS
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001
X_DEF_COLORTABLE_SHOW_ONE_COLOR
/private/icglib/idl_source/idl_work/rb_lib/x_def_colortable. pro Tue Jun
19 12:52:22 2001

```

...

The compile routine compiles every routine it finds.

Normally this routine did not need all the routines which are included in the binary. At the moment I don't know how to distinguish between routines which are necessary and all others.

But the routine makes it very easy to create binary files and as you see it is possible to concatenate several binary files in a new one.

regards
Reimar

--

Reimar Bauer

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Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg1/>

=====

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<http://www.fz-juelich.de/zb/text/publikation/juel3786.html>

=====

read something about linux / windows
<http://www.suse.de/de/news/hotnews/MS.html>

Subject: Re: compiling before needing
Posted by [David Fanning](#) on Thu, 13 Sep 2001 17:20:09 GMT
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Reimar Bauer (r.bauer@fz-juelich.de) writes:

> David Fanning wrote:
>>
>> Paul van Delst (paul.vandelst@noaa.gov) writes:
>>
>>> Umm.... huh?
>>>
>>> What about sticking procedures/functions in their own files.
>>
>> Too easy. Not a programmer's solution.
>
> I am not sure if I understand correctly.
>
> So I show an example

Reimar, sorry for the confusion. I didn't mean to disparage your program at all. I'm sure it is useful. I was simply following up Paul's tongue-in-cheek (I assume) comment with one that was even more flippant.

My point was only that when people ask about compiling

IDL programs, *most* of the time (and there have been one or two exceptions in my 12 years of monitoring this newsgroup) they are completely misunderstanding how IDL works.

I've never compiled an IDL program in my life, unless I was making a run-time IDL application. But I am *certain* there are good reasons for it. I've just never encountered them in my limited experience.

(Although I have a feeling I'm going to hear about these reasons very soon now. :-)

Cheers,

David

--

David W. Fanning, Ph.D.

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Subject: Re: compiling before needing

Posted by [Todd Clements](#) on Thu, 13 Sep 2001 18:49:19 GMT

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> (Although I have a feeling I'm going to hear about
> these reasons very soon now. :-)

Two words:

Legacy code.

Todd

Subject: Re: compiling before needing

Posted by [David Fanning](#) on Thu, 13 Sep 2001 19:38:12 GMT

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Todd Clements (mole6e23@hotmail.com) writes:

>> (Although I have a feeling I'm going to hear about
>> these reasons very soon now. :-)
>

> Two words:
>
> Legacy code.

Ah, yes. "The sins of the fathers ...", etc.

Cheers,

David

P.S. Let's just say I've never heard of a reason
besides a "lousy office mate/programmer" for
compiling IDL code. :-)

--

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Subject: Re: compiling before needing
Posted by [Craig Markwardt](#) on Thu, 13 Sep 2001 21:24:23 GMT
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David Fanning <david@dfanning.com> writes:

> My point was only that when people ask about compiling
> IDL programs, *most* of the time (and there have been
> one or two exceptions in my 12 years of monitoring this
> newsgroup) they are completely misunderstanding how IDL
> works.
>
> I've never compiled an IDL program in my life, unless
> I was making a run-time IDL application. But I am
> *certain* there are good reasons for it. I've just
> never encountered them in my limited experience.

I have an analysis package for analyzing satellite X-ray astronomy
data, which is composed of more than 150 procedures and functions. At
some point it just became too cumbersome and inconvenient to have all
of them compiled on the fly, not to mention the eyesore of all those
"% Compiled: XXXXX." messages.

So I bundle them all up into a single save file. Then I have a
"preload" function which restores the functions from the save file [
the function is smart enough to check the date on the file and only
restores if a newer one is on disk.]

This only works because I have a script to recompile everything overnight. Otherwise, I agree it's a pain in the butt.

On the other hand, with newer versions of IDL I can see that you can remove the "% Compiled" messages, and with faster computers the compile is less of an issue. I guess I'm stuck in the past.

Craig

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: compiling before needing
Posted by [Todd Clements](#) on Thu, 13 Sep 2001 21:26:52 GMT
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>> Legacy code.
>
> Ah, yes. "The sins of the fathers ...", etc.
> P.S. Let's just say I've never heard of a reason
> *besides* a "lousy office mate/programmer" for
> compiling IDL code. :-)

When I was first learning IDL, I was learning from the people around me, and I didn't even REALIZE for a long time that IDL could compile code all by itself such was the situation around here. I've spent days of my life re-writing old code. There are only two programs that we still have to compile manually. I'm working on it, but those compilation routines come in handy until then.

Todd

Subject: Re: compiling before needing
Posted by [Paul van Delst](#) on Tue, 18 Sep 2001 14:14:02 GMT
[View Forum Message](#) <> [Reply to Message](#)

> David Fanning wrote:
>>
>> Paul van Delst (paul.vandelst@noaa.gov) writes:
>>

```
>>> Umm.... huh?
>>>
>>> What about sticking procedures/functions in their own files.
>>
>> Too easy. Not a programmer's solution.
```

Hmm. Maybe. Then again, it never ceases to amaze me at the complexity people introduce into their lives in the hope that it will simplify things. Oi Vey.

paulv

--

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Fax:(301)763-8545 V.S.Naipaul
