
Subject: Re: gurus: example code as main level code ?
Posted by [David Fanning](#) on Fri, 01 Nov 2002 17:39:53 GMT
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R.G. Stockwell (sorry@noemail.now) writes:

- > I am going through my monster IDL library, and was wondering what
- > people think of the practice of including a main level "example" or
- > "Test" code at the end of each function and procedure?
- >
- > Are there any reasons not to do this?
- > I don't see any, but I am probably missing something, i usually am :).
- >
- > I do this almost always (and in fact, I am planning to make this a rule,
- > so that all my functions will have an example if anyone runs the function.

Oh, bravo! You just missed this year's dinner
(update to follow when my headache goes away),
but this will get you an automatic invite to
next year's IEPA dinner!

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
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: gurus: example code as main level code ?
Posted by [David Fanning](#) on Fri, 01 Nov 2002 17:46:03 GMT
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- > Oh, bravo! You just missed this year's dinner
- > (update to follow when my headache goes away),
- > but this will get you an automatic invite to
- > next year's IEPA dinner!

It just occurs to me, Bob, that maybe you *were*
at last night's dinner. I don't know...I can't
remember. Everything got a little fuzzy for me
when the dancers showed up with those little
twirly things. :-(

Anyway, let's just say I'd be working on a speech in any case.

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: gurus: example code as main level code ?

Posted by [R.Bauer](#) on Fri, 01 Nov 2002 17:56:24 GMT

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R.G. Stockwell wrote:

> Greetings all,
>
> I am going through my monster IDL library, and was wondering what
> people think of the practice of including a main level "example" or
> "Test" code at the end of each function and procedure?
>
> Are there any reasons not to do this?
> I don't see any, but I am probably missing something, i usually am :).
>
> I do this almost always (and in fact, I am planning to make this a rule,
> so that all my functions will have an example if anyone runs the function.
>

Dear Bob,

I am wondering a bit what happens to the example if I do

```
.compile range  
resolve_all  
save,file='range.sav',/routines,/compress
```

It seems only the function is saved in the sav binary.

First I was thinking this could be a problem for the routine itself, but it works fine. I can miss the example by runtime routines.

Normally if we have more complicated routines you need more as one testcase.

Or did you think about having a large main program which tells what it is testing and what the result should be and is. At the moment I am using the EXAMPLES: tag in the comments.

By graphic routines this is nearly impossible. There is a saved image better for comparisons. For the plotenvironment I have already a large image / testcases which is very useful during beta tests.

Your idea will make it very easy to check math functions and to show differences if the output is redirected to a file.

regards

Reimar

```
>
> Cheers,
> bob stockwell
>
>
> As an example of what I mean, here is a tiny (but useful) function:
> You call it as result = range(array), but if you want to see an
> example of the function, just do
> IDL>.run range
>
>
> function range, ts,_extra=_extra
>
> if n_elements(ts) lt 1 then return,-1
> return, [min(ts,_extra=_extra),max(ts,_extra=_extra)]
> end
>
>
> a = findgen(10)+44
>
> print,range(a)
>
> end
```

--

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

=====

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

Subject: Re: gurus: example code as main level code ?

Posted by [Pavel A. Romashkin](#) on Fri, 01 Nov 2002 18:51:40 GMT

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I am not quite sure I figured out what this is supposed to do. I guess this is because I never run any code longer than a line from the main level. In any case, if I happen to write a program longer than 50 lines, I try to write an intelligible header or even an HTML page for it, with examples of use and explanations. If the code is shorter than 50 lines, it is assumed to be self-explanatory. Using a main level example seems insufficient for any modestly complex program.

I do not mean to say it is bad for any reason. Just to say I personally don't really see any use for it.

Cheers,

Pavel

"R.G. Stockwell" wrote:

>

> Greetings all,

>

> I am going through my monster IDL library, and was wondering what

> people think of the practice of including a main level "example" or

> "Test" code at the end of each function and procedure?

> --snip--

Subject: Re: gurus: example code as main level code ?

Posted by [David Fanning](#) on Fri, 01 Nov 2002 19:16:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

Pavel A. Romashkin (pavel_romashkin@hotmail.com) writes:

> I do not mean to say it is bad for any reason. Just to say I personally

> don't really see any use for it.

Well, Pavel, you are in a particularly cranky mode this morning. And well you should be!

Cheers,

David

P.S. Let's just say that "hat" looked ridiculous on you last night. :-)

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

Subject: Re: gurus: example code as main level code ?
Posted by [R.G. Stockwell](#) on Mon, 04 Nov 2002 14:11:39 GMT
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Reimar Bauer wrote:

> Dear Bob,
>
> I am wondering a bit what happens to the example if I do
>
> .compile range
> resolve_all
> save,file='range.sav',/routines,/compress
>
> It seems only the function is saved in the sav binary.
>
> First I was thinking this could be a problem for the routine
> itself, but it works fine. I can miss the example by runtime routines.
>
> Normally if we have more complicated routines you need more as one testcase.
> Or did you think about having a large main program which tells what it is
> testing and what the result should be and is. At the moment I am using the
> EXAMPLES: tag in the comments.
>
> By graphic routines this is nearly impossible. There is a saved image better
> for comparisons. For the plotenvironment I have already a large image /
> testcases which is very useful during beta tests.
>
> Your idea will make it very easy to check math functions and to show
> differences if the output is redirected to a file.
>
>
> regards
>
> Reimar

Very good point Reimar, I had not considered what would happen in a sav file. I rarely use them, usually only for an interim data storage solution in development.
Perhaps I will switch over to an /examples keyword.

I also include a /help keyword too, to remind the user (i.e. me) what keywords are available and how to use the routine, but it would probably be better to make a help file or some other real

documentation.

Cheers,
bob

Subject: Re: gurus: example code as main level code ?
Posted by [R.Bauer](#) on Mon, 04 Nov 2002 21:09:15 GMT
[View Forum Message](#) <> [Reply to Message](#)

R.G. Stockwell wrote:

```
> Reimar Bauer wrote:
>> Dear Bob,
>>
>> I am wondering a bit what happens to the example if I do
>>
>> .compile range
>> resolve_all
>> save,file='range.sav',/routines,/compress
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>> It seems only the function is saved in the sav binary.
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>> Your idea will make it very easy to check math functions and to show
>> differences if the output is redirected to a file.
>>
>>
>> regards
>>
>> Reimar
>
> Very good point Reimar, I had not considered what would
> happen in a sav file. I rarely use them, usually only for an
> interim data storage solution in development.
> Perhaps I will switch over to an /examples keyword.
>
```

> I also include a /help keyword too, to remind the user (i.e. me)
> what keywords are available and how to use the routine, but it
> would probably be better to make a help file or some other real
> documentation.

Dear Bob,

For this case may be my call_help routine is interesting too.

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

This routine is able to read out the comments from the description.
So it is not necessary to describe things always twice. And it is much
easier to do changes at only one place.

For example if you have a routine which needs two positional parameters
(I have added only a subset of the header and the routine.)

If you enter less parameters always the text from
; CALLING SEQUENCE: is printed out.

```
IDL> x=diff_struct()  
% DIFF_STRUCT:  
result=diff_struct(struct1,struct2,[diff1=diff1],[diff2=diff 2])
```

I am using the example comment too to describe by many examples
what the routine is doing.

This could be extracted too. If you have a look in the catalog
by

http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_source/idl_html/examples/diff_struct_example.pro.html

regards

Reimar

```
;+  
; NAME:  
; diff_struct  
;  
; PURPOSE:  
; This function returns all differences of all values from two structures.  
; Pointer or values could be compared.  
; Only tags which are in both structures are compared.  
; Differences could be returned by ARG_PRESENT by diff1 or diff2.  
;  
; CATEGORY:  
; PROG_TOOLS/STRUCTURES
```

```
;
;
; CALLING SEQUENCE:
; result=diff_struct(struct1,struct2,[diff1=diff1],[diff2=diff 2])
;-
```

```
FUNCTION diff_struct(struct1,struct2,diff1=diff1,diff2=diff2
  IF N_PARAMS() LT 2 THEN BEGIN
    MESSAGE,call_help(),/cont
    RETURN,-1
  ENDIF
return,1
END
```

--

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

=====

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

Subject: Re: gurus: example code as main level code ?
Posted by [Pavel A. Romashkin](#) on Tue, 05 Nov 2002 20:23:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

David Fanning wrote:

> Well, Pavel, you are in a particularly cranky mode
> this morning. And well you should be!
>
> Cheers,
>
> David
>
> P.S. Let's just say that "hat" looked ridiculous on you
> last night. :-)

Now, wait a minute! That was not *me* whos head you put that old truck
tire on!

What day is it anyway? Geez, has it been 5 days since *that* party?... I
will resign once the hangover is over and I can spill... I mean, spell again.
Or maybe not, you don't get to see David do what he was doing all that
often. Maybe the hangover is worthit :-)

Cheers,
Pavel