Subject: error handling
Posted by jabarone on Thu, 26 Aug 1993 18:44:16 GMT
View Forum Message <> Reply to Message

Is there a way to do true error handling in IDL. I've read about the
ON_ERROR and MESSAGE procedures in the manuals, but the information
given isn't much help.

Given two procedures A and B. If A calls B and somewhwere in the execution
of B an error is triggered, is there a way to truely "handle" that error.
ie. can procedure A regain control, recognize that an error has occured
in B, and do something to handle the error, without halting the entire
program.

Please email replies.

Thanks,

John
jabarone@athena.mit.edu

Subject: Re: error handling
Posted by David Fanning on Mon, 10 Nov 2008 00:24:56 GMT
View Forum Message <> Reply to Message

bulrushmower@gmail.com writes:

> How can I set up that when error happens, IDL output the error message
> to log file, then igonore that step continue to process next data?.

Something like this:

```
  OpenW, lun, 'logfile.out', /GET_LUN
  FOR j=0,n DO BEGIN

     Catch, theError
     IF theError NE 0 THEN BEGIN
        PrintF, lun, 'Problem with processing step ' + StrTrim(j)
        CONTINUE
     ENDIF

     DoSomeProcessing, data[j]
  ENDFOR
  Catch, /Cancel
  Free_Lun, lun
```

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: error handling
Posted by bulrushmower on Mon, 10 Nov 2008 01:20:26 GMT

View Forum Message <> Reply to Message

```
On Nov 9, 6:24 pm, David Fanning <n...@dfanning.com> wrote:
> bulrushmo...@gmail.com writes:
>> How can I set up that when error happens, IDL output the error message
>> to log file, then igonore that step continue to process next data?.
>
> Something like this:
>
>   OpenW, lun, 'logfile.out', /GET_LUN
>   FOR j=0,n DO BEGIN
>
>      Catch, theError
>      IF theError NE 0 THEN BEGIN
>         PrintF, lun, 'Problem with processing step ' + StrTrim(j)
>         CONTINUE
>      ENDIF
>
>      DoSomeProcessing, data[j]
>   ENDFOR
>   Catch, /Cancel
>   Free_Lun, lun
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
```

thank you!

Subject: Re: error handling
Posted by bulrushmower on Mon, 10 Nov 2008 04:40:11 GMT
View Forum Message <> Reply to Message

On Nov 9, 6:24 pm, David Fanning <n...@dfanning.com> wrote:

```
> bulrushmo...@gmail.com writes:
>> How can I set up that when error happens, IDL output the error message
>> to log file, then igonore that step continue to process next data?.
>
> Something like this:
>
>   OpenW, lun, 'logfile.out', /GET_LUN
>   FOR j=0,n DO BEGIN
>
>     Catch, theError
>     IF theError NE 0 THEN BEGIN
>       PrintF, lun, 'Problem with processing step ' + StrTrim(j)
>       CONTINUE
>     ENDIF
>
>     DoSomeProcessing, data[j]
>   ENDFOR
>   Catch, /Cancel
>   Free_Lun, lun
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
```

Frustrating!!
I tried whole afternoon, did not work.
My program like this:

```
files = file_search(input_location,'*.dat', count=numFiles)
For i=0, numFiles do begin

        CATCH, Error_status

        IF Error_status NE 0 THEN BEGIN
            printF, batch_unit, 'Error index: ', Error_status
            printF, batch_unit, 'Error message: ', !ERROR_STATE.MSG
            PrintF, batch_unit, 'Problem with processing step ',
files[K]

            ;
```

```
          CONTINUE
        ENDIF

    dosomedataprocessings, file[k]

ENDFOR

Catch, /Cancel
```

Subject: Re: error handling
Posted by David Fanning on Mon, 10 Nov 2008 04:59:30 GMT
View Forum Message <> Reply to Message

bulrushmower@gmail.com writes:

```
>  Frustrating!!
>  I tried whole afternoon, did not work.
>  My program like this:
>  files =3D file_search(input_location,'*.dat', count=3DnumFiles)
>  For i=3D0, numFiles do begin
>
>         CATCH, Error_status
>
>         IF Error_status NE 0 THEN BEGIN
>             printF, batch_unit, 'Error index: ', Error_status
>             printF, batch_unit, 'Error message: ', !ERROR_STATE.MSG
>             PrintF, batch_unit, 'Problem with processing step ',
>  files[K]
>
>             ;
>             CONTINUE
>          ENDIF
>
>     dosomedataprocessings, file[k]
>
>  ENDFOR
>
>  Catch, /Cancel
```

What didn't work about it?

Cheers,

David

--
David Fanning, Ph.D.

Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: error handling
Posted by Spon on Mon, 10 Nov 2008 12:40:41 GMT

View Forum Message <> Reply to Message

```
On Nov 10, 12:24 am, David Fanning <n...@dfanning.com> wrote:
>  bulrushmo...@gmail.com writes:
>>  How can I set up that when error happens, IDL output the error message
>>  to log file, then igonore that step continue to process next data?.
>
>  Something like this:
>
>    OpenW, lun, 'logfile.out', /GET_LUN
>    FOR j=0,n DO BEGIN
>
>       Catch, theError
>       IF theError NE 0 THEN BEGIN
>          PrintF, lun, 'Problem with processing step ' + StrTrim(j)
>          CONTINUE
>       ENDIF
>
>       DoSomeProcessing, data[j]
>    ENDFOR
>    Catch, /Cancel
>    Free_Lun, lun
>
>  Cheers,
>
>  David
>  --
>  David Fanning, Ph.D.
>  Fanning Software Consulting, Inc.
>  Coyote's Guide to IDL Programming:http://www.dfanning.com/
>  Sepore ma de ni thui. ("Perhaps thou speakest truth.")
```

Excuse my ignorance on this, but wouldn't you need to stick your
"Catch, /Cancel" INSIDE the for loop?
If not, why not?

Regards,
Chris

Subject: Re: error handling
Posted by David Fanning on Mon, 10 Nov 2008 13:38:22 GMT
View Forum Message <> Reply to Message

Spon writes:

> bulrushmo...@gmail.com writes:
>> How can I set up that when error happens, IDL output the error message
>> to log file, then igonore that step continue to process next data?.
>
> Something like this:
>

>

>

>
> Excuse my ignorance on this, but wouldn't you need to stick your
> "Catch, /Cancel" INSIDE the for loop?
> If not, why not?

There is no requirement for when you cancel a CATCH, except
you should cancel it when you are finished with it. While CATCH
is in effect, any error is re-routed to the first line after
the CATCH statement. When cancelled, any error is routed
to the ON_ERROR condition in effect for that program
module. In a real code example, rather than cancelling
the CATCH there, I would probably have had another CATCH
statement to replace the one I was using for the process
loop.

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: error handling
Posted by bulrushmower on Mon, 10 Nov 2008 15:02:08 GMT
View Forum Message <> Reply to Message

```
On Nov 10, 7:38 am, David Fanning <n...@dfanning.com> wrote:
> Spon writes:
>> bulrushmo...@gmail.com writes:
>>> How can I set up that when error happens, IDL output the error message
>>> to log file, then igonore that step continue to process next data?.
>
>> Something like this:
>
>>   OpenW, lun, 'logfile.out', /GET_LUN
>>   FOR j=0,n DO BEGIN
>
>>      Catch, theError
>>      IF theError NE 0 THEN BEGIN
>>         PrintF, lun, 'Problem with processing step ' + StrTrim(j)
>>         CONTINUE
>>      ENDIF
>
>>      DoSomeProcessing, data[j]
>>   ENDFOR
>>   Catch, /Cancel
>>   Free_Lun, lun
>
>> Excuse my ignorance on this, but wouldn't you need to stick your
>> "Catch, /Cancel" INSIDE the for loop?
>> If not, why not?
>
> There is no requirement for when you cancel a CATCH, except
> you should cancel it when you are finished with it. While CATCH
> is in effect, any error is re-routed to the first line after
> the CATCH statement. When cancelled, any error is routed
> to the ON_ERROR condition in effect for that program
> module. In a real code example, rather than cancelling
> the CATCH there, I would probably have had another CATCH
> statement to replace the one I was using for the process
> loop.
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")- Hide quoted text -
>
```

> - Show quoted text -

The problem is even I use these statements, program still halted when
enounter a bad data.
Should I place the Catch, /cancel inside the loop.
Another issue, should I state the Catch, the error right after the
beginning the loop, or after the image processing, end of the loop?

thanks

Subject: Re: error handling
Posted by David Fanning on Mon, 10 Nov 2008 15:11:31 GMT
View Forum Message <> Reply to Message

bulrushmower@gmail.com writes:

> The problem is even I use these statements, program still halted when
> enounter a bad data.
> Should I place the Catch, /cancel inside the loop.
> Another issue, should I state the Catch, the error right after the
> beginning the loop, or after the image processing, end of the loop?

Well, I have *NO* idea what you are doing in the processing
step, so I have no way of helping you. I can only presume
that the error handling in your processing routines are
such that the error returns to the CATCH. This can easily
not be the case. (For example, your processing routines
might not have any error handling in them at all!) Plus, the
errors can be I/O errors, which are typically handled in a
different way (with ON_IOERROR).

Lots of things can be going on here that I am depending
on you to sort out. I was only answering the question
in a general way. :-)

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: error handling

Posted by R.Bauer on Mon, 10 Nov 2008 17:23:33 GMT

View Forum Message <> Reply to Message

bulrushmower@gmail.com schrieb:
```
>  On Nov 10, 7:38 am, David Fanning <n...@dfanning.com> wrote:
>>  Spon writes:
>>>  bulrushmo...@gmail.com writes:
>>>>  How can I set up that when error happens, IDL output the error message
>>>>  to log file, then igonore that step continue to process next data?.
>>>  Something like this:
>>>    OpenW, lun, 'logfile.out', /GET_LUN
>>>    FOR j=0,n DO BEGIN
>>>       Catch, theError
>>>       IF theError NE 0 THEN BEGIN
>>>          PrintF, lun, 'Problem with processing step ' + StrTrim(j)
>>>          CONTINUE
>>>       ENDIF
>>>       DoSomeProcessing, data[j]
>>>    ENDFOR
>>>    Catch, /Cancel
>>>    Free_Lun, lun
>>>  Excuse my ignorance on this, but wouldn't you need to stick your
>>>  "Catch, /Cancel" INSIDE the for loop?
>>>  If not, why not?
>>  There is no requirement for when you cancel a CATCH, except
>>  you should cancel it when you are finished with it. While CATCH
>>  is in effect, any error is re-routed to the first line after
>>  the CATCH statement. When cancelled, any error is routed
>>  to the ON_ERROR condition in effect for that program
>>  module. In a real code example, rather than cancelling
>>  the CATCH there, I would probably have had another CATCH
>>  statement to replace the one I was using for the process
>>  loop.
>>
>>  Cheers,
>>
>>  David
>>  --
>>  David Fanning, Ph.D.
>>  Fanning Software Consulting, Inc.
>>  Coyote's Guide to IDL Programming:http://www.dfanning.com/
>>  Sepore ma de ni thui. ("Perhaps thou speakest truth.")- Hide quoted text -
>>
>>  - Show quoted text -
>
>  The problem is even I use these statements, program still halted when
>  enounter a bad data.
>  Should I place the Catch, /cancel inside the loop.
>  Another issue, should I state the Catch, the error  right after the
```

> beginning the loop, or after the image processing, end of the loop?
>
> thanks

If you can show your source, e.g. use a pastebin
we usually can better help

cheers
Reimar

Subject: Re: error handling
Posted by bulrushmower on Mon, 10 Nov 2008 17:54:36 GMT
View Forum Message <> Reply to Message

On Nov 10, 11:23 am, Reimar Bauer <R.Ba...@fz-juelich.de> wrote:
> bulrushmo...@gmail.com schrieb:
>
>
>
>
>
>> On Nov 10, 7:38 am, David Fanning <n...@dfanning.com> wrote:
>>> Spon writes:
>>>> bulrushmo...@gmail.com writes:
>>>> > How can I set up that when error happens, IDL output the error message
>>>> > to log file, then igonore that step continue to process next data?.
>>>> Something like this:
>>>>   OpenW, lun, 'logfile.out', /GET_LUN
>>>>   FOR j=0,n DO BEGIN
>>>>   Catch, theError
>>>>   IF theError NE 0 THEN BEGIN
>>>>   PrintF, lun, 'Problem with processing step ' + StrTrim(j)
>>>>   CONTINUE
>>>>   ENDIF
>>>>   DoSomeProcessing, data[j]
>>>>   ENDFOR
>>>>   Catch, /Cancel
>>>>   Free_Lun, lun
>>>> Excuse my ignorance on this, but wouldn't you need to stick your
>>>> "Catch, /Cancel" INSIDE the for loop?
>>>> If not, why not?
>>> There is no requirement for when you cancel a CATCH, except
>>> you should cancel it when you are finished with it. While CATCH
>>> is in effect, any error is re-routed to the first line after
>>> the CATCH statement. When cancelled, any error is routed
>>> to the ON_ERROR condition in effect for that program
>>> module. In a real code example, rather than cancelling

>>> the CATCH there, I would probably have had another CATCH
>>> statement to replace the one I was using for the process
>>> loop.
>
>>> Cheers,
>
>>> David
>>> --
>>> David Fanning, Ph.D.
>>> Fanning Software Consulting, Inc.
>>> Coyote's Guide to IDL Programming:http://www.dfanning.com/
>>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")- Hide quoted text -
>
>>> - Show quoted text -
>
>> The problem is even I use these statements, program still halted when
>> enounter a bad data.
>> Should I place the Catch, /cancel inside the loop.
>> Another issue, should I state the Catch, the error right after the
>> beginning the loop, or after the image processing, end of the loop?
>
>> thanks
>
> If you can show your source, e.g. use a pastebin
> we usually can better help
>
> cheers
> Reimar- Hide quoted text -
>
> - Show quoted text -

Here is my source code. I am using MCTK tool to convert MODIS HDF
data. The data processing is just converting the projection. It always
runst for nearly a hundred data, then stops, saying 'can not attach
the grid file...etc'. I would like to have the code right down the
error in the log file, and then continue the loop for the next data.
Thanks

```
Pro convert_test
out_path  = 'define the path here'
in_path  = 'define the path here'
envi, /restore_base_save_files
envi_batch_init, BATCH_LUN=batch_unit, log_file = out_path +
modisdata.txt'
files = file_search(in_path, '*.HDF', count=count)
FOR i = 0, count-1 do begin
       CATCH, Error_status
       IF Error_status NE 0 THEN BEGIN
```

```
            printF, batch_unit, 'Error index: ', Error_status
            printF, batch_unit, 'Error message: ', !ERROR_STATE.MSG
            PrintF, batch_unit, 'Problem with processing step ',
files[K]
            CONTINUE
            Catch, /Cancel
         ENDIF
  modis_grid_file = files[i]
  variable = variable
  ......

  convert_modis_data, variable=variable,...

ENDFOR


end
```

Subject: Re: error handling
Posted by David Fanning on Mon, 10 Nov 2008 18:12:02 GMT

View Forum Message <> Reply to Message

bulrushmower@gmail.com writes:

> Here is my source code. I am using MCTK tool to convert MODIS HDF
> data. The data processing is just converting the projection. It always
> runst for nearly a hundred data, then stops, saying 'can not attach
> the grid file...etc'. I would like to have the code right down the
> error in the log file, and then continue the loop for the next data.

Well, if this code runs for "nearly a hundred times",
and as you appear to be opening a logical unit number
with your ENVI_BATCH_INIT command, but not closing it--
I would say you are probably just running out of logical
unit numbers, since there are only "about 100" available.

I'm not sure CATCH error handling will help in this
case. Any chance you can close the logical unit
number ENVI opens?

Cheers,

David

--
David Fanning, Ph.D.
Coyote's Guide to IDL Programming (www.dfanning.com)

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: error handling
Posted by bulrushmower on Mon, 10 Nov 2008 19:06:30 GMT

View Forum Message <> Reply to Message

On Nov 10, 12:12 pm, David Fanning <n...@dfanning.com> wrote:
> bulrushmo...@gmail.com writes:
>> Here is my source code. I am using MCTK tool to convert MODIS HDF
>> data. The data processing is just converting the projection. It always
>> runst for nearly a hundred data, then stops, saying 'can not attach
>> the grid file...etc'. I would like to have the code right down the
>> error in the log file, and then continue the loop for the next data.
>
> Well, if this code runs for "nearly a hundred times",
> and as you appear to be opening a logical unit number
> with your ENVI_BATCH_INIT command, but not closing it--
> I would say you are probably just running out of logical
> unit numbers, since there are only "about 100" available.
>
> I'm not sure CATCH error handling will help in this
> case. Any chance you can close the logical unit
> number ENVI opens?
>
> Cheers,
>
> David
>
> --
> David Fanning, Ph.D.
> Coyote's Guide to IDL Programming (www.dfanning.com)
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

It happened when even I did not set up that Envi_batch_unit, and write
a log file.
Is the code about error handling is in right track? Am I missing
something?

Thanks

Subject: Re: error handling
Posted by bulrushmower on Mon, 10 Nov 2008 19:42:01 GMT

View Forum Message <> Reply to Message

On Nov 10, 1:06 pm, bulrushmo...@gmail.com wrote:

> On Nov 10, 12:12 pm, David Fanning <n...@dfanning.com> wrote:
>
>
>
>
>
>> bulrushmo...@gmail.com writes:
>>> Here is my source code. I am using MCTK tool to convert MODIS HDF
>>> data. The data processing is just converting the projection. It always
>>> runst for nearly a hundred data, then stops, saying 'can not attach
>>> the grid file...etc'. I would like to have the code right down the
>>> error in the log file, and then continue the loop for the next data.
>
>> Well, if this code runs for "nearly a hundred times",
>> and as you appear to be opening a logical unit number
>> with your ENVI_BATCH_INIT command, but not closing it--
>> I would say you are probably just running out of logical
>> unit numbers, since there are only "about 100" available.
>
>> I'm not sure CATCH error handling will help in this
>> case. Any chance you can close the logical unit
>> number ENVI opens?
>
>> Cheers,
>
>> David
>
>> --
>> David Fanning, Ph.D.
>> Coyote's Guide to IDL Programming (www.dfanning.com)
>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>
> It happened when even I did not set up that Envi_batch_unit, and write
> a log file.
> Is the code about error handling is in right track? Am I missing
> something?
>
> Thanks- Hide quoted text -
>
> - Show quoted text -

Indeed, I tried to process the data 125 each time. It works fine, no
any error reported. Original processings was stopped at almost after
processing 206 data. So, there is something the logical unit of the
data. But, I could not figure out what is that.

thanks