Subject: Re: Copying files in IDL

Posted by R.Bauer on Wed, 19 Jun 2002 15:51:23 GMT

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Sean Raffuse wrote:

>

- > Hello folks. I would like to make a copy of an hdf file, changing only to
- > filename and the content of one of datasets in the hdf. I have no problem
- > putting in the new content, but this overwrites the old file, which I need
- > to preserve. How do I copy and/or rename the file in IDL? I don't want to
- > have to rebuild the entire hdf file and it's dozens of attributes. Just a
- > near exact copy with a different name.

>

> Thanks in advance,

>

> Sean

Dear Sean.

what's with this primitive way.

spawn,'cp file.hdf new_file.hdf'

and then operations on then new file.

regards

Reimar

--

Reimar Bauer

Institut fuer Stratosphaerische Chemie (ICG-I) Forschungszentrum Juelich email: R.Bauer@fz-juelich.de

a IDL library at ForschungsZentrum Juelich

http://www.fz-juelich.de/icg/icg1/idl icglib/idl lib intro.h tml

Subject: Re: Copying files in IDL

Posted by marc schellens[1] on Thu, 20 Jun 2002 02:55:49 GMT

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Reimar Bauer wrote:

```
Sean Raffuse wrote:
>>
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   Thanks in advance,
>> Sean
>
  Dear Sean,
  what's with this primitive way.
>
 spawn,'cp file.hdf new_file.hdf'
  and then operations on then new file.
> regards
The disadvantage of this solution is that it's not portable.
If the filesize is not to large, you can do something like:
openr,1,'file.hdf'
fs=fstat(1)
b=bytarr(fs.size)
readu.1.b
close.1
openw,1,'new_file.hdf'
writeu,1,b
close,1
cheers,
marc
Subject: Re: Copying files in IDL
Posted by R.Bauer on Thu, 20 Jun 2002 07:14:02 GMT
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Marc Schellens wrote:
```

> Reimar Bauer wrote:

```
>>
>> Sean Raffuse wrote:
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> writeu,1,b
> close,1
> cheers,
> marc
```

Then we should do a feature request for file_copy probably using this routine with /GET_LUN.

If bytarr is replaced with b=make_array(/nozero,ft.size,/byte) the routine is much faster if filesize is big.

One problem could occure if HDF file size is very large. Because data is named and index sequentiall organized in this file and there is no reason by reading/writing with HDF commands of the whole file at once.

HDF filesize could be bigger than 1 or 10 Giga Byte.

In this case a system command will be better and you can do a case depending of !version.os_family.

regards Reimar

Reimar Bauer

Institut fuer Stratosphaerische Chemie (ICG-I) Forschungszentrum Juelich email: R.Bauer@fz-juelich.de

a IDL library at ForschungsZentrum Juelich http://www.fz-juelich.de/icg/icg1/idl_icglib/idl_lib_intro.h tml

Subject: Re: Copying files in IDL Posted by muswick on Mon, 15 Jul 2002 04:49:23 GMT View Forum Message <> Reply to Message

Reimar Bauer <r.bauer@fz-juelich.de> wrote in message news:<3D1180BA.1CB14940@fz-juelich.de>...

> Marc Schellens wrote:

>>

>> Reimar Bauer wrote:

>>>

>>> Sean Raffuse wrote:

>>>>

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```
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>
 Reimar Bauer
 Institut fuer Stratosphaerische Chemie (ICG-I)
> Forschungszentrum Juelich
> email: R.Bauer@fz-juelich.de
       a IDL library at ForschungsZentrum Juelich
   http://www.fz-juelich.de/icg/icg1/idl icglib/idl lib intro.h tml
```

I wrote a copy file procedure awhile ago that handles any size file within the constraints of IDL's fstat limits. Similar to what was posted, but includes error handling.

Gary Muswick muswick@uhrad.com muswick@zalenllc.com

;----Start CopyFile.pro

```
; CopyFile.pro v1.1 2002/06/14
Copyright ï¿1/2 2000, 2001, 2002 Zalen LLC
Purpose: A procedure to copy files of any size.
Author: Gary Muswick, September 21, 2000
```

```
;+
: INPUTS:
    sScrFile: The full filename which contains the file to be
copied.
    sDstFile: The full filename which contains the destination
file.
KEYWORD PARAMETERS:
  None.
 OUTPUTS:
 None.
 RESTRICTIONS:
  Only scalar strings are allowed for input.
 EXAMPLE:
  CopyFile, 'C:\WINNT\Temp\test.txt', 'D:\copy of test.txt'
: MODIFICATION HISTORY:
  June 14, 2002 - Gary Muswick
    Fixed problem with buffer size when multiple reads are
    required. Added NOZERO keyword to BYTARR.
FUNCTION ZLLCErrorHandler, IErrorStatus
 IF IErrorStatus EQ 0L THEN RETURN, 0
 HELP, /TRACEBACK, OUTPUT = asTraceback
 ; Get rid of this routine from the traceback
 IF N ELEMENTS(asTraceback) GT 1 THEN asTraceback = asTraceback[1:*]
 asRoutineInfo = STR SEP(STRCOMPRESS(asTraceback[0]), ''); Breakup
info
 asError = asRoutineInfo[1]
                                   ; Current Routine is 2nd
item
 asError = [asError, 'Error index: ' + STRING(IErrorStatus)]
 asError = [asError, 'Error message: ' + !ERROR STATE.MSG]
 asError = [asError, 'System Error: ' + !ERROR_STATE.SYS_MSG]
 asError = [asError, asTraceback]
 a = DIALOG MESSAGE(asError)
 RETURN, 1
END
PRO CopyFile, sSrcFile, sDstFile
 CATCH, IErrorStatus
 IF ZLLCErrorHandler(IErrorStatus) THEN RETURN
 OPENR, iSlun, sSrcFile[0], /GET LUN
 OPENW, iDlun, sDstFile[0], /GET_LUN
```

```
mFS = FSTAT(iSlun)
 ISizeToWrite = 1024L*1024L
 IBytesWritten = 0L
 bData = BYTARR(ISizeToWrite < mFS.size, /NOZERO)
 WHILE IBytesWritten LT mFS.size DO BEGIN
  READU, iSlun, bData
  WRITEU, iDlun, bData
  IBytesWritten = IBytesWritten + N_ELEMENTS(bData)
  IF IBytesWritten LT mFS.size THEN BEGIN
   IF (mFS.size - IBytesWritten) LT ISizeToWrite THEN BEGIN
    bData = BYTARR(ISizeToWrite < (mFS.size - IBytesWritten),
/NOZERO)
   ENDIF
  ENDIF
 ENDWHILE
 FREE_LUN, iSlun ; Close and free the LUN
 FREE_LUN, iDlun ; Close and free the LUN
END
```

;----End CopyFile.pro