
Subject: HDF file: bug with IDL or bug with my code?

Posted by [ratel](#) on Sat, 25 Feb 1995 15:02:55 GMT

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I look for use HDF file with IDL.

I have problem for READ data. (with HDF_VSREAD)

I include below a small example.

Question: bug with IDL or bug with my code ?

Gilles Ratel

Email: ratel@toka.ireq-ccfm.hydro.qc.ca

note: machine OpenVMS AXP

IDL version 3.6.1a

attention: problem with IDL v 3.5.1 for HDF_VFGET

```
;=====
; HDF *** TEST ***
; -----
; Suppose data with structure
; data = { X:0, Y:[0B,0B], Z:0B } <---- record
;
; X => type: INT , ORDER:1
; Y => type: BYTE , ORDER:2
; Z => type: BYTE , ORDER:1
;
; Define 3 records
; A1 = [ 0B, 1B, 2B, 3B, 4B]
; A2 = [ 0B, 5B, 6B, 7B, 8B]
; A3 = [ 0B, 9B,10B,11B,12B]
;
; Stock into Byte array
; data = BYTARR(5,3)
; data(*,0) = A1
; data(*,1) = A2
; data(*,2) = A3
;
; Write HDF file
; -----
; fid = HDF_OPEN('TEST.HDF',/CREATE,/WRITE)
;
; Vgroup= HDF_VATTACH(fid,-1,/WRITE)
; HDF_VSETNAME,Vgroup,'DEMO'
; HDF_VSETCLASS,Vgroup,'TEST'
;
; Vdata = HDF_VSATTACH(fid,-1,/WRITE)
; HDF_VSFDEFINE,VData,'X',/INT ,ORDER=1
```

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HDF_VSFDEFINE,VData,'Y',/BYTE,ORDER=2
HDF_VSFDEFINE,VData,'Z',/BYTE,ORDER=1

HDF_VSSET, Vdata, NAME='Structure {X Y Z}',CLASS='TEST'
HDF_VSWRITE,Vdata,'X,Y,Z',data,NREC=3

HDF_VINSERT,Vgroup,VData
HDF_VSDETACH,Vdata

HDF_VDETACH,Vgroup

HDF_CLOSE,fid

; print data
PRINT,'WRITE data = '
PRINT,data
size_in = SIZE(data)

; Read HDF file
; -----

fid = HDF_OPEN('TEST.HDF',/READ)

vgid = HDF_VGETID(fid,-1)
vg = HDF_VATTACH(fid,vgid,/READ)

HDF_VGET,vg,class=vgclass,name=vgname,nentries=vgentries
PRINT,'Characteristics for Vgroup'
PRINT,'===== '
print,'VG    = ',Vgroup
PRINT,'VGclass= ',vgclass
PRINT,'VGname = ',vgname
PRINT,'VGentries= ',vgentries
PRINT,'===== '
PRINT,' '

vsid = HDF_VSGETID(fid,-1)
vs = HDF_VSATTACH(fid,vsid,/READ)
HDF_VSGET,vs,class=vsclass,count=vscount,fields=vsfields, $
    interlace=vsinterlace,name=vsname,nfields=vsnfields,$
    size=vs_size,tag=vstag,ref=vsref
PRINT,'Characteristics for Vsdata'
PRINT,'===== '
print,'VS      =',vs
PRINT,'VSclass  =',vsclass
PRINT,'VScount  =',vscount
PRINT,'VSfields =',vsfields
PRINT,'VSinterlace=',vsinterlace

```

```

PRINT,'VSname    =',vsname
PRINT,'VSnfields =',vsnfields
PRINT,'VSsize    =',vsize
PRINT,'Vstag     =',vstag
PRINT,'VSref     =',vsref
PRINT,'=====
PRINT,' '

HDF_VSETNAME,vg,'X,Y,Z'
PRINT,'Characteristics for Vsfields'
PRINT,'=====
FOR i=0,VSnfields-1 DO BEGIN
  HDF_VFGET,vs,i,NAME=n,TYPE=t,SIZE=s,ORDER=o
  PRINT,i,' NAME: ',n,' TYPE: ',t,' SIZE: ',s,' ORDER: ',o
ENDFOR
PRINT,'=====
PRINT,' '

VSnrecord = HDF_VSREAD(vs,data)
PRINT,'=====
PRINT,'READ data  = '
PRINT,data
size_out = SIZE(data)

IF ((size_in(1) NE size_out(1)) OR (size_in(2) NE size_out(2))) THEN BEGIN
  PRINT,' '
  PRINT,'*****
  PRINT,'*** PROBLEM OF DIMENSION          ***'
  PRINT,'*** ----- ***'
  PRINT,' SIZE(data input ) = ',size_in,FORMAT='(A21,5(1X,I2))'
  PRINT,' SIZE(data output) = ',size_out,FORMAT='(A21,5(1X,I2))'
  PRINT,'*** ----- ***'
  PRINT,'*****
ENDIF
END

```
