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Subject: Re: IDL HDF Question

Posted by [Liam E. Gumley](#) on Mon, 07 May 2001 20:32:50 GMT

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David Rapchun wrote:

- > Is it possible to create an SD in a HDF file that is "growable" i.e.
- > I do not know the dimension ahead of time. This can be a 1D SD, but
- > it needs to be growable...

To create a SDS with an unlimited dimension, set the size of the last dimension to zero in the call to HDF\_SD\_CREATE, as shown in the following example:

PRO TEST

;- Get data

```
file = filepath('ctscan.dat', subdir='examples/data')
openr, lun, file, /get_lun
data = bytarr(256, 256)
readu, lun, data
free_lun, lun
```

;- Create the file

```
hdfid = hdf_sd_start('ctscan.hdf', /create)
dims = [256L, 0L] ; NOTE Last dimension is zero
varid = hdf_sd_create(hdfid, 'image', dims, /byte)
hdf_sd_endaccess, varid
hdf_sd_end, hdfid
```

;- Write the data one row at a time

```
hdfid = hdf_sd_start('ctscan.hdf', /rdwr)
index = hdf_sd_nametoindex(hdfid, 'image')
varid = hdf_sd_select(hdfid, index)
for row = 0, 255 do begin
  hdf_sd_adddata, varid, data[*], start=[0, row]
endfor
hdf_sd_endaccess, varid
hdf_sd_end, hdfid
```

END

To run the example program:

```
IDL> .compile test
IDL> test
```

To check the contents of the file, I used ncdump:

```
% ncdump -h ctscan.hdf
netcdf ctscan {
dimensions:
    fakeDim0 = UNLIMITED ; // (256 currently)
    fakeDim1 = 256 ;

variables:
    byte image(fakeDim0, fakeDim1) ;
}
```

Cheers,  
Liam.  
<http://cimss.ssec.wisc.edu/~gumley/>

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