
Subject: Writing large datasets in HDF5 file fails

Posted by d.rowenhorst@gmail.co on Wed, 09 May 2012 18:11:29 GMT

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Running IDL 8.1 on Mac 10.7.3.

I can't write out a single dataset to a HDF5 file that is larger than $2^{32}-1$ bytes. If I try I get an error at the H5D_WRITE procedure. I can have multiple datasets in one file that add up to more than 4.3GB, but an individual dataset cannot be more than 4.3GB.

So if writing float data I can write $2^{32}/4-1$ values, but not $2^{32}/4$. Writing double allows for $2^{32}/8-1$ but not more than that.

Can anyone check and see if this is platform dependent, or am I missing something more fundamental here? Here is my test code:

PRO Testhdf5file

```
filename = 'test.hdf5'
```

```
npoints = 2l^31-1 ; This works
```

```
;npoints = 2l^31 ; This does not work
```

```
data = BINDGEN(npoints)
```

```
file_id = H5F_CREATE(filename)
```

```
datatype_id = H5T_IDL_CREATE(data)
```

```
dataspace_id = H5S_CREATE_SIMPLE([npoints])
```

```
temp_ds_id = H5D_CREATE(file_id, 'Fake Data', datatype_id,dataspace_id)
```

```
H5D_WRITE, temp_ds_id, data
```

```
H5D_CLOSE, temp_ds_id
```

```
H5F_CLOSE, file_id
```

```
END
```
