
Subject: Re: Looking for IDL Structures to Python compatible HDF5 Examples
Posted by [marcomottola87](#) on Wed, 17 May 2017 10:41:19 GMT

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Il giorno martedì 1 settembre 2015 19:33:06 UTC+2, eben.pe...@gmail.com ha scritto:

```
> Hi all,
>
> I'm looking for code examples of writing ODL structures to HDF5 tables that can be read in
Python (2.7). Filenames are removed
>
> I've tried the following approach using the IDL coyote guide to create the file in IDL 7.1:
>
> pro write_idl_struct_to_hdf5,struct,dir_out,outfile
>
>   file = dir_out+outfile+'.h5'
>   fid = H5F_CREATE(file)
>
>   datatype_id = H5T_IDL_CREATE(struct)
>   dataspace_id=H5S_CREATE_SIMPLE(1) ; not so simple..
>
>   dataset_id = H5D_CREATE(fid,'o',datatype_id,dataspace_id)
>   H5D_WRITE, dataset_id, struct
>
>   H5S_CLOSE, dataspace_id
>   H5T_CLOSE, datatype_id
>
>   H5F_CLOSE, fid
>
>   print,'---Finished Writing IDL struct to HDF5---'
> end
>
>
> Python code and Error
> import pandas as pd
> dir_in=r'C:\D_Drive\Python\hdf5'
> infile=...
>
> mynewdf = pd.HDFStore(dir_in+'\\'+infile)
> print(mynewdf)
>
> print(mynewdf.select('o',columns='TASK_NAME'))
>
>
> resulting in:
> <class 'pandas.io.pytables.HDFStore'>
> File path: ...
> /o          frame_table [0.0.0] (typ->generic,nrows->1,ncols->63,indexers->[index],dc->
[TASK_CODE,TASK_NAME,EVENT,SYS_LOC_CODE,SUBFACILITY_CODE,ARE
```

A,RIVER_STREAM_MILE,MILES_FROM_NC_MOUTH,X_COORD,Y_COORD,COORD_TYPE_CODE,REFERENCE_POINT,ELEV,ELEV_UNIT,ELEV_COLLECT_METHOD_CODE,ELEV_DATUM_CODE,WATER_COLUMN_DEPTH,WATER_COLUMN_DEPTH_UNIT_CODE,SYS_SAMPLE_CODE,PARENT_SAMPLE_CODE,MATRIX_CODE,LAB_MATRIX_CODE,SAMPLE_TYPE_CODE,SAMPLE_DATE,START_DEPTH,END_DEPTH,DEPTH_UNIT,DEPTH_INTERVAL,SEDIMENT_NATIVE,GROUP_DESC,CHEMICAL_NAME,CAS_RN,FRACTION,ANALYTIC_METHOD,LEACHATE_METHOD,PREP_METHOD,RESULT_VALUE,LAB_QUALIFIERS,VALIDATOR_QUALIFIERS,INTERPRETED_QUALIFIERS,DETECT_FLAG,TARGET_UNIT,REPORTABLE_RESULT,VALIDATED_YN,VALIDATOR_REASON_CODE,BASIS,METHOD_DETECTION_LIMIT,REPORTING_DETECTION_LIMIT,DILUTION_FACTOR,LAB_NAME_CODE,LAB_SAMPLE_ID,ANL_SHORT_NAME,PARENT_LOC_CODE,DATA_RELEASE_STATUS,DATA_ANALYSIS_HIERARCHY,RESULT_VALUE_MDL,RISK_SCREEN_USABILITY,BASELINE_RA_USABILITY,CAS_RN_4PROUCL,CHEMICAL_NAME_4PROUCL,TREATMENT_FLAG_4PROUCL,CHEMICAL_NAME_4LABEL,USABILITY_HIERARCHY])

>

> The error generated is

> ValueError: Wrong number of items passed 283774, placement implies 1

>

> The 283774 number is the number of rows in the structure and it seems that each tag in the dataframe has one row with 283774 elements.

>

> Is there some layout adjustment that's needed to read a structure correctly in HDF5?

>

> Eben