

H5P_SET_DXPL_MPIO_CHUNK_OPT_RATIO

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H5P_SET_DXPL_MPIO_CHUNK_OPT_RATIO

Sets a ratio threshold for collective I/O

Procedure:

H5P_SET_DXPL_MPIO_CHUNK_OPT_RATIO (dxpl_id, percent_proc_per_chunk)

Signature:

```
herr_t H5Pset_dxpl_mpio_chunk_opt_ratio  
(hid_t dxpl_id,  
 unsigned percent_proc_per_chunk)
```

Parameters:

<i>hid_t</i> dxpl_id	IN: Data transfer property list identifier
<i>unsigned</i> percent_proc_per_chunk	IN: Percent threshold, on the number of processes holding selections per chunk, for performing linked-chunk I/O

Description:

H5P_SET_DXPL_MPIO_CHUNK_OPT_RATIO sets a threshold for the use of collective I/O based on the ratio of processes with collective access to a dataset with chunked storage. The decision whether to use collective I/O is made on a per-chunk basis.

The library will calculate the percentage of the total number of processes, the ratio, that hold selections in each chunk. If that percentage is greater than the threshold set in `percent_proc_per_chunk`, the library will do collective I/O for this chunk; otherwise, independent I/O will be done for the chunk.

Returns:

Returns a non-negative value if successful. Otherwise returns a negative value.

Example:

```
testpar / t_coll_chunk.c [774:774]          1.10/master  HDFS/hdf5
status = H5Pset_dxpl_mpio_chunk_opt_ratio(xfer_plist,50);
```

History:

--- Last Modified: August 09, 2019 | 02:09 PM