H5O_OPEN_BY_IDX

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H5O_OPEN_BY_IDX

Open the *n*th object in a group

Procedure:

H5O_OPEN_BY_IDX(loc_id, group_name, index_type, order, n, lapl_id)

Signature:

```
hid_t H5Oopen_by_idx( hid_t loc_id, const char *group_name, H5_index_t index_type, H5_iter_order_t order,
hsize_t n, hid_t lapl_id )
```

```
SUBROUTINE h5oopen_by_idx_f(loc_id, group_name, index_type, order, n, &
       obj_id, hdferr, lapl_id)
    IMPLICIT NONE
    INTEGER(HID_T)  , INTENT(IN)            :: loc_id
    CHARACTER(LEN=*), INTENT(IN)            :: group_name
    INTEGER         , INTENT(IN)            :: index_type
    INTEGER         , INTENT(IN)            :: order
    INTEGER(HSIZE_T), INTENT(IN)            :: n
    INTEGER(HID_T)  , INTENT(OUT)           :: obj_id
    INTEGER         , INTENT(OUT)           :: hdferr
    INTEGER(HID_T)  , INTENT(IN) , OPTIONAL :: lapl_id
```

Parameters:

hid_t `loc_id`	IN: Location identifier; may be a file, group, dataset, named datatype or attribute identifier

const char *`group_name`	IN: Name of group, relative to `loc_id`, in which object is located
H5_index_t `index_type`	IN: Type of index by which objects are ordered
H5_iter_order_t `order`	IN: Order of iteration within index
hsize_t n	IN: Object to open
hid_t `lapl_id`	IN: Link access property list

Description:

H5O_OPEN_BY_IDX opens the *n*th object in the group specified by `loc_id` and `group_name`.

`loc_id` specifies a location identifier. `group_name` specifies the group relative to `loc_id` in which the object can be found. If `loc_id` fully specifies the group in which the object resides, `group_name` can be a dot (.).

The specific object to be opened within the group is specified by `index_type`, `order`, and n as follows:

- `index_type` specifies the type of index by which objects are ordered. Valid index types include `H5_INDEX_NAME`, indexed by name, and `H5_INDEX_CRT_ORDER`, indexed by creation order.
- `order` specifies the order in which the links are to be referenced for the purposes of this function. Valid orders include `H5_ITER_INC` for increasing order, `H5_ITER_DEC` for decreasing order, and `H5_ITER_NATIVE`. Rather than implying a particular order, `H5_ITER_NATIVE` instructs the HDF5 library to iterate through the objects in the fastest available order, i.e., in a natural order.
- n specifies the position of the object within the index. Note that this count is zero-based; `0` (zero) indicates that the function will return the value of the first object; if n is `5`, the function will return the value of the sixth object; etc.

If `lapl_id` specifies the link access property list to be used in accessing the object.

An object opened with this function should be closed when it is no longer needed so that resource leaks will not develop. H5O_CLOSE can be used to close groups, datasets, or committed datatypes.

Returns:

Returns an object identifier for the opened object if successful; otherwise returns a negative value.

Example:

Coming Soon!

History:

Release	Change
1.8.11	Fortran subroutine introduced in this release.
1.8.0	Function introduced in this release.

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