

H5R_GET_OBJ_TYPE2

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H5R_GET_OBJ_TYPE2

Retrieves the type of object that an object reference points to

Procedure:

H5R_GET_OBJ_TYPE2 (loc_id, ref_type, ref, obj_type)

Signature:

```
herr_t H5Rget_obj_type2(  
    hid_t loc_id,  
    H5R_type_t ref_type,  
    void *ref,  
    H5O_type_t *obj_type  
)
```

Replace this text with the Fortran function signature

Parameters:

<i>hid_t</i> loc_id	IN: The dataset containing the reference object or the group containing that dataset
<i>H5R_type_t</i> ref_type	IN: Type of reference to query
<i>void</i> *ref	IN: Reference to query
<i>H5O_type_t</i> *obj_type	OUT: Type of referenced object

Description:

Given an object reference, `ref`, `H5R_GET_OBJ_TYPE2` retrieves the type of the referenced object in `obj_type`.

A *reference type* is the type of reference, either an object reference or a dataset region reference. An *object reference* points to an HDF5 object while a *dataset region reference* points to a defined region within a dataset.

The *referenced object* is the object the reference points to. The *referenced object type*, or the type of the referenced object, is the type of the object that the reference points to.

The location identifier, `loc_id`, is the identifier for either the dataset containing the object reference or the group containing that dataset.

Valid reference types, to pass in as `ref_type`, include the following:

H5R_OBJECT	Object reference
H5R_DATASET_REGION	Dataset region reference

If the application does not already know the object reference type, that can be determined with three preliminary calls:

- Call `H5D_GET_TYPE` on the dataset containing the reference to get a datatype identifier for the dataset's datatype.
- Using that datatype identifier, `H5T_GET_CLASS` returns a datatype class.
- If the datatype class is `H5T_REFERENCE`, `H5T_EQUAL` can then be used to determine whether the reference's datatype is `H5T_STD_REF_OBJ` or `H5T_STD_REF_DSETREG`:
 - If the datatype is `H5T_STD_REF_OBJ`, the reference object type is `H5R_OBJECT`.
 - If the datatype is `H5T_STD_REF_DSETREG`, the reference object type is `H5R_DATASET_REGION`.

When the function completes successfully, it returns one of the following valid object type values (defined in `H5Opublic.h`):

H5O_TYPE_GROUP	Object is a group
H5O_TYPE_DATASET	Object is a dataset
H5O_TYPE_NAMED_DATATYPE	Object is a named datatype

Returns:

Returns a non-negative value if successful; otherwise returns a negative value.

Example:

```

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amples
/*
 * Open the referenced object, get its name and type.
 */
obj = H5Rdereference (dset, H5P_DEFAULT, H5R_OBJECT, &rdata[i]);
status = H5Rget_obj_type (dset, H5R_OBJECT, &rdata[i], &objtype);

```

HDF5V/hdf5-examples

```
! Open the referenced object, get its name and type.
```

```
!
```

```
f_ptr = C_LOC(rdata(i))
```

```
CALL H5Rdereference_f(dset, H5R_OBJECT_F, f_ptr, obj, hdferr)
```

```
CALL H5Rget_obj_type_f(dset, H5R_OBJECT_F, f_ptr, objtype, hdferr)
```

History:

Release	Change
1.8.0	Function introduced in this release.

--- Last Modified: May 03, 2019 | 01:24 PM