H5R_DEREFERENCE2

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H5R_DEREFERENCE2

Opens the HDF5 object referenced

Procedure:

H5R_DEREFERENCE2 (obj_id, oapl_id, ref_type, ref)

Signature:

```
hid_t H5Rdereference2(
        hid_t obj_id,
        hid_t oapl_id,
        H5R_type_t ref_type,
        void *ref
    )
```

```
Fortran90 Interface: h5rdereference_f

To dereference an object:

Signature:
  SUBROUTINE h5rdereference_f(obj_id, ref, ref_obj_id, hdferr)
    INTEGER(HID_T)    , INTENT(IN)  :: obj_id
    TYPE(hobj_ref_t_f), INTENT(IN)  :: ref
    INTEGER(HID_T)    , INTENT(OUT) :: ref_obj_id
    INTEGER           , INTENT(OUT) :: hdferr

Inputs:
  obj_id      - Valid identifier in file
  ref         - Object reference

Outputs:
  ref_obj_id  - Identifier of referenced object
  hdferr      - Error code
                0 on success and -1 on failure


To dereference a region:

Signature:
  SUBROUTINE h5rdereference_f(obj_id, ref, ref_obj_id, hdferr)
    INTEGER(HID_T)         , INTENT(IN)  :: obj_id
    TYPE(hdset_reg_ref_t_f), INTENT(IN)  :: ref
    INTEGER(HID_T)         , INTENT(OUT) :: ref_obj_id
    INTEGER                , INTENT(OUT) :: hdferr

Inputs:
  dset_id       - Valid identifier in file
  ref           - Object reference

Outputs:
  ref_obj_id    - Identifier of referenced object
  hdferr        - Error code
                  0 on success and -1 on failure


Fortran2003 Interface: h5rdereference_f

Signature:
  SUBROUTINE h5rdereference_f(obj_id, ref_type, ref, ref_obj_id, hdferr)
    INTEGER(HID_T), INTENT(IN)  :: obj_id
    INTEGER       , INTENT(IN)  :: ref_type
    TYPE(C_PTR)   , INTENT(IN)  :: ref
    INTEGER(HID_T), INTENT(OUT) :: ref_obj_id
    INTEGER       , INTENT(OUT) :: hdferr

Inputs:
  obj_id     - Valid identifier for the file containing the
               referenced object or any object in that file.
  ref_type   - The reference type of ref.
  ref        - Object reference

Outputs:
  ref_obj_id - Identifier of referenced object
  hdferr     - Error code
               0 on success and -1 on failure
```

Parameters:

hid_t `obj_id`	IN: Valid identifier for the file containing the referenced object or any object in that file
hid_t `oapl_id`	IN: Valid object access property list identifier for a property list to be used with the referenced object

H5R_type_t `ref_type`	IN: The reference type of `ref`
void *`ref`	IN: Reference to open

Description:

Given a reference, `ref`, to an object or a region in an object, H5R_DEREFERENCE2 opens that object and returns an identifier.

The parameter `obj_id` must be a valid identifier for the HDF5 file containing the referenced object or for any object in that HDF5 file.

The parameter `oapl_id` is an object access property list identifier for the referenced object. The access property list must be of the same type as the object being referenced, that is a group, dataset, or datatype property list.

The parameter `ref_type` specifies the reference type of the reference `ref`. `ref_type` may contain either of the following values:

- `H5R_OBJECT` (`0`)
- `H5R_DATASET_REGION` (`1`)

The object opened with this function should be closed when it is no longer needed so that resource leaks will not develop. Use the appropriate close function such as H5O_CLOSE or H5D_CLOSE for datasets.

Returns:

Returns identifier of referenced object if successful; otherwise returns a negative value.

Example:

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```
/*
         * 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);
```

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```
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
1.10.0	C function `H5Rdereference2` introduced in this release.

--- Last Modified: May 03, 2019 | 01:22 PM