

Update to References

Information on the changes to references in HDF5-1.12 can be found below:

- [Description](#)
- [HDF5 Library APIs](#)
- [RFC](#)

Description

The H5R APIs were extended in HDF5-1.12 to support external references and attributes and to support the Virtual Object Layer (VOL). Several functions were introduced:

- Create (H5R_CREATE*) functions were added for each reference type (attribute, object, dataset region).
- A function was added to release a reference (H5R_DESTROY). This is required because a region reference no longer modifies the original file.
- Functions were added to query references (H5R_GET*).
- Other functions were added to simplify or clarify the API.

See the [RFC](#) for details on the changes that were made.

HDF5 Library APIs

The H5R functions that were introduced in HDF5-1.12 are described below.

Function	Description
H5R_COPY	Copies an existing reference
H5R_CREATE_ATTR	Creates an attribute reference
H5R_CREATE_OBJECT	Creates an object reference
H5R_CREATE_REGION	Creates a region reference
H5R_DESTROY	Closes a reference
H5R_EQUAL	Determines whether two references are equal
H5R_GET_ATTR_NAME	Retrieves the attribute name for a referenced object
H5R_GET_FILE_NAME	Retrieves the file name for a referenced object
H5R_GET_OBJ_NAME	Retrieves the object name for a referenced object
H5R_GET_OBJ_TYPE3	Retrieves the type of object that an object reference points to
H5R_GET_TYPE	Retrieves the type of reference
H5R_OPEN_ATTR	Opens the referenced HDF5 attribute
H5R_OPEN_OBJECT	Opens the referenced HDF5 object
H5R_OPEN_REGION	Sets up a dataspace and selection as specified by a region reference