

# Programming Issues

Keep the following in mind when looking at the example programs included in this tutorial:

## APIs vary with different languages

- C routines begin with the prefix "H5\*" where \* is a single letter indicating the object on which the operation is to be performed:  
File Interface: `H5Fopen`  
Dataset Interface: `H5Dopen`
- FORTRAN routines begin with "h5\*" and end with "\_f":  
File Interface: `h5fopen_f`  
Dataset Interface: `h5dopen_f`
- APIS for languages like C++, Java, and Python use methods associated with specific objects.

## HDF5 library has its own defined types

For portability, the HDF5 library has its own defined types. Some common types that you will see in the example code are:

`hid_t` is used for object handles

`hsize_t` is used for dimensions

`herr_t` is used for many return values

## Language specific files must be included in applications

C: Add `#include hdf5.h`

FORTRAN: Add `USE HDF5` and call `h5open_f` and `h5close_f` to initialize and close the HDF5 FORTRAN interface

Python: Add `import h5py/import numpy`