

How do you write to a single file in parallel in which different processes write to separate datasets?

All processes have to call `H5Dcreate()` to create a dataset, even if the dataset will be accessed by one process.

If you want to create a dataset for every process you could do something like this:

```
for(i=0 ; i < mpi_size; i++) {
    char dataSetName[256];
    sprintf(dataSetName, "a%d", i + 1);
    printf("Creating dataset %s ... \n", dataSetName);

    dset_id = H5Dcreate2(file_id, dataSetName, H5T_NATIVE_INT, filespace,
                        H5P_DEFAULT, H5P_DEFAULT, H5P_DEFAULT);
}
```

This will create n datasets, where n is the number of processes in the communicator.