

# Examples from Learning the Basics

These examples are used in the [Learning The Basics](#) topic. See [Compiling Your HDF5 Applications](#) for details on compiling them. PLEASE NOTE that the example programs are listed in the order they are expected to be run. Some example programs use files created in earlier examples.

**These examples (C, C++, Fortran) are provided in the HDF5 source code and (Unix) binaries.**

| Feature   | Examples*   | Comments  |
|---|---|---|
| Create a file   | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Create a dataset  | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Read and write to a dataset   | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Create an attribute   | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Create a group  | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Create groups in a file using absolute and relative paths           | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Create datasets in a group  | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |
| Create a file and dataset and select/read a subset from the dataset | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> | Also see examples to <i>Write by row</i> (and column) <b>below</b> .  |
| Create an extendible (unlimited dimension) dataset                  | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> | Also see examples to <i>Extend by row</i> (and column) <b>below</b> . |
| Create a chunked and compressed dataset                             | <a href="#">C</a> <a href="#">Fortran</a> <a href="#">C++</a> <a href="#">Java</a> <a href="#">Python</a> |   |

\*See [HDF5Mathematica](#) for user-contributed HDF5 Mathematica Wrappers and Introductory Tutorial Examples. The examples use P/Invoke.

## Additional Examples

These examples make minor changes to the tutorial examples.

| Feature          | Examples                                  |
|------------------|---|
| Write by row     | <a href="#">C</a> <a href="#">Fortran</a> |
| Write by column  | <a href="#">C</a> <a href="#">Fortran</a> |
| Extend by row    | <a href="#">C</a> <a href="#">Fortran</a> |
| Extend by column | <a href="#">C</a> <a href="#">Fortran</a> |