

# Zip File Instructions

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Helmholtz3D.zip is an archive file containing the source code discussed in Chapter 6 and Appendix B of the thesis. You need a file archiver to unpack it. For example, I recommend a very light and free toolkit called “7-zip”, which can be found via <http://www.7-zip.org/>. After you install the tool on your computer, you can right-click the zip file and select “7-Zip→Extract Here”. The zip file will then be unpacked and you will see a folder of the same name “Helmholtz3D”.

There are four subfolders and one “makefile” in the top level directory. I describe them briefly as following:

- makefile: the “makefile” file is a compiling control utilizing the GNU make. You can view and modify it by any text editor.
- Helmholtz3D/src: it contains C++ source code. You can open all the .cpp and .h files by text editors or various programming IDEs.
- Helmholtz3D/mesh: it contains ASCII data files for second order tetrahedral meshes. You also can open and browse data via above mentioned text editors. BUT, as the files are relatively large in size, you may expect a bit longer loading time during which your editor may appear to be dead.
- Helmholtz3D/jobs: all outputs during the runtime are redirected to it. All files here are of the ASCII format.
- Helmholtz3D/bin: this folder contains an executable binary file resulting from compilation and linkage of the source code.

There are much more detailed descriptions in the thesis upon how to compile and run this code. Please refer to the corresponding chapter for more knowledge.