

Assignment 2

- Find four occurrences of the implementation of the `xz()` function for a `dimensionedTensor`. Tell me at which lines, and in which files they are located. Tell me the difference between those implementations.
- Consider an `fvMesh`. Copy the description of the following functions in the code, and tell me which file and line number:
`owner()`, `magSf()`
- Find the error in the parabolic velocity boundary condition that we copied from `/chalmers/.../OpenFOAM-1.4.1-dev/...`, and tell me how to correct it.
- Implement a utility, named `magU`, that reads a velocity field and writes out `mag(U)` in the time directories of a case. Start from the `pPrime2` utility. Send me the utility source files, and I will compile and test it on the `icoFoam/cavity` case (note: no `pMean` available, and it is not needed!).
- PhD students and for higher grade: Write a test program that explains how to use as much as possible of the `vector`, `tensor`, `symmTensor`, and `sphericalTensor` classes. Note: include descriptions in the code and in `Info`-statements.
- PhD students and for higher grade: Find errors in the slides and suggest improvements.