

Initial preparations

- It is assumed that you already have some Linux knowledge.
- It is assumed that you have installed the software on your own laptop according to the instructions.
- Before we start we will just have a look at some of the OpenFOAM environment and create a few user directories.

Make sure to source an OpenFOAM installation first, e.g. type `OFv1906`

OpenFOAM environment variables

- The OpenFOAM environment is set in
`$WM_PROJECT_DIR/etc/bashrc` and
`$WM_PROJECT_DIR/etc/config.sh/settings`
It is in fact the first of those you source when initializing the OpenFOAM environment, which in turn sources the second one.

- List the OpenFOAM environment variables:

```
env | grep WM  
env | grep FOAM_
```

- Type `env` for a complete list of environment variables.
- Find out the value of an environment variable by:

```
echo $FOAM_APP
```

OpenFOAM aliases

- The OpenFOAM aliases are set in:

`$WM_PROJECT_DIR/etc/config.sh/aliases.`

This file is also sourced by the first one on the previous slide.

- Some useful OpenFOAM aliases:

```
alias src='cd $FOAM_SRC'
alias lib='cd $FOAM_LIB'
alias run='cd $FOAM_RUN'
alias foam='cd $WM_PROJECT_DIR'
alias foamsrc='cd $FOAM_SRC/$WM_PROJECT'
alias foamfv='cd $FOAM_SRC/finiteVolume'
alias app='cd $FOAM_APP'
alias util='cd $FOAM_UTILITIES'
alias sol='cd $FOAM_SOLVERS'
alias tut='cd $FOAM_TUTORIALS'
alias foam3rdParty='cd $WM_THIRD_PARTY_DIR'
```

- Type `alias` for a complete list of aliases.

Organize user directories and find documentation

- It is recommended that you for each of your OpenFOAM installations type:

```
mkdir -p $WM_PROJECT_USER_DIR/{run,applications,src}
```

We will be working in those directories.

- The OpenFOAM user's and programmers's guides have been removed from the installation. They were previously located in

```
$WM_PROJECT_DIR/doc/Guides
```

Recently there is an effort to provide the documentation on-line:

<http://openfoam.com/documentation/>

and through Doxygen:

<http://openfoam.com/documentation/cpp-guide/html/>

It is highly recommended to read the User Guide, Tutorials Guide, and Programmer's Guide to start with. Later on you may find the Doxygen documentation (Extended Code Guide) very useful as well.