

Access to computers and OpenFOAM at Chalmers

In the slides I have started to add detailed questions to aid your learning process. I will unfortunately not have time to generate questions for all the course right now.

In your first assignment I will ask you to read through the slides again, answer the questions I have asked, and propose new questions where you find it appropriate or where I did not ask questions.

Access to computers at Chalmers

- Your CID accounts are valid in all Linux computer labs at Chalmers.
- Remote access can be done through:

```
ssh -XY -l <CID> remote1.student.chalmers.se  
ssh -XY -l <CID> remote2.student.chalmers.se  
ssh -XY -l <CID> remote3.student.chalmers.se  
ssh -XY -l <CID> remote4.student.chalmers.se  
ssh -XY -l <CID> remote5.student.chalmers.se
```

(where <CID> is your user name at Chalmers)
- Student accounts and temporary accounts only have 1GB disk. You can use /scratch to temporarily store larger files, but they will automatically be removed after 168 hours.
- You should be able to do an `ssh` to your own computing facilities and work there if you like.

Questions

- How can you get remote access to a terminal window on another Linux computer?
- How can you get information regarding flags to Linux-commands?

Access to OpenFOAM at Chalmers

NOTE: Only if you will use the Chalmers installation!

Set up aliases through `~/.bashrc` by copy-pasting into a terminal window (only once):

```
echo ". /chalmers/sw/unsup64/OpenFOAM/addToBashrc" >> $HOME/.bashrc
```

Also make `~/.profile` point at `~/.bashrc`:

```
ln -s ~/.bashrc ~/.profile
```

This makes everything work when doing remote login.

Open a new terminal window and type the following:

```
OF22x
```

```
which icoFoam
```

You should get (something like):

```
/chalmers/sw/unsup64/OpenFOAM/OpenFOAM-2.2.x/platforms/linux64GccDPOpt/bin/icoFoam
```

Also, try opening a new terminal window and type the following:

```
OF16ext
```

```
which icoFoam
```

Questions

- How do you initialize the OpenFOAM environment?
- What is the purpose of the `~/.bashrc` file?
- What is an alias in Linux?
- What does it mean to *source* a file in Linux?
- What does the `ln -s` command do?
- What does the `which` command do?

Organize user directories

- In a FRESH terminal window, type:

```
OF22x
```

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

- In a FRESH terminal window, type:

```
OF16ext
```

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

Questions

- What does the `mkdir` command do, and what is the purpose of the `-p` flag?
- What is the purpose of the curly brackets (`{` and `}`)