

Compact Course: *The Unix Shell + Version Control with Git*

Date: 14.6.22 9-17 Uhr

Instructor: Dr. Dominic Kempf, Research Software Engineer, Scientific Software Center

Venue:

The course will be held at the IWR, Im Neuenheimer Feld 205 - the room number will be confirmed two weeks prior to the course.

Prerequisites:

No prior knowledge by the participants is necessary to participate in this course and it is intended for all scientific audiences. Participants are required to bring their own laptops to work on during the course. Network access (e.g. through Eduroam) is recommended.

Summary:

The Unix shell is a powerful tool that allows people to do complex things with just a few keystrokes. More importantly, it helps them combine existing programs in new ways and automate repetitive tasks so they aren't typing the same things over and over again. Use of the shell is fundamental to using a wide range of other powerful tools and computing resources. The course will include hands-on live coding sessions where participants exercise the learned commands on their own computers.

Version control is the lab notebook of the digital world: it is used to keep track of what was done and to collaborate with other people. Its use is the state of the art in software development projects of all scales. However, it is not limited to software: books, papers, small data sets, and anything that changes over time or needs to be shared can and should be stored in a version control system. The course will include hands-on live coding sessions where participants exercise the learned commands on their own computers.

Learning objectives:

After the course participants will

- Have a fundamental understanding of how and why to use the Unix Shell
- Be comfortable with handling files and directories using the command line
- Have experience with advanced usage of the shell e.g. loops, pipes, redirects etc.
- Know how to write their workflows as reusable shell scripts
- Understand the benefits of using version control
- Understand basic git terminology
- Have a good working knowledge of common tasks in Git
- See how Git repositories can help them to move towards practicing Open Science

Registration:

Please register using this webform: <https://ssc.iwr.uni-heidelberg.de/form/unix-shell-git-ss23>

Materials:

This workshop will use materials by [Software Carpentry](#):

- <https://swcarpentry.github.io/shell-novice/>
- <https://swcarpentry.github.io/git-novice/>