Bash

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Bash is both a command line interface, also known as a **shell**, and a scripting language. On most Linux distributions, the Bash shell is the default way of interacting with the system. Zsh is an alternative shell that also understands the Bash scripting language, this is the default shell on recent versions of Mac OS. Both Bash and Zsh are available for most operating systems.

At the Netherlands eScience Center, Bash is the recommended shell scripting language because it is the most commonly used shell language and therefore the most convenient for collaboration. To facilitate mutual understanding, it is also recommended that you are aware of the shell that your collaborators are using and that you write documentation with this in mind. Using the same shell as your collaborators is a simple way of making sure you are always on the same page.

In this chapter, a short introduction and best practices for both interactive and use in scripts will be given. An excellent tutorial introducing Bash can be found here. If you have not used Bash or another shell before, it is recommended that you follow the tutorial before continuing reading. Learning to use Bash is highly recommended, because after some initial learning, you will be more efficient and have a better understanding of what is going on than when clicking buttons from the graphical user interface of your operating system or integrated development environment.

Interactive use

If you are a (research) software engineer, it is highly recommended that you learn

- the keyboard shortcuts
- how to configure Bash aliases
- the name and function of commonly used command line tools

Bash keyboard shortcuts

An introduction to bash keyboard shortcuts can be found here. Note that Bash can also be configured such that it uses the *vi* keyboard shortcuts instead of the default *emacs* ones, which can be useful if you prefer vi.