

Environment and Modules

Environment Customization

After logging in, you may want to configure the environment. Write your preferred path definitions, aliases, functions and module loads in the .bashrc file

```
# ./bashrc

# Source global definitions
if [ -f /etc/bashrc ]; then
    . /etc/bashrc
fi

# User specific aliases and functions
alias qs='qstat -a'
module load PrgEnv-gnu

# Display informations to standard output - only in interactive ssh session
if [ -n "$SSH_TTY" ]
then
    module list # Display loaded modules
fi
```

Do not run commands outputting to standard output (echo, module list, etc) in .bashrc for non-interactive SSH sessions. It breaks fundamental functionality (scp, PBS) of your account! Take care for SSH session interactivity for such commands as id="result_box" class="hps alt-edited">stated in the previous example.

Application Modules

In order to configure your shell for running particular application on Anselm we use Module package interface.

The modules set up the application paths, library paths and environment variables for running particular application.

We have also second modules repository. This modules repository is created using tool called EasyBuild. On Salomon cluster, all modules will be build by this tool. If you want to use software from this modules repository, please follow instructions in section Application Modules Path Expansion.

The modules may be loaded, unloaded and switched, according to momentary needs.

To check available modules use

```
$ module avail
```

To load a module, for example the octave module use

```
$ module load octave
```

loading the octave module will set up paths and environment variables of your active shell such that you are ready to run the octave software

To check loaded modules use

```
$ module list
```

To unload a module, for example the octave module use

```
$ module unload octave
```

Learn more on modules by reading the module man page

```
$ man module
```

Following modules set up the development environment

PrgEnv-gnu sets up the GNU development environment in conjunction with the bullx MPI library

PrgEnv-intel sets up the INTEL development environment in conjunction with the Intel MPI library

Application Modules Path Expansion

All application modules on Salomon cluster (and further) will be build using tool called EasyBuild. In case that you want to use some applications that are build by EasyBuild already, you have to modify your MODULEPATH environment variable.

```
export MODULEPATH=$MODULEPATH:/apps/easybuild/modules/all/
```

This command expands your searched paths to modules. You can also add this command to the .bashrc file to expand paths permanently. After this command, you can use same commands to list/add/remove modules as is described above.