General information

Modules

Based on the requirements by the DEEP applications several software tools have already been installed on the DEEP system. To see which modules are available use

module avail

For most tools and compilers there are several versions available, you can list the different versions of a specific tool with module avail ?tool name?, for example

```
-bash-4.1$ module avail intel

------------------------------------------------------------------------ /usr/local/modulefiles/COMPILER ----------
intel/13.0.4        intel/14.0.3        intel/15.0          intel/15.2.164      intel/16.0          intel/16.2(default) in
```

You can load a specific version or just use the default with for example

module load intel

The modules which are currently loaded can be listed with the command ?module list?. To unload a module just type ?module unload? followed by the name of the module.

Compiler

There are several compilers available, but as it is highly recommended to use the Intel compiler on the KNC system it might be best to also use it on the DEEP system.
Installed compilers:

- Intel compiler: module load intel
- GNU compiler: module load gcc
- PGI Compiler: module load pgi

Profiling and analysis tools

VTune: module load VTune
Extrae: module load UNITE extrae
Scalasca: module load UNITE scalasca

MPI programs

It is recommended to start parallel MPI Jobs on the DEEP Cluster using the mpiexec from the ParaStation? MPI installation. Generally all MPI implementations using PMI are supposed to work with the ParaStation? mpiexec. For instance you can compile your application using Intel MPI and launch your job with mpiexec from Parastation. The Intel mpirun will not work.