NYUAD HPC Center – Environment Modules

Environment Modules

NYUAD HPC uses an open source software package called "Environment Modules," (or Modules for short) which allows you to add various path definitions to your shell environment. Default compilers, applications and libraries can be set by individual or combinations of Modules commands. Modules are not applications; rather they simply add the location of applications to your environment. You can list the available Modules using the command:

```
$ module avail
```

You can load a module, in this case the C/C++ Intel Compiler module, using the command:

```
$ module load intel/12.1.3
```

Once the module for Intel C/C++ is added to your shell environment, Intel C/C++ binaries, headers, libraries and help pages will be available to your session.

You can load multiple modules in one line. For example, to load intel compilers and OpenMPI:

```
$ module load intel/12.1.3 openmpi/intel/1.4.5
```

You can view the added modules using the command:

```
$ module list
```

To see specific module information such as what other modules needed to be loaded first to load a specific module you can use the command `module show <module name>`. For example, to show more information on OpenMPI module:

```
$ module show openmpi
```

To unload a module you can use the command `module unload <module name>`. For example, to unload a loaded intel compiler module:

```
$ module unload intel
```

To unload more than one out of many loaded modules you can use `module unload <module name> <module name>`. For example, out of many loaded modules if you want to unload intel and openmpi:

```
$ module unload openmpi intel
```
To unload all the loaded modules, you can do:

```bash
$ module purge
```

You can use help option to know more information on module command:

```bash
$ module --help
```