Java

Java is an object oriented programming language that can be executed in a platform independent manner via generated byte-code.

Availability on LRZ’s HPC platforms

A Java VM (execution environment) may be installed with the operating environment. But since this is not guaranteed, and also because the development environment may also be needed, it is recommended to load an appropriate environment module:

`module load java`

Alternative Java implementations

The GCC (GNU compiler collection) contains a Java compiler gcj; this also supports generating architecture-specific (non-portable) binaries, thereby improving performance. It is usually not possible to mix jar files generated by different implementations.

Add-ons

JNA (Java Native Access) allows other programming languages to interoperate with Java. The interface maps to the (platform-specific) C ABI. To use JNA on the HPC platforms, type

`module load jna`

after loading the java module. This will set a number of environment variables that must be used to compile codes that use the facility.

Documentation

Please consult the Java documentation on Oracle’s web site (look up the "Java" entry in the linked page).

JNA has its own documentation page (it is not directly supported by Oracle).