GraalVM™ Quick Reference

Tested with GraalVM 20.3.0

Run Java Applications

Compile a Java class:
`javac MyApp.java`

Run the application from a JAR file:
`java -jar  MyApp.jar`

Specify the class path for the app:
`java -cp target/myapp.jar com.mycompany.app.MyApp`

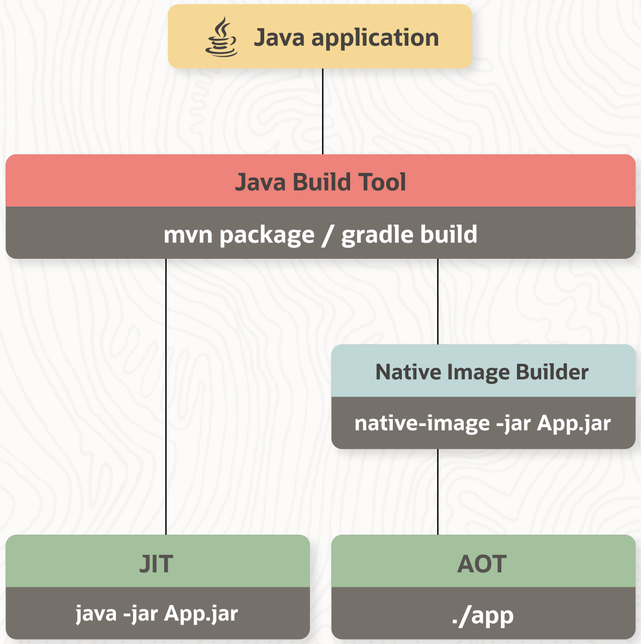
Run the JIT compiler as JAR or native library (default):
`-XX:±UseJVMCINativeLibrary`

Select the GraalVM compiler configuration:
`-Dgraal.CompilerConfiguration= enterprise|community|economy`

Print the details for the JIT compiled code:
`-Dgraal.PrintCompilation=true`

Produce the diagnostic data for the compilation:
`-Dgraal.Dump`

Load a javaagent:
`-javaagent:<jarpath>[=<options>]`
`-agentlib:<libname>[=<options>]`



Compile to Native Executables

Install the native image builder from a local file:
`gu install -L native-image.jar`

Native Image command syntax:
`native-image [options] MyClass`

Build a native image of a JAR file:
`native-image -jar MyApp.jar`

Run a native image:
`./myapp`

Build a shared library:
`--shared`

Build a statically linked native image:
`--static --libc=glibc|musl`

Include a language runtime in the native image:
`--language:js|python|ruby|llvm|wasm`

Use profile-guided optimizations:

```
native-image --pgo-instrument MyApp
./myapp  #and apply load
native-image --pgo profile.iprof MyApp
```

Attach a debugger:
`--debug-attach=[port]`

Trace classes initialization:
`--trace-class-initialization`

List all image build options for experts:
`--expert-options-all`

Enable Polyglot Programming

Run a Node.js application:
`node myApp.js`

Run a JavaScript, R, Ruby, Python, LLVM application:
`js myApp.js`
`graalpython myApp.py`
`ruby myApp.rb`
`R myApp.r`
`lli myApp`

Run other languages in a Java application:

```
org.graalvm.polyglot
  .Context
    .createContext()
    .eval("languageId", "code");
```

Enable polyglot capabilities for an application:
`--polyglot --jvm`

Limit resources for the application:
`--sandbox.MaxCPUTime=<ms>`
`--sandbox.MaxStatements=N`

Debug the application:
`--inspect[=[host:]<port number>]`
`--inspect-brk`

Profile the application:
`--cpusampler`
`--cputracer`
`--memtracer`

https//: www.graalvm.org