



Management and Monitoring - labs

Jitka Kožaná

Quality Assurance Supervisor, JBoss by Red Hat

Advanced Java EE Lab @ FI MU

May 12 2014

Agenda

- Monitoring
 - JDK tools
 - System tools
- WildFly 8 Domain
- CLI
- Java API
- HTTP API
- WebUI



JDK tools - JAR level investigation

jar tf \$file or unzip -l \$file

```
jar tf jboss-modules.jar
```

```
for i in `find . -name '*.jar'`; do echo "-- $i"; jar tf "$i"; done
```

javap -classpath \$file FQCN

```
javap -classpath jboss-modules.jar org.jboss.modules.JarModuleLoader
```

```
javap -private -classpath jboss-modules.jar org.jboss.modules.JarModuleLoader
```



JDK tools – process

```
bin/standalone.sh
```

```
jps -l [-m -v]
```

```
export PID=`jps -l | grep jboss-modules.jar | cut -d" " -f1`
```

```
jinfo $PID
```



JDK tools – memory

```
jmap $PID
```

```
jmap -heap $PID
```

```
jmap -dump:file=heap-dump $PID
```

```
jhat heap-dump
```

Check <http://127.0.0.1:7000/>



JDK tools – stack trace and JVM stats

```
jstack -l $PID
```

```
jstat -gcutil -t $PID 1s 30
```

man jstat or <http://docs.oracle.com/javase/7/docs/technotes/tools/share/jstat.html>



JDK tools – GUI

`jconsole $PID`

`bin/jconsole.sh`

`jvisualvm`



Java API

- Maven artifact org.wildfly:wildfly-controller-client
- *management-01*: Read release version
- *management-02*: Read recursively resources include runtime
- *management-03*: Read recursively resource description of remoting, namely http-remoting-connector
- *management-04*: connect remotely to running WF8 instance



HTTP API

Simple get operations

- <http://localhost:9990/management?recursive&include-runtime&json.pretty>
 - [management?operation=resource-description&recursive&operations](#)
 - [management/subsystem/infinispan/cache-container/ejb](#)
 - [management/subsystem/jgroups/stack/udp?operation=attribute&name=protocols](#)
- Read: release version (attribute)
- Read: remoting subsystem, worker-task-max-threads value



Web Console

<http://127.0.0.1:9990/console/>

- Check environment properties
- Start/stop server-one
- Create and run server instance (Heap 128m, PermGen 64m)
 - Change JVM configuration defined for particular server
 - Change JVM configuration defined for new server group
- Check ExampleDS datasource configuration, create TestDS
- Create JMS queue in Messaging subsystem



Thank you for your attention.

