# Do inferno ao céu com



fugindo do JAR e do Classloader Hell

## Do inferno ao céu com OSGi





@steppat

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... define um sistema dinâmico de componentes para plataforma Java ...

## OSGi - Mercado



	sem osgi	osgi, mas escondido	osgi e visível	solução própria
Apache Geronimo	0	0	•	0
Apache Tomcat	•	0	0	0
Eclipse Virgo	0	0	•	0
Glassfish	0	0	•	0
JBoss Application Server	0	0	0	•
JOnAS	0	0	•	0
WebLogic	0	•	0	0
WebSphere	0	0	•	0

## OSGi - Bundles e Runtime





JAR + Meta-Informações



Eclipse Equinox, Apache Felix

#### OSGi - Environment





Apache Karaf, Eclipse Virgo

Console, Maven, Provisioning...

Apache Aries, Eclipse Gemini

OSGi Enterprise

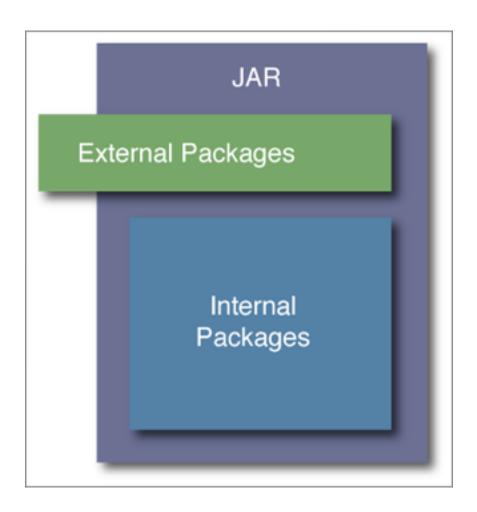
Apache Felix, Eclipse Equinox

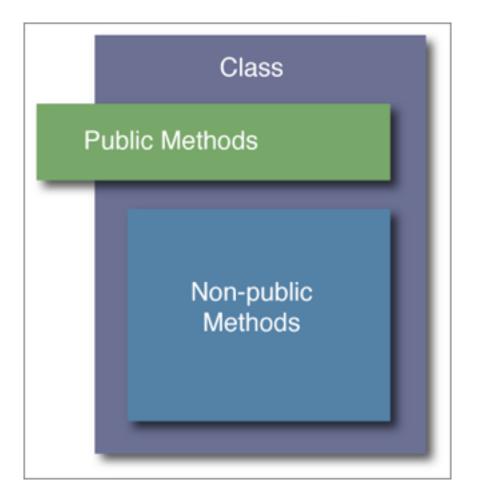
**OSGi** Runtime

JRE

## Visibilidade e Encapsulamento







## Visibilidade

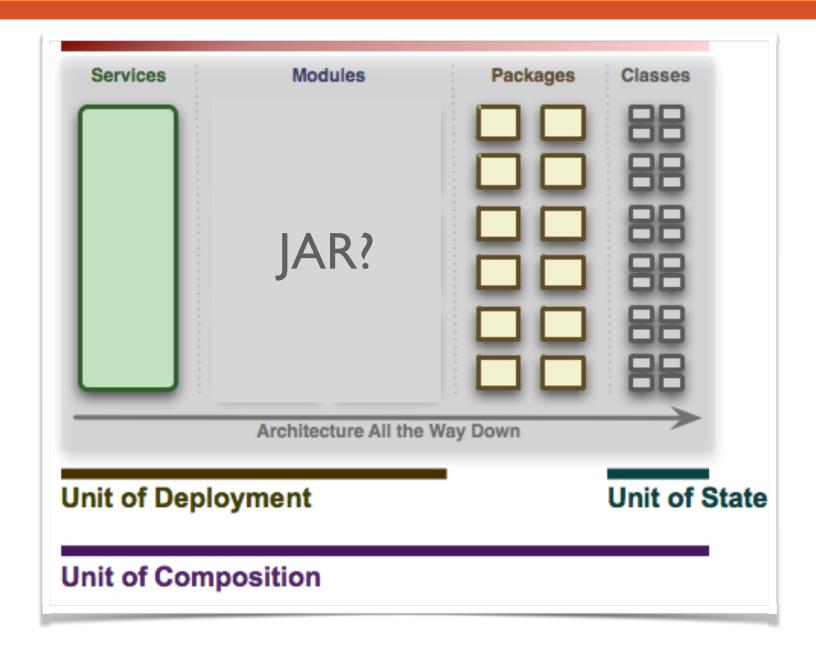


VRaptor 4.0.0 - 335 classes publicas

Guava 18.0 - 1157 classes publicas

#### Granularidade





## Visibilidade e Isolamento

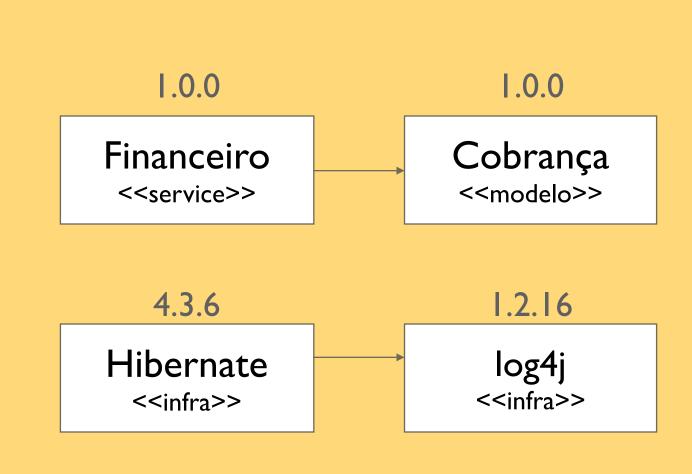


com.sun.org.apache.xerces.internal.parsers.\*

jersey.repackaged.com.google.common.base.\*

## Versionamento





#### Versionamento

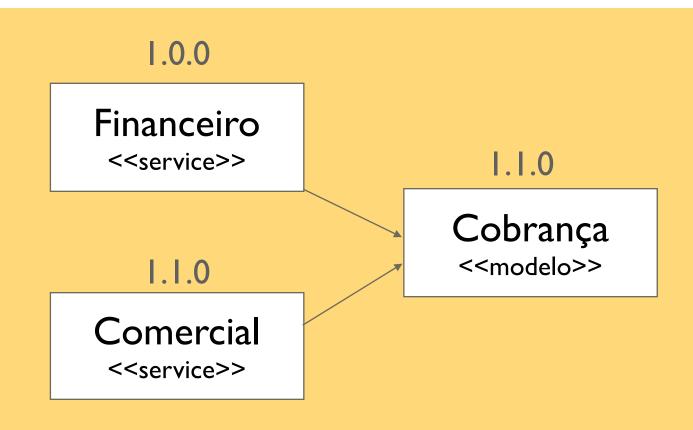


Demo 1

JAR Hell

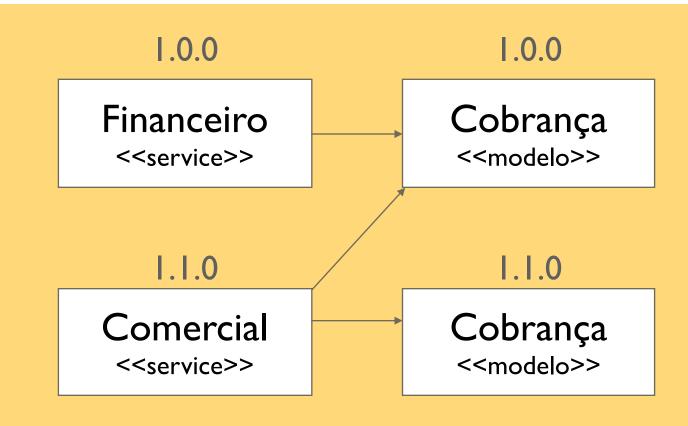
## JAR Hell - Classpath





## JAR Hell - o classpath

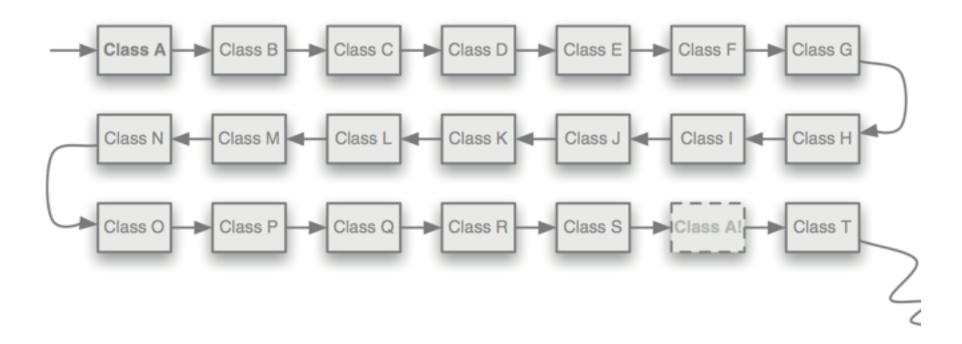




NoSuchMethodError, ClassNotFoundException, NoClassDefFoundError

## JAR Hell - o classpath





## OSGi - Bundle Loader, Runtime Versioning





#### **OSGi - Bundles**

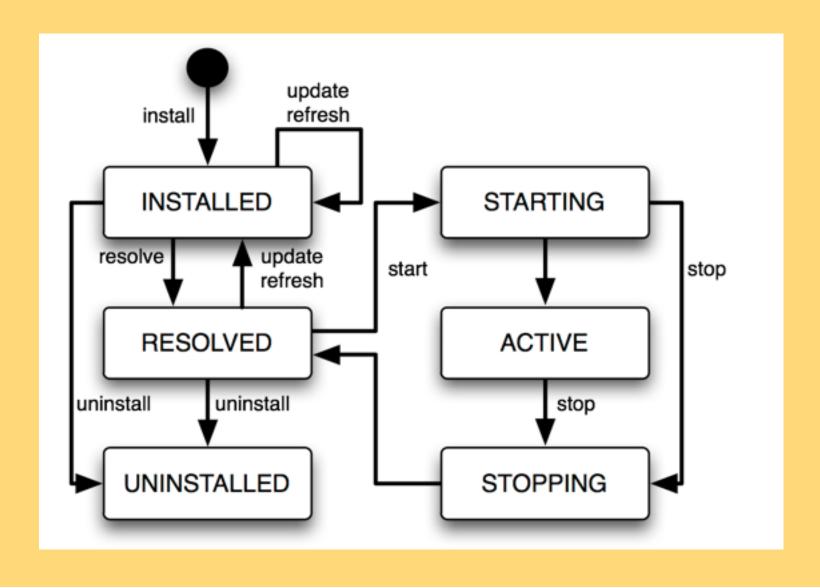


# Demo 2

Bundles Lifecycle

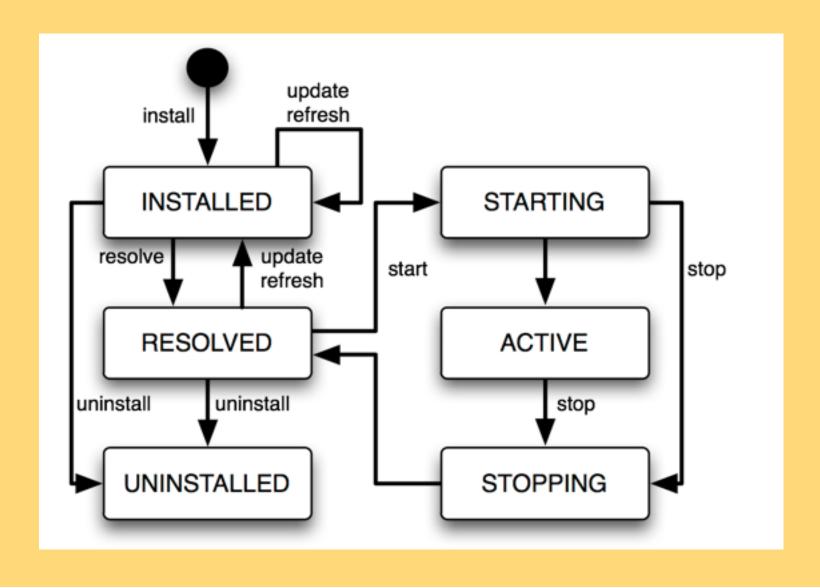
## OSGi - Bundle Lifecycle





## OSGi - Bundle Lifecycle





#### **OSGi - Services**



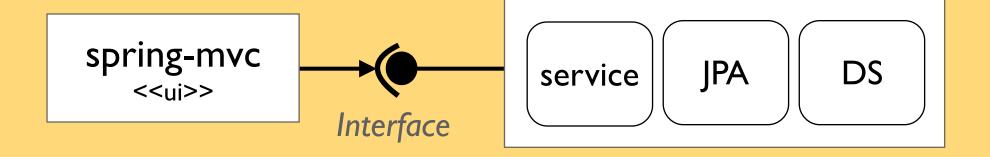




#### **OSGi - Services**



#### OSGi Runtime



## **maven**

<modelVersion>4.0.0</modelVersion>
<artifactId>model</artifactId>
<packaging>bundle</packaging>

cxf-rt-transports-http » 3.0.1			
Apache CXF Runtime HTTP Transport			
Artifact	Download ( BUNDLE ) (248 KB)		
POM File	View		



Demo 3

Spring MVC e JPA

# OSGi - Conclusão



