

Springing out of the Java Doldrums with Roo

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Who Am I?

- *Ken Rimple*
 - *Not Ren Kimple, he's someone else*
 - *Run Training, Mentoring practice for Chariot Solutions*
 - *Enjoy long walks in the park, authoring Roo in Action for Manning Publications*

So, Why Roo?

- *Spring established in the Enterprise*
 - *A huge framework, encompassing dozens of technologies*
 - *Common complaint: HOW DO I START?*
 - *Roo brings “best practices” and rapid configuration*

What is Roo?

- *A compile-time framework for building Spring-based applications*
- *A Shell that automates the setup of your application and maintains your build*
- *Uses pure Java*
- *Rapid-enough development for the Enterprise*

Roo's Evolution

- *Debuted at SpringOne Europe, April 2009*
 - *Named by writing a voting application on-stage and using it to vote on the name of the project*
- *1.0.x - December 2009*
- *1.1.x - October 2010 - OSGi-based Shell,*

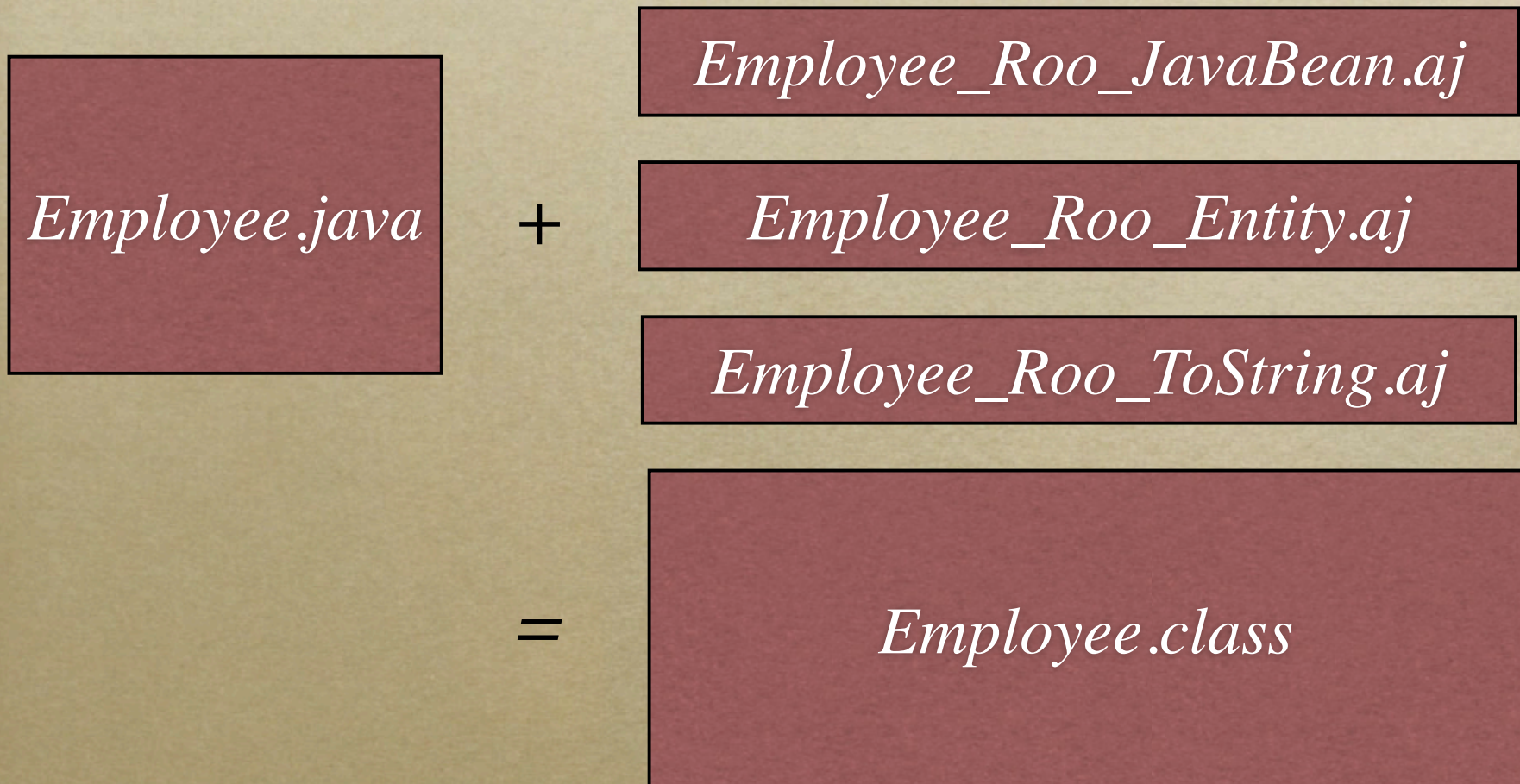
Rapid Enough?

- *RAD Framework, driven by a Shell*
- *Creates Spring-based, Maven-built applications*
- *Configures Spring for you, setting up JPA, JMS, Email, GWT, Solr Searching, and a ton of other features*
- *Roo uses annotations to automate code generation*

Aspects and Roo

- *AspectJ Intertype Declarations (ITDs)*
 - *Assembles classes from multiple source files*
- *Example - Roo Entities*
 - *Special annotations defined in Java source*
 - *@RooEntity, @RooJavaBean, @RooToString*
 - *ITDs (*.aj files) combine with Source, contain automated code*

Aspects in Action



Widget.java

```
@RooJavaBean  
@RooToString  
@RooEntity  
public class Widget {  
  
    private String name;  
  
}
```


Widget_Roo_ToString.aj

```
import java.lang.String;

privileged aspect Widget_Roo_ToString {

    public String Widget.toString() {
        StringBuilder sb = new StringBuilder();
        sb.append("Name: ").append(getName()).append(", ");
        return sb.toString();
    }

}
```


Widget_Roo_JavaBean.aj

```
...
privileged aspect Flea_Roo_JavaBean {

    public String Widget.getName() {
        return this.name;
    }

    public void Widget.setName(String name) {
        this.name = name;
    }
}
```


Widget_Roo_Entity.aj

```
privileged aspect Flea_Roo_Entity {
    declare @type: Widget: @Entity;

    @PersistenceContext
    transient EntityManager Widget.entityManager;

    @Id
    @GeneratedValue(strategy = GenerationType.AUTO)
    @Column(name = "id")
    private Long Widget.id;

    @Version
    @Column(name = "version")
    private Integer Widget.version;

    public Long Flea.getId() {
        return this.id;
    }

    ...
}
```


Enough Yappin'!

- *Demonstration Application*
 - *Flea Circus*
 - *Available on GitHub*
 - <http://github.com/krimple/fleacircus>
 - *Why a Flea Circus?*

Demonstration

What did we demo?

- *Setting up a project*
- *Configuring JPA, Hibernate*
- *Setting up my Database*
- *Creating Entities*
- *Reverse Engineering an Entity*
- *Configuring a Web Application*
- *Using GIT for version control*
- *Installing JMS*
- *Installing Spring Security*

Roo Add-ons

- *Written using Roo itself*
- *Are Roo projects -> OSGi bundles*
- *Can be pushed to a central lookup repo*
- *Community is building behind Roo addons*
 - *HADES DAOs, Content Negotiation, GWT, Flex, many others in progress*

Cloud Foundry

- *Deploying to Cloud Foundry*
 - *Simple - several steps*
 - *First, create an SSH key and upload to your account*
 - *Use Roo Shell commands or install the 'rvm' gem in Ruby*

Cloud Foundry Commands

```
roo> cloud foundry login --email krimple@chariotsolutions.com  
Logged in successfully with email address
```

```
'krimple@chariotsolutions.com'
```

```
roo> cloud foundry deploy --appName fleacircus --path /  
target/fleacircus-0.1.0.BUILD-SNAPSHOT.war
```

```
The application 'fleacircus' was successfully pushed
```

```
roo> cloud foundry list apps
```

```
=====Applications =====
```

Name	Status	Instances	Services	URLs
----	-----	-----	-----	----
fleacircus	STARTED	1	mysql-fleacircus fleacircus.cloudfoundry.com	

Questions?

- *Roo in Action - 40% off!*
 - <http://manning.com/rimple>
- *Blog: www.rimple.com*
- *Training in Spring, Maven, Rails: chariotsolutions.com/education*
- *Listen to the TechCast!*
 - techcast.chariotsolutions.com
 - *I am @krimple, @techcast, @RooInAction*

