

**Halliwells**

# ColdSpring: Introduction & Web Services

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# Who is Tom ?

Halliwells

- ColdFusion 4.5+
- Posts everywhere
- Moderates various mailing lists and Adobe Community Help
- Halliwells is a UK law firm, based in Manchester
- Many custom internal applications
- Award winning extranets

# Who are you ?

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CFCs are ColdFusion Objects

Core part of CFML2009 specification

Supported by Adobe since v6, Railo and  
OpenBD too

# OO Refresher

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- Encapsulation
- Isolation

# What is ColdSpring

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ColdSpring is...

- 1) **D**ependency **I**njection and management
- 2) An **A**spect **O**rientated **P**rogramming framework

DI: Whats wrong with spaghetti?

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Poor isolation

CreateObject() everywhere

# DI: Toy example #1

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The mailer and the configuration

# DI: Toy example #2

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Dependency Injection  
without listing dependencies



# AOP: Remote CFCs

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You have a ShoppingBasket.

How do you expose that to clients ?

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Talking to clients not like talking to your friends

# The Shopping Basket

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```
<beans>
  <bean id="TaxCalculator" ...
    <constructor-arg name="TaxRate">
      <value>1.175</value>
    </constructor-arg>
  </bean>

  <bean id="ShoppingCartBean" ...
    <constructor-arg name="TaxCalculator">
      <ref bean="TaxCalculator"/>
    </constructor-arg>
  </bean>
</beans>
```

# Remote Facades without AOP | Halliwells

```
<cfcomponent>
    <cffunction name="addToBasket" ....
        <cfargument ....
            <cfset
shoppingCartBean.addToBasket(arguments.itemId) />
        </cffunction>
</cfcomponent>
```

# Remote Facades without AOP II **Halliwells**

```
<cfcomponent>
    <cffunction name="addToBasket" ....
        <cfargument ....

            <cfset
shoppingCartBean=application.beanFactory.getBean(...
            <cfset
shoppingCartBean.addToBasket(arguments.itemId) />
            </cffunction>
</cfcomponent>
```

# Remote Facades without AOP III **Halliwells**

```
<cfcomponent extends="ServiceBase">
  <cffunction name="addToBasket" ....
    <cfargument ....
    <cfset var returnStruct=structNew(>
    <cfset returnStruct.itWentOK=false>
    <cfset super.init()/>
    <cftry>
      <cfset shoppingCartBean=
        application.beanFactory.getBean(...
    <cfset returnStruct.data=
      shoppingCartBean.addToBasket
        (arguments.itemId) />
    <cfset returnStruct.itWentOK=true>
    <cfcatch>
      ...
    </cftry>
    <cfreturn returnStruct
  </cffunction>
```

AOP: Stop cutting and pasting **Halliwells**

ColdSpring can generate a remote  
facade for you

AOP: Stop worrying

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The underlying bean  
doesn't have to care



# AOP: RemoteFactoryBean **Halliwells**

```
<bean id="remoteBasketService"  
class="coldspring.aop.framework.RemoteFactoryBean">  
    <property name="target">  
        <ref bean="ShoppingBasket" />  
    </property>  
    <property name="serviceName">  
        <value>Basket</value>  
    </property>  
    <property name="relativePath">  
        <value>/your/CFC/path/remote/</value>  
    </property>  
    <property name="remoteMethodNames">  
        <value>*</value>  
    </property>  
</bean>
```

AOP: Facade Startup

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**Gotcha !**

BeanFactory must be started to generate CFC

# AOP: Problems

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Where can you report errors ?

Where do you put security checks ?

Where do you put logging ?

These are 'cross cutting'

# AOP: Remote Exceptions

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Remote Exception  
code demo

# AOP: Security Without Session **Halliwells**

Security Token  
code demo

# Tame the XML

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Parent/Abstract Bean  
code demo

# Peddle to the metal ?

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All these Aspects are fast, at run time.  
Very fast.

But ...

# ColdSpring in Summary

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Manages dependencies with  
Dependency Injection

Generates Remote Facades with  
RemoteFactoryBean

Addresses cross-cutting concerns with  
AOP advice

Together a very powerful set of features



# ***ColdSpring: Introduction & Services***

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## **Tom Chiverton**

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### **Code:**

<http://falkensweb.com/other.html>

### **Blog:**

<http://rachaelandtom.info/blogs/falken>

<http://rachaelandtom.info/search/node/coldspring>

### **ColdSpring Users:**

<http://groups.google.com/group/coldspring-users>

