

Getting started with Quercus: PHP in Java San Francisco Java Meetup Group

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About your presenter

- MS in computer science from Berkeley
- Engineer at Caucho for 2 years
- Now Chief Evangelist
- Have worked on:
 - Resin
 - Quercus
 - Hessian



About you?

- Who are you?
- Have you used PHP before? Java? Both?
- Find a complementary (and/or complimentary) partner
- Pair programming

About Caucho

- Small engineering company founded in 1998
- Makers of Resin, a leading Java application server
- Dedicated to open source
- Products used by over 7,500 customers including
 - CNet, Kodak, the Toronto Stock Exchange and Evite



Introducing Quercus®

- Complete, cleanroom implementation of PHP language and libraries in Java
- Two versions:
 - Open source: Runs PHP in interpreted mode
 - Professional: Compiles PHP to Java, then runs PHP directly on the JVM
- Runs many popular existing PHP applications like WordPress, MediaWiki, Drupal, TYPO3, phpBB3, and more...

Why?

- Performance
 - Up to 4x faster on some applications
- Security
 - Avoids buffer overflow problems in C-based implementation
- Java/PHP integration
 - PHP can now access any Java library or objects
 - Java can use PHP as a view technology

Outline

- Install Quercus
- PHP Hello World
- Java/PHP Hello World
- Creating a Java module
- Set php.ini values, use PHP libraries
- WebBeans/loC
- Sessions
- Install WordPress
- Examples: JMX
- Use Java libraries from PHP:
 - JFreeChart

Install Quercus

- Start Resin by running:
 - `cd quercus/resin-pro-3.1.5`
 - `java -jar lib/resin.jar`
- That's it!
- If you brought your own laptop, please install MySQL

PHP Hello World

- Look at the webapp in
 - resin-pro-3.1.5/webapps/php-hello
- View WEB-INF/resin-web.xml
- Edit index.php
 - Variables
 - Embedded PHP
 - Conditionals

Java/PHP Hello World

- Look at the webapp in
 - resin-pro-3.1.5/webapps/java-php-hello
- View WEB-INF/resin-web.xml
- Edit WEB-INF/classes/example/HelloJavaPhp.java
 - Add fields/instance methods/static methods
- Edit WEB-INF/classes/example/MyModule.java
 - Call methods from PHP
 - View WEB-INF/classes/META-INF/services

PHP libraries and php.ini

- Look at the webapp in
 - resin-pro-3.1.5/webapps/output-buffering
- View FilterModule.java
- View WEB-INF/resin-web.xml
- View index.php
 - Output buffering/filtering

Using databases

- Look at the webapp in
 - resin-pro-3.1.5/webapps/database
- Create a database and schema
- Edit resin-web.xml
- index.php

Using WebBeans/Resin IoC

- Look at “webbeans” webapp
- Look at example.FooBean
- Configure a FooBean in resin-web.xml
- Grab FooBean from PHP
- Create and configure BarBean

Distributed Sessions in PHP

- Start up load balancer (“web-a”) and back up server (“backup”)
- Look at “session” webapp
- Browse to <http://localhost:9080/session/>
- Kill main server
- Rebrowse...

Install WordPress

- Unpack WordPress into webapps directory of Resin
- Create the WEB-INF directory
- Create WEB-INF/resin-web.xml
- Configure MySQL
- Do installation by going to
 - <http://localhost:8080/wordpress>

Example: JMX

- Go to <http://localhost:8080/resin-admin>
 - Username: admin
 - Password: password
- Implemented in Quercus/PHP
- Source in resin-pro-3.1.5/php/admin

Using Java Libraries

- JfreeChart is a Java charting library
- Look at “jfreechart” webapp
- Compare pie.php example to Java
- Create bar.php example

The End!

- Learn more: <http://quercus.caucho.com>
- Yes, we're hiring: hiring@caucho.com
- Product brochures available
- Visit us at JavaOne, Booth 518
- Thanks to Marakana!
- **Thank you for coming!**

