

# **Struts as a Diagnostic Tool**

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April 1, 2008



# Agenda

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- What's this all about?
- Why Struts?
- How to develop and deploy web application in Struts
- Demo of Diagnostic Tool
- Question and Answer Session

# What's this all about?

- Demonstration of Struts using a simple web application to diagnose Coeus server problems.
- Business example:
  - Customer thinks it's taking too long to reach one of the Coeus applications
  - The diagnostic tool is a web app that queries information from all servers housing Coeus
    - ping
    - top
    - tnsping

# Why Struts?

- Useful, easy-to-learn framework
- Open source
- One Servlet controls all requests. Developer only have to implement Actions.
- Very popular in the Java community especially the financial companies
- Integration of other open source tools just with a little coding
  - JavaMail
  - JDBC
  - iText

# How to develop and deploy web application

- Assumes knowledge of Tomcat server
- Download a version of Struts from <http://struts.apache.org>
- Install or unzip it to your development environment
- Copy all jar files from Struts to your web application lib directory
- Copy sample struts-config.xml to the web-inf directory of your web application.

# Struts configuration

- Add to web.xml:

```
<!-- Standard Action Servlet Configuration -->
<servlet>
  <servlet-name>action</servlet-name>
  <servlet-class>org.apache.struts.action.ActionServlet</servlet-class>
  <init-param>
    <param-name>config</param-name>
    <param-value>/WEB-INF/struts-config.xml</param-value>
  </init-param>
  <load-on-startup>2</load-on-startup>
</servlet>

<!-- Standard Action Servlet Mapping -->
<servlet-mapping>
  <servlet-name>action</servlet-name>
  <url-pattern>*.do</url-pattern>
</servlet-mapping>
```

# Struts configuration

- Add to struts-config.xml:
- **FORM BEAN SECTION:**
- `<form-bean`
- `name="COEUSDiagnosticsForm"`
- `type="controller.form.COEUSDiagnosticsForm"/>`
- **ACTION MAPPING SECTION:**
- `<action`
- `path="/COEUSDiagnostics"`
- `type="controller.action.COEUSDiagnosticsAction"`
- `name="COEUSDiagnosticsForm"`
- `scope="request"`
- `validate="true"`
- `input="/jsp/coeusdiagnostics.jsp">`
- `<forward name="success" path="/jsp/coeusdiagnosticssuccess.jsp"/>`
- `</action>`

# Creation of Web Application

- Create form jsp: coeusdiagnostics.jsp
- Create view handler:  
COEUSDiagnosticsForm.java
- Create session bean:  
COEUSDiagnosticsBean.java
- Create controller:  
COEUSDiagnosticsAction.java



# Final Stretch

- Demo of Diagnostic Tool
- Question and Answer Session