

Deprecated Guides

These guides are deprecated and were moved to <https://github.com/apache/struts-site>

DEPRECATED: [Core Developers Guide](#) moved to <http://struts.apache.org/core-developers/>

Struts 2 processes requests using three core types: [interceptors](#), [actions](#), and [results](#). Each may be configured via XML or annotations.

<ul style="list-style-type: none">• Developing Applications with Struts 2<ul style="list-style-type: none">◦ Nutshell◦ AJAX◦ Dependency Injection◦ Profiling◦ Debugging◦ Development Mode• Configuration<ul style="list-style-type: none">◦ Configuration by Convention◦ Annotations◦ Configuration Elements<ul style="list-style-type: none">▪ Actions, Wildcard Mappings, Beans, Constants▪ Exceptions, Includes, Interceptors▪ Namespaces, Packages, Results▪ Unknown Handlers, Dispatcher◦ Configuration Files<ul style="list-style-type: none">▪ web.xml▪ struts.xml▪ struts.properties▪ struts-default.xml▪ velocity.properties▪ struts-default.vm◦ Application Servers◦ Performance Tuning•  Security	<ul style="list-style-type: none">• Testing Actions<ul style="list-style-type: none">◦ (arsenalist)◦ (rosa)• Interceptors<ul style="list-style-type: none">◦ Writing Interceptors◦ Excluding Parameters• Actions<ul style="list-style-type: none">◦ Model Driven◦ Action Chaining◦ ActionEventListener• Results<ul style="list-style-type: none">◦ Result Types◦ DispatcherListener◦ PreResultListener• Validation• Localization<ul style="list-style-type: none">◦ Formatting Dates and Numbers• Type Conversion• Static Content• Portlets<ul style="list-style-type: none">◦ Tutorial◦ Configuration/Documentation• Logging• FAQs<ul style="list-style-type: none">◦ Struts 2 Maven Archetypes◦ Cookbook• Javadoc APIs
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DEPRECATED: [Struts 2 Maven Archetypes](#) moved to <http://struts.apache.org/maven-archetypes/>

Error rendering macro 'excerpt-include'

org.owasp.validator.html.ScanException: java.util.EmptyStackException

DEPRECATED: [Tag Developers Guide](#) moved to <https://struts.apache.org/tag-developers/>

The framework offers a flexible view layer that supports multiple view technologies, including JSP, FreeMarker, and Velocity.

<ul style="list-style-type: none">• Struts Tags<ul style="list-style-type: none">◦ Generic Tags◦ UI Tags◦ Themes and Templates◦ Tag Reference◦ Ajax Tags<ul style="list-style-type: none">▪ Ajax and JavaScript Recipes• OGNL• Tag Syntax• Alt Syntax	<ul style="list-style-type: none">• JSP<ul style="list-style-type: none">◦ specific tags• FreeMarker<ul style="list-style-type: none">◦ specific tags• Velocity<ul style="list-style-type: none">◦ specific tags
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DEPRECATED: [Plugin Developers Guide](#) moved to <https://struts.apache.org/plugins/>

Apache Struts 2 provides a simple [plugin architecture](#) so that developers can extend the framework just by adding a JAR to the application's classpath. Since plugins are contained in a JAR, they are easy to share with others. Several plugins are bundled with the framework, and others are available from third-party sources.

- [Plugins](#)
- [Extending an Application with Custom Plugins](#)

Bundled Plugins

<ul style="list-style-type: none">• Bean Validation Plugin (2.5+)• CDI (JSR 299) Plugin (2.3.1+)• Codebehind Plugin (< 2.5)• Config Browser Plugin• Convention Plugin (2.1.3+)• DWR Plugin• Embedded JSP Plugin (2.1.7+)• JasperReports Plugin• Java 8 Support Plugin (2.3.21 - 2.5.2)• Javatemplates Plugin (2.1.3+)• JFreeChart Plugin• JSF Plugin (< 2.5)• JSON Plugin (2.1.7+)• JUnit Plugin	<ul style="list-style-type: none">• OVal Plugin (2.1.7+)• OSGi Plugin (2.1.7+)• Plexus Plugin• Portlet Plugin• Portlet Tiles Plugin (2.3.5+)• REST Plugin (2.1.1+)• Deprecated: SiteGraph Plugin• SiteMesh Plugin• Spring Plugin• Struts 1 Plugin (< 2.5)• TestNG Plugin• Tiles Plugin• Tiles 3 Plugin (< 2.5)
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✔ For a complete list of bundled and third-party plugins, visit the [Plugin Registry](#)..

DEPRECATED: [Architects Guide](#) moved to <http://struts.apache.org/core-developers/>

- [Big Picture](#)
 - [ObjectFactory](#)
 - [ActionMapper](#)
 - [Action Proxy & ActionProxy Factory](#)
 - [Configuration Provider & Configuration](#)