

Debugging

Modern IDEs provide excellent support for debugging. In addition, the framework provides support for inspecting framework-specific objects at runtime.

The [Debugging Interceptor](#) provides three debugging modes to provide insight into the data behind the page. The `xml` mode formats relevant framework objects as an XML document. The `console` mode provides a OGNL command line that accepts entry of runtime expressions, and the `browser` mode adds an interactive page that display objects from the Value Stack.

To use the debugging, first be sure that `struts.devMode` is set to `true` is enabled through the [struts.properties](#) file or `struts.xml` file, like:

```
<constant name="struts.devMode" value="true" />
```

Then, whenever a page needs debugging, add `?debug=xml` or `?debug=console` or `?debug=browser` to the URL.

```
- <debug>
  <parameters />
- <context>
- <struts.actionMapping>
  <class>class org.apache.struts2.dispatcher.mapper.ActionMapping</class>
  <name>showcase</name>
  <namespace>/</namespace>
</struts.actionMapping>
<attr />
<__devMode>true</__devMode>
<report.conversion.errors>>false</report.conversion.errors>
</context>
<request />
<session />
- <valueStack>
- <value>
  <actionErrors />
  <actionMessages />
  <class>class com.opensymphony.xwork2.ActionSupport</class>
  <errorMessages />
  <errors />
  <fieldErrors />
- <locale>
  <ISO3Country>USA</ISO3Country>
  <ISO3Language>eng</ISO3Language>
  <class>class java.util.Locale</class>
  <country>US</country>
  <displayCountry>United States</displayCountry>
  <displayLanguage>English</displayLanguage>
  <displayName>English (United States)</displayName>
  <displayVariant />
  <language>en</language>
  <variant />
</locale>
</value>
- <value>
  <class>class com.opensymphony.xwork2.DefaultTextProvider</class>
</value>
</valueStack>
</debug>
```



For `?debug=xml` use Internet Explorer or an [IE tab in FireFox](#)



For `?debug=console` you may need to relax any popup blockers

Next: [Development Mode](#)