

# Deploying Odin client software at remote locations

## *Editing JNLP files for Sleipnir distribution*

The purpose of this document is to describe the process of editing the Java Network Launch Protocol (JNLP) file used to distribute Sleipnir. The Sleipnir application is used as a client to access files and services located on Odin servers. By using JNLP updates can be pushed to users the next time they start the application.

The table below outlines the structure of the JNLP file used to distribute Sleipnir from the central web-server to users and highlights those points that can be edited by administrators wanting to use the Odin/Sleipnir model on other servers. Elements and their contents should not be altered unless **specifically** mentioned in the notes below. Each line within the JNLP file has been shown below and those of interested annotated. Those of particular interest have notes associated in the following sections.

Information within the document adapts some of the information that can be found on Oracle's web-site. For this web-page, and further information about the JNLP file syntax, please refer to: <http://download-llnw.oracle.com/javase/6/docs/technotes/guides/javaws/developersguide/syntax.html> [Accessed 03-Aug-2010]

JNLP File	Comments	Notes
<code>&lt;?xml version="1.0" encoding="utf-8"?&gt;</code>		
<code>&lt;jnlp spec="1.0+" codebase="http://localhost/resources/" href="sleipnir.jnlp"&gt;</code>	Root JNLP element with the URI of the JAR file and name of the JNLP file being read.	§1
<code>&lt;information&gt;</code>		
<code>&lt;title&gt;Sleipnir&lt;/title&gt;</code>	The application title	
<code>&lt;vendor&gt;Alexander Harris&lt;/vendor&gt;</code>	The application's author	
<code>&lt;homepage href="http://projects.dcs.kcl.ac.uk/~harris1"/&gt;</code>	The support/home-page for the application	
<code>&lt;description&gt;Client application for accessing Odin servers.&lt;/description&gt;</code>	The application description	
<code>&lt;icon href="../../images/Sleipnir64Logo.jpg"/&gt;</code>	The image file to be used as the icon	§2
<code>&lt;shortcut online="true"&gt;</code>	Display a shortcut to the application on the Desktop.	
<code>&lt;desktop/&gt;</code>		
<code>&lt;menu submenu="Odin"/&gt;</code>	Display a link to the application in this menu within the Start Menu.	
<code>&lt;/shortcut&gt;</code>		
<code>&lt;offline-allowed/&gt;</code>	Whether the application should be allowed to run off-line or not.	§3
<code>&lt;/information&gt;</code>		
<code>&lt;security&gt;</code>		

<code>&lt;all-permissions/&gt;</code>	Grant permissions to the application	
<code>&lt;/security&gt;</code>		
<code>&lt;update check="background" policy="prompt-update"/&gt;</code>	Update policy and check method	§4
<code>&lt;resources&gt;</code>		
<code>&lt;j2se version="1.6+"/&gt;</code>	Required Java Runtime version	§5
<code>&lt;jar href="Sleipnir.jar"/&gt;</code>	Location (and name) of the JAR file to run	§6
<code>&lt;/resources&gt;</code>		
<code>&lt;application-desc main-class="org.kcl.odin.sleipnir.RunSleipnir"&gt;</code>	Defines the application entry point	
<code>&lt;argument&gt;language=en&lt;/argument&gt;</code>	Argument for the locale language	§7
<code>&lt;argument&gt;country=GB&lt;/argument&gt;</code>	Argument for the locale country	§8
<code>&lt;argument&gt;home=localhost&lt;/argument&gt;</code>	Argument for the home server	§9
<code>&lt;/application-desc&gt;</code>		
<code>&lt;/jnlp&gt;</code>		

## Notes

### Section 1: `jnlp` Element

The `jnlp` element defines the location of the JNLP file being parsed (for future reference). The `codebase` attribute defines the directory (in the format of a well-formatted URL) and the `href` attribute confirms the name of the JNLP file being processed.

If deploying Sleipnir to another server then it is essential to ensure that both attributes are updated to reflect any changes in name and/or location.

**The use of this element is REQUIRED.**

### Section 2: `icon` Element

The `icon` element is used to define the location of a 64 x 64px JPEG file that is used for shortcuts to Sleipnir on the user's system.

If deploying Sleipnir to another system then it is essential to ensure that it is updated to reflect any changes in name and/or location.

**The use of this element is REQUIRED.**

### Section 3: `offline-allowed` Element

The `offline-allowed` element is used to determine whether or not Sleipnir can be used without a connection to the server from which it was obtained.

The use of this element is dependent on the architecture of the site to which it refers. If a single server provides both web-services and Odin functions then the omission of this element would

prevent users from connecting to the server in the event of an outage. If the two features are separated then the presence of the tag would allow users to use the Odin functions without requiring the web-server to be available.

The use of this element is **OPTIONAL**.

## Section 4: update Element

The update element defines a method and schedule for Sleipnir to check with the web-server (from which it was obtained) for updated versions of the application.

The check attribute denotes when updates should be obtained. Valid entries include:

- always – Check prior to launching the application.
- timeout – (Default) Check prior to launching the application but upto a timeout period where the application will be launched and checks performed in the background.
- background – launch the application and check for updates in the background.

The policy attribute denotes whether the user is prompted prior to installation of any updated versions of the application. Valid entries include:

- always – (Default) Download, and install, any available updates prior to starting the application.
- prompt-update – Provide the user with the option of downloading and installing a newer version of the application, or, running the existing version.
- prompt-run – Notify the user that a new version of the application exists. The user has the option of updating the application or quitting it.

The use of this element is **OPTIONAL**.

## Section 5: j2se Element

The j2se element denotes the version of Java which must be installed on the client's machine in order for Sleipnir to run correctly.

The application has been compiled in Java 1.6 and so can only run on this or later versions of the Java runtime. The user must obtain and install a relevant copy of the Java runtime in order to use Sleipnir. The value **must** not be changed.

The use of this element is **REQUIRED**.

## Section 6: jar Element

The jar element and its corresponding href attribute denote the location of the Java Archive (JAR) file relative to the JNLP file currently being parsed. This JAR file contains the Sleipnir application. The value **must** be in the form of a valid URL.

If deploying Sleipnir to another system then it is essential to ensure that it is updated to reflect any changes in name and/or location.

The use of this element is **REQUIRED**.

## Section 7: language Argument

The language argument can be used to specify a locale across all clients who have downloaded Sleipnir from this particular server. This could be used in a demonstrative or organisational context.

The value supplied for this argument **must** comply with the ISO-639-1 standard. The entry should be in lower case. Incorrect or nonexistent entries will create errors when the client is run. It can also appear independently from the country argument.

If omitted then the application would be displayed either in the user's language (as defined by their platform) or the system default (English) if that language is not supported.

Currently supported languages include:

- English
- German (partial translation)
- Hindi (partial translation)

The use of this element is **OPTIONAL**.

## Section 8: country Argument

The country argument can be used to specify a locale across all clients who have downloaded Sleipnir from this particular server. This could be used in a demonstrative or organisational context.

The value supplied for the country argument **must** comply with the ISO-3166 standard. The entry should be in upper-case. Incorrect or nonexistent entries will create errors when the client is run.

If omitted then the application would use the country defined by the user's platform.

The use of this element is **OPTIONAL**.

## Section 9: home Argument

The home element is used to associate clients downloading Sleipnir from this particular server with a server that provides an Odin repository.

Expected values **must** be in the form of valid IP addresses or DNS names. Incorrect entries or nonexistent locations will create errors when the client is run.

The use of this element is **REQUIRED**.