

# Jetty Component

## Introduction

Jetty component provides the functionality of starting a Jetty Server with and without default configurations of listeners, webapplications and servlets. It also provides the feature of dynamically configuring a running Jetty HttpServer with additional listeners, webapplications and servers.

It provides instantiable extensions to the www components, which must also be on the classpath of this component's deployment.

This component has been built against Jetty 4.2.24. It compiles and runs against later versions, but sometimes we see stack traces on

## Component Description

The Jetty package has different components for jetty server, jetty server with admin privileges, listeners, webapplications, servletcontexts, handlers and servlets.

These are all declared in

`org/smartfrog/services/jetty/components.sf`

## HttpServerAdmin

Administration component

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
<code>httpserverHost</code>	Host on which the Jetty server configured with admin privileges runs	Mandatory
<code>listenerPort</code>	Port on which the jetty server listens	Mandatory
<code>contextPath</code>	Context Path for the Jetty server	Optional

## CoreJettyServer

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
<code>jettyhome</code>	Jetty home path. This is essentially the base directory for operations;	Mandatory
<code>serverHost</code>	Host on which the Jetty server runs	Mandatory
<code>enableLogging</code>	Boolean to keep logging on or off	Mandatory
<code>logPattern</code>	pattern for log files	Mandatory, but a default is declared

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
<code>logDir</code>	Directory for log files. If a relative directory path is supplied, it is resolved relative to <code>jettyhome</code> .	Default is declared as <code>log/</code>

## HttpServer

This component extends `CoreJettyServer` with extra declarations. It requires a complete Jetty Installation.

## JettyListener

Declare a listener for incoming requests

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
<code>listenerPort</code>	Port on which the listener listens	Mandatory
<code>serverHost</code>	Host on which the listener runs	Optional. Omit it bind to all network cards on the host
<code>server</code>	Jetty server to which the listener is attached	Mandatory

Be aware that setting the `serverHost` value to `"localhost"` will bind the server to the loopback address, if there is an entry in the `hosttable` mapping that name to `127.0.0.1`.

## JettyWebApplication

Declares a web application

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
<code>contextPath</code>	Context Path for the web application	Mandatory
<code>warFile</code>	Path of the web application	Mandatory
<code>resourceId</code>	Resource id for the web application	Optional
<code>server</code>	Jetty server to which this web application is attached	Mandatory

## JettyServletContext

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
<code>contextPath</code>	Context Path for the servlet context	Mandatory
<code>resourceBase</code>	Resourcebase for the servlet context	Mandatory

<b>Attribute Name</b>	<b>Description</b>	<b>Optional/Mandatory</b>
server	Jetty server to which this servlet context is attached	Mandatory
classPath	Classpath for the servlet context	Optional

Run-time properties

<b>Attribute Name</b>	<b>Description</b>
ipaddr	IP Address of the context (currently determined from the network card/address that the SmartFrog daemon is listening on)
absolutePath	Base path of this context

## JettyHandler

This component is used by different handlers like Dump, Forward, HTAccess etc. for getting added to the ServletContexts. Each handler has specific attributes for its implementation.

## Usage

The Jetty component can be used for starting different instances of Jetty Server on the same system with and without admin privileges by configuring the attributes defined for each component. A property named jetty.home needs to be set for jetty location on the server before deploying this component.

In a simplest usage the HttpServer component is extended to start a server, by default it is started on port 8080 on the specified host and attached with specified server. For starting another instance of Jetty server, it can be configured for some other port also by configuring the listeners component. Each server instance is added to the ProcessCompound as it is started. This is useful for the dynamic binding feature explained below.

Please go through `core/components/jetty/src/org/smartfrog/services/jetty/example1/2/3.sf` for sample usage.

Dynamic binding of listeners, webapplications and servlets to an already running Jetty server can be by giving a reference to a Jetty server to which it should be attached to the components derived from JettyListener, JettyWebApplication and JettyServletContext components. Since all the running Jetty servers have reference in ProcessCompound, the reference to the mentioned server is taken from ProcessCompound and the listeners, webapplications and servletcontexts are added to it.

Please go through `core/components/jetty/src/org/smartfrog/services/jetty/dynamicexample.sf` for sample usage.