

# TomcatServer

## Apache Tomcat server deployment

### Table of contents

1 Overview.....	2
2 Design.....	2
3 Constraints.....	3
4 Attributes.....	3
5 Commands.....	4
6 Related Types.....	4

## 1. Overview

### **TomcatServer:** *Apache Tomcat server deployment*

This type can be used standalone, in which case a single "war" type package object can be assigned as a child of a TomcatServer object; or you may also assign multiple TomcatContext objects as children of TomcatSite, in which case each TomcatContext object may have one package and service management can be managed through a TomcatSite object which has both the TomcatServer and the TomcatContexts as children. The TomcatSite will be deployed alongside TomcatServer and TomcatContext on the client node. TomcatSite objects can then be grouped into Sites that are deployed to the server instance, allowing Jobcenter usage.

Attach a TomcatZip as a dependency so that ControlTier will install Tomcat when the TomcatServer object is deployed. Optionally attach a JavaBin object. (If one is not provided, Tomcat will use the same JAVA\_HOME as ControlTier.)

Attach a PlatformJar object if you wish to install other platform-specific packages; e.g. JDBC drivers.

Attach a tgz or a ConfigZip dependency to install packaged configuration files.

Attach an Rdb or subtype to use data source generation.

This object can also be a child dependency of ApacheSystemService, in which case the ApacheSystemService instance will route certain requests to Tomcat via AJP13.

The "basedir" property is the CATALINA\_BASE directory, and the "installroot" is used as the CATALINA\_HOME directory.

## 2. Design

### Super Type Service

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>
Notification	<b>false</b>
Template Directory	
Data View	Children, proximity: <b>1</b>
Logger Name	TomcatServer

### 3. Constraints

#### 3.1. Allowed Child Dependencies

- [ConfigZip](#)
- [GenerateApplicationTomcatContext](#) 1
- [GenerateDefaultTomcatContext](#) 1
- [JavaBin](#) 1
- [JavaHomePath](#) 1
- [PlatformJar](#)
- [Rdb](#)
- tgz
- [TomcatKeepAdminServer](#) 1
- [TomcatMgmtStrategy](#) 1
- [TomcatPath](#) 1
- [TomcatSetting](#)
- [TomcatZip](#) 1
- war1

1: These types have a *Singleton* constraint. Only one instance may be added as a resource.

#### 3.2. Allowed Parent Dependencies

- [ApacheSystemService](#)
- Mediator
- Node
- [TomcatContext](#)
- [TomcatServerService](#)

### 4. Attributes

#### 4.1. Exported Attributes

Name	Property	Description
catalinaBase	deployment-basedir	This value is the CATALINA_BASE directory path.
catalinaHome	deployment-install-root	This value is the CATALINA_BASE directory path.

## 4.2. Defaults for Imported Attributes

Name	Default
ajpPort	8009
contextFileName	ROOT.xml
generateApplicationTomcatContext	false
generateDefaultTomcatContext	false
httpsPort	8443
javaHome	\${env.JAVA_HOME}
javaOptions	
keepAdminServer	false
port	8080
release	5.x
shutdownPort	8005
timeout	10
tomcatMgmtStrategy	default
tomcatNewEnvironment	true
tomcatPath	/bin:/usr/bin

## 5. Commands

View the available commands in the [User Reference](#).

## 6. Related Types

The following types are defined for use with TomcatServer.

### 6.1. FilePath

#### 6.1.1. Overview

**FilePath:** *A file path/directory*

### 6.1.2. Design

#### Super Type Setting

Role	<b>Abstract.</b> (Objects cannot be created.)
Instance Names	<b>Unique</b>

## 6.2. GenerateApplicationTomcatContext

### 6.2.1. Overview

**GenerateApplicationTomcatContext:** *determines if an application context should be generated*

If set to *true*, generates a context file in the location specified by the `contextFileName` attribute (by default `conf/Catalina/localhost/ROOT.xml`, but can be changed via the `TomcatContextFile` setting, under the `TomcatContext` type). Requires a child package object of the `war` type or one of its subtypes. Default is *false*.

If you need multiple contexts, do not attach a child dependency of `war` to `TomcatServer`; instead, attach `TomcatServer` and two or more `TomcatContext` objects to `TomcatSite` and attach one package to each `TomcatContext`.

### 6.2.2. Design

#### Super Type [TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.2.3. Constraints

#### 6.2.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.2.4. Attributes

#### 6.2.4.1. Exported Attributes

Name	Property
generateApplicationTomcatContext	settingValue

## 6.3. GenerateDefaultTomcatContext

### 6.3.1. Overview

**GenerateDefaultTomcatContext:** *determines if a default database context should be generated*

If set to *true*, generates a context.xml.default file. Requires an Rdb dependency. Default is *false*. (6.x release only)

### 6.3.2. Design

#### Super Type

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.3.3. Constraints

#### 6.3.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.3.4. Attributes

#### 6.3.4.1. Exported Attributes

Name	Property
generateDefaultTomcatContext	settingValue

## 6.4. JavaHomePath

### 6.4.1. Overview

**JavaHomePath:** *The Java install root*

This setting is unnecessary if you attach a JavaBin child dependency as that object sets this

attribute. Alternatively, you can also omit it if you intend to use the JAVA\_HOME specified in the environment.

### 6.4.2. Design

#### Super Type

[FilePath](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.4.3. Constraints

#### 6.4.3.1. Allowed Parent Dependencies

- Service

### 6.4.4. Attributes

#### 6.4.4.1. Exported Attributes

Name	Property
javaHome	settingValue

## 6.5. TomcatAjpPort

### 6.5.1. Overview

**TomcatAjpPort:** *Tomcat Apache Jakarta Protocol port*

AJP13 port. Written into a configuration by Docs-Generate.

Additionally, this setting can be attached to the ApacheSystemService object to be used in the mod\_proxy\_ajp configuration. Default: 8009

### 6.5.2. Design

#### Super Type

[TomcatPort](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.5.3. Constraints

#### 6.5.3.1. Allowed Parent Dependencies

- [ApacheSystemService](#)
- [TomcatServer](#)

### 6.5.4. Attributes

#### 6.5.4.1. Exported Attributes

Name	Property
ajpPort	settingValue

## 6.6. TomcatJavaOptions

### 6.6.1. Overview

**TomcatJavaOptions:** *Java runtime options (JAVA\_OPTS) used when the Tomcat "start", "stop", or "run" command is executed*

Default: empty string (no options)

### 6.6.2. Design

**Super Type**  
[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.6.3. Constraints

#### 6.6.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.6.4. Attributes

#### 6.6.4.1. Exported Attributes



Name	Property
javaOptions	settingValue

## 6.7. TomcatKeepAdminServer

### 6.7.1. Overview

**TomcatKeepAdminServer:** *configuration to keep or not keep the /admin server*

Default is false for security

### 6.7.2. Design

#### Super Type

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.7.3. Attributes

#### 6.7.3.1. Exported Attributes

Name	Property
keepAdminServer	settingValue

## 6.8. TomcatMgmtStrategy

### 6.8.1. Overview

**TomcatMgmtStrategy:** *Specifies the method to use for service management*

Options are *default* and *smf*. *default* manages Tomcat with traditional Start and Stop scripts. *smf* uses the Solaris Service Management Framework. Default is *default*.

### 6.8.2. Design

#### Super Type

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.8.3. Constraints

#### 6.8.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.8.4. Attributes

#### 6.8.4.1. Exported Attributes

Name	Property
tomcatMgmtStrategy	settingValue

## 6.9. TomcatNewEnvironment

### 6.9.1. Overview

**TomcatNewEnvironment:** *Whether or not to start Tomcat with a new environment*

Sets the newenvironment attribute for the exec tag that starts the Tomcat service. Default is *true*.

### 6.9.2. Design

#### Super Type

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.9.3. Constraints

#### 6.9.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.9.4. Attributes

#### 6.9.4.1. Exported Attributes

Name	Property
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tomcatNewEnvironment	settingValue
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## 6.10. TomcatPath

### 6.10.1. Overview

**TomcatPath:** *PATH used by Tomcat*

Used in the environment when the Tomcat service is started

### 6.10.2. Design

**Super Type**

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.10.3. Constraints

#### 6.10.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.10.4. Attributes

#### 6.10.4.1. Exported Attributes

Name	Property
tomcatPath	settingValue

## 6.11. TomcatPort

### 6.11.1. Overview

**TomcatPort:** *Port used by Tomcat*

Supertype for following port types

### 6.11.2. Design

**Super Type**

## [TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.11.3. Constraints

#### 6.11.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

## 6.12. TomcatProperty

### 6.12.1. Overview

**TomcatProperty:** *Tomcat configuration property setting*

Add any number of these settings and they will be made available to the template specified in the [TomcatPropertyFile](#) setting.

### 6.12.2. Design

#### Super Type

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.12.3. Constraints

#### 6.12.3.1. Allowed Parent Dependencies

- [TomcatContext](#)
- [TomcatServer](#)

## 6.13. TomcatPropertyFile

### 6.13.1. Overview

**TomcatPropertyFile:** *Tomcat application configuration property file name*

This functionality models the creation of a properties file under WEB-INF/classes using a

template, also found in that directory. The property file is set as this type's `settingValue`, while the template is the `settingType`.

E.g:

```
<setting type="TomcatPropertyFile" name="dev"
  description="Property file to generate, and a template file to use"
  settingValue="myapp-config.properties"
  settingType="myapp-config.properties.template" />
```

The template file should be located in the `WEB-INF/classes` directory of the war file, and the property file will be generated into the same location.

The syntax of the template/output does not have to match a java Properties file, but the Ant property expansion syntax will be used: `${some.property}`.

To use this functionality, add a number of [TomcatProperty](#) objects and they will be made available as `settingType=settingValue` pairs and processed in Docs-Generate.

### 6.13.2. Design

#### Super Type [TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.13.3. Constraints

#### 6.13.3.1. Allowed Parent Dependencies

- [TomcatContext](#)
- [TomcatServer](#)

### 6.13.4. Attributes

#### 6.13.4.1. Exported Attributes

Name	Property
<code>propertyFileName</code>	<code>settingValue</code>
<code>propertyFileTemplate</code>	<code>settingType</code>

## 6.14. TomcatRelease

### 6.14.1. Overview

**TomcatRelease:** *Tomcat major release (e.g. 4.1, 5.x or 6.x)*

Docs-Generate will use the set of templates for this version number under the templates directory. Currently supported are 4.1, 5.x and 6.x. Default is 5.x.

### 6.14.2. Design

**Super Type**  
[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

### 6.14.3. Constraints

#### 6.14.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

### 6.14.4. Attributes

#### 6.14.4.1. Exported Attributes

Name	Property
release	settingValue

## 6.15. TomcatSecureServerPort

### 6.15.1. Overview

**TomcatSecureServerPort:** *Tomcat secure server port*

HTTPS port. Written into a configuration by Docs-Generate. Default: 8443

### 6.15.2. Design

**Super Type**

[TomcatPort](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

**6.15.3. Constraints****6.15.3.1. Allowed Parent Dependencies**

- [TomcatServer](#)

**6.15.4. Attributes****6.15.4.1. Exported Attributes**

Name	Property
httpsPort	settingValue

**6.16. TomcatServerPort****6.16.1. Overview**

**TomcatServerPort:** *Tomcat server port*

HTTP port. Written into a configuration by Docs-Generate. Default: 8080

**6.16.2. Design****Super Type**

[TomcatPort](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

**6.16.3. Constraints****6.16.3.1. Allowed Parent Dependencies**

- [TomcatServer](#)

**6.16.4. Attributes**

#### 6.16.4.1. Exported Attributes

Name	Property
port	settingValue

### 6.17. TomcatSetting

#### 6.17.1. Overview

**TomcatSetting:** *Tomcat configuration setting*

Supertype for setting types related to TomcatServer and TomcatContext

#### 6.17.2. Design

##### Super Type Setting

Role	<b>Abstract.</b> (Objects cannot be created.)
Instance Names	<b>Unique</b>

### 6.18. TomcatShutdownPort

#### 6.18.1. Overview

**TomcatShutdownPort:** *Tomcat shutdown port*

Shutdown port. Local connections to this port can advise the server to shut down cleanly by sending the shutdown password, by default "SHUTDOWN". Written into a configuration by Docs-Generate. Default: 8005

#### 6.18.2. Design

##### Super Type [TomcatPort](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

#### 6.18.3. Constraints



**6.18.3.1. Allowed Parent Dependencies**

- [TomcatServer](#)

**6.18.4. Attributes****6.18.4.1. Exported Attributes**

Name	Property
shutdownPort	settingValue

**6.19. TomcatTimeout****6.19.1. Overview**

**TomcatTimeout:** *Start/shutdown timeout period in seconds*

How many seconds to wait for process to start or stop before failing. Used by service management commands. Default: 10

**6.19.2. Design****Super Type**

[TomcatSetting](#)

Role	<b>Concrete.</b> (Objects can be created.)
Instance Names	<b>Unique</b>

**6.19.3. Constraints****6.19.3.1. Allowed Parent Dependencies**

- [TomcatServer](#)

**6.19.4. Attributes****6.19.4.1. Exported Attributes**

Name	Property
timeout	settingValue

