

TomcatServer

Apache Tomcat server deployment

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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	Concrete. (Objects can be created.)
Instance Names	Unique
Notification	false
Template Directory	
Data View	Children, proximity: 1
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](#)

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

Note:

Commandline options displayed in square brackets "[]" are optional. If an option expects arguments, then angle brackets are shown after the option "<>". Any default value is shown within the brackets.

5.1. Docs-Generate

Generate associated Documents, and Tomcat configuration files based on templates for the specific Tomcat release.

The templates located in the templates/RELEASE directory are copied to the installRoot location, and properties are expanded.

Usage

```
Docs-Generate [-archivedir <${entity.instance.dir}/var>]
[-basedir <>] [-install_root <>] [-java_home <>]
[-javaoptions <>] [-keepAdminServer <>false>]
```

Options

Option	Description
archivedir	<i>dir to store current output docs</i>
basedir	<i>tomcat instance dir</i>
install_root	<i>tomcat installation root</i>
java_home	<i>tomcat java_home</i>
javaoptions	<i>tomcat java options</i>
keepAdminServer	<i>keep admin server</i>

5.2. assertServiceIsDown

checks if the service is down

Usage

```
assertServiceIsDown [-basedir <>] [-port <>]
```

Options

Option	Description
basedir	<i>tomcat base directory</i>
port	<i>listening port</i>

5.3. assertServiceIsUp

checks if the service is running

Usage

```
assertServiceIsUp [-basedir <>] [-port <>]
```

Options

Option	Description
basedir	<i>tomcat base directory</i>
port	<i>listening port</i>

5.4. startService

starts the service

Usage

```
startService [-basedir <>] [-install_root <>] [-java_home
<>] [-javaoptions <>] [-newenvironment <>] [-path <>]
[-timeout <>]
```

Options

Option	Description
basedir	<i>catalina base</i>
install_root	<i>catalina home</i>
java_home	<i>jre install dir</i>
javaoptions	<i>Java options</i>
newenvironment	<i>Whether or not to start Tomcat with a new environment</i>
path	<i>PATH to use with Tomcat</i>
timeout	<i>timeout in seconds</i>

5.5. stopService

stops the service

Usage

```
stopService [-basedir <>] [-install_root <>] [-java_home <>]
[-port <>] [-timeout <>]
```

Options

Option	Description
basedir	<i>catalina base</i>
install_root	<i>catalina home</i>
java_home	<i>jre install dir</i>
port	<i>listening port</i>
timeout	<i>timeout in seconds</i>

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	Abstract. (Objects cannot be created.)
Instance Names	Unique

6.2. JavaHomePath

6.2.1. 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.

6.2.2. Design

Super Type [FilePath](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.2.3. Constraints

6.2.3.1. Allowed Parent Dependencies

- Service

6.2.4. Attributes

6.2.4.1. Exported Attributes

Name	Property
javaHome	settingValue

6.3. TomcatSetting

6.3.1. Overview

TomcatSetting: *Tomcat configuration setting*

Supertype for setting types related to TomcatServer and TomcatContext

6.3.2. Design

Super Type
Setting

Role	Abstract. (Objects cannot be created.)
Instance Names	Unique

6.4. TomcatKeepAdminServer

6.4.1. Overview

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

Default is false for security

6.4.2. Design

Super Type
[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.4.3. Attributes

6.4.3.1. Exported Attributes

Name	Property
keepAdminServer	settingValue

6.5. TomcatMgmtStrategy

6.5.1. 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*.

6.5.2. Design

Super Type
[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.5.3. Constraints

6.5.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.5.4. Attributes

6.5.4.1. Exported Attributes

Name	Property
tomcatMgmtStrategy	settingValue

6.6. GenerateDefaultTomcatContext

6.6.1. 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)

6.6.2. Design

Super Type

[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.6.3. Constraints

6.6.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.6.4. Attributes

6.6.4.1. Exported Attributes

Name	Property
generateDefaultTomcatContext	settingValue

6.7. GenerateApplicationTomcatContext

6.7.1. 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.

6.7.2. Design

Super Type [TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.7.3. Constraints

6.7.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.7.4. Attributes

6.7.4.1. Exported Attributes

Name	Property
generateApplicationTomcatContext	settingValue

6.8. TomcatNewEnvironment

6.8.1. 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*.

6.8.2. Design

Super Type [TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.8.3. Constraints

6.8.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.8.4. Attributes

6.8.4.1. Exported Attributes

Name	Property
tomcatNewEnvironment	settingValue

6.9. TomcatPath

6.9.1. Overview

TomcatPath: *PATH* used by Tomcat

Used in the environment when the Tomcat service is started

6.9.2. Design

Super Type

[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.9.3. Constraints

6.9.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.9.4. Attributes

6.9.4.1. Exported Attributes

Name	Property
tomcatPath	settingValue

6.10. TomcatPort

6.10.1. Overview

TomcatPort: *Port used by Tomcat*

Supertype for following port types

6.10.2. Design

Super Type

[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.10.3. Constraints

6.10.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.11. TomcatServerPort

6.11.1. Overview

TomcatServerPort: *Tomcat server port*

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

6.11.2. Design

Super Type

[TomcatPort](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.11.3. Constraints

6.11.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.11.4. Attributes

6.11.4.1. Exported Attributes

Name	Property
port	settingValue

6.12. TomcatSecureServerPort

6.12.1. Overview

TomcatSecureServerPort: *Tomcat secure server port*

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

6.12.2. Design

Super Type

[TomcatPort](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.12.3. Constraints

6.12.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.12.4. Attributes

6.12.4.1. Exported Attributes

Name	Property
httpsPort	settingValue

6.13. TomcatShutdownPort

6.13.1. 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

6.13.2. Design**Super Type**
[TomcatPort](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.13.3. Constraints**6.13.3.1. Allowed Parent Dependencies**

- [TomcatServer](#)

6.13.4. Attributes**6.13.4.1. Exported Attributes**

Name	Property
shutdownPort	settingValue

6.14. TomcatAjpPort**6.14.1. 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

6.14.2. Design**Super Type**
[TomcatPort](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.14.3. Constraints

6.14.3.1. Allowed Parent Dependencies

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

6.14.4. Attributes

6.14.4.1. Exported Attributes

Name	Property
ajpPort	settingValue

6.15. TomcatRelease

6.15.1. 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.

6.15.2. Design

Super Type
[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.15.3. Constraints

6.15.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.15.4. Attributes

6.15.4.1. Exported Attributes

Name	Property
release	settingValue

6.16. TomcatJavaOptions

6.16.1. Overview

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

Default: empty string (no options)

6.16.2. Design

Super Type

[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.16.3. Constraints

6.16.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.16.4. Attributes

6.16.4.1. Exported Attributes

Name	Property
javaOptions	settingValue

6.17. TomcatTimeout

6.17.1. 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

6.17.2. Design

Super Type
[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.17.3. Constraints

6.17.3.1. Allowed Parent Dependencies

- [TomcatServer](#)

6.17.4. Attributes

6.17.4.1. Exported Attributes

Name	Property
timeout	settingValue

6.18. TomcatPropertyFile

6.18.1. 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.

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.

6.18.2. Design

Super Type

[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.18.3. Constraints

6.18.3.1. Allowed Parent Dependencies

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

6.18.4. Attributes

6.18.4.1. Exported Attributes

Name	Property
propertyFileName	settingValue
propertyFileTemplate	settingType

6.19. TomcatProperty

6.19.1. 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.

6.19.2. Design

Super Type
[TomcatSetting](#)

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.19.3. Constraints

6.19.3.1. Allowed Parent Dependencies

TomcatServer

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