

Reference Guide

JEUS 9.1

TMAXSOFT

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Part I. System Properties

1. System Properties

1.1. Overview

System properties are configured with the -D option for the JVM. Since JEUS uses Launch JVM to start the server JVM, system properties must be set in each server configuration of domain.xml.

The following is an example of a system property configuration.

```
<domain>
  <servers>
    <server>
      <name>server1</name>
      <jvm-config>
        <jvm-option>-Xmx512m -XX:MaxPermSize=250m</jvm-option>
      </jvm-config>
      ...
    
```



1. The properties set in the domain admin server or server script are only applicable when using Launch JVM.
2. System properties must be carefully set because they affect the overall operation of JEUS and all applications. It is recommended to use the XML settings instead of the system properties.

1.2. Server System Properties

The following describes server system properties.

- jeus.home

Description	Location of JEUS installation files.
Default	JEUS installation directory.

- jeus.launcher.log.home

Description	Location of JEUS Launcher logs. If not set, logs are created under the JEUS_SERVER_HOME/logs folder.
Default	null

- jeus.boot.printclasspath

Description	Option to output the class path of system Classloader.
--------------------	--

Default	false
----------------	-------

- jeus.jdk.home

Description	Path to JDK Home directory for javac and tools.jar files.
Default	If not set, 'java.home' is used.

- jeus.properties.replicate

Description	Prefix of system properties sent to the Launcher at server startup. The 'server/jvm-config/jvm-option' value overrides this value.
Default	jeus

- jeus.server.check-interrupted-status

Description	Option to generate an exception when a thread executing EJB or JDBC operation in JEUS receives an interrupt signal. The exception generated by an interrupted thread must be processed by the user application.
Default	true

- jeus.threadpool.queuesize

Description	Internal queue size of thread pools used in JEUS. Thread pools are generally used in JEUS modules. If the number of threads is insufficient to handle system load, tasks are accumulated in the queue up to the maximum queue size. The 'server/system-thread-pool/queue-size' value in domain.xml overrides this value.
Default	4096

- jeus.threadpool.keepalive

Description	Keep-alive time for inactive threads. If the thread pool contains more than the minimum number of threads, inactive threads are automatically removed from the thread pool after the specified time period. The 'server/system-thread-pool/keep-alive-time' value in domain.xml overrides this value.
Default	600000 (Unit: ms)

- jeus.rmi.defaultPort

Description	Default RMI export port. This property also applies to all EJBs with an unspecified export-port.
Default	- base port + 7

- jeus.vm.bits

Description	JVM bit number. If 64 is set to run a 64-bit JVM, '-d64' is appended. IBM does not require '-d64'.
--------------------	---

- jeus.interop.ssl.keystore

Description	SSL keystore for CORBA CSiv2.
Default	Value of jeus.net.ssl.keystore.

- jeus.interop.ssl.keypass

Description	SSL keystore password for CORBA CSiv2.
Default	Value of jeus.net.ssl.keypass.

- jeus.interop.ssl.truststore

Description	SSL truststore for CORBA CSiv2.
Default	Value of jeus.net.ssl.truststore

- jeus.interop.ssl.trustpass

Description	SSL truststore password for CORBA CSiv2.
Default	Value of jeus.net.ssl.trustpass

- jeus.jvm.version

Description	JVM version used by JEUS.
Default	hotspot (uses '-server')

- jeus.server.cpumonitor.enabled

Description	Option to enable the monitoring function for measuring the host CPU usage.
Default	false

- jeus.server.cpumonitor.interval

Description	Interval for measuring the CPU usage when monitoring the host CPU usage.
Default	60000 (Unit: ms)

- jeus.server.process.cpumonitor.enabled

Description	Option to enable the monitoring function for measuring the process CPU usage.
Default	false

- jeus.server.process.cpumonitor.interval

Description	Interval for measuring the CPU usage when monitoring the process CPU usage.
Default	2000 (Unit: ms)

- jeus.server.cpumonitor.ratio

Description	CPU overflow ratio when monitoring the process CPU usage. Use a floating point number. Assuming the maximum CPU usage is 100, this is the percent of the maximum regarded as overflow.
Default	0.8

- jeus.server.enable.restart.in.memory.shortage

Description	Option to restart the server when there is a memory overflow.
Default	true

- jeus.server.memorymonitor.enabled

Description	Option to enable the monitoring function to measure the server memory usage. Prints thread dump in the log while monitoring.
Default	false

- jeus.server.memorymonitor.interval

Description	Interval for measuring the memory usage.
Default	2000 (Unit: ms)

- jeus.server.memorymonitor.duration

Description	Memory overflow duration. If memory overflow occurs during the specified time period, the server is terminated.
--------------------	---

Default	60000 (Unit: ms)
----------------	------------------

- jeus.server.memorymonitor.ratio

Description	Memory overflow ratio when monitoring the memory usage. Use a floating number. Assuming the maximum memory usage is 100, this is the percent of the maximum regarded as memory overflow.
Default	0.8

- jeus.server.maxdowntime

Description	Maximum time (ms) to wait for an engine container to shut down when the Manager shuts down the engine container or the engine container shuts itself down. If the engine container has not shut down when this time expires, it is forcibly shut down.
Default	0 (Unit: ms)

- jeus.server.configfile.backup.size

Description	Number of backup domain.xml files saved during a dynamic update.
Default	50

- jeus.server.standby.retrycount

Description	How many times to retry to start a server when the server starts in standby mode. Set this property only when the server is restorable and the reason why the server started in standby mode is known.
Default	0 (the server is not restarted), 5 (if the server is in a cluster)

- jeus.server.standby.retryinterval

Description	Time interval at which a server is restarted when jeus.server.standby.retrycount is set.
Default	60000 (Unit: ms)

- jeus.print-system-properties

Description	Option to output the configured system properties.
Default	false

- jeus.management.snmp.dynamic

Description	<p>Option to create dynamic OID when using the SNMP server.</p> <p>When using the SNMP server, OID can be used either statically or dynamically.</p> <ul style="list-style-type: none">• true: An MIB based OID is created when static OID is used.• false: When dynamic OID is used, an OID is dynamically created according to the object and added as a suffix to the static OID.
Default	true

- jeus.management.snmp.dynamic.shortoid

Description	<p>Length of dynamic OID.</p> <p>Sets the number of digits for the OID component appended to the MIB based OID.</p> <ul style="list-style-type: none">• true: For a Short OID, an 8-digit ID is appended.• false: If not a Short OID, a 32-digit ID is appended.
Default	false

- jeus.domainadminserver.deploy.socket

Description	<p>Maximum number of socket connections maintained by Master Server (Master) for deployment.</p> <p>Applications can be deployed from Master to Managed Servers (MSs) in parallel by using multiple connections to reduce the boot time. Master is simultaneously connected to multiple MSs.</p> <p>When the maximum number of connections in Master is reached and there are application deployment requests from another MS, the MS uses only one connection to receive the applications in order.</p>
Default	100

- jeus.managedserver.deploy.socket

Description	<p>Maximum number of boot time deploy connections used when applications are deployed in parallel to an MS from Master.</p> <p>Note, if too many connections are configured for an MS, other MSs can be affected because the number of connections to Master is limited.</p> <p>When application deployment is complete, the connection is released and the number of available connections in Master increments. Even if the specified number is big, the actual number of connections is automatically reduced to the number of applications.</p>
Default	5

- jeus.logging.useAsync

Description	For more information about properties, refer to "Overview" in <i>JEUS Server Guide</i> .
Default	true

- jeus.access.logging.skip.when.busy

Description	Option to apply when jeus.logging.useAsync is "true". For more information about properties, refer to "Overview" in <i>JEUS Server Guide</i> .
Default	false

- jeus.logging.gclog.timestamp.on

Description	<p>The GC log is basically recorded with other logs in the jvm.log file. To manage this, "-Xloggc:[file]" is provided as a jvm option to redirect and record the GC log to the desired file. In JEUS, timestamps are automatically added to the configured [file] name. This operation is designed to prevent overwriting of the GC log in the same [file] every time JEUS starts. However, there may be cases where a user prefers not to use this option. In such instances, the option can be disabled with caution, as it will result in the GC log being overwritten in the same [file], leading to the loss of the past log.</p>
Default	true

- jeus.jmx.ping.period

Description	Interval of ping used when checking connection status in JMX connection.
Default	15000 (Unit: ms)

- jeus.jmx.ping.timeout

Description	Timeout of ping used when checking connection status in JMX connection. If a response is not received within the timeout after sending a ping, then it is determined that there is a connection error and generates an IOException.
Default	15000 (Unit: ms)



For more information about `jeus.server.memorymonitor.enabled`, `jeus.server.memorymonitor.ratio`, `jeus.server.memorymonitor.interval`, `jeus.server.memorymonitor.duration`, and `jeus.server.enable.restart.in.memory.shortage`, refer to "Memory Usage Control" in *JEUS Server Guide*.

- `jeus.config.lock.timeout`

Description	Wait time to get a lock for dynamic configuration changes. If set to a value less than or equal to 0, it does not wait for a lock.
Default	60000 (Unit: ms)

- `jeus.jmx.worker.max`

Description	Maximum number of threads that can be included in the thread pool that provides threads for handling JMX request messages.
Default	20

- `jeus.server.command.threadpool.maxsize`

Description	Maximum number of threads that can be included in the thread pool when Master executes commands in parallel. It is important to note that setting this value too high can result in increased CPU usage.
Default	10

- `jeus.server.invocation.keepBootOnError`

Description	Option to start a server in running mode, not in standby mode, when an error occurs due to a life cycle invocation setting issue while the server starts.
Default	false

- `jeus.boot.ignorepatchoverlap`

Description	Option to ignore duplicate classes in a patch file during booting.
Default	false

- jeus.server.enable.auto-deploy

Description	Option to use the boot-time auto deployment function to automatically deploy application files in the specified path when starting a server.
Default	true

- jeus.server.auto-deploy.dir

Description	Path to be searched for application files during boot-time auto deployment. If not specified, default path is DOMAIN_HOME/auto-deploy.
Default	null

- jeus.logging.defaultfilehandler.rotationcount

Description	Rotation count for the default file handler used by JEUS launcher logger. It must be specified in the server startup script.
Default	0

- jeus.launcher.jvmlog.rotationcount

Description	Rotation count for the jvm.log file. It must be specified in the server startup script.
Default	0

- jeus.server.thread.add-jvm-id-and-thread-id

Description	Option to add [JVM ID-Thread ID] after the names of the threads created by the JEUS ThreadPool.
Default	false

- jeus.server.disable.lock.file

Description	Option to use a lock for the SERVER_HOME/.workspace/tmp/SERVER_NAME.lck file.
Default	false

- jeus.master.protocol

Description	Protocol of the Master server address.
Default	http

- jeus.master.host

Description	Host of the Master server address.
Default	localhost

- jeus.master.port

Description	Port of the Master server address.
Default	9736

- jeus.master.aggregator.context.path

Description	Context path to start MasterAggregator spring app.
Default	/jeus/

- jeus.master.admin.ui.context.path

Description	Context path to start MasterAdminUI spring app.
Default	/admin/

1.3. Network System Properties

The following describes network system properties.

- jeus.server.checktmout

Description	Timeout (ms) for RMI Connection or JMX Connector that manages JEUS.
Default	60 * 1000 (Unit: ms)

- jeus.net.crosswait

Description	Timeout (ms) for a process, whose connection request has already been rejected, to wait for a cross connection to be established after the other server has issued a connection request.
Default	10000 (Unit: ms)

- jeus.net.timewait

Description	Timeout (ms) for sending the CLOSE message. If specified time is too short, an IOException can be triggered even after a successful execution.
Default	10000 (Unit: ms)

- jeus.net.connect.interval

Description	Interval to wait before attempting to reestablish a failed connection between JEUS processes.
Default	3000 (Unit: ms)

- jeus.net.tcpbuffer

Description	TCP buffer size of the JEUS operating environment. Since this value is used as the read buffer size of JEUS servers, it must be accurate in order to guarantee the best I/O performance.
Default	8*1024 (Unit: byte)

- jeus.net.recvbuffer

Description	TCP receive buffer size of the JEUS server environment.
--------------------	---

- jeus.net.sendbuffer

Description	TCP send buffer size of the JEUS client environment.
--------------------	--

- jeus.net.busywrite

Description	Number of attempts to execute non-blocking writes without using the selector. Except for when the receiver doesn't execute reads, this improves performance because select() is not called during the specified number of attempts.
Default	2

- jeus.net.msg.max

Description	Maximum size of a single message that can be transmitted using the JEUS protocol. If the message size exceeds the maximum size, an Exception occurs on the receiving end and the connection is lost.
Default	5 * 1000 * 1000 (Unit: byte)

- jeus.net.ping.enable

Description	Option to use the bi-directional ping function.
Default	false

- jeus.net.ping.timeout

Description	Timeout for the reply of a ping message.
Default	60 * 1000 (Unit: ms)

- jeus.net.ping.period

Description	Interval for sending a ping message. If this value is set to 0, ping is not sent to the other node to check whether it is alive.
Default	10*60*1000 (Unit: ms)

- jeus.net.nio.select.limit

Description	Option to replace the current object with a new Selector object if the number of consecutive failures of the select() call exceeds the limit during non-blocking writes.
Default	5

- jeus.net.nio.write.limit

Description	Total message size allowed to accumulate in the write queue until the write threads running in non-blocking mode are blocked. If the queue size exceeds the specified limit, write threads are blocked.
Default	10* 1024 (Unit: byte)

- jeus.net.nio.write.restart

Description	Total message size accumulated in the write queue when write threads, running in non-blocking mode, are restarted. If the write queue size becomes smaller than the specified byte after a write event, all blocked write threads are restarted.
Default	3*1024 (Unit: byte)

- jeus.net.nio.write.repeat.count

Description	Number of write attempts allowed for a single message. This is useful when a message in a socket is so large that the selector thread cannot write messages in other sockets. Note, if this option is enabled and all the messages in the socket are large, the response time can increase.
Default	-1(infinite)

- jeus.net.reuseAddress

Description	SO_REUSEADDR of the server socket.
Default	false

- jeus.ssl.enabledProtocols

Description	SSL protocol versions to be used for SSL authentication. Protocol versions are delimited by a comma (,).
Default	null

- jeus.net.client.use-ssl

Description	Option (for a client that connects to JEUS) to use SSL. Other configurations must be set with separate system properties.
Default	false

- jeus.net.client.ssl-properties-file

Description	Properties file that contains configurations to be used for a client that connects to JEUS.
Default	null

- jeus.ssl.keystore or javax.net.ssl.keyStore

Description	Keystore path to be used for SSL authentication.
--------------------	--

- jeus.ssl.keypass or javax.net.ssl.keyStorePassword

Description	Key password of the Keystore to be used for SSL authentication.
--------------------	---

- jeus.ssl.keystorepass

Description	Key password of the Keystore to be used for SSL authentication.
--------------------	---

- jeus.ssl.truststore or javax.net.ssl.TrustStore

Description	Path of the Truststore to be used for SSL authentication.
--------------------	---

- jeus.ssl.trustpass or javax.net.ssl.TrustStorePassword

Description	Password of the Truststore to be used for SSL authentication.
--------------------	---

- jeus.net.ban-client-address-threshold

Description	Number of failed attempts allowed before the client is blocked.
Default	5

1.4. JNDI System Properties

The following describes JNDI system properties.

- java.naming.factory.initial (Required)

Description	InitialContext factory class name for the JNDI service provider. InitialContext is created through this factory class. JEUS InitialContext is created by setting this property to jeus.jndi.JNSContextFactory.
Default	jeus.jndi.JNSContextFactory

- java.naming.factory.url.pkgs

Description	Option to enable JNDI look up in JEUS InitialContext using URL schema.
Default	jeus.jndi.jns.url

- java.naming.provider.url

Description	DNS host name and the port of the server that provides JNDI service. Set this variable to the IP address of JEUS JNSServer. When making a JNDI request to the clustered MSs, the addresses of all clustered servers must be listed using a comma (,) as a delimiter. ex) yohan:9736, yohan1:9836
Default	127.0.0.1:9736

- java.naming.security.principal

Description	User name authenticated by the JEUS Naming Server. If the user name is not set, "anonymous" is used. The user name must be defined in the JEUS Security Domain.
Default	anonymous

- java.naming.security.credentials

Description	Password authenticated by the JEUS Naming Server.
--------------------	---

Default	N/A
----------------	-----

- jeus.jndi.jns.resolution

Description	Interval at which JNSClient checks resources.
Default	30 * 1000 (Unit: ms)

- jeus.jndi.jns.connecttimeout

Description	Timeout for JNSClient to connect to JNSServer. Connection is retried during the timeout period. When the time expires, the jeus.net.ConnectException is thrown.
Default	0 (infinite, may vary by OS) (Unit: ms)

- jeus.jndi.jns.connectionduration

Description	Period in which the connection from JNSClient to JNSServer is maintained. If a connection is not used within the time period, the connection is automatically terminated. The default value is zero (the connection is maintained indefinitely).
Default	0 (Unit: ms)

- jeus.jndi.local.timeout

Description	Period in which to receive a reply for a JNSClient request. If there is no response from the JNSServer, jeus.util.WaitTimeoutException is thrown.
Default	20 * 1000 (Unit: ms)

- jeus.jndi.cluster.recheckto

Description	Interval at which whether the failed server was recovered is checked, when using the JEUSClusterContext.
Default	300 * 1000 (Unit: ms)

- jeus.cluster.retry

Description	Specifies the number of reattempts to make when an exception occurs when establishing a cluster connection from a container or client to JEUS Manager.
Default	1

- jeus.jndi.clusterlink.selection-policy

Description	<p>Policy for determining the server from which an object is retrieved and for selecting the EJB engine when EJB 2.x is enabled. The setting in the properties file is overridden by the one in the hash table.</p> <p>Input options:</p> <ul style="list-style-type: none"> • locallinkPreference: Objects are retrieved from a local managed server (MS). (Default) • roundRobin: The first request is handled with an object from a randomly selected MS. Subsequent requests are handled with an object from an MS selected in a round robin fashion. • random: One of the clustered servers is randomly selected. • xid-hashing: The server is determined through xid hashing, ensuring that requests with the same xid are directed to and processed by the same server.
Default	locallinkPreference

- jeus.jndi.enable.cache

Description	<p>Option to enable cache in JNDI clients (JNSClient).</p> <ul style="list-style-type: none"> • true: Cache is enabled. (Default) • false: Cache is disabled.
Default	true

- jeus.jndi.jns.replicatebindings

Description	<p>Option to share the bound object among the clustered MSs.</p> <ul style="list-style-type: none"> • true: Object is shared. (Default) • false: Object is not shared
Default	true

- jeus.jndi.jns.cachebindings

Description	<p>Option to cache an object after it is bound to JNSServer.</p> <ul style="list-style-type: none"> • true: Object is cached. (Default) • false: Object is not cached.
Default	true

- jeus.jndi.jns.localbindings

Description	Object is bound only to the local JNSClient. <ul style="list-style-type: none"> • true: An object is bound only to the JEUS naming client. The bound object can be used only by clients that make JNDI requests. • false: An object is bound to the JEUS naming server. (Default)
Default	false

- jeus.jndi.compat

Description	JNDI compatibility setting. Option to provide JNDI services between a version earlier than JEUS 7 Fix#2 and JEUS 7 Fix#2 or later. <ul style="list-style-type: none"> • true: If the JNDI server version is earlier than JEUS 7 Fix#2, and the JNDI client version is JEUS 7 Fix#2 or later, this property must be set to "true" for JNDI compatibility. • false: The JNDI compatibility support is disabled between a version earlier than JEUS 7 Fix#2 and JEUS 7 Fix#2 or later. (Default)
Default	false

1.5. JDBC System Properties

The following describes JDBC system properties.

- jeus.jdbc.connection-pool.initialization-on-boot

Description	Option to initialize JDBC connection pools in the server during the server startup. <ul style="list-style-type: none"> • true: Initializes JDBC connection pools during the server startup. • false: Initializes JDBC connection pools when a service is first requested. (Default)
Default	false

- jeus.jdbc.connection-pool.keep-initialization-on-connection-error

Description	<p>Option to complete the initialization of connection pools even if an error occurs when a JDBC connection is created.</p> <ul style="list-style-type: none"> • true: If an error occurs while creating a JDBC connection during the initialization of connection pools, the initialization process is finalized with the connection pool in an empty state, and the connection pool is separately managed as a failed status. (Default) • false: If an error occurs while creating a JDBC connection during the initialization of connection pools, the initialization process is marked as a failure.
Default	true

- jeus.jdbc.monitoring.active-connection-number-recording-buffer

Description	<p>"Active Average" in JDBC monitoring values is the average of the recent counts of active connections during a specified time.</p> <p>This option enables the display of average active connection counts based on data accumulated within a defined time frame. By default, a time period of 3600 seconds (one hour) is applied, and the average active connection counts for the past one hour are shown as "Active Average".</p>
Default	3600 (Unit: second)

- jeus.jdbc.monitoring.active-connection-number-recording-period

Description	<p>"Active Average" in JDBC monitoring values is the average of the recent counts of active connections during a specified time.</p> <p>This option determines the frequency at which active connection counts are checked in the background to accumulate data. By default, 5 seconds is applied, meaning that active counts are recorded every 5 seconds. These accumulated counts are then used to calculate and display the average as "Active Average".</p>
Default	5 (Unit: second)

- jeus.jdbc.config.data-source-account-provider-class-name

Description	<p>Name of the entire class that implements the customization of DB access account management. The class must implement the <code>jeus.jdbc.helper.DataSourceAccountProvider</code> interface. For more information, see "DataSourceAccountProvider Interface" in <i>JEUS Server Guide</i>.</p> <p>If not specified, JEUS uses the default implementation that links with JEUS Security.</p>
Default	null

- jeus.jdbc.xa-check

Description	Checks whether XAResource#start is possible before performing a check query during the validation process.
Default	false

- jeus.jdbc.config.database-name-as-service-name

Description	Option to use the database name of the datasource registered on the server by setting it to the service name rather than the SID.
Default	false

- jeus.jdbc.config.exclude.database-name-as-service-name

Description	<p>When the jeus.jdbc.config.database-name-as-service-name property is true, list the datasourceIDs for which the database name will not be replaced with the service name, separated by a space.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> -Djeus.jdbc.config.exclude.database-name-as-service-name="ds1 ds2" </div>
Default	empty string

1.6. Transaction System Properties

The following describes transaction system properties.

- jeus.tm.forcedReg

Description	<p>Option to determine how a sub-coordinator registers a transaction with the root coordinator.</p> <ul style="list-style-type: none"> • true: Registers the transaction immediately when it is connected. • false: Registers the transaction only when there is RM.
Default	true

- jeus.tm.checkReg

Description	Option to check whether a subcoordinator successfully registered with the root coordinator.
Default	true

- jeus.tm.disableJoin

Description	Option to join the resources from the same RM.
Default	false

- jeus.tm.noLogging

Description	Option to store transaction information to be used by the transaction manager for recovery. <ul style="list-style-type: none"> • true: Logs are not stored. • false: Logs are stored.
Default	false

- jeus.tm.ignore.broken.log.file

Description	With this option set to true, if the TM log file is broken and makes recovery impossible, JEUS detects the broken file and deletes the entire file. If recovery is attempted while the file broken, boot fails, which makes recovery unnecessary due to the broken file. Use this option when booting must be successful.
Default	false

- jeus.tm.removeIncompleteTx

Description	Option to delete an XA resource from the recovery list after recovery is completed. To recover manually, set the value to false.
Default	false

- jeus.tm.recoveryTrial

Description	Number of retries to recover the failed recovery resources. Recovery retries operate as a background job.
Default	30

- jeus.tm.recoveryInterval

Description	Interval at which recovery of failed resources are attempted.
Default	120000 (Unit: ms)

- jeus.tm.destroy-timeout

Description	When a transaction timeout is reached and a commit or rollback command is not received, transaction manager keeps the resource. Period in which to enable a cleanup job for the transaction. If timeout occurs, the destroy command is internally executed. Terminating executions are internally enabled for the transaction.
Default	1800000 (Unit: ms)

- jeus.tm.destroy-timeout-check-interval

Description	Interval at which the destroy timeout process is checked. Operation of jeus.tm.destroy-timeout is checked at the specified interval.
Default	1800000 (Unit: ms)

- jeus.tm.ots.recoveryInterval

Description	Interval at which OTS recovery is retried when the coordinator is not ready (msec).
Default	10000 (Unit: ms)

- jeus.tm.ots.decisionTO

Description	Period in which to commit or rollback a transaction after the transaction is distributed and prepared for OTS.
Default	60000 (Unit: ms)

- jeus.tm.net.address-mapping-properties

Description	File that contains the mappings of IP addresses to JEUS TM. For more information, refer to "Transaction Communication Problem between Servers with Different IP Bands" in <i>JEUS Server Guide</i> .
Default	Location of the file must be specified to use this function.

- jeus.tm.profile.classes

Description	ProfileListener classes to be used for TM Profile. For detailed information on the profile function, refer to "Transaction Profile Function" in <i>JEUS Server Guide</i> .
Default	None

- jeus.tm.ignore.xaEmulation-resume-suspend-exception

Description	<p>When using XAEmulation, the suspend and resume functions, which are available for XAResource, cannot be utilized.</p> <p>However, if the framework calls suspend or resume, an attempt to delist or enlist LocalXAResourceWrapper will result in an exception being thrown.</p> <p>Despite this, the overall logic will remain unaffected as LocalXAResourceWrapper will be bypassed.</p>
Default	false

1.6.1. System Properties for TM Clients

Specifies system properties for client programs to use TM.

- jeus.tm.not_use

Description	<p>Option to use transaction managers.</p> <ul style="list-style-type: none"> • true: For a client, this element is used when both JNDI is used and transactions are not used. • false: For a client, this element is used when JNDI and transactions are used.
Default	false

- jeus.tm.version

Description	<p>TM runtime version.</p> <ul style="list-style-type: none"> • client: Uses a client TM. • server: Uses a server TM.
Default	client

- jeus.tm.port

Description	TCP/IP port number to be used by the JEUS transaction manager.
--------------------	--

- jeus.tm.usenio

Description	<p>Option to determine the I/O method between transaction managers.</p> <ul style="list-style-type: none"> • true : NIO • false: Blocking I/O
Default	true

- jeus.tm.tmMin

Description	Minimum size of the thread pool to be used by transactions.
Default	2

- jeus.tm.tmMax

Description	Maximum size of the thread pool used by transactions.
Default	30

- jeus.tm.activeto

Description	Period in which to commit or roll back after the transaction starts. If timeout occurs, the transaction is rolled back forcibly.
Default	600000 (Unit: ms)

- jeus.tm.prepareto

Description	Period in which the root coordinator receives a Preparation Completed signal from a subcoordinator. If timeout occurs, the transaction is rolled back forcibly.
Default	120000 (Unit: ms)

- jeus.tm.preparedto

Description	Period in which a subcoordinator waits for a decision after sending a Preparation Completed signal to the root coordinator. If timeout occurs, the subcoordinator continuously sends a Waiting for Decision signal to the root coordinator.
Default	60000 (Unit: ms)

- jeus.tm.committo

Description	Period in which the root coordinator receives a response from a subcoordinator after sending a commit signal to the subcoordinator. If timeout occurs, the transaction is marked as an unresolved transaction.
Default	240000 (Unit: ms)

- jeus.tm.recoveryto

Description	Period in which the root coordinator receives recovery information from a subcoordinator. If timeout occurs, the transaction is not processed.
Default	120000 (Unit: ms)

- jeus.tm.incomplete.to

Description	Period in which to save unresolved transactions.
Default	86400000 (Unit: ms)

1.6.2. System Properties for Backward Compatibility

- jeus.tm.propagation.recalculated-timeout

Description	<p>Recalculated time period sent when transmitting a transaction to another container. It is calculated by subtracting the time period consumed before the transaction is actually transmitted from the active timeout period.</p> <p>This function is available in JEUS 6 Fix#9. Set this option to "false" for backward compatibility.</p>
Default	false

1.7. Web Engine Properties

All properties provided by Web engines apply not only to the JVM system but also to virtual hosts and web applications. For more information about how to apply the properties, refer to "Configuring Virtual Hosts", and "jeus-web-dd.xml Configuration" in *JEUS Web Engine Guide*.



It is recommended to configure web engine properties at the virtual host or Web application level rather than at the JVM system or web engine level.

1.7.1. Web Engine Level Properties

The following describes the properties set at the web engine level, which can be set in domain.xml. The values set in these properties override those of jeus-web-dd.xml.

- jeus.servlet.prevent-forcibly-threadlocal-memoryleak

Description	If a web application uses the ThreadLocal variable and does not release it, a memory leak can occur. In this case, a web engine can forcibly reset the ThreadLocal variable when the web application is reloaded, redeployed, or undeployed to prevent a memory leak. Note, if this option is used, the ThreadLocal variable, which is set by another application, is also reset.
Default	false

- jeus.servlet.request.enableDns

Description	Option to receive a host name through DNS when invoking ServletRequest.getRemoteHost().
Default	true

- jeus.servlet.request.url.relativePathInURL

Description	<p>How to handle a relative path ('.' or '..') in URL.</p> <ul style="list-style-type: none"> • not_allowed: do not allow a relative path in URL, and return the 403 Forbidden error. • replace: convert a relative path to an absolute path. • keep: do not consider a relative path.
Default	replace

- jeus.servlet.useCaseInsensitiveFileSystem

Description	<p>When using a case-insensitive file server on a case-sensitive OS, such as a Linux OS + Windows file server, the request address may not be case-sensitive, which may not work as expected. This property allows case-sensitive processing in such OS combinations, and also enables the use of the following properties that only work on Windows.</p> <ul style="list-style-type: none"> • jeus.servlet.resource.ignore-filename-case • jeus.servlet.jsp.ignore-filename-case
Default	false

- jeus.websocket.client.requestBufferSize

Description	Size of the buffer for requests including web socket headers when calling WebSocketContainer.connectToServer().
Default	8*1024 (Unit: byte)

- jeus.servlet.allowUrlEncodeJsessionId

Description	Forces URL Encoding for a cookie header (JSESSIONID). This property is valid when apply-url-encoding-rule is true.
Default	false

- jeus.servlet.validate-2_5-web-xml-changes

Description	Checks whether the web.xml file was written based on version 2.5.
Default	true

- jeus.servlet.jsp.noPackagePrefix

Description	Option to add a package to the servlet class generated in JSP.
Default	false

1.7.2. JVM System Properties

The following is an option that must be set only with a JVM system property.

- org.glassfish.web.rfc2109_cookie_names_enforced

Description	IllegalArgumentException occurs when a character not allowed in RFC2109 is entered in a cookie name. This is defined in jakarta.servlet.http.Cookie, but wasn't properly processed in API implementation up to JEUS 6.
Default	true

- jeus.servlet.wjpReconnectTime

Description	<p>When reconnecting with WJP, WebtoB must receive the final ACK or RST from the server to recognize that the connection has been lost.</p> <p>Depending on the timing, there may be an issue where a reconnection is attempted before receiving the corresponding response, and a wait time is set to prevent this issue.</p>
Default	150 ms

1.7.3. Virtual Host Level Properties

The following describes the properties set at the web engine level, which can be set in domain.xml. The values set in these properties override those of jeus-web-dd.xml.



Currently, the properties for this level are under development.

1.7.4. Web Application Level Properties

The following describes the web application level properties, which can be set in jeus-web-dd.xml. These properties can be used as web engine or virtual host level properties.

1.7.4.1. JSP or Servlet Engine Properties

The following is a list of properties that apply to each servlet or JSP engine.

- jeus.servlet.response.header.serverInfo

Description	Option to include JEUS version information in headers.
Default	false

- jeus.servlet.keep-original-query-string-on-forward

Description	Option to preserve the existing string in the Request object or to overwrite it with the query string when forwarding.
Default	false

- jeus.servlet.keep-original-query-string-on-include

Description	Option to preserve the existing string in the Request object or to overwrite it with the query string when including.
Default	false

- jeus.servlet.out.ensureContentOrder

Description	Option to maintain the content order when using response.getOutputStream(), response.getWriter(), and JspWriter(jsp out) together. They shouldn't be used together, but instead used as one.
Default	false

- jeus.servlet.classloader.allowServletAPI

Description	Option to load the servlet API classes.
Default	false

- jeus.servlet.context.attribute.serialize

Description	Option to serialize ServletContext attributes when reloading Context Auto.
Default	false

- jeus.servlet.resource.ignore-filename-case

Description	Option to use upper case and lower case letters for resource file names of ResourceServlet. This is applicable only in Windows or when jeus.servlet.useCaseInsensitiveFileSystem is true.
Default	false

- jeus.servlet.response.header.encoding

Description	Sets the encoding to be used in response headers.
Default	null

- jeus.servlet.scan-servlet-container-initializers

Description	Option to use ServletContainerInitializer, which was added in Servlet 3.0. In order to conform to the servlet standard, the scan job is executed by default, but the deployment time can increase.
Default	true

- jeus.servlet.sortWebinfLibraries

Description	Option for sorting when loading jar files included in WEB-INF/lib . <ul style="list-style-type: none"> • name_asc: Name in ascending order. • name_dsc: Name in descending order. • time_asc: LMF of a file in ascending order. • time_dsc: LMF of a file in descending order.
Default	null

- jeus.servlet.useMetadataCompleteDeploy

Description	From Java EE 5 onward, when a web application is deployed, it is made so that the annotations defined in Java EE search defined classes. It may take a long time to deploy since the class files included in WEB-INF/lib must be searched, in addition to the class files in WEB-INF/classes. To not search class files, users must change the metadata-complete configuration of web.xml to "true". The metadata-complete configuration can be set to "true" by adding jeus-web-dd.xml instead of modifying web.xml included in the application.
Default	false

- jeus.servlet.jsp.allowOnlyStandardizedMethod

Description	Allows the following 8 HTTP methods for JSP or resource requests: GET, HEAD, POST, OPTIONS, PUT, DELETE, TRACE, and CONNECT.
Default	false

- jeus.servlet.postdataParsingForSPEC

Description	Parses application/x-www-form-urlencoded only for the POST method, according to the Servlet standard.
Default	true

- jeus.servlet.scan-servlet-container-initializers

Description	Looks for a ServletContainerInitializer according to the Servlet 3.0 standard.
Default	true

- jeus.servlet.response.forceChunkedResponse

Description	Forces all http response headers to be sent as transfer-encoding:chunked.
Default	false

- jeus.servlet.tempDir

Description	Specifies a temporary directory for applications.
Default	null

- jeus.servlet.response.header.include-content-type-charset

Description	Includes charset in the Content-Type of the response header.
Default	true

1.7.4.2. JSP Engine Properties

The following is a list of properties that apply only to JSP engines.

- jeus.servlet.jsp.reload

Description	Option to support JSP reloading.
Default	true

- jeus.servlet.jsp.precompile

Description	Option to support the JSP precompile function (a function that only compiles when calling JSP according to the precompile request parameters.)
Default	true

- jeus.servlet.jsp.print.null.as.emptystring

Description	Option to use empty strings when displaying null.
Default	false

- jeus.servlet.jsp.jspwriter.null

Description	Character string that replaces a null.
Default	null

- jeus.servlet.jsp.compile.retrycount

Description	Number of recompilation attempts allowed after a new servlet fails to load.
Default	2

- jeus.servlet.jsp.compile.delay

Description	<p>Period JSP compilation is delayed when uploading via FTP.</p> <p>jeus.jsp.compile.delay, which has the same functionality, has been removed and cannot be used in the current version.</p>
Default	0L (Unit: ms)

- jeus.servlet.jsp.helpReloadNativeLibrariesByCallingSystemGC

Description	<p>Handles the JVMs whose native libraries are not properly cleaned while JSPs are being reloaded.</p> <p>The native libraries are cleaned up when garbage collection (GC) is performed on the JSP class loader, so JEUS can only call System.gc() and cannot guarantee 100% GC. Therefore, a reload can fail if System.loadLibrary() is used within the JSP.</p>
Default	false



This property value calls System.gc() and System.runFinalization(), which can degrade performance. It is not recommended to modify JSPs that use native libraries while operating the system. Instead, it is recommended to create a web application that uses the native library and dispatches it to the

application. The web application, however, must not perform the Context Auto Reload or redeploy.

- `jeus.servlet.jsp.ignore-filename-case`

Description	Option to use upper case and lower case letters for the JSP file name. This is applicable only in Windows or when <code>jeus.servlet.useCaseInsensitiveFileSystem</code> is true.
Default	false

- `jeus.servlet.jsp.assure-utf8-file-encoding-detection`

Description	Treats JSP file encodings as UTF-8 even if Jasper does not recognize it as UTF-8.
Default	false



It is recommended to define the `pageEncoding` tag included JSP files.

- `jeus.servlet.jsp.compile-java-source-concurrently`

Description	Option to compile multiple JSP files simultaneously.
Default	false



It is used only when the JSP compiler has no issue with simultaneous compilation.

- `jeus.servlet.jsp.compileConcurrencyLevel`

Description	Number of threads to use when compiling multiple JSP files simultaneously. This property is valid only when the <code>jeus.servlet.jsp.compile-java-source-concurrently</code> property is true.
Default	1

- `jeus.servlet.jsp.development-mode`

Description	Enables the development mode for JSP in JEUS. If set to true, the tag file will be recompiled if both the jsp and tag files are modified.
Default	false

- `jeus.servlet.jsp.preventByteOrderMarkJspFileByForcedResponseEncoding`

Description	If the <response-encoding><forced> setting value is not UTF-8, JSP files with BOM are not allowed. A separate exception 'BOMJspFileNotAllowedException' is thrown as an error message.
Default	false

- jeus.servlet.jsp.ignore-self-closing

Description	Option to disable self-closing (<script .../>) when parsing an XML file. If set to true, self-closing is disabled.
Default	false

- jeus.servlet.jsp.enforceJspRecompile

Description	Enables recompilation regardless of any changes made to JSP.
Default	false

- jeus.servlet.jsp.jspParam.urlEncode

Description	Option to encode parameters in URL.
Default	true

1.7.4.3. Properties for Compatibility

JEUS conforms to servlet and JSP standards by default. However, API operations can change due to a standard interpretation error, incorrect implementation of requirements, unclear descriptions, and inconsistent descriptions in the standard documents and the API documents.

- jeus.servlet.jsp.modern

Description	Option to use JSP engine, which is compatible with JEUS 4. Only the JSP 1.2 version is supported. The JSP engine is deprecated, so its use is not recommended. This property will be removed from the next fix or version.
Default	true

- jeus.servlet.jsp.compileEncoding

Description	Specifies the encoding value to use when compiling JSP. Available only when jeus.servlet.jsp.modern is set to false.
Default	null

- jeus.servlet.request.url.allowNonStandardPercentCharacterUsage

Description	Allows use of a single '%' in a URL. According to <i>RFC 2396, 2.4.3. Excluded US-ASCII Characters</i> , a single '%' is a reserved word for URL escape, so it must be used in a defined format. Therefore, clients have to send it as '%25'.
Default	false

- jeus.servlet.request.6CompatibleSetCharacterEncoding

Description	The ServletRequest.setCharacterEncoding() encoding set must only apply to Request Body. In JEUS 6, a bug was found that allows the use of the encoding when reading Request Headers such as Query String and Cookie. Use this option when supporting applications written based on the JEUS 6 bug to avoid modifications to the application.
Default	false

- jeus.servlet.request.useResetCharacterEncoding

Description	Used to re-encode a value that has already been encoded once using a different encoding method. In JEUS, the ServletRequest.setCharacterEncoding() method becomes disabled after getParameter() or getReader() is called, making re-encoding not possible. However, other application servers, such as WebLogic, may support this functionality. To provide compatibility for users migrating from other vendors to JEUS, this feature can be enabled.
Default	false

- jeus.servlet.response.usePercentEncodedLocationHeaderWhenRedirect

Description	When a request originates from Internet Explorer (IE), the location header is created using the server's encoding during redirection. However, if the encoding method of the IE request differs from the server's default encoding, IE may fail to properly interpret the query string in the location header. To address this issue, this feature supports converting the query string to percent-encoding and rewriting it.
Default	false

- jeus.servlet.response.defaultContentType

Description	Default value of Content-Type response headers. If this value is not NULL, response headers are set in the following cases: when calling ServletResponse.setCharacterEncoding() or ServletResponse.setLocale() and servlet did not call ServletResponse.setContentType() explicitly. However, this operation does not conform to the servlet standard for Content-Type response headers.
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Default	null
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According to servlet standards, Content-Type Header cannot be included in response headers unless the servlet explicitly calls `ServletResponse.setContentType()`. Also, when calling `ServletResponse.getContentType()`, null must be returned. Although these are defined in Servlet 5.0, JEUS had not followed these rules.

For JEUS 7 Fix#1 and later, the default value is changed to null to conform to the standard. If null is not returned, change the value of this property.

- `jeus.servlet.response.applyContentLanguageProperlyWithSetLocaleAPI`

Description	When <code>ServletResponse.setLocale()</code> is called after <code>ServletResponse.getWriter()</code> is called, Content-Language response headers must be set. Character encoding is not changed. If Content-Language is specified incorrectly and must be invalidated, set this option to false.
Default	true

- `jeus.servlet.response.6CompatibleForcedEncoding`

Description	Forces the priority of <code><response-encoding><forced></code> , which is being applied, to follow JEUS 6 operation rules. Generally, a forced option has the highest priority. This property has a higher priority than the JSP file page tag <code>contentType</code> or the HTTP response encoding set through the application API.
Default	false

- `jeus.servlet.response.6CompatibleSetCharacterEncoding`

Description	<p>The encoding set by <code>ServletResponse.setCharacterEncoding()</code> must have a lower priority than forced options. JEUS 6 and previous versions, however, do not comply with this rule and ignore forced settings. To use any applications implemented based on JEUS 6 operation rules, set this option to true.</p> <p>Although this property name is similar to that of the request version, the properties operate very differently.</p>
Default	false

- `jeus.servlet.response.allowBothWriterAndOutputStream`

Description	Option to enable the use of both "HttpServletResponse.getWriter()" and "HttpServletResponse.getOutputStream". Although different methods can be used only when reset() is called, this option allows the use of the both methods.
Default	false

- jeus.servlet.session.invalidateBySetMaxInactiveIntervalZero

Description	<p>HttpSession.setMaxInactiveInterval(int timeout) indicates a session that does not delete values under "0" according to the specification.</p> <p>However, because the description of the property in the previous specification was unclear, some users used "0" as invalidate.</p> <p>The JEUS property is provided for compatibility for these users.</p>
Default	false

- jeus.servlet.engine.disableRequestFinishCheck

Description	<p>A request object is valid only within a service method of a servlet or the doFilter method of a filter. If a request object that has already been handled is used, IllegalStateException occurs, according to the specification.</p> <p>However, since JEUS 7 and previous versions do not check whether a request object has been completed, applications that use a completed request object run normally.</p> <p>This property is used for compatibility between users who use applications that use a completed request object.</p>
Default	false

- jeus.servlet.ignoreWebComponentFailureWhenDeploying

Description	Even if an exception occurs in the init(), Filter.init(), and ServletContextListener of the servlet registered through load-on-startup during deploy, deployment does not fail.
Default	false

- jeus.servlet.classloader.spec23

Description	As recommended in SRV.9.7.2, classes under WEB-INF are loaded before classes that apply to the entire container.
Default	false

- jeus.servlet.ensure.contentlength

Description	Sets the content-length to always be sent when using HTTP 1.0.
Default	false

- jeus.servlet.query.encoding.Enabled

Description	Sets encoding to be applied to the return value of <code>HttpServletRequest#getQueryString()</code> .
Default	false

- jeus.servlet.request.showDefaultPortInRequestURL

Description	In JEUS 7 and prior versions, if a protocol sent a request to the default port (http: 80, https: 443), the response was created after deleting the port, but from JEUS 7 onwards, this can be set as an option.
Default	false

- jeus.servlet.jsp.superclass

Description	For WebLogic, you can specify the inheritance structure as a jsp parameter in <code>weblogic.xml</code> , but JEUS uses <code>org.apache.jasper.runtime.HttpJspBase</code> , which can be modified as a system property, but cannot be changed at the application level. This option is provided so that the setting can be changed at the application level.
Default	<code>org.apache.jasper.runtime.HttpJspBase</code>

- jeus.servlet.jsp.removeJspClassPathExceptContextPath

Description	A bug was identified that caused JSP compilation to take a long time in the EJB shared state. The primary cause is presumed to be the time-consuming operation of retrieving the classpath. To address this issue, it was determined that compilation can proceed using only the <code>ejb.jar</code> file implemented by the user. As a solution, this option is provided to remove the classpath during the compilation process, thereby reducing the time required.
Default	null

- jeus.servlet.jsp.addJspClassPath

Description	A bug was identified that caused JSP compilation to take a long time in the EJB shared state. The primary cause is presumed to be the time-consuming operation of retrieving the classpath. To address this issue, it was determined that compilation can proceed using only the ejb.jar file implemented by the user. As a solution, this option is provided to remove the classpath during the compilation process, thereby reducing the time required. When using this option, you need to specify the full path.
Default	null

- jeus.servlet.jsp.taglib.scanTldExceptWEBINF

Description	If you include an excessive amount of files in WEB-INF, Tld scanning may take too long or may even result in StackOverflowError. This option is provided to skip scanning the WEB-INF folder.
Default	false

- jeus.servlet.response.sendRedirect.useRelativeRedirects

Description	When referring to RFC7231, it appears that the location header has been changed to allow relative paths in addition to absolute paths, but the servlet spec states that absolute paths must be used. Therefore, this option is provided to allow relative paths as well.
Default	false

- jeus.servlet.response.sendError.forceFlushBufferWhenInternalServerError

Description	Provides an option to forcefully flush the contents of the buffer when a 500 Internal Server Error occurs during writing operations using outputStream or writer.
Default	false

- jeus.servlet.request.reuseInputStreamAfterGetParameter

Description	The servlet specification prohibits reading an inputStream more than once. However, users migrating from other vendors to JEUS may encounter compatibility issues. This option is provided to ensure seamless compatibility.
Default	false

- jeus.servlet.request.parameter.UnescapeJavascriptEscapedParameter

Description	Provides resin and encoding compatibility options. Note that this violates the specification.
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Default	false
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- `jeus.servlet.request.allowContentLengthAndTransferEncodingSimultaneously`

Description	JEUS detects potential HTTP request smuggling attacks when the Transfer-Encoding header and Content-Length header are received simultaneously or when multiple Content-Length headers are present. In such cases, it blocks all related requests. However, due to ambiguities in RFC7230, this option allows JEUS to treat these scenarios as non-malicious and avoid blocking requests, even if both headers are received simultaneously.
Default	false

- `jeus.servlet.makeThreadDumpBoundarySize`

Description	Prints a dump when the number of threads currently running on the server exceeds the specified value.
Default	0

- `jeus.servlet.makeThreadDumpRestartCount`

Description	Specifies that a restart will be attempted when the restart count, as tracked by the thread monitor, exceeds the configured threshold.
Default	0

- `jeus.servlet.makeThreadDumpRestartWithoutNodemanager`

Description	Enables the system to shut down without nodemanager.
Default	false

- `jeus.servlet.makeThreadDumpMonitoringInterval`

Description	Specifies the interval at which the thread monitor checks the <code>jeus.servlet.makeThreadDumpBoundarySize</code> value.
Default	0

- `jeus.servlet.makeThreadDumpIntervalSecond`

Description	Prints a thread dump by checking the <code>jeus.servlet.makeThreadDumpBoundarySize</code> value before starting a new thread, in addition to the thread monitor.
Default	300

- jeus.servlet.loader.ignoreAutoReloadAfterHotSwapFailed

Description	In earlier versions of JEUS, enabling the JEUS Hot Swap option caused an automatic reload of the entire context if even a single class failed. This behavior is now configurable and provided as an option.
Default	false

- jeus.servlet.ignoreUserInfoInRequestURI

Description	According to RFC7230, requests containing user information in the URI should be treated as errors. In earlier versions of JEUS, such URIs were processed as regular request URIs without error handling. This behavior has been updated to generate an error when user information is present in the URI. For compatibility, an option is provided to disable this error generation, allowing user information in the URI to be processed without triggering an error.
Default	false

- jeus.servlet.engine.waitForWorkerDestroy

Description	An issue exists where an OS-level error occurs in the built-in WebtoB when local-shutdown is called, and the worker thread does not wait for a SocketTimeoutException. This issue is planned to be fixed in a future update. In the meantime, this option is provided to enable normal operation during the implementation stage.
Default	true

1.8. Session Server System Properties

The following describes session server system properties.

The properties are configured in <properties> under the <session-cluster> section.

- jeus.sessionmanager.receive.backup.despite.no.deploy

Description	In DOMAIN_WIDE mode, even if an application is not deployed, a dummy application is deployed so that its backup can be received from a remote.
Default	false

- jeus.sessionmanager.cluster.stable.waiting.sec

Description	Length of time during which the deployment of an application is delayed to finish processing a cluster event.
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Default	0 (Unit: second)
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- jeus.sessiomanager.dumpbackup.max

Description	<p>Count unit for dumpbackup.</p> <p>If the server to be backed up restarts, dumpbackup is performed. In this case, if the server has too many sessions, divide the sessions into uniform units of size and then perform backup.</p> <p>If this property is set in Session Cluster, it will be applied to all clusters. If it is set in Session Cluster Config, it will be applied only to a corresponding cluster.</p>
Default	100

- jeus.distributed.session.failback.unit.size

Description	Number of sessions to send at a time when sending a failback.
Default	100

- jeus.distributed.session.clear-backup-delay

Description	<p>Amount of time, in seconds, to wait before cleaning up the backup session when a join, fail, or stop event occurs on a clustered server.</p> <p>If a join, fail, or stop event occurs before the backup session is cleaned up, the time at which the last event occurred is used as the basis.</p>
Default	30 (seconds)

- jeus.distributed.session.clear.upgrade.table

Description	<p>Amount of time, in seconds, to wait before clearing the upgrade history when a session upgrade is executed due to a fail or stop event.</p> <p>If a fail or stop event occurs before clearing the upgrade history, the time at which the last event occurred is used as the basis.</p>
Default	Session timeout setting value

1.9. EJB System Properties

The following describes EJB system properties.

1.9.1. EJB System Properties

The following describes EJB system properties.

- `jeus.ejb.transaction.attribute.default`

Description	Attribute used when the transaction attribute is not set in the Container-Managed Transaction Bean method. Input options: <ul style="list-style-type: none">• NotSupported• Supports• Required• RequiresNew• Mandatory• Never The following are the priorities. <ol style="list-style-type: none">1. ejb-jar/trans-attribute2. jeus-ejb-dd/unspecified-container-transaction3. System properties
Default	<ul style="list-style-type: none">• EJB 3.0 bean: Required (specifications based)• EJB 3.0 bean and earlier versions: Supported (for backward compatibility)• Timer Service method: Not Supported

- `jeus.ejb.sharedcolumn.modify`

Description	Determines whether a transaction can modify both cmp and cmr fields that share columns in CMP Entity Bean.
Default	false

- `jeus.ejb.checkTable`

Description	Option to ensure the database has tables of columns for deploying CMP Entity Bean.
Default	false

- `jeus.ejb.enable.configDeleteOption`

Description	Option to allow DB tables to be deleted when undeploying CMP Entity Bean. <ul style="list-style-type: none"> • true: <deleting-table> is used. • false: <deleting-table> is ignored.
Default	false

- jeus.ejb.csi.trusthosts

Description	Trust host for using COBRA CSiv2.
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- jeus.client.interop

Description	Option to use COBRA interoperability for a client JVM.
Default	false

- jeus.corba.WorkerThreadInactivityTO

Description	Inactive timeout of corba WorkerThread.
Default	120000 ms

- jeus.corba.minWorkerThreads

Description	Minimum number of threads in the corba WorkerThreadPool.
Default	10

- jeus.corba.maxWorkerThreads

Description	Maximum number of threads created in the corba WorkerThreadPool.
Default	1000

- jeus.corba.iiop.tcpConnectTO

Description	Connect timeout of a connection created during the CORBA IIOP communication. The cumulative waiting time settings consist of four integers (unit: ms) separated by colons, indicating the initial waiting time (until reattempt after connection failure), maximum accumulated waiting time, waiting time increment, and maximum single waiting time, respectively.
Default	1000:5000:20:2500

- jeus.corba.iiop.tcpReadTO

Description	Read timeout of a connection created during the CORBA IIOP communication. The cumulative waiting time settings consist of four integers (unit: ms) separated by colons, indicating the initial waiting time (until reattempt after connection failure), maximum accumulated waiting time, waiting time increment, and maximum single waiting time, respectively.
Default	1000:5000:20:2500

- jeus.corba.useMetaOperation

Description	Option to execute meta operations existing in the CORBA/IIOP specification. These meta operations are executed to resolve differences in EJB method parameter class files between the client and the server.
Default	true

- jeus.corba.clientORBPort

Description	ORB port to use in a standalone client. In the case of a meta operation being executed due to differences in EJB method parameter class files between the client and the server, the server will send the request to this designated port. If the default value of 0 is set, a random port will be used.
Default	0

- jeus.ejb.csi.defaultUser

Description	Default user for using COBRA CSiv2.
--------------------	-------------------------------------

- jeus.ejb.notreload

Description	<p>List of web modules excluded from Reload when an EJB, which uses a shared classloader, is deployed, undeployed, or redeployed.</p> <p>The format is as follows:</p> <pre>context_name1;context_name2</pre>
--------------------	---

- jeus.corba.props

Description	<p>Properties of ORB used by EJB.</p> <pre>key=value[,key=value]*</pre>
--------------------	---

- jeus.ejb.cluster.useip

Description	Option to choose an IP address or a host name as the address used to connect to the server when an EJB uses an Active Stub. Use the IP specified in jeus.net.localip. If this option is set to true, classftp also uses the IP address as its address.
Default	false

- jeus.ejb.all.disconnect

Description	Disconnection timeout applied to all bean types (Unit: ms). If set to -1, the disconnect function is not used. [Deprecated] This property can be specified using @StatefulTimeout or <stateful-timeout> of ejb-jar.xml in EJB 3.1 spec.
Default	3600000 (Unit: ms)

- jeus.ejb.entity.disconnect

Description	Disconnect timeout to be applied to entity beans (Unit: ms). This overrides the properties of jeus.ejb.all.disconnect. If set to -1, the disconnect function is not used.
--------------------	---

- jeus.ejb.stateful.disconnect

Description	Disconnect timeout to be applied to stateful session beans (Unit: ms). This overrides the properties of jeus.ejb.all.disconnect. If set to -1, the disconnect function is not used. [Deprecated] This property can be specified using @StatefulTimeout or <stateful-timeout> of ejb-jar.xml in EJB 3.1 spec.
--------------------	---

- jeus.ejb.all.passivate

Description	Inactivation timeout applied to all bean types (Unit: ms). If set to -1, the disconnect function is not used.
Default	300000 (Unit: ms)

- jeus.ejb.entity.passivate

Description	<p>Passivation timeout applied to entity beans (Unit: ms).</p> <p>This overrides the properties of jeus.ejb.all.passivate.</p> <p>If set to -1, the disconnect function is not used.</p>
--------------------	--

- jeus.ejb.stateful.passivate

Description	<p>Passivation timeout (ms) applied to Stateful Session Beans (Unit: ms).</p> <p>This overrides the properties of jeus.ejb.all.passivate.</p> <p>If set to -1, the disconnect function is not used.</p>
--------------------	---

- jeus.ejb.exportPort

Description	<p>Default export port used in EJB.</p> <p>The EJB with an export port of 0 in the jeus-ejb-dd.xml uses this property.</p> <p>If set to 0, the EJB uses the default port provided by RMI.</p>
Default	Managed Server base port + 7

- jeus.ejb.entity.lock-wait-timeout

Description	<p>Period in which to wait for a lock when the same entity is used.</p> <p>It applies to SINGLE or EXCLUSIVE (Unit: ms).</p>
Default	0 (Infinite)

- jeus.ejb.timer.generate-table-ddl

Description	<p>Creates a DDL file for creating a table to store EJB Timer Handle.</p> <p>This is only for internal use. The file name is createDDL.jdbc, and it is placed in the JEUS execution directory.</p>
Default	false

- jeus.ejb.generate-no-interface-view-files

Description	<p>Creates class files of the EJB Local business interface, which is no-interface-view.</p> <p>The class files are created under the '_generated_' directory.</p>
Default	false

- jeus.ejb.cluster.selection-policy

Description	<p>Policy that defines how to choose among EJB cluster members. (Only available for EJB 3 stateless beans. For details, refer to "EJB Clustering" in <i>JEUS EJB Guide</i>.)</p> <p>Input options:</p> <ul style="list-style-type: none"> • locallinkPreference: Selects an EJB member running on the same MS. • roundrobin: The first request is handled with an object from a randomly selected MS. Subsequent requests are handled with an object from an MS selected in a round robin fashion. • random: One of the clustered servers is randomly selected.
Default	locallinkPreference

- jeus.ejb.iiop.usm

Description	<p>Option to apply the Servant Manager provided by JEUS when using IIOP EJB.</p> <p>When applying the Servant Manager, it intervenes before and after processing the IIOP request and changes the TCCL properly.</p> <p>If the class is properly packaged in the application, but the class cannot be found during the process of deserializing parameters when making an IIOP request, you can try this option.</p> <p>When applying the option, the IIOP stub code generated by JEUS changes, so when precompiling an EJB to be distributed to a server to which this option is applied, this option must also be applied to the appcompiler.</p>
Default	false

1.9.2. JPA System Properties

The following describes JPA system properties.

- jeus.persistence.defaultProvider

Description	Default Java Persistence API provider class name.
--------------------	---

1.9.3. RMI system properties

The following tables describe RMI system properties.



In the following descriptions, [client] indicates a client that makes a RMI call.

[server] must be specified in the applications EJB is deployed. For more information about RMI configurations and options, refer to the following.

- [java.rmi properties](#)
- [sun.rmi properties](#)

- java.rmi.server.codebase

Description	[server] Codebase used in class annotation when RMI must be sent to classes other than the EJB Bean class.
--------------------	--

- java.rmi.server.useLocalHostName

Description	[server] Host name used by a client to access the server without using the server IP address.
Default	false

- java.rmi.server.hostname

Description	[server] Host name used by a client to access the server. This property has a lower priority than java.rmi.server.useLocalHostName.
Default	ip

- jeus.ejb.rmi.socketfactory

Description	[client/server] Fully qualified name of the RMISocketFactory class used by JEUS. The specified class is used in EJB and all RMI communication. Clients must use the same RMISocketFactory to communicate. This class must provide a no-argument constructor, which can be located in JEUS_HOME/lib/application.
Default	jeus.ejb.util.EJBRMISocketFactory

- jeus.ejb.operationTimeout

Description	[client] Maximum wait time for remote call responses (SoTimeout). JEUS overwrites the sun.rmi.transport.tcp.responseTimeout value.
Default	5 * 60 * 1000

- sun.rmi.transport.connectionTimeout

Description	[client] Maximum idle time of the client RMI connection (KeepAliveTimeout).
Default	15 * 1000

- sun.rmi.transport.tcp.readTimeout

Description	<p>[server] Maximum wait time for the server to read a client request (SoTimeout).</p> <p>This property must be greater than the jeus.ejb.operationTimeout property (sun.rmi.transport.tcp.responseTimeout) value, which is the SoTimeOut property of the client.</p>
Default	2 * 60 * 60 * 1000

- sun.rmi.transport.tcp.maxConnectionThreads

Description	<p>[server] Maximum number of threads used to process connection requests on the server.</p> <p><thread-max> is a JEUS-related setting specified in jeus-ejb-dd.xml for each bean. <thread-max> is the number of threads that can be assigned for each bean. The value specified in <thread-max> overrides the maxConnectionThreads value.</p> <p>For example, there are two beans: EJB A and EJB B. If <thread-max> is set to the default value of 100, even if maxConnectionThreads is set to Integer.MAX_VALUE, the number of threads is limited to 200.</p>
Default	Integer.MAX_VALUE

- sun.rmi.transport.tcp.threadKeepAliveTime

Description	[server] Maximum wait time for a thread to receive the next request after processing a request (in idle state). (KeepAliveTimeout).
Default	1*60*1000

- jeus.ejb.compiler.rmic.fork

Description	[server] Option to fork an RMIC compiler process when creating IIOP classes.
Default	false

- jeus.ejb.compiler.rmic.verbose

Description	[server] Option to keep verbose logs when creating IIOP classes.
Default	false

- jeus.ejb.compiler.rmic.vcompat

Description	Option to use the RMI 1.1, 1.2 compatible protocol when compiling IIOP.
Default	false

- jeus.ejb.compiler.rmic.enable

Description	Option to create the IIOP Stub file. In general, the IIOP Stub file is not required.
Default	false

- jeus.ejb.compiler.class.version

Description	[server] Option to configure the source and target versions when compiling a new EJB class.
Default	1.4

- jeus.ejb.compiler.use-java-compiler-api

Description	<p>Uses Java Compiler API, which is provided in JDK 6.</p> <p>This is used by default. To directly compile SUN internal classes, which are a part of the lib/tools.jar file in JDK, set this value to false.</p> <p>This option can be used when compatibility problems occur due to a difference of compiled classes.</p>
Default	true

1.10. Security System Properties

The following describes security system properties.

1.10.1. Standard Java SE & Jakarta EE™ Security System Properties

The following is a list of Standard Java SE & Jakarta EE™ security system properties.

- java.security.manager

Description	<p>Option to use the Java SE SecurityManager to improve the security of the JEUS server through code protection. The use of this property can hurt JEUS server performance.</p> <p>By default, SecurityManager is not used by JEUS.</p>
--------------------	---

- jeus.security.enable.default.manager

Description	Prevents the JEUS JVM process from shutting down when System.exit method is called. If -Djeus.security.enable.default.manager=true is set, the JEUS Security Manager extension of Java Security Manager, not JDK, is applied. The JEUS JVM process does not shut down when System.exit method is called from the application program.
Default	false

- java.security.policy

Description	Path to the Java SE policy file used by SecurityManager.
Default	JAVA_HOME/lib/security/java.security

- jakarta.security.jacc.policy.provider

Description	JACC Policy implementation class name.
Default	jeus.security.impl.jacc.JACCPolicyWrapper

- jakarta.security.jacc.PolicyConfigurationFactory.provider

Description	JACC PolicyConfigurationFactory implementation class name.
Default	jeus.security.impl.jacc.JACCPolicyConfigurationFactoryImpl

1.10.2. JEUS Security System Properties

The following is a list of JEUS security system properties.

- jeus.security.enable

Description	Option to install the security server when starting JEUS.
Default	true

- jeus.security.default.configDir

Description	Configuration root directory used by the security system.
Default	JEUS_HOME/domains/<domain-name>/config/security

- jeus.security.default.domainName

Description	Default domain name.
Default	SYSTEM_DOMAIN

- jeus.security.installer.classname

Description	SecurityInstaller implementation class name.
Default	jeus.security.impl.installer.JeusSecurityDomainInstaller

- jeus.security.jacc.principalRoleMapper

Description	Name of the class that implements jeus.security.impl.aznrep.JACCPrincipalRoleMapper. This class handles principal-role mapping for the JACC Provider.
Default	jeus.security.impl.jacc.JACCDefaultPrincipalRoleMapper

- jeus.security.keypath

Description	Location of the security.key file.
Default	Configured internally in JEUS.

- jeus.security.master

Description	Master password.
Default	It is recommended that the master password be inputted into a prompt.

- jeus.net.logListenPort

Description	Option to generate logs for ports when creating a server socket. jeus.security.enable.default.manager=true must be set to enable this option.
Default	true

- jeus.net.logConnectInfo

Description	Option to create logs for the host and port when accessing a socket. jeus.security.enable.default.manager=true must be set to enable this option.
Default	false

- jeus.net.logListenStack

Description	Option to create logs for Thread Stack Trace when creating a server socket. jeus.security.enable.default.manager=true must be set to enable this option.
Default	false

- jeus.net.logConnectStack

Description	Option to create logs for Thread Stack Trace when accessing a socket. jeus.security.enable.default.manager=true must be set to enable this option.
Default	false

- jeus.security.keylength

Description	Key length used for an encryption algorithm such as AES, DES, DESede, SEED, and Blowfish. If the length is set to 256, a 256-bit key is used for an entire system.
Default	256

- jeus.security.timeout

Description	Duration for the security system to get the response after sending a request. (unit: ms)
Default	20 * 1000

- jeus.security.jaspic.auth-config-factory

Description	Class name of JASPIC(JSR-196) AuthConfigFactory AuthConfigFactory to use in JEUS.
Default	jeus.servlet.security.jaspic.JEUSAuthConfigFactory

- jeus.security.authentication.secureMode

Description	Secure authentication mode. If set to false, the seed value operates as an empty string.
Default	true

- jeus.security.auth-server-url

Description	Authentication URL that is used for performing authentication in JEUS through an external server.
--------------------	---

1.11. JEUS MQ System Properties

The following describes JEUS MQ system properties.

1.11.1. JEUS MQ Server

The following describes JEUS MQ server system properties.

- jeus.jms.file.blocksize

Description	Block size used when sending a file using FileMessage to a client.
Default	4096 (Unit: byte)

- jeus.jms.server.deleteFileMessage

Description	Option to delete the file from the server after sending FileMessage.
Default	true

- jeus.jms.server.discard-stored-on-start

Description	Option to delete all existing data in the database storage when the JEUS MQ server is started.
Default	false

- jeus.jms.server.rowFetchSize

Description	Number of records to be retrieved at one time when sending a query message to DB storage.
Default	1000

- jeus.jms.server.create-facility-mbeans

Description	Option to create MBeans for client facilities including Connection, Session, Message Producer, and Consumer.
Default	false

1.11.2. JEUS MQ Client

The following describes JEUS MQ client system properties.

- jeus.jms.client.default-redelivery-limit

Description	Default value of JMS_JEUS_RedeliveryLimit. Number of redelivery attempts a message can make before an error message is sent to the sender.
Default	3

- jeus.jms.file.blocksize

Description	Block size used when sending a file using FileMessage (byte).
Default	4096 (Unit: byte)

- jeus.jms.client.connect.timeout

Description	Period in which the ConnectionFactory.createConnection() method can receive a response from the server.
Default	5000 (Unit: ms)

- jeus.jms.client.workdir

Description	Directory in which of files received from the server that uses FileMessage are stored. For Java EE clients, this setting is ignored and the path JEUS_HOME/logs/jms/BROKER_NAME\client\ is used.
Default	USER_HOME\jeusmq_client_work\

- jeus.jms.client.maxThread

Description	Thread pool size used by the JEUS MQ client library. This property is required for the client library to process multiple jobs, such as sending and receiving messages, simultaneously. One thread pool is generated for each connection to the server.
Default	100

- jeus.jms.client.optimizedProduce

Description	Option to receive an acknowledgement from the server to improve the performance of message transmissions. If set to true, acknowledgements are not received from the server when receiving a message, even if the approval mode of session is not set to JeusSession.NONE_ACKNOWLEDGE. However, when receiving FileMessage, an acknowledgement is received regardless of this setting.
--------------------	---

Default	false
----------------	-------

- jeus.jms.client.use-single-server-entry

Description	Determines whether physical connections are shared or not. One ConnectionFactory obtains one physical connection.
Default	true

- jeus.jms.client.single-server-entry.shutdown-delay

Description	Time a shutdown is delayed so a connection can be reused when shared physical connections are no longer used.
Default	600000 (Unit: ms)

- jeus.jms.client.use-pooled-connection-factory

Description	Option to enable pooling to use previously used client facilities.
Default	true

- jeus.jms.client.pooled-connection.check-period

Description	Period in which to check for the removal of client facilities, for which pooling has been enabled, but are no longer used.
Default	60000 (Unit: ms)

- jeus.jms.client.pooled-connection.unused-timeout

Description	Period to remove unused client facilities, for which pooling has been enabled.
Default	120000 (Unit: ms)

- jeus.jms.client.send-by-lpq-only

Description	Options to use the LPQ service to send all messages to improve message reliability.
Default	false

- jeus.jms.client.lpq-configuration-path

Description	LPQ service configuration file path. <ul style="list-style-type: none"> • Absolute path: Reads the file in the path. • Relative path: Reads the file in the following order. <ol style="list-style-type: none"> 1. DEPLOYED_HOME/myApp/WEB-INF/ 2. DEPLOYED_HOME/myApp/META-INF/ 3. DEPLOYED_HOME/myApp/
Default	120000 (Unit: ms)

1.12. Deployment System Properties

The following describes deployment system properties.

- jeus.classloading

Description	Option for application class loaders to refer to another class loader when using AppCompiler.
Default	ISOLATED

- jeus.app.graceful-timeout

Description	Time to wait until requests are processed completely when executing graceful undeployment.
Default	0

- jeus.app.allow-deprecated-dd

Description	Option to convert deployment descriptors written in JEUS 6 or earlier to descriptors appropriate for JEUS 8.
Default	false

- jeus.application.cleanup-deployed-image

Description	Option to delete deployment images (the application root directory and generation directory) created when undeploying an application.
Default	true

- jeus.app.deploy.persistent

Description	Option to write information about an application to domain.xml when deploying or undeploying the application.
--------------------	---

Default	true
----------------	------

- jeus.deploy.concurrent

Description	Option to support concurrent deployment for the request to deploy two or more applications during the boot time.
Default	true

- jeus.deploy.ignore-not-found-classes

Description	Option to decide whether to fail or complete deployment if the class cannot be found to load the deployed applications.
Default	false

- jeus.deploy.concurrent.runtime

Description	Option to support concurrent deployment for the request to deploy two or more applications during the run time.
Default	false

- jeus.cdi.enable-implicit-bean-archive

Description	Option to handle the CDI implicit bean archive during deployment.
Default	true

- jeus.cdi.enabled

Description	Option to use the CDI function provided by JEUS during deployment.
Default	true

- jeus.deploy.ignore-persistence-descriptor

Description	Option to ignore persistence.xml included in the application during deployment.
Default	false

1.13. Console System Properties

The following describes console system properties.

- jeus.tool.console.patchinfo

Description	Option to display patch information when executing a console tool. Since this option is used for all tools, it is not a server setting. Set it by modifying TOOL_OPTION in JEUS_HOME/bin/jeus.properties or a tool execution script.
Default	false

- jeus.console.table.width

Description	Width of the table displayed in the console tool.
Default	80

Part II. Console Commands and Tools

2. Command Rules

This chapter describes simple rules for console commands. For each command, the section title contains the name and a simple description. The body contains a description, usage, parameters, and examples.

- Description: Features and description of the command.
- Related schema: Schema elements related to the command.
- Alias: Command alias.
- Usage: Command syntax, which is same as the syntax in the usage line when executing help from jeusadmin.
 - Command: Command is printed in **bold**.
 - Parameter: Options and parameters of the command and when they can be used.

Parameter uses normal and *italic* fonts.

Convention	Description
Normal type	Option. Use as described in the manual.
<i>Italic type</i>	User input parameters. The user is required to input the values.
[]	Optional parameters. Parameter not enclosed with [] is a required item.
or /	Only one of the listed parameters is used.

- Parameter: Parameter information such as options and arguments that can be used with the command.
- Example: Example of command usage and output in jeusadmin.

3. Starting and Ending JEUS Servers

This section describes commands used to start and end JEUS servers.

3.1. Overview

There are 2 commands for starting a JEUS server depending on the server type.

- **startMasterServer** command for starting the JEUS Master Server
- **startManagedServer** command for starting a Managed Server

The commands for starting a JEUS server execute a launcher of the corresponding server. The launcher performs preparation for starting the server and then starts the server JVM. JEUS Master Server manages running Managed Servers (MSs) and sends administrator's commands to them as an agent.

There is only one command for ending a JEUS server regardless of server type.

- **stopServer** command

Commands for starting and ending servers are located in the following directory.

```
JEUS_HOME/bin/
```

3.2. Usage

The following describes how to start JEUS Master Server and Managed Servers.

To manage Managed Servers using a JEUS management tool, such as jeusadmin, JEUS Master Server must be started first.

JEUS Master Server communicates with each MS that runs on a HOST machine. All servers in a domain share the following configuration file. Each server reads necessary configurations from the file and runs according to those configurations.

```
JEUS_HOME/domains/DOMAIN_NAME/config/domain.xml
```

Starting JEUS Master Server

The following describes how to execute the **startMasterServer** command to start JEUS Master Server.

1. Use the following command appropriate for your OS to start JEUS Master Server.

- UNIX and Linux

```
startMasterServer
```

2. Use the following options along with the **startMasterServer** command at a command prompt.

The server can run in debug mode by changing the setting in the domain.xml file. For more information, refer to [Executing JEUS Server in Debug Mode](#).

```
startMasterServer -u <user-name> -p <password>
                  [-domain <domain-name> -server <server-name>]
                  [-cachelgin]
                  [-f <file-name>]
                  [-force]
                  [-standby]
                  [-verbose]
                  [-fg]
                  [-h]
```

The following describes each command option.

Option	Description
-u <user-name>	Account that starts the server.
-p <password>	
[-domain <domain-name>]	Domain name of JEUS Master Server to start.
[-server <server-name>]	Name of JEUS Master Server to start.
[-cachelgin]	Caches the login information entered with the -u and -p options. If cached login information exists, it can replace the -p option. This feature is not recommended. For more information, see "JEUS Security Guide".
[-f <file-name>]	Path to the file that contains cached login information.
[-force]	Option to forcibly change the server state to RUNNING, even if all registered applications are not in the RUNNING state.
[-standby]	Option to start the server in the STANDBY state.
[-verbose]	Option to display server logs on the launcher screen without terminating the launcher.
[-fg]	Option to start the server in foreground mode instead of background mode. In this case, the launcher ends at the start of the server.
[-h]	Displays help for the command.

Most of the options required to start Managed Servers are similar to the options required to start

JEUS Master Server. A Managed Servers additionally contains the masterurl option, which is used to get the configuration file from the JEUS Master Server.

Starting Managed Server

The following describes how to start a Managed Server.

1. Use the following command appropriate for your OS at a command prompt.
 - UNIX and Linux

```
startManagedServer
```

2. Use the following options along with the command.

```
startManagedServer -u <user-name> -p <password>
                    -server <server-name>
                    [-domain <domain-name>]
                    [-cachellogin]
                    [-f <file-name>]
                    [-force]
                    [-standby]
                    [-verbose]
                    [-masterurl <master-url>]
                    [-fg]
                    [-h]
```

The following describes each command option.

Option	Description
-u <user-name>	Account that starts the server.
-p <password>	[-u] is the administrator ID and [-p] is its password, which are required to start the server.
[-server <server-name>]	Name of the Managed Server to start. Required.
[-domain <domain-name>]	Domain name of the Managed Server to start.
[-cachellogin]	Caches the login information entered with the [-u] and [-p] options. If cached login information exists, it can replace the [-p] option. This feature is not recommended. For more information, see "JEUS Security Guide".
[-f <file-name>]	Path to the file that contains cached login information.
[-force]	Option to forcibly change the server state to RUNNING, even if all registered applications are not in the RUNNING state.

Option	Description
[-standby]	Option to start the server in the STANDBY state.
[-verbose]	Option to display server logs on the launcher screen without terminating the launcher.
[-masterurl <master-url>]	URL address of the JEUS Master Server that manages the domain that the Managed Server belongs to. It is recommended to set this address to use it for getting a new configuration file from the JEUS Master Server.
[-fg]	Option to start the server in foreground mode instead of background mode. In this case, the launcher ends at the start of the server.
[-h]	Displays help for the command.

Ending Servers

The following describes how to end a JEUS server.

1. Use the following command appropriate for your OS at a command prompt.
 - UNIX and Linux

```
stopServer
```

2. Use the following options along with the **stopServer** command.

```
stopServer -host <host:port>
           [-server <server-name> -masterurl <address:port>]
           -u <user-name> -p <password>
           [-cachelgin -domain <domain-name> -f <cachelgin-file>]
           [-g -to <timeout>]
```

The following describes each command option.

Option	Description
[-host <host:port>]	Information about the host to end in the format of host:port.
[-server <server-name> -masterurl <address:port>]	Specifies the name of the Managed Server in the [-server] option, and JEUS Master Server address in the [-masterurl] option in the format of address:port. This option cannot be used with the [-host] option.
-u <user-name> -p <password>	Account that ends the server. [-u] is the administrator ID, and [-p] is its password.

Option	Description
<code>[-cachelogin -domain <domain-name> -f <cachelogin-file>]</code>	<p>Caches the login information entered with the [-u] and [-p] options.</p> <p>It is the key that specifies cache login information, and uses the domain name. Therefore, the domain name must be specified by using the [-domain] option.</p> <p>[-f] specifies the file path that contains cached login information. If not specified, the default path is <code>/.jeusadmin/.jeuspasswd</code>.</p> <p>If cached login information exists, it can replace the [-p] option. This feature is not recommended. For more information, see "JEUS Security Guide".</p>
<code>[-g -to <timeout>]</code>	<p>Ends the server gracefully.</p> <p>[-to] specifies the maximum period of time to wait until requests being processed are completed when the [-g] option is used. (Unit: seconds)</p> <p>If the [-to] option is not specified, the server infinitely waits until the requests are completely processed.</p>

3.3. Entering Master Password

When starting the server, the master password is required if the `security.key` file is encrypted with the master password through an encryption tool. The `security.key` file contains a symmetric encryption algorithm key. For more information about encryption tools, refer to [encryption](#).

When starting the server, if the `security.key` file is encrypted, the following console screen appears, which prompts for the master password. The master password must match to start the server.

```
The encryption key file is encrypted. Enter the master password.
Password>
```

3.4. Executing JEUS Server in Debug Mode

If a JEUS server runs in the DEBUG mode, servlets and EJB applications can be debugged using the JPDA support debugger. In order to run a JEUS server in the DEBUG mode, add the following debug option to the `jvm-config` file of each server.

```
-agentlib:jdwp=transport=dt_socket,server=y,suspend=n,address=8888
```

Use the debug port, "8888", to run a JEUS server in the DEBUG mode. The debug port is used when JPDA debugger accesses the JVM.

Start a JEUS server with the changed configurations. Next, use the IDE (Integrated Development Environment) that supports JPDA to debug EJB and servlet applications.

The system environment variables can be set by using the jvm-config file of each server. For more information about the system environment variables used in JEUS, refer to [Overview](#) in "Part I. System Properties", which describes the "-D" option used by the JVM.



The jvm-option only applies to the corresponding server.

4. Console Tools

This chapter describes the console tools that are used in JEUS and how to use them.

4.1. Overview

The following describe the console tools used in JEUS.

- Admin tool

Tool	Description
jeusadmin	JEUS management tool.

- Other tools

Tool	Description
appcompiler	Compiles EJB interface impl, skeleton, stub classes, and JSP of an application to create servlet classes and web service endpoint classes.
ejbddinit	Creates JEUS EJB DD files from EJB module DD files (jeus-ejb-dd.xml) by using the information in ejb-jar.xml and previously created property files.
encryption	Encrypts or decrypts strings.
java2wsdl	Creates WSDL and JAX-RPC mapping files from Java classes.
jeusddupgrade	Upgrades JEUS DD files (jeus-ejb-dd.xml, jeus-web-dd.xml, and jeus-application-dd.xml) within the application from the previous version to the current version.
schemagen	Creates a schema file for each namespace in the Java classes.
tcpmon	Checks for transmitted TCP packets. This can also check for SOAP messages over HTTP.
webddgen	Creates or updates the WEB module DD file (jeus-web-dd.xml).
wsген	Tool for JAX-WS web services that creates WSDL and JAX-RPC mapping files from Java classes. This tool also creates the web service policy configuration file.
wsimport	Creates Java source code stubs for clients, Java web service interface source codes for servers from the WSDL file, and the web service policy configuration file.
wsdl2java	Creates Java source code stubs for clients and Java web service interface source codes for servers from the WSDL file.
wsdl2uddi	Publishes web services exposed by WSDL to a UDDI registry.
xjc	Converts XML schema files to JAXB Content classes in the Java programming language.

4.2. jeusadmin

This section describes the jeusadmin and its usage.

jeusadmin is a console tool used to directly manage JEUS. This tool can be used to perform basic management of JEUS servers like startup, termination, and application management including deployment/undeployment, changing logger levels, and checking the JMX Mbean list.

The following is the basic syntax of the commands used in jeusadmin.

```
COMMAND [COMMAND_OPTIONS]
        [GLOBAL_OPTIONS]
        (>|>>) FILENAME
```

- **COMMAND**

Command name or alias.

- **COMMAND_OPTIONS**

Command options.

If a command option includes another command or a blank space, enclose the option by using double quotation marks (" ").

If the double quotation marks must be used two or more times, use escape characters depending on your OS.

OS	Escape Character
Linux	Backslash (\)

The following is an example.

```
[ Linux OS ] jeusadmin -u jeus -p 11111111 -host localhost:9116 "help -g \"Data Source and Connection Pool\""
```

- **GLOBAL_OPTIONS**

Common options that apply to all commands.

Option	Description
-verbose	Outputs the stack trace if an error occurs.
-repeat <count>	Number of times to execute the command.
-interval <seconds>	Interval for commands to repeat (Unit: sec). If this option is used without setting the -repeat option, an error is thrown.

- (>|>>) FILENAME

Name of the file in which command execution results are saved.

Usage:

```
offline>help > result.txt
or
offline>help >> result.txt
```

4.2.1. Commands for Starting and Ending jeusadmin

The following describes the commands that start and end jeusadmin.

Command	Description
jeusadmin	Starts jeusadmin.
exit	Ends jeusadmin.

4.2.1.1. jeusadmin

Executes jeusadmin. The file is in the 'JEUS_HOME/bin' directory.



Exceeding a certain number of failed attempts may result in the client executing jeusadmin being blocked by the server.

- Usage

```
jeusadmin [-u,--username <user-name>]
          [-p,--password <password>]
          [-f <file-name>]
          [-cachellogin]
          [-d,--domain <domain-name>]
          [-host <server-address>]
          [-port <server-port>]
          [-verbose]
          [-help]
          [<target-command>]
          [-version]
          [-fullversion]
          [-buildversion]
          [-licensedue]
          [-licenseinfo]
          [-debug]
          [-script (<script-file>|"<script-file> <args> ...")]
          [-i,--ignore]
```

- Parameters

Parameter	Description
[-u, --username <user-name>]	User name. If set, jeusadmin tries to access the server when it starts.
[-p, ---password <password>]	Password. If set, jeusadmin tries to access the server when it starts.
[-f <file-name>]	File that contains the user name and password required to access the server.
[-cachellogin]	Option to cache the user name and password used to access a specific domain or the default domain.
[-d, --domain <domain-name>]	Name of the domain to connect.
[-host <server-address>]	Server address to connect to. If the [-u] and [-p] options are set without the host option, jeusadmin tries to connect to the localhost.
[-port <server-port>]	Port number to connect to. If the [-u] and [-p] options are set without the port option, jeusadmin tries to connect through port 9736.
[-verbose]	Option to display details when an error occurs.
[-help]	Option to display help for jeusadmin.
[<target-command>]	Option to re-execute the <target-command>. This is useful when using a script. If the command requires a connection to the server, required options, such as [-u], [-p], [-host], and [-port], must be provided.
[-version]	Option to display the major version of JEUS.
[-fullversion]	Option to display major and minor versions of JEUS.
[-buildversion]	Option to display major and build versions of JEUS.
[-licensedue]	Option to display the number of days the license is valid. If the number is 0, JEUS can no longer run, and a new license must be issued by TmaxSoft.
[-licenseinfo]	Option to display the current license information.
[-debug]	Option to display the log messages in jeusadmin through Jeus Logger.
[-script (<script-file> "<script-file> <args> ...")]	Executes jeusadmin in script mode. File extenders must be .py (Python), or .rb (Ruby).

Parameter	Description
[-i,--ignore]	Option to continuolsy execute the script even if an when running JEUS command exception occurs in script mode. Only available in the script mode.

- Example

The following example assumes that the user name is 'administrator' and password is 'jeus'.

- Executing jeusadmin

The following is an example of executing jeusadmin.

```
JEUS_HOME/bin$jeusadmin
JEUS 9 Administration Tool
To view help, use the 'help' command.
offline>
```

- Connecting to the server at startup (1st method)

The following is an example of connecting to the server at localhost:9736.

```
JEUS_HOME/bin$jeusadmin -u administrator -p jeus
Attempting to connect to 127.0.0.1:9736.
The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
JEUS 9 Administration Tool
To view help, use the 'help' command.
[MASTER]domain1.adminServer>
```

- Connecting to a server when starting up (2nd method)

The following is an example of connecting to the server by specifying the IP address and port number.

```
JEUS_HOME/bin$jeusadmin -u administrator -p jeus -host 192.168.0.1 -port 9746
Attempting to connect to 192.168.0.1:9746.
The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
JEUS 9 Administration Tool
To view help, use the 'help' command.
[MASTER]domain1.adminServer>
```

- Checking the license information

The following is an example of checking for the JEUS license.

```
JEUS_HOME/bin$jeusadmin -licensedue
```

Unlimited

```
JEUS_HOME/bin$jeusadmin -licenseinfo
=====  LICENSE INFORMATION  =====
== EDITION : Enterprise (Trial License)
== ISSUE-DAY : 2016/1/16
== LICENSE SEQNO : xxx-xxxx-xxx-xxxx
=====
```

- Connecting to jeusadmin using SSL

In order to connect to jeusadmin using SSL, configure the following system properties in the jeusadmin execution script file. The values of system properties depend on the SSL configuration of the server.

```
. . .
# execute jeusadmin
"${JAVA_HOME}/bin/java" -Xmx128m -classpath "${BOOTSTRAP_CLASSPATH}" ${TOOL_OPTION}
-Djmx.remote.x.request.timeout=600000
-Djeus.home="${JEUS_HOME}"
-Djeus.tool.console.useJLine="false"
-Djava.naming.factory.initial=jeus.jndi.JEUSContextFactory
-Djava.naming.factory.url.pkgs=jeus.jndi.jns.url
-Djava.util.logging.config.file="${JEUS_HOME}/bin/logging.properties"
-Djeus.net.client.use-ssl=true
-Djavax.net.ssl.trustStore=${JEUS_HOME}/domains/domain1/config/truststore
-Djavax.net.ssl.trustStorePassword=changeit
-Djavax.net.ssl.trustStoreType=JKS
-Dssl.TrustManagerFactory.algorithm=SunX509
${JAVA_ARGS}
jeus.tool.console.ConsoleBootstrapper ${BOOT_PARAMETER}
```

4.2.1.2. exit

Ends jeusadmin.

- Alias

quit

- Usage

```
exit
```

- Example

```
[MASTER]domain1.server1>exit
JEUS_HOME/bin$
```


- Note

This command can be used without being connected to the server.

4.2.2. Local Commands

The following is a list of common commands used in jeusadmin.

Command	Description
connect	Tries to access JEUS Master Server or Managed Server.
disconnect	Disconnects and returns to an offline state.
help	Displays command help information.
history	Displays the history of entered commands.
p	Executes a previously entered command. If no option is specified, the previous command is executed.
remove-login-cache	Removes specified user login information from the cache file stored via the cachelogin function.
set-server-option	Specifies the default value for the server option.
set-servers-option	Specifies the default value for the servers option.
start-record	Starts the recording function that stores entered commands in script format.
stop-record	Stops the recording function.
unset-server-option	Deletes the default values specified by set-server-option.
unset-servers-option	Deletes the default values specified by set-servers-option.
verbose	Displays details when executing a command.

4.2.2.1. connect

Connects to a server. The user name and password must be specified.

- Alias

login

- Usage

```
connect -u,--username <user-name>  
        -p, --password <password>  
        [-f <file-name>]  
        [-cachelogin]
```

```
[-h, --host <server-address>]
[-port <server-port>]
[-d, --domain <domain-name>]
```

- Parameters

Parameter	Description
-u, --username <user-name>	User name.
-p, --password <password>	Password.
[-f <file-name>]	Name of the password file that contains the user name and password.
[-cachellogin]	Records the user name and password in a file.
[-h, --host <server-address>]	Server address to connect to. If not specified, jeusadmin tries to connect to the localhost.
[-port <server-port>]	Server port to connect to. If not specified, the default value is used. (Default: 9736)
[-d,--domain <domain-name>]	Domain name, which is used to search for the security.key file.

- Example

- The following connects to a host specified with [-h] by using the user name and password specified with -u and -p.

```
offline>connect -u administrator -p jeus -h 127.0.0.1
Attempting to connect to 127.0.0.1:9736.
The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[MASTER]domain1.adminServer>
```

- The following connects to the localhost because [-h] is not used.

```
offline>connect -u administrator -p jeus
Attempting to connect to 127.0.0.1:9736.
The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[MASTER]domain1.adminServer>
```

- Note

This command can be used without being connected to the server.

4.2.2.2. disconnect

Closes the connection and returns to an offline state.

- Alias

logout

- Usage

```
disconnect
```

- Example

```
offline>connect
Enter the server address:
User name: administrator
Password:
Attempting to connect to 127.0.0.1:9736.
The connection has been established to JEUS Master Server [adminServer] in the domain [domain1].

[MASTER]domain1.adminServer>disconnect
The connection has been closed.
offline>
```

- Note

This command can be used without being connected to the server.

4.2.2.3. help

Displays command help information. If the command is executed without any other options, a list of commands and an explanation of the basic syntax of the commands are displayed.

- Usage

```
help [-g,--group <group-name> | <command-name> | -l,--list]
```

- Parameters

Parameter	Description
[-g,--group <group-name>]	Displays a list of commands and simple descriptions that belong to the given group name.

Parameter	Description
[<command-name>]	Displays help information of the specified command (command name). Displays information about the command such as command name, alias, usage, and options. Options can be omitted.
[-l,--list]	Displays a simple description of all commands.

- Example
 - When only the help command is used

```
offline>help
LIST OF AVAILABLE COMMANDS
[Local]_____
  connect          disconnect
  exit             help
  history          p
  remove-login-cache  set-server-option
  set-servers-option start-record
  stop-record      unset-server-option
  unset-servers-option verbose

[Server Management]_____
  local-shutdown

[Domain Configuration]_____
  apply-configuration-plan  create-domain
  delete-domain            list-domains
  pack-domain              unpack-domain

[Application]_____
  install-application      install-deployment-plan
  redeploy-application

[Library]_____
  install-library

[Web]_____
  precompile-jsp

[NodeManager]_____
  connect-nodemanager      disconnect-nodemanager
  nm-start-server          nm-state-server
  nm-stop-server           stop-nodemanager

COMMAND GRAMMAR
  Command Usage
    COMMAND [COMMAND_OPTIONS] [GLOBAL_OPTIONS] [(>|>>) FILENAME]
  Details
    COMMAND: target command to execute.
    [COMMAND_OPTIONS]: Options for target command.
    [GLOBAL_OPTIONS]: Common options for all commands.
      -verbose
        Prints the stack trace for errors.
```

```

    -repeat <count>
        Repeats the target command X times.
    -interval <seconds>
        Specifies the interval at which to repeat execution, in
        seconds.
    [(>|>>) FILENAME]
        Prints the result of the target command to the specified file.
Examples
    help -l -repeat 3 -interval 10 > result.txt

To show detailed information for a command, use 'help [COMMAND_NAME]'.
ex) help connect
offline>

```

- When the help command is used with the [-l] option

```

offline>help -l
[Local]-----
  connect          Attempting to authenticate with the target
                   server.
  disconnect       Disconnects from the currently connected server.

  .....

[Server Management]-----
  local-shutdown   Shuts down the currently connected server.
  local-start-server On off-line mode, start managed server via SSH.
  You should specify -node, -domain, -server, -u,
  -p, -dasurl.
  On on-line mode, start standby server.

  .....

[NodeManager]-----
  connect-nodemanager Connects to the node manager.
  disconnect-nodemanager Closes the connection to the node manager.
  nm-start-server      Starts a server using the node manager.
  nm-state-server      Shows the state of a server using node manager.
  nm-stop-server       Stops a server using the node manager.
  stop-nodemanager     Stops the node manager.

To show detailed information for a command, use 'help [COMMAND_NAME]'.
ex) help connect
offline>

```

- When the help command is used with the [-g] option

The following is an example of displaying a list of the 'Server Management' group commands.

```

offline>help -g "Server Management"
[Server Management]-----
  local-shutdown   Shuts down the currently connected server.
  local-start-server On off-line mode, start managed server via SSH.
  You should specify -node, -domain, -server, -u,
  -p, -dasurl.

```

On on-line mode, start standby server.

To show detailed information for a command, use 'help [COMMAND_NAME]'.

ex) help connect
offline>

- When the help command is used with the [<command name>] option, help information for the specified command is displayed.

The following is an example of displaying the help information of the add-server command.

```
[MASTER]domain1.adminServer>help add-server
NAMES
  add-server
    Adds a new server to the domain configuration. If a server name is
    not provided, the current server list in this domain will be shown.
ALIAS
  addserver
USAGE
  add-server [-node,--nodeName <node-name>]
             [<server-name>]
             [-jvm,--jvmOptions <jvm-options>]
             [-logdir,--logHomeDirectory <server-log-home-directory>]
             [-a,--actionOnResourceLeak <action-on-resource-leak>]
             [-l,--logStdoutToRawFormat <print-stdout-to-raw-format>]
             [-m,--mejb <enable-MEJB>]
             [-c,--classFtp <enable-class-ftp-service>]
             [-target,--duptargetserver <target-server>]
             [-port,--baseport <base-port>]
             [-addr,--baseaddr <base-addr>]
             [-http,--httpport <http-port>]
             [-rg,--replicate-group <name>]
             [-f,--forceLock]
             [-detail]
OPTIONS
  [-node,--nodeName <node-name>]
    name of the node this server is located

  [<server-name>]
    name of the server you want to add

  [-jvm,--jvmOptions <jvm-options>]
    jvm configurations applied to this server jvm

  [-logdir,--logHomeDirectory <server-log-home-directory>]
    the log directory which has all the log files created by this server

  [-a,--actionOnResourceLeak <action-on-resource-leak>]
    strategy when resource leak is detected. it must be one of NoAction,
    Warning, AutoClose

  [-l,--logStdoutToRawFormat <print-stdout-to-raw-format>]
    [Dynamic] whether stdout is printed in row format or in JEUS Logger
    format.

  [-m,--mejb <enable-MEJB>]
    [Dynamic] whether using MEJB or not .true, false
```

```

[-c,--classFtp <enable-class-ftp-service>]
    [Dynamic] whether using class ftp service or not .true, false

[-target,--duptargetserver <target-server>]
    duplicate the configuration of the target server

[-port,--baseport <base-port>]
    base service listen port of the server

[-addr,--baseaddr <base-addr>]
    base service listen address of the server

[-http,--httpport <http-port>]
    http listen port of the server

[-rg,--replicate-group <name>]
    Replicate Group Name

[-f,--forceLock]
    Acquires the configuration lock forcibly.

[-detail]
    Show detail results

```

- Note

This command can be used without being connected to the server.

4.2.2.4. history

Displays a list of previously executed commands.

The list of commands is stored in `${user.home}/.jeusadmin/commandHistory`. Use the [p](#) command to re-execute a command. The maximum number of commands in the list is 100.

- Usage

```
history [-clear | <size>]
```

- Parameters

Parameter	Description
[-clear]	Resets the list of commands.
[<size>]	Number of commands to display. Displays as many commands as <i>size</i> , in chronological order.

- Example

```
offline>history
1 : help history
2 : connect -u administrator -p jeus
3 : disconnect

To execute a command in the history, please use '!' command (e.g. ! 7)
offline>history 3
3 : disconnect

To execute a command in the history, please use '!' command (e.g. ! 7)
offline>history -clear
The command history has been cleared.
offline>
```

- Note

This command can be used without being connected to the server.

4.2.2.5. p

Re-executes a previous command. Use the [history](#) command to view the list of previously executed commands.

- Alias

!

- Usage

```
p [<history-number>]
```

- Parameters

Parameter	Description
[<history-number>]	History number of the command to be re-executed.

- Example

```
offline>history
1 : connect -u jeus -p jeus
2 : disconnect

To execute a command in the history, please use '!' command (e.g. ! 7)
offline>p 1
connect -u jeus -p jeus
Attempting to connect to 127.0.0.1:9736.
The connection has been established to JEUS Master Server [adminServer] in the domain [domain1].
[MASTER]domain1.adminServer>! 2
```



```
disconnect
The connection has been closed.
offline>
```

- Note

This command can be used without being connected to the server.

4.2.2.6. remove-login-cache

Deletes the specified user login information from the cache file stored by the cachelogin function.

The information stored by cachelogin is distinguished by *<domain-name>* and *<user-name>*.

- Usage

```
remove-login-cache -domain <domain-name>
                  -u <user-name>
                  [-f <file-name>]
```

- Parameters

Parameter	Description
-domain <domain-name>	Domain name used to store the login information.
-u <user-name>	User name used to store the login information.
[-f <file-name>]	Name of the password file that contains the user name and password.

- Example

```
offline>remove-login-cache -domain domain1 -u user1
The cached login information [domain1:user1] has been successfully removed from
/home/OSUser/.jeusadmin/.jeuspasswd.
```

- Note

This command can be used without being connected to the server.

4.2.2.7. set-server-option

Sets the default value for the -server option. If no option is specified, the current default value is displayed.

- Alias

setserver

- Usage

```
set-server-option <server-name>
```

- Parameters

Parameter	Description
<server-name>	Sets the server name as the default server option value.

- Example

Set "adminServer" as the default value and execute the **jndi-info** command. Before a value is set, an error occurs when executing the jndi-info command because the server option is missing. After the value is set, the jndi-info command executes on adminServer without the server option.

```
[MASTER]domain1.adminServer>jndi-info
The following options are missing: server

[MASTER]domain1.adminServer>set-server-option
The default server name is not set.

[MASTER]domain1.adminServer>set-server-option adminServer
The default server name has been set: adminServer.

[MASTER]domain1.adminServer>set-server-option
The current default server name: adminServer.

[MASTER]domain1.adminServer>jndi-info
The JNDI list on the adminServer
List of the context /
=====
+-----+-----+-----+
| Name | Value | Local Binding |
+-----+-----+-----+
| ConnectionFactory | jeus.jms.client.facility.factory.JeusC | false |
| ..... | onnectionFactory | |
+-----+-----+-----+

[MASTER]domain1.adminServer>
```

- Note

This command can be used without being connected to the server.

4.2.2.8. set-servers-option

Sets the default value for the -servers option. If no option is specified, the current default value is

displayed.

- Alias

setservers

- Usage

set-servers-option [<server-list>]

- Parameters

Parameter	Description
[<server-list>]	Specifies the server names to be used as default values for the servers option. Each server name is separated by a comma.

- Example

The following is an example of using the set-servers-option command to specify the deploy targets (servers), and then using the deploy command to deploy applications to the specified targets (servers).

```
[MASTER]domain1.adminServer>set-servers-option
The default server list is not set.

[MASTER]domain1.adminServer>set-servers-option adminServer,server1
The default server list has been set: adminServer,server1.

[MASTER]domain1.adminServer>set-servers-option
The current default server list: adminServer,server1.

[MASTER]domain1.adminServer>deploy sample
deploy the application for the application [sample] succeeded.

[MASTER]domain1.adminServer>appinfo
Application information for the domain [domain1].
=====
+-----+-----+-----+-----+-----+-----+
| Applicati|Application| State | Target | Target | Application Path |
| on ID    | Type      |       | Servers| Clusters|                   |
+-----+-----+-----+-----+-----+-----+
| sample   | WAR       | RUNNING | server1,admi |      | ${INSTALL_HOME}/sam|
|          |           |         | nServer     |      | ple/sample.war     |
+-----+-----+-----+-----+-----+-----+
=====
```

- Note

This command can be used without being connected to the server.

4.2.2.9. start-record

Starts the recording function that stores entered commands in script format.

Commands are stored according to the extensions of the specified recording files by using the following script. Once recording starts, "-Rec*" is added to the prompt.

- Alias

startrecord

- Usage

```
start-record [<recfile>]
```

- Parameters

Parameter	Description
[<recfile>]	Specifies the file that will record commands. This is stored as a script file, so only the currently supported script's extensions, ".py" and ".rb" can be used.

- Example

- Store commands in record_script_[timestamp].py when executing without specifying an option.

```
offline>start-record
Starting recording to file : record_script_20150101123456.py
offline-Rec*>
```

- Store commands in the applicable file when [<recfile>] is specified.

```
offline>start-record record.py
Starting recording to file : record.py
offline-Rec*>
```

- Note

This command can be used without being connected to the server.

4.2.2.10. stop-record

Stops the recording function.

- Alias

stoprecord

- Usage

```
stop-record
```

- Example

```
offline-Rec*>stop-record
Stopping recording to file : recrod.py
offline>
```

- Note

This command can be used without being connected to the server.

4.2.2.11. unset-server-option

Deletes the default value set by the set-server-option command.

- Alias

unsetserver

- Usage

```
unset-server-option
```

- Example

Reset the default value set by the set-server-option command. If the **jndi-info** command is executed after resetting the default value, an error occurs that states the server option is missing.

```
[MASTER]domain1.adminServer>set-server-option
The current default server name: adminServer.

[MASTER]domain1.adminServer>unset-server-option
The default server name has been unset.

[MASTER]domain1.adminServer>set-server-option
The default server name is not set.

[MASTER]domain1.adminServer>jndi-info
The following options are missing: server
```

- Note

This command can be used without being connected to the server.

4.2.2.12. unset-servers-option

Deletes the default value set by the set-servers-option command.

- Alias

unsetservers

- Usage

```
unset-servers-option
```

- Example

```
[MASTER]domain1.adminServer>set-servers-option
The current default server list: adminServer,server1.

[MASTER]domain1.adminServer>unset-servers-option
The default server list has been unset.

[MASTER]domain1.adminServer>set-servers-option
The default server list is not set.

[MASTER]domain1.adminServer>
```

- Note

This command can be used without being connected to the server.

4.2.2.13. verbose

Displays the details of the command process. If no option is specified, the system displays the current setting for this property. If this setting is activated and an error occurs while processing the command, a stack trace is displayed.

- Usage

```
verbose [-off | -on]
```

- Parameters

Parameter	Description
[-on]	Activates the command.

Parameter	Description
[<code>-off</code>]	Deactivates the command.

- Example

- To check if the command was activated

```
offline>verbose
Verbose output disabled.
offline>
```

- Execution example

```
offline>verbose
Verbose output disabled.

offline>help notexistcommand
Command notexistcommand not found

offline>verbose -on
Verbose output is enabled.

offline>help notexistcommand
Command notexistcommand not found
jeus.tool.console.executor.CommandException: Command notexistcommand not found

.....

offline>verbose -off
Verbose output disabled.

offline>help notexistcommand
Command notexistcommand not found
offline>
```

- Note

This command can be used without being connected to the server.

4.2.3. Server Management Commands

The following is a list of server management commands.

Command	Description
add-custom-resource-to-servers	Dynamically registers a custom resource to servers.
add-data-sources-to-server	Dynamically registers data sources to a server.
add-external-resource-to-servers	Dynamically registers an external resource to servers.

Command	Description
add-invocation	Adds an invocation to a lifecycle invocation.
add-invocation-library	Adds a library reference to a lifecycle invocation.
add-jvm-option	Adds JVM to a server.
add-lifecycle-invocation	Adds a lifecycle invocation to a server or cluster.
add-listener	Adds a listener to a server.
add-log-handler	Dynamically adds a handler to a server logger.
add-logger	Dynamically adds a logger to a server.
config-listener-ssl	Sets SSL for a listener.
disable-engine-init-on-boot	Sets the initialization point of the internal engines (Servlet, EJB, and JMS) of the servers to when the application was deployed.
disable-engines	Selectively disables the use of the internal engines (Servlet, EJB, and JMS) of a server.
dump	Outputs the thread dump(s) of a server or servers that belongs to a cluster.
enable-engine-init-on-boot	Sets the initialization point of the internal engines (Servlet, EJB, and JMS) of the servers to when the server boots.
enable-engines	Selectively enables the use of the internal engines (Servlet, EJB, and JMS) of a server.
jndi-info	Displays a list of binding names of objects bound to the JNDI context of a server.
lifecycle-invocation-info	Displays the information of a lifecycle invocation.
list-blocked-clients	Displays the IP addresses of blocked clients.
list-jvm-options	Displays the JVM configuration of a server.
list-lifecycle-invocations	Displays lifecycle invocations of a server or cluster.
list-log-handlers	Displays the information of the handlers registered to a server logger.
list-loggers	Displays the information of the loggers registered to a server.
list-server-listeners	Displays the configuration of listeners of a server.
local-shutdown	Terminates the currently connected server.
local-start-server	Starts the server if the currently connected server is in the STANDBY state in online mode.
log-level	Checks for a logger registered to a specific server and the levels of the handlers registered to the logger.
mbean-info	Displays a list of Mbeans registered to a server.
memory-info	Displays the memory information of a specific server or a server that belongs to a specific cluster.

Command	Description
modify-invocation	Changes an invocation of a specific lifecycle invocation.
modify-invocation-library	Changes a library reference of a specify lifecycle invocation.
modify-jvm-option	Changes JVM configuration of a specific server.
modify-lifecycle-invocation	Changes a lifecycle invocation of a specific server or cluster.
modify-listener	Changes a listener configuration of a server.
modify-log-handler	Changes a handler registered to a server logger.
modify-logger	Dynamically changes a logger registered to a server.
remove-custom-resource-from-servers	Dynamically deletes a custom resource registered to servers.
remove-data-sources-from-server	Dynamically deletes a data sources registered to a server.
remove-external-resource-from-servers	Dynamically deletes an external resource registered to servers.
remove-invocation	Deletes an invocation from a specific lifecycle invocation.
remove-invocation-library	Deletes a library reference from a spcific lifecycle invocation.
remove-jvm-option	Deletes the JVM configuration from a server.
remove-lifecycle-invocation	Deletes a lifecycle invocation from a server or cluster.
remove-listener	Deletes a listener from a server.
remove-log-handler	Dynamically deletes a hander registered to a server logger.
remove-logger	Dynamically deletes a logger registered to a server.
remove-replicate-group	Dynamically deletes a replicate group specified in a server or server template.
resume-server	Resumes a temporarily suspended server.
run-garbage-collection	Executes full gc on a server or servers that belong to a cluster.
server-info	Displays the current status of servers.
server-log	Checks the logs of a server.
set-replicate-group	Dynamically specifies a replicate group to a server or server template.
show-replicate-group	Checks the replicate group of a server or server template.
show-current-scf-view	Monitors the current SCF view.
start-cluster	Starts managed servers that belong to a specific cluster. Only available for the master server and managed server structure.
start-domain	Starts all managed servers that belong to the current domain. Only available for the master server and managed server structure.
start-node	Starts the managed servers that belong to a specific node. Only available for the master server and managed server structure.

Command	Description
start-server	Starts a managed server.
stop-cluster	Terminates managed servers that belong to a cluster. Even if the JEUS master server is included in the cluster, it is not terminated. Only available for the master server and managed server structure.
stop-domain	Terminates managed servers that belong to the current domain. Only available for the master server and managed server structure.
stop-node	Terminates managed servers that belong to a specific node. If the node contains the JEUS Master Server, the JEUS Master Server is excluded from the target. Only available for the master server and managed server structure.
stop-server	Terminates one or more managed servers.
suspend-server	Temporarily suspends a running server.
system-info	Displays the system information of a server.
unblock-client	Unblocks a client that has been blocked.

4.2.3.1. add-custom-resource-to-servers

Dynamically registers a custom resource to servers.

- Alias

`add-cr-to-servers`

- Usage

```
add-custom-resource-to-servers <export-name>
                               -servers <server-list>
                               [-f,--forceLock]
                               [-detail]
```

- Parameters

Parameter	Description
<code><export-name></code>	JNDI bind name of the custom resource to be registered in the server.
<code>-servers <server-list></code>	Server list in which the custom resource is registered.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-custom-resource-to-servers custom/dog -servers server1
Successfully performed the ADD operation for A custom resource.
Check the results using "list-custom-resources"
```

4.2.3.2. add-data-sources-to-server

Dynamically registers data sources to a server.

- Alias

adddstosvr

- Usage

```
add-data-sources-to-server -server <server-name>
                           [-ids <data-source-id-list> | -all]
                           [-f,--forceLock]
                           [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name in which data sources are registered.
[-ids <data-source-id-list>]	List of data source IDs to add in the server. To specify multiple IDs, separate each ID with a comma (,).
[-all]	Registers all data sources defined in the domain.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-data-sources-to-server -server server1 -all
Successfully performed the ADD operation for data sources to the server [server1].
Check the results using "add-data-sources-to-server -server server1"
```

4.2.3.3. add-external-resource-to-servers

Dynamically registers an external resource to servers.

- Alias

add-er-to-servers

- Usage

```
add-external-resource-to-servers <export-name>
                                -servers <server-list>
                                [-f,--forceLock]
                                [-detail]
```

- Parameters

Parameter	Description
<export-name>	External resource name to be registered in the server.
-servers <server-list>	Server list in which the external resource is registered.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-external-resource-to-servers test/ext -servers server1
Successfully performed the ADD operation for A external resource.
Check the results using "list-external-resources"
```

4.2.3.4. add-invocation

Adds an invocation to a specific lifecycle invocation.

- Alias

addinvo, addinvocation

- Usage

```
add-invocation <method>
               -type <invocation-type>
               [-params <method-params>]
               [-args <invocation-argument>]
               -class <class>
               -s,--server <server> | -c,--cluster <cluster>
               [-f,--forceLock]
               [-detail]
```

- Parameters

Parameter	Description
<code><method></code>	Method name of the invocation to add.
<code>-type <invocation-type></code>	<p>Type of the invocation (time of calling the method).</p> <p>Specify one of the follows.</p> <ul style="list-style-type: none"> • BOOT • BEFORE_DEPLOY • AFTER_DEPLOY • READY • BEFORE_UNDEPLOY • AFTER_UNDEPLOY <p>For more information about the types, refer to "Lifecycle Invocation Setting" in JEUS Server Guide.</p>
<code>[-params <method-params>]</code>	<p>Changes the fully qualified class name of the method parameter. For multiple parameters, use spaces as delimiters.</p> <p>(Example: <code>-params java.lang.String boolean</code>)</p>
<code>[-args <invocation-argument>]</code>	<p>Arguments used to call the method. For multiple arguments, use spaces as delimiters. If an argument includes a space, enclose it in quotation marks.</p> <p>(Example: <code>-args "tmaxsoft jeus" "hello world"</code>)</p>
<code>-class <class></code>	Class name of the lifecycle invocation to add.
<code>-s,--server <server> -c,--cluster <cluster></code>	Name of the server or cluster where the lifecycle invocation is located.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>add-invocation methodName -type BOOT -class invo.invoTestClass -s
server1 -params java.lang.String boolean -args "invocation test" true
Successfully performed the ADD operation for Invocation [methodName](Invocation ID = 0),
but all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-lifecycle-invocations or lifecycle-invocation-info".
```

4.2.3.5. add-invocation-library

Adds a library reference to a specific lifecycle invocation.

- Alias

addinvolib, addinvocationlibrary

- Usage

```
add-invocation-library <library>
    -specVer <version>
    [-specMatch <true | false>]
    -implVer <version>
    [-implMatch <true | false>]
    [-fail,--failOnError <true | false>]
    -class <class>
    -s,--server <server> | -c,--cluster <cluster>
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
<library>	Name of the library to add.
-specVer <version>	Specification version of the library to add.
[-specMatch <true false>]	Option to enforce matching the specification version. (Default value: false)
-implVer <version>	Implementation version of the library to add.
[-implMatch <true false>]	Option to enforce matching the implementation version. (Default value: false)
[-fail,--failOnError <true false>]	Option to fail the deployment if a shared library cannot be found. (Default value: false)
-class <class>	Class name of the lifecycle invocation to which a library reference is added.
-s,--server <server> -c,--cluster <cluster>	Name of the server or cluster where the lifecycle invocation is located.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>add-invocation-library libName -specVer 1 -implVer 1 -class
invo.invoTestClass -s server1
Successfully performed the ADD operation for Invocation Library [libName], but all changes were
non-dynamic.
They will be applied after restarting.
Check the results using "list-lifecycle-invocations or lifecycle-invocation-info".
```

4.2.3.6. add-jvm-option

Adds JVM to a server.

- Alias

add-jvmopt, addjvmopt, add-jvm-config, add-jvmcfg, addjvmcfg

- Usage

```
add-jvm-option -server <server-name>
                [-opt,--jvmOption <jvm-option>]
                [-f,--forceLock]
                [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[-opt,--jvmOption <jvm-option>]	JVM configuration to be added.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>add-jvm-option -server server1 -opt "-Xmx256m -XX:MaxPermSize=128m"
Successfully performed the ADD operation for JVM configuration for the server
(sever1)., but all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-jvm-options or add-jvm-option"
```

4.2.3.7. add-lifecycle-invocation

Adds a lifecycle invocation to a specific server or cluster.

- Alias

addlifeinvo, addlifecycleinvocation

- Usage

```
add-lifecycle-invocation <class>
                        -s,--server <server> | -c,--cluster <cluster>
                        [-m,--method <invocation-method>]
                        [-type <invocation-type>]
                        [-params <method-params>]
                        [-args <invocation-argument>]
```

`[-f,--forceLock]`
`[-detail]`

- Parameters

Parameter	Description
<code><class></code>	Class name of the lifecycle invocation to add.
<code>-s,--server <server> -c,--cluster <cluster></code>	Name of the server or cluster where a lifecycle invocation is to be added.
<code>[-m,--method <invocation-method>]</code>	[Invocation option] To add an invocation along with a lifecycle invocation, you need to specify the method name of the invocation. Additionally, when adding an invocation, you must specify the invocation type. Therefore, the [Invocation option] must also be specified using the <code>-type</code> parameter.
<code>[-type <invocation-type>]</code>	[Invocation option] Type of the invocation (time of calling the method). To add an invocation along with a lifecycle invocation, you must specify [Invocation option] using <code>-m</code> and <code>--method</code> parameters. Specify one of the follows. <ul style="list-style-type: none">• BOOT• BEFORE_DEPLOY• AFTER_DEPLOY• READY• BEFORE_UNDEPLOY• AFTER_UNDEPLOY For more information about the types, refer to "Lifecycle Invocation Setting" in JEUS Server Guide.
<code>[-params <method-params>]</code>	[Invocation option] Fully qualified class name of the method parameter. For multiple parameters, use spaces as delimiters. (Example: <code>-params java.lang.String boolean</code>)
<code>[-args <invocation-argument>]</code>	[Invocation option] Arguments used to call the method. For multiple arguments, use spaces as delimiters. If an argument includes a space, enclose it in quotation marks. (Example: <code>-args "tmaxsoft jeus" "hello world"</code>)
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the configuration changes.

- Example


```
[MASTER]domain1.adminServer>add-lifecycle-invocation sampleClass1 -s server1
Successfully performed the ADD operation for Lifecycle Invocation Class [sampleClass1],
but all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-lifecycle-invocations".

[MASTER]domain1.adminServer>add-lifecycle-invocation sampleClass2 -s server1 -m methodName -type
BOOT
Successfully performed the ADD operation for Lifecycle Invocation Class [sampleClass2] and
Invocation
[methoName](Invocation ID = 0), but all changes were non-dynamic. They will be applied after
restarting.
Check the results using "list-lifecycle-invocations".
```

4.2.3.8. add-listener

Dynamically adds a listener to a server.

- Alias

addlistener, createlister

- Usage

```
add-listener -server <server-name>
              -name <listener-name>
              [-addr <address>]
              -port <port>
              [-selectors <selectors>]
              [-dual]
              [-backlog <backlog>]
              [-timeout <read-timeout>]
              [-keepaliveTimeout <keepalive-timeout>]
              [-rt,--reservedthreads <reserved-threads>]
              [-f,--forceLock]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-name <listener-name>	Listener name to be added.
[-addr <address>]	Address of the listener to be added.
-port <port>	Port number of the listener to be added. The value must be between 1 ~ 65535, and the port number cannot conflict with the port numbers of other listeners.
[-selectors <selectors>]	Number of selectors to use.
[-dual]	Uses separate selectors for reading and writing.

Parameter	Description
[-backlog <backlog>]	Backlog of the listener to be added.
[-timeout <read-timeout>]	[Dynamic] Read timeout for the listener to be added.
[-keepaliveTimeout <keepalive-timeout>]	Maximum time to wait before closing an unused socket.
[-rt,--reservedthreads <reserved-threads>]	Number of reserved threads used by the listener to be added.
[-f,--forceLock]	Forcibly obtains a lock for adding a listener.

- Example

```
[MASTER]domain1.adminServer>add-listener -server server1 -name Test -port 10000
Executed Successfully
Check the result using 'list-server-listeners -server server1 -name Test.'
[MASTER]domain1.adminServer>list-server-listeners -server server1 -name Test
=====
Test
+-----+-----+
| address          | 0.0.0.0 |
| port             | 10000   |
| selectors        | 1       |
| dual-selector    | false   |
| backlog          | 128     |
| read-timeout     | 30000   |
| keepalive-timeout| not-set |
| reserved-threads | 0       |
+-----+-----+
=====
```

4.2.3.9. add-log-handler

Dynamically adds a handler to a server logger.

- Alias

addloghandler, add-handler, addhandler

- Usage

```
add-log-handler -server <server-name>
                -logger <logger-name>
                [<handler-name>]
                [-level <handler-level>]
                [-filter <filter-class>]
                [-encoding <encoding>]
                [-filename <file-name>]
                [-enable <true | false>]
```

```

[-count <rotation-count>]
[-dir <rotation-dir>]
[-buffer <buffer-size>]
[-append <true | false>]
[-hour <hour> | -day <day> | -size <size>]
[-f,--forceLock]
[-detail]
[-permission <permission>]
[-chown <chown>]

```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-logger <logger-name>	Name of the logger that adds the handler.
[<handler-name>]	Handler name to be added.
[-level <handler-level>]	[Dynamic] Log level of the handler (Default value: FINEST)
[-filter <filter-class>]	Class name of the filter for log messages.
[-encoding <encoding>]	Encoding value for log messages.
[-filename <file-name>]	File name where logs are recorded. (Default value: loggerName.log. JeusServer.log for the JEUS logger)
[-enable <true false>]	Option to enable file rotation (Default value: true).
[-count <rotation-count>]	Maximum number of log files for backup.
[-dir <rotation-dir>]	Path to the directory that stores backup log files.
[-buffer <buffer-size>]	Size of the buffer used to record log messages to a file.
[-append <true false>]	Option to append logs to the previous file if the server reboots. (true false, default value: true)
[-hour <hour>]	Writes a new log file every specified number of hours.
[-day <day>]	Writes a new log file every specified number of days.
[-size <size>]	Creates a new log file of the specified size.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.
[-permission <permission>]	Permission used to set a log file. (Example: rwxrwxrwx)
[-chown <chown>]	Owner used to set a log file. The owner and group are separated by comma(.). (Example: owner-id,group-id)

- Example

```
[MASTER]domain1.adminServer>add-log-handler -server server1 -logger jeus.jndi fileHandler -day 10
Successfully performed the ADD operation for The handler for the logger(jeus.jndi)
on the server(server1)., but all changes were non-dynamic. They will be applied
after restarting.
Check the results using "list-log-handlers or add-log-handler"
```

4.2.3.10. add-logger

Dynamically adds a logger to a server.

- Alias

addlogger

- Usage

```
add-logger -server <server-name>
            [<logger-name>]
            [-level <log-level>]
            [-useParentHandlers <true | false>]
            [-filter <filter-class>]
            [-formatter <formatter-class>]
            [-f,--forceLock]
            [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[<logger-name>]	Name of the logger to be added in the server.
[-level <log-level>]	[Dynamic] Log level of the logger.
[-useParentHandlers <true false>]	[Dynamic] Option to use the parent logger handler. (true false)
[-filter <filter-class>]	Class name of the filter for log messages.
[-formatter <formatter-class>]	Class name of the formatter to be applied to the logger.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-logger -server server1 jeus.security -level FINE
Successfully performed the ADD operation for The logger for the server(server1).
, but all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-loggers or add-logger"
```

4.2.3.11. config-listener-ssl

Sets SSL for a listener.

- Alias

configssl

- Usage

```
config-listener-ssl -server <server-name>
                    -name <listener-name>
                    -set | -del | -show
                    [-need | -want | -noauth,--unnecessary]
                    [-p,--protocol <protocol>]
                    [-cs,--cipherSuite <cipher-suites>]
                    [-ks,--keystore <keystore-file>]
                    [-kp,--keystorePass <keystore-pass>]
                    [-kkp,--keystoreKeypass <keystore-keypass>]
                    [-kt,--keystoreType <keystore-type>]
                    [-kma,--keyManagementAlgorithm <key-management-algorithm>]
                    [-alias,--keyAlias <key-alias>]
                    [-ts,--truststore <truststore-file>]
                    [-tp,--truststorePass <truststore-pass>]
                    [-tt,--truststoreType <truststore-type>]
                    [-tma,--trustManagementAlgorithm <trust-management-algorithm>]
                    [-crl <crl-file>]
                    [-f,--forceLock]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-name <listener-name>	Listener name.
-set -del -show	Option to set, delete, or show SSL configuration of the specified listener.
[-need -want -noauth,--unnecessary]	Client authentication method.
[-p,--protocol <protocol>]	Type of the SSL protocol to use in the specified listener.
[-cs,--cipherSuite <cipher-suites>]	Encoding method to use in the specified listener.
[-ks,--keystore <keystore-file>]	File that stores the server key to use in the specified listener and its corresponding authentication certificate.
[-kp,--keystorePass <keystore-pass>]	Key to open the specified keystore file.

Parameter	Description
<code>[-kkp,--keystoreKeypass <keystore-keypass>]</code>	Encrypted value for the server key stored in the specified keystore file.
<code>[-kt,--keystoreType <keystore-type>]</code>	Type of the specified keystore.
<code>[-kma,--keyManagementAlgorithm <key-management-algorithm>]</code>	Management algorithm for the key in the keystore file.
<code>[-alias,--keyAlias <key-alias>]</code>	Key alias of the authentication certificate.
<code>[-ts,--truststore <truststore-file>]</code>	File that stores the server authentication certificate.
<code>[-tp,--truststorePass <truststore-pass>]</code>	Password to open the truststore file.
<code>[-tt,--truststoreType <truststore-type>]</code>	Type of the specified truststore.
<code>[-tma,--trustManagementAlgorithm <trust-management-algorithm>]</code>	Management algorithm of the key stored in the truststore file.
<code>[-crl <crl-file>]</code>	File that stores the certificate revocation lists.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>config-listener-ssl -server server1 -name Test -set
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
```

4.2.3.12. disable-engine-init-on-boot

Sets the initialization point of the internal engines (Servlet, EJB, JMS, ProObject) of the servers to when the application was deployed. To apply changes, restart the servers.

- Related schema

jeus-domain.xsd

- Alias

lazyengine

- Usage

```
disable-engine-init-on-boot <server-list>
                        [-f,--forceLock]
```

- Parameters

Parameter	Description
<server-list>	Server name. To specify multiple servers, separate each server with a comma (,).
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>disable-engine-init-on-boot adminServer,server1
EngineInitOnBoot was successfully disabled.
Applying configuration ...
=====
+-----+
|                                     |
|                               Result |
|                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration. |
| Restart the server to apply the changes.                  |
+-----+
=====
```

4.2.3.13. disable-engines

Disables the use of the internal engines (Servlet, EJB, JMS, and ProObject) of a server. To apply the setting, restart the server.

- Related schema

jeus-domain.xsd

- Alias

engineoff

- Usage

```
disable-engines <server-list>
                [-all]
                [-web]
                [-ejb]
                [-jms]
                [-f,--forceLock]
```

- Parameters

Parameter	Description
<server-list>	Server name. To specify multiple servers, separate each server with a comma (,).

Parameter	Description
[-all]	Apply to all web, ejb, jms engines.
[-web]	Apply to the web engine.
[-ejb]	Apply to the ejb engine.
[-jms]	Apply to the jms engine.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>disable-engines adminServer -all
[adminServer]
Change Engine to Disabled: Web EJB JMS

Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration.                    |
| Restart the server to apply the changes.                                    |
+-----+
=====
...

[MASTER]domain1.adminServer>disable-engines server1 -all
[server1]
Change Engine to Disabled: Web EJB JMS

Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration.                    |
| Restart the server to apply the changes.                                    |
+-----+
=====
...

[MASTER]domain1.adminServer>disable-engines server2 -web -ejb
[server2]
Change Engine to Disabled: Web EJB

Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration.                    |
| Restart the server to apply the changes.                                    |
+-----+
=====
...

```


4.2.3.14. dump

Outputs the thread dump(s) of a server or servers that belongs to a cluster. Output is recorded in the server logs.

- Usage

```
dump [-clusters <cluster-list> | -servers <server-list>]
```

- Parameters

Parameter	Description
[-clusters <cluster-list>]	Cluster name. To specify multiple clusters, separate each cluster with a comma (,).
[-servers <server-list>]	Server name. To specify multiple servers, separate each server with a comma (,).

- Example

```
[MASTER]domain1.adminServer>dump -servers server1
Dumping to the servers.
The result of executing a dump of server processes.
=====
+-----+-----+
| Server |          Result          |
+-----+-----+
| server1| Successfully dumped.     |
+-----+-----+
=====
```

4.2.3.15. enable-engine-init-on-boot

Sets the initialization point of the internal engines (Servlet, EJB, JMS, ProObject) of the servers to when the server boots. To apply changes, restart the servers.

- Related schema

jeus-domain.xsd

- Alias

eagerengine

- Usage

```
enable-engine-init-on-boot <server-list>
                             [-f,--forceLock]
```

- Parameters

Parameter	Description
<server-list>	Server name. To specify multiple servers, separate each server with a comma (,).
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>enable-engine-init-on-boot adminServer
EngineInitOnBoot was successfully enabled.
Applying configuration ...
=====
+-----+
|                                     |
|                               Result |
|                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration. |
| Restart the server to apply the changes.                  |
+-----+
=====
```

4.2.3.16. enable-engines

Enables the use of the internal engines (Servlet, EJB, JMS, and ProObject) of a server. To apply the setting, restart the server.

- Related schema

jeus-domain.xsd

- Alias

engineon

- Usage

```
enable-engines <server-list>
               [-all]
               [-web]
               [-ejb]
               [-jms]
               [-f,--forceLock]
```

- Parameters

Parameter	Description
<server-list>	Server name. To specify multiple servers, separate each server with a comma (,).

Parameter	Description
[-all]	Apply to all web, ejb, jms engines.
[-web]	Apply to the web engine.
[-ejb]	Apply to the ejb engine.
[-jms]	Apply to the jms engine.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>enable-engines adminServer -all
[adminServer]
Change Engine to Enabled: Web EJB JMS

Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration.                    |
| Restart the server to apply the changes.                                    |
+-----+
=====
...

[MASTER]domain1.adminServer>enable-engines server1 -all
[server1]
Change Engine to Enabled: Web EJB JMS

Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration.                    |
| Restart the server to apply the changes.                                    |
+-----+
=====
...

[MASTER]domain1.adminServer>enable-engines server2 -web -ejb
[server2]
Change Engine to Enabled: Web EJB

Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully changed only the JEUS Domain Configuration.                    |
| Restart the server to apply the changes.                                    |
+-----+
=====
...
```

4.2.3.17. jndi-info

Displays a list of binding names of the objects bound to the JNDI context of a server.

- Alias

jndiinfo, jndilist

- Usage

```
jndi-info -server <server-name>
          [<context-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[<context-name>]	JNDI context name. If <context-name> is a context, all objects bound to the context are displayed. If <context-name> is a leaf node, details of the object are displayed.

- Example

- context

```
[MASTER]domain1.adminServer>jndi-info -server server1
The JNDI list on the server1
List of the context /
=====
+-----+-----+-----+
| Name | Value | Local Binding |
+-----+-----+-----+
| JEUSMQ_DLQ | jeus.jms.common.destination.JeusQueue | false |
| mgmt | jeus.jndi.JNSContext | false |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>jndi-info -server server1 mgmt
The JNDI list on the server1
List of the context /mgmt
=====
+-----+-----+-----+
| Name | Value | Local Binding |
+-----+-----+-----+
| rmbs | jeus.jndi.JNSContext | false |
+-----+-----+-----+
=====
```

- leaf node

```
[MASTER]domain1.adminServer>jndi-info -server server1 mgmt/rmbs/adminServer
The JNDI list on the server1
List of the context /mgmt/rmbs/server1
=====
+-----+-----+-----+
|      Name      |      Value      | Local Binding |
+-----+-----+-----+
| mgmt/rmbs/server1 | javax.management.remote.JMXConnector | false        |
+-----+-----+-----+

Reference class name : javax.management.remote.JMXConnector
Reference Factory class name : jeus.management.remote.jeusmp.JeusmpConnectorFactory
[0] StringRefAddr : jmxmp, RefAddr type : protocol
[1] StringRefAddr : Administrator, RefAddr type : host
[2] StringRefAddr : 19736, RefAddr type : port
[3] StringRefAddr : /JEUSMP_server1, RefAddr type : urlPath
[4] StringRefAddr : 60000, RefAddr type : checktmout
[5] StringRefAddr : 61.77.153.160, RefAddr type : ipaddr
end of RefAddr

=====
```

4.2.3.18. lifecycle-invocation-info

Displays the information of a lifecycle invocation.

- Alias

invoinfo, lifecycleinvocationinfo, lifeinvoinfo

- Usage

```
lifecycle-invocation-info -s,--server <server> | -c,--cluster <cluster>
                        [-class <lifecycle-invocation-class>]
                        [-lib,--library]
                        [-invo,--invocation]
```

- Parameters

Parameter	Description
-s,--server <server> -c,--cluster <cluster>	Server or cluster in which the lifecycle invocation to display is located.
[-class <lifecycle-invocation-class>]	Class name for displaying the class of a specific lifecycle invocation.
[-lib,--library]	Displays library references of a lifecycle invocation.
[-invo,--invocation]	Displays invocations of a lifecycle invocation.

- Example

```
[MASTER]domain1.adminServer>lifecycle-invocation-info -s server1
Target Name           : server1
Target Type           : Server
Lifecycle Invocation Class Name: invocation.ClassName1
Library Ref Information:
=====
+-----+-----+-----+-----+
| Library Name | Specification Version | Implementation Version | Failon Error |
|              | (Exact match)         | (Exact match)         |              |
+-----+-----+-----+-----+
(No data available)
=====

Invocation Information:
=====
+-----+-----+-----+-----+-----+
| Invocation | Invocation | Invocation Argument | Method | Method |
|   ID      |   Type    |                   | Name   | Params  |
+-----+-----+-----+-----+-----+
|         0 | BOOT     |                   | bootMethod|         |
+-----+-----+-----+-----+-----+
=====
```

4.2.3.19. list-blocked-clients

Displays the IP addresses of blocked clients.

- Alias

listblocked, listblockedclients

- Usage

```
list-blocked-clients -server <server-name>
```

- Parameters

Parameter	Description
-server	Name of the server that retrieves the addresses of blocked clients.

- Example

```
[MASTER]domain1.adminServer>list-blocked-clients -server adminServer
=====
+-----+
| Blocked addresses |
+-----+
```

```
| 192.168.14.220
| 192.168.14.222
+-----+
=====
```

4.2.3.20. list-jvm-options

Displays the JVM configuration of a server.

- Alias

list-jvmopt, listjvmopt, list-jvm-config, list-jvmcfg, listjvmcfg

- Usage

```
list-jvm-options <server-name>
```

- Parameters

Parameter	Description
<server-name>	Server name.

- Example

```
[MASTER]domain1.adminServer>list-jvm-config adminServer
List of JVM Configurations
=====
+-----+
|                      JVM Configs                      |
+-----+
| -Xmx256m -XX:MaxPermSize=128m                          |
+-----+
=====
```

4.2.3.21. list-lifecycle-invocations

Displays lifecycle invocations of a server or cluster.

- Alias

listinvo, listlifecycleinvocations, listlifeinvo

- Usage

```
list-lifecycle-invocations [-s,--server <server> | -c,--cluster <cluster>]
```

- Parameters

Parameter	Description
<code>[-s,--server <server> -c,--cluster <cluster>]</code>	Displays lifecycle invocations of a specified server or cluster.

- Example

```
[MASTER]domain1.adminServer>list-lifecycle-invocations
List of Lifecycle invocations
=====
+-----+-----+-----+-----+
| Target | Lifecycle Invocation | Invocation Library | Invocation |
|         | Class               | Ref               |           |
+-----+-----+-----+-----+
| [Server]adminSer | lifecycle.LifeCycleTes |                   | [0]boot   |
| ver              | ter                  |                   |           |
+-----+-----+-----+-----+
| [Server]server1  | invocation.ClassName1 |                   | [0]bootMet |
|                  |                       |                   | hod        |
+-----+-----+-----+-----+
| [Server]server1  | invocation.ClassName2 | libName           | [0]method1, |
|                  |                       |                   | [1]method2 |
+-----+-----+-----+-----+
=====
Use the "lifecycle-invocation-info" command for more information about Lifecycle invocation.
```

4.2.3.22. list-log-handlers

Displays the information of handlers registered to a server logger.

- Alias

listloghandlers, listhandlers, list-handlers

- Usage

```
list-log-handlers -server <server-name>
                  <logger-name>
```

- Parameters

Parameter	Description
<code>-server <server-name></code>	Server name.
<code><logger-name></code>	Name of the logger.

- Example


```
[MASTER]domain1.adminServer>list-log-handlers -server adminServer jeus.deploy
```

List of Loggers

Name		Value
Handler Name	fileHandler	
Handler Type	FileHandlerType	
Handler Level	FINEST	
Filename	jeus.deploy.log	
Enable Rotation	true	
Rotation Directory	\${SERVER_HOME}/logs	
Valid Day	1	
Buffer Size	1024	
Logging to Append	true	

4.2.3.23. list-loggers

Displays the information of loggers registered to a server.

- Alias

listloggers

- Usage

```
list-loggers <server-name>
           [-logger <logger-name>]
```

- Parameters

Parameter	Description
<server-name>	Server name.
[-logger<logger-name>]	Logger name.

- Example

```
[MASTER]domain1.adminServer>list-loggers server1
```

List of Loggers

Logger Name	Level	Use Parent Handlers	Filter	Formatter
jeus	INFO	false		
jeus.security	FINE	true		

4.2.3.24. list-server-listeners

Dynamically displays the configuration of listeners of a server.

- Alias

listener, serverlistener

- Usage

```
list-server-listeners -server <server-name>
                        [-name <listener-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[-name <listener-name>]	Name of the listener to display.

- Example

```
[MASTER]domain1.adminServer>list-server-listeners -server adminServer
=====
+-----+-----+-----+
| listener-name | address | port |
+-----+-----+-----+
| base          | 0.0.0.0 | 9736 |
| jms           | 0.0.0.0 | 9741 |
| http-listener | not-set | 8088 |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>list-server-listeners -server adminServer -name base
=====
base
+-----+-----+-----+
| address          | 0.0.0.0 |
| port             | 9736    |
| selectors        |         |
| dual-selector    | false   |
| backlog          | 128     |
| read-timeout     | 30000   |
| reserved-threads | 0       |
+-----+-----+-----+
=====
```

4.2.3.25. local-shutdown

Terminates the currently connected server.

- Alias

localdown, localjeusexit

- Usage

```
local-shutdown [-to,--shutdowntimeout <timeout> | -f,--force | -g,--graceful]
               [-i]
```

- Parameters

Parameter	Description
[-f, --force]	Forcibly shuts down the server instead of gracefully shutting down.
[-g, --graceful]	Option to shut down servers gracefully. If set, the system waits indefinitely for a server to complete the current request.
[-to, --shutdowntimeout <timeout>]	Sets the timeout to shut down the server gracefully. The server waits the specified period for the current request to complete. (Unit: second)
[-i]	Terminates the servers immediately without the user's consent.

- Example

Terminates the currently connected server by using the local-shutdown command.

```
[MASTER]domain1.adminServer>local-shutdown
Executing this command affects the service. Do you want to continue? (y/n)n
[local-shutdown] has been canceled.
[MASTER]domain1.adminServer>local-shutdown -i
The server [adminServer] has been shut down successfully.
offline>
```

4.2.3.26. local-start-server

Starts the server if the currently connected server is in the STANDBY state in online mode. In offline mode, a specific MS is started via SSH. In this case, -node, -domain, -server, -u, -p, and -masterurl are required.

- alias

localstartserver, local-boot

- Usage

The usage below is based on online mode.

```
local-start-server [-node <node-name>]
                  [-domain <domain-name>]
                  [-server <server-name>]
                  [-u <user-name>]
                  [-p <password>]
                  [-masterurl <masterurl>]
                  [-f, --force]
                  [-s, --standby]
```

- Parameters

Parameter	Description
[-node <node-name>]	Node name.
[-domain <domain-name>]	Domain name.
[-server <server-name>]	Server name.
[-u <user-name>]	User name.
[-p <password>]	User password.
[-masterurl <masterurl>]	Address of the Master Server.
[-f, --force]	Forces the registered application to start even if it is not in the RUNNING state.
[-s, --standby]	Starts the server in the STANDBY state, which is the ready state.

- Example

```
offline>local-start-server -node node1 -domain domain1 -server server1
-u administrator -p password -masterurl 192.168.34.55:9736
The Server [server1] was successfully started.
```

- Note

This command can be used without being connected to the server.

4.2.3.27. log-level

Checks for a logger registered to a specific server and the levels of the handlers registered to the logger.

- Alias

loglevel

- Usage

```
log-level -server <server-name>
         <logger-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
<logger-name>	Name of the logger to be checked.

- Example

```
[MASTER]domain1.adminServer>log-level -server server1 jeus
The logger[jeus] information for the server [server1]
Information about the logger[jeus].
=====
Logger Name : jeus
Level : INFO
Use Parent Handlers : false

+-----+-----+-----+
| Handler Name| Handler Type|      Handler Level      |
+-----+-----+-----+
| FileHandler | FileHandler | FINEST                   |
+-----+-----+-----+
=====
```

4.2.3.28. mbean-info

Displays a list of Mbeans registered to a server.

- Alias

mbeaninfo

- Usage

```
mbean-info -server <server-name>
           [<object-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.

Parameter	Description
[<object-name>]	Query for an object name. Displays a list of MBeans with the specified object name. For more information about queried object names, refer to "JEUS JMX Guide".

- Example

```
[MASTER]domain1.adminServer>mbean-info -server server1
The object names of MBeans on the server [server1].
=====
+-----+
| JEUS:j2eeType=JeusService,jeusType=ServerNodeManagerService,JMXManager=server |
| 1,J2EEServer=server1,name=server1 |
| JEUS:j2eeType=J2EEServer,JMXManager=server1,isTargetable=true,J2EEDomain=doma |
| in1,name=server1 |
| JEUS:j2eeType=JMSResource,JMXManager=server1,J2EEServer=server1,name=server1_ |
| jms |
| JEUS:j2eeType=JeusService,jeusType=SecurityDomain,JMXManager=server1,J2EEDoma |
| in=domain1,SecurityService=SecurityService,name=SYSTEM_DOMAIN |
| JEUS:j2eeType=JeusService,jeusType=JEUSMPConnector,JMXManager=server1,J2EESer |
| ver=server1,name=server1 |
| JEUS:j2eeType=JeusService,jeusType=ThreadPool,JMXManager=server1,J2EEServer=s |
| erver1,name=threadpool.System |
| JEUS:j2eeType=JeusService,jeusType=WebListener,JMXManager=server1,WebEngine=s |
| erver1_servlet,J2EEServer=server1,name=ADMIN-HTTP |
| JEUS:j2eeType=JeusService,jeusType=ThreadPool,JMXManager=server1,J2EEServer=s |
| erver1,name=EJBTimerService |
| JEUS:j2eeType=JDBCResource,JMXManager=server1,J2EEServer=server1,name=server1 |
| JEUS:j2eeType=JeusService,jeusType=ThreadPool_WEBC,JMXManager=server1,WebEngi |
| ne=server1_servlet,J2EEServer=server1,WebListener=ADMIN-HTTP,name=ADMIN-HTTP |
| JEUS:j2eeType=JeusService,jeusType=EJBEngine,JMXManager=server1,J2EEServer=se |
| rver1,name=server1_ejb |
| JEUS:j2eeType=JeusService,jeusType=JNDIResourceService,JMXManager=server1,J2E |
| EServer=server1,name=server1 |
| JEUS:j2eeType=JeusService,jeusType=SecurityService,JMXManager=server1,J2EEDom |
| ain=domain1,J2EEServer=server1,name=SecurityService |
| JEUS:j2eeType=JeusService,jeusType=WebEngine,JMXManager=server1,J2EEServer=se |
| rver1,name=server1_servlet |
| JEUS:j2eeType=JeusService,jeusType=SecuritySubject,JMXManager=server1,J2EEDom |
| ain=domain1,SecurityDomain=SYSTEM_DOMAIN,name=Subject |
| JEUS:j2eeType=JeusService,jeusType=ThreadPool,JMXManager=server1,J2EEServer=s |
| erver1,name=server1 |
| JEUS:j2eeType=JeusService,jeusType=JMSServiceChannel,JMXManager=server1,J2EES |
| erver=server1,JMSResource=server1_jms,name=JMSServiceChannel-default |
| JEUS:j2eeType=Console,JMXManager=server1,J2EEServer=server1,name=server1 |
| JEUS:j2eeType=JeusService,jeusType=JDBCResourceService,JMXManager=server1,J2E |
| EServer=server1,name=server1 |
| JEUS:j2eeType=JVM,JMXManager=server1,J2EEServer=server1,name=server1 |
| JEUS:j2eeType=JTAResource,JMXManager=server1,J2EEServer=server1,name=server1 |
| JEUS:j2eeType=JeusService,jeusType=JMSEngine,JMXManager=server1,J2EEServer=se |
| rver1,name=server1_jms |
| JEUS:j2eeType=JeusService,jeusType=JMSDestinationResource,JMXManager=server1, |
| J2EEServer=server1,JMSResource=server1_jms,name=JEUSMQ_DLQ |
| JEUS:j2eeType=JeusService,jeusType=SecurityPolicy,JMXManager=server1,J2EEDoma |
```

```
|in=domain1,SecurityDomain=SYSTEM_DOMAIN,name=Policy|
+-----+
=====
```

4.2.3.29. memory-info

Displays the memory information of a specific server or a server that belongs to a specific cluster.

- Alias

memorystatus, memstatus, memoryinfo, meminfo

- Usage

```
memory-info [-clusters <cluster-list> | -servers <server-list>]
```

- Parameters

Parameter	Description
[-clusters <cluster-list>]	Cluster name. To specify multiple clusters, separate each cluster with a comma (,).
[-servers <server-list>]	Server name. To specify multiple servers, separate each server with a comma (,).

- Example

```
[MASTER]domain1.adminServer>memory-info -servers server1
Domain [domain1] Memory Information
Memory Information
=====
+-----+-----+-----+
| Server | Total Amount of Memory | The Current Amount of Memory |
+-----+-----+-----+
| server1|          110362624 |          55153456 |
+-----+-----+-----+
=====
```

4.2.3.30. modify-invocation

Changes an invocation of a specific lifecycle invocation.

- Alias

modinvo, modifyinvocation, modifyinvo

- Usage

```

modify-invocation -id <invocation-id> | -m,--method <invocation-method>
                    [-mv,--rename <invocation-method>]
                    [-type <invocation-type>]
                    [-params <method-params>]
                    [-args <invocation-argument>]
                    -class <class>
                    -s,--server <server> | -c,--cluster <cluster>
                    [-f,--forceLock]
                    [-detail]

```

- Parameters

Parameter	Description
-id <invocation-id> -m,--method <invocation-method>	Specifies invocations as either IDs or method names to be changed. If there are multiple invocations with the same method names, specify them using their corresponding IDs.
[-mv,--rename <invocation-method>]	Changes method names of invocations.
[-type <invocation-type>]	<p>Changes the invocation type (time of calling method).</p> <p>Specify one of the follows.</p> <ul style="list-style-type: none"> • BOOT • BEFORE_DEPLOY • AFTER_DEPLOY • READY • BEFORE_UNDEPLOY • AFTER_UNDEPLOY <p>For more information about the types, refer to "Lifecycle Invocation Setting" in JEUS Server Guide.</p>
[-params <method-params>]	<p>Changes the fully qualified class name of the method parameter. For multiple parameters, use spaces as delimiters.</p> <p>(Example: -params java.lang.String boolean)</p>
[-args <invocation-argument>]	<p>Changes the argument used to call methods. For multiple parameters, use spaces as delimiters. If an argument includes a space, enclose it in quotation marks.</p> <p>(Example: -args "tmaxsoft jeus" "hello world")</p>
-class <class>	Class name of the lifecycle invocation where the invocation is located.

Parameter	Description
<code>-s,--server <server> -c,--cluster <cluster></code>	Name of the server or cluster where the lifecycle invocation is located.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>modify-invocation -m bootMethod -mv newMethod
-class invocation.ClassName1 -s server1
Successfully performed the MODIFY operation for Invocation [newMethod](Invocation ID = 0), but
all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-lifecycle-invocations or lifecycle-invocation-info".
```

4.2.3.31. modify-invocation-library

Changes a library reference of a specify lifecycle invocation.

- Alias

modinvolib, modifyinvocationlibrary, modifyinvolib

- Usage

```
modify-invocation-library <library>
    [-mv,--rename <invocation-library>]
    [-specVer <version>]
    [-specMatch <true | false>]
    [-implVer <version>]
    [-implMatch <true | false>]
    [-fail,--failOnError <true | false>]
    -class <class>
    -s,--server <server> | -c,--cluster <cluster>
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
<code><library></code>	Name of a library refrence.
<code>[-mv,--rename <invocation-library>]</code>	Changes a library reference.
<code>[-specVer <version>]</code>	Modifies the specification version of the library.
<code>[-specMatch <true false>]</code>	Changes the option to enforce matching the specification version.

Parameter	Description
<code>[-implVer <version>]</code>	Changes the implementation version of the library.
<code>[-implMatch <true false>]</code>	Changes the option to enforce matching the implementation version.
<code>[-fail,--failOnError <true false>]</code>	Changes the option to fail the deployment if a shared library cannot be found.
<code>-class <class></code>	Class name of the lifecycle invocation where the library reference is located.
<code>-s,--server <server> -c,--cluster <cluster></code>	Name of the server or cluster where the lifecycle invocation is located.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>modify-invocation-library libName -mv newLibName
-class invo.invoTestClass2 -s server1
Successfully performed the MODIFY operation for Invocation Library [newLibName], but all changes
were non-dynamic.
They will be applied after restarting.
Check the results using "list-lifecycle-invocations or lifecycle-invocation-info".
```

4.2.3.32. modify-jvm-option

Changes the JVM configuration of a server.

- Alias

`modify-jvmopt, modifyjvmopt, modify-jvm-config, modify-jvmcfg`

- Usage

```
modify-jvm-option -server <server-name>
                  [-old,--oldOption <jvm-option>]
                  [-new,--newOption <jvm-option>]
                  [-f,--forceLock]
                  [-detail]
```

- Parameters

Parameter	Description
<code>-server <server-name></code>	Server name.

Parameter	Description
[-old,--oldOption <jvm-option>]	JVM configuration before change. The current JVM configuration.
[-new,--newOption <jvm-option>]	JVM configuration to be changed.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>modify-jvm-option -server server1
-old "-Xmx256m -XX:MaxPermSize=128m" -new "-Xmx512m -XX:MaxPermSize=128m"
Successfully performed the MODIFY operation for JVM configuration for the server
(server1)., but all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-jvm-options or modify-jvm-option"
```

4.2.3.33. modify-lifecycle-invocation

Changes a lifecycle invocation of a specific server or cluster.

- Alias

modlifeinvo, modifylifecycleinvocation, modifylifeinvo

- Usage

```
modify-lifecycle-invocation <class>
    [-mv,--rename <lifecycle-invocation-class>]
    -s,--server <server> | -c,--cluster <cluster>
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
<class>	Class name of the lifecycle invocation to modify.
[-mv,--rename <lifecycle-invocation-class>]	Changes the class name of the lifecycle invocation.
-s,--server <server> -c,--cluster <cluster>	Name of the server or cluster where the lifecycle invocation is located.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>modify-lifecycle-invocation sampleClass1 -mv className3 -s server1
Successfully performed the ADD operation for Lifecycle Invocation Class [className3], but all
changes were non-dynamic.
They will be applied after restarting.
Check the results using "list-lifecycle-invocations".
```

4.2.3.34. modify-listener

Changes the listener configuration of a server.

- Alias

modifylistener, editlistener

- Usage

```
modify-listener -server <server-name>
                -name <listener-name>
                [-addr <address>]
                [-port <port>]
                [-selectors <selectors>]
                [-dual]
                [-backlog <backlog>]
                [-timeout <read-timeout>]
                [-keepaliveTimeout <keepalive-timeout>]
                [-rt,--reservedthreads <reserved-threads>]
                [-f,--forceLock]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-name <listener-name>	Listener name to be changed.
[-addr <address>]	Address of the listener to be changed.
-port <port>	Port number of the listener to be changed. The value must be between 1 ~ 65535, and the port number cannot conflict with the port numbers of other listeners.
[-selectors <selectors>]	Number of selectors to use.
[-dual]	Uses separate selectors for reading and writing.
[-backlog <backlog>]	Backlog of the listener to be changed.
[-timeout <read-timeout>]	[Dynamic] Read timeout for the listener to be changed.
[-keepaliveTimeout <keepalive-timeout>]	Maximum time to wait before closing an unused socket.

Parameter	Description
<code>[-rt,--reservedthreads <reserved-threads>]</code>	Number of reserved threads used by the listener to be changed.
<code>[-f,--forceLock]</code>	Forcibly gets a lock for changing the listener configuration.

- Example

```
[MASTER]domain1.adminServer>modify-listener -server adminServer -name base -dual -b acklog 250
Executed successfully, but some configurations were not applied dynamically. It
might be necessary to restart the server.
Check the result using 'list-server-listeners -server adminServer -name base.'
```

```
[MASTER]domain1.adminServer>list-server-listeners -server adminServer -name base
```

```
=====
base
+-----+-----+
| address                | 0.0.0.0 |
| port                   | 9736    |
| selectors              | 1       |
| dual-selector          | true    |
| backlog                | 250     |
| read-timeout           | 30000   |
| keepalive-timeout      | not-set |
| reserved-threads       | 0       |
+-----+-----+
=====
```

4.2.3.35. modify-log-handler

Dynamically changes a handler registered to a server logger.

- Alias

modifyloghandler, modify-handler, modifyhandler

- Usage

```
modify-log-handler -server <server-name>
                  -logger <logger-name>
                  <handler-name>
                  [-level <handler-level>]
                  [-filter <filter-class>]
                  [-encoding <encoding>]
                  [-filename <file-name>]
                  [-enable <true | false>]
                  [-count <rotation-count>]
                  [-dir <rotation-dir>]
                  [-buffer <buffer-size>]
                  [-append <true | false>]
```

```

[-hour <hour> | -day <day> | -size <size>]
[-f,--forceLock]
[-detail]
[-permission <permission>]
[-chown <chown>]

```

- Parameters

Parameter	Description
-server <server-name>	Server name.
<logger-name>	Name of the logger.
<handler-name>	Name of the handler to be changed.
[-level <handler-level>]	[Dynamic] Log level of the handler (Default value: FINEST)
[-filter <filter-class>]	Class name of the filter for log messages.
[-encoding <encoding>]	Encoding value for log messages.
[-filename <file-name>]	File name where logs are recorded. (Default value: loggerName.log. JeusServer.log for the JEUS logger)
[-enable <true false>]	Option to enable file rotation (Default value: true).
[-count <rotation-count>]	Maximum number of log files for backup.
[-dir <rotation-dir>]	Path to the directory that stores backup log files.
[-buffer <buffer-size>]	Size of the buffer used to record log messages to a file.
[-append <true false>]	Option to append logs to the previous file if the server reboots. (true false, default value: true)
[-hour <hour>]	Writes a new log file every specified number of hours.
[-day <day>]	Writes a new log file every specified number of days.
[-size <size>]	Writes a new log file of the specified size.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.
[-permission <permission>]	Permission used to set a log file. (Example: rwxrwxrwx)
[-chown <chown>]	Owner used to set a log file. The owner and group are separated by comma(.). (Example: owner-id,group-id)

- Example

```

[MASTER]domain1.adminServer>modify-log-handler -server server1 -logger jeus newHandler -level
CONFIG

```

Successfully performed the MODIFY operation for The handler(FileHandler) for the logger(jeus) in server (server1).
Check the results using "modify-log-handler"

4.2.3.36. modify-logger

Dynamically changes a logger registered to a server.

- Alias

modifylogger

- Usage

```
modify-logger -server <server-name> <logger-name>
               [-level <log-level>]
               [-useParentHandlers <true | false>]
               [-filter <filter-class>]
               [-formatter <formatter-class>]
               [-f,--forceLock]
               [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
<logger-name>	Name of the logger.
[-level <log-level>]	[Dynamic] Log level of the logger.
[-useParentHandlers <true false>]	[Dynamic] Option to use the parent logger handler. (true false)
[-filter <filter-class>]	Class name of the filter for log messages.
[-formatter <formatter-class>]	Class name of the formatter to be applied to the logger.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-logger -server server1 jeus.security -level FINEST
-useParentHandlers false
Successfully performed the MODIFY operation for The logger[jeus.security] inform
ation for the server [server1].
Check the results using "modify-logger"
```

4.2.3.37. remove-custom-resource-from-servers

Dynamically deletes the custom resource registered to servers.

- Alias

remove-cr-from-servers

- Usage

```
remove-custom-resource-from-servers <export-name>
                                -servers <server-list>
                                [-f,--forceLock]
                                [-detail]
```

- Parameters

Parameter	Description
<export-name>	JNDI bind name of the custom resource to be deleted from the server.
-servers <server-list>	Server list from which the custom resource is deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-custom-resource-from-servers custom/dog -servers server1
Successfully performed the REMOVE operation for A custom resource.
Check the results using "list-custom-resources"
```

4.2.3.38. remove-data-sources-from-server

Dynamically deletes data sources registered to a server.

- Alias

rmidsfromsvr

- Usage

```
remove-data-sources-from-server -server <server-name>
                                [-ids <data-source-id-list> | -all]
                                [-f,--forceLock]
                                [-detail]
```


- Parameters

Parameter	Description
<code>-server <server-name></code>	Server name from which data sources are to be deleted.
<code>[-ids <data-source-id-list>]</code>	List of data source IDs to delete in the server. To specify multiple IDs, separate each ID with a comma (,).
<code>[-all]</code>	Deletes all data sources registered in the server.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-data-sources-from-server -server server1 -ids data-source1
Successfully performed the REMOVE operation for data sources from the server [server1].
Check the results using "remove-data-sources-from-server -server server1"
```

4.2.3.39. remove-external-resource-from-servers

Dynamically deletes an external resource registered to servers.

- Alias

`remove-er-from-servers`

- Usage

```
remove-external-resource-from-servers <export-name>
                                     -servers <server-list>
                                     [-f,--forceLock]
                                     [-detail]
```

- Parameters

Parameter	Description
<code><export-name></code>	External resource name to be deleted from the servers.
<code>-servers <server-list></code>	Server list from which the external resource is deleted.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-external-resource-from-servers test/ext -servers server1
```

Successfully performed the REMOVE operation for A external resource.
Check the results using "list-external-resources"

4.2.3.40. remove-invocation

Deletes an invocation from a specific lifecycle invocation.

- Alias

rminvo, removeinvocation, removeinvo

- Usage

```
remove-invocation -id <invocation-id> | -m,--method <invocation-method>
                  -class <class>
                  -s,--server <server> | -c,--cluster <cluster>
                  [-f,--forceLock]
                  [-detail]
```

- Parameters

Parameter	Description
-id <invocation-id> -m,--method <invocation-method>	Specifies invocations as either IDs or method names to be deleted. If there are multiple invocations with the same method names, specify them using their corresponding IDs.
-class <class>	Class name of the lifecycle invocation where the invocation is located.
-s,--server <server> -c,--cluster <cluster>	Name of the server or cluster where the lifecycle invocation is located.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-invocation -m bootMethod -class invocation.ClassName1 -s
server1
Successfully performed the REMOVE operation for Invocation [bootMethod](Invocation ID = 0), but
all changes were non-dynamic.
They will be applied after restarting.
Check the results using "list-lifecycle-invocations or lifecycle-invocation-info".
```

4.2.3.41. remove-invocation-library

Deletes a library reference from a specific lifecycle invocation.

- Alias

rminvolib, removeinvocationlibrary, removeinvolib

- Usage

```
remove-invocation-library <library>
                        -class <class>
                        -s,--server <server> | -c,--cluster <cluster>
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
<library>	Name of the library reference to be deleted.
-class <class>	Class name of the lifecycle invocation where the library reference is located.
-s,--server <server> -c,--cluster <cluster>	Name of the server or cluster where the lifecycle invocation is located.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-invocation-library newLibName -class invo.invoTestClass2 -s
server1
Successfully performed the REMOVE operation for Invocation Library [newLibName], but all changes
were non-dynamic.
They will be applied after restarting.
Check the results using "list-lifecycle-invocations or lifecycle-invocation-info".
```

4.2.3.42. remove-jvm-option

Deletes the JVM configurations from a server.

- Alias

remove-jvmopt, rm-jvmopt, rmjvmopt, remove-jvm-config, remove-jvmcfg, rm-jvmcfg, rmjvmcfg

- Usage

```
remove-jvm-option -server <server-name>
                  [-opt,--jvmOption <jvm-option>]
                  [-f,--forceLock]
```

[-detail]

- Parameters

Parameter	Description
-server <server-name>	Server name.
[-opt,--jvmOption <jvm-option>]	JVM configuration to be deleted from the server.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-jvm-option -server server1 -opt "-Xmx256m -XX:MaxPermSize=128m"
Successfully performed the REMOVE operation for JVM configuration for the server
(server1)., but all changes were non-dynamic. They will be applied after restarting.
Check the results using "list-jvm-options or remove-jvm-option"
```

4.2.3.43. remove-lifecycle-invocation

Deletes a lifecycle invocation from a server or cluster.

- Alias

rmlifeinvo, removelifecycleinvocation, removelifeinvo

- Usage

```
remove-lifecycle-invocation <class>
                               -s,--server <server> | -c,--cluster <cluster>
                               [-f,--forceLock]
                               [-detail]
```

- Parameters

Parameter	Description
<class>	Class name of the lifecycle invocation to be deleted.
-s,--server <server> -c,--cluster <cluster>	Name of the server or cluster where the lifecycle invocation is located.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-lifecycle-invocation className3 -s server1
Successfully performed the REMOVE operation for Lifecycle Invocation Class [className3], but all
changes were non-dynamic.
They will be applied after restarting.
Check the results using "list-lifecycle-invocations".
```

4.2.3.44. remove-listener

Deletes a listener from a server. The base listener and listeners used in other configurations cannot be deleted.

- Alias

removelistener, deletelistener

- Usage

```
remove-listener -server <server-name>
                 -name <listener-name>
                 [-f,--forceLock]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-name <listener-name>	Listener name to be deleted.
[-f,--forceLock]	Forcibly gets a lock for changing the listener configuration.

- Example

```
[MASTER]domain1.adminServer>list-server-listeners -server adminServer
=====
+-----+-----+-----+
| listener-name | address | port |
+-----+-----+-----+
| base          | 0.0.0.0 | 9736 |
| jms           | 0.0.0.0 | 9741 |
| http-listener | not-set | 8088 |
| Test          | not-set | 10000 |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>remove-listener -server adminServer -name Test
Executed Successfully, but some configurations were not applied dynamically. It
might be necessary to restart the server.
Check the result using 'list-server-listeners -server adminServer.
[MASTER]domain1.adminServer>list-server-listeners -server adminServer
=====
```

listener-name	address	port
base	0.0.0.0	9736
jms	0.0.0.0	9741
http-listener	not-set	8088

4.2.3.45. remove-log-handler

Dynamically deletes a handler registered to a server logger.

- Alias

removeloghandler, removehandler, remove-handler

- Usage

```
remove-log-handler -server <server-name>
                  -logger <logger-name>
                  [<handler-name>]
                  [-f,--forceLock]
                  [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-logger <logger-name>	Name of the logger from which a handler is deleted.
[<handler-name>]	Handler name to be deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-log-handler -server server1 -logger jeus newHandler
Successfully performed the REMOVE operation for The handler for the logger(jeus)
on the server(server1)..
Check the results using "list-log-handlers or remove-log-handler"
```

4.2.3.46. remove-logger

Dynamically deletes a logger registered to a server.

- Alias

removelogger

- Usage

```
remove-logger -server <server-name>
               [<logger-name>]
               [-f,--forceLock]
               [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[<logger-name>]	Name of the logger to be deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-logger -server server1 jeus.security
Successfully performed the REMOVE operation for The logger for the
server(server1)..
Check the results using "list-loggers or remove-logger"
```

4.2.3.47. remove-replicate-group

Dynamically deletes a replicate group specified in a server or server template.

- Alias

rmrg

- Usage

```
remove-replicate-group [-template <name>]
                       [-server <name>]
                       [-f,--forceLock]
                       [-detail]
```

- Parameters

Parameter	Description
[-template <name>]	Name of the server template where a replicate group is to be deleted. It cannot be used with the server option.
[-server <name>]	Name of the server where a replicate group is to be deleted. It cannot be used with the template option.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-replicate-group -server server1
Successfully performed the REMOVE operation for Replicate Group Name.
Check the results using "show-replicate-group".
```

4.2.3.48. resume-server

Resumes a temporarily suspended server or cluster.

- Alias

resume

- Usage

```
resume-server [-clusters <cluster-list> | -servers <server-list>]
```

- Parameters

Parameter	Description
[-clusters <cluster-list>]	Cluster name. To specify multiple clusters, separate each cluster with a comma (,).
[-servers <server-list>]	Server name. To specify multiple servers, separate each server with a comma (,).

- Example

```
[MASTER]domain1.adminServer>resume-server -servers server1
Successfully resumed the servers.
```

4.2.3.49. run-garbage-collection

Executes Full Garbage Collection on a server or servers that belong to a cluster.

- Alias

rungc, gc

- Usage

```
run-garbage-collection [-clusters <cluster-list> | -servers <server-list>]
```

- Parameters

Parameter	Description
[-clusters <cluster-list>]	Cluster name. To specify multiple clusters, separate each cluster with a comma (,).
[-servers <server-list>]	Server name. To specify multiple servers, separate each server with a comma (,).

- Example

```
[MASTER]domain1.adminServer>run-garbage-collection -servers server1
=====
+-----+-----+
| Server |          Result          |
+-----+-----+
| server1| Succeeded to GC.         |
+-----+-----+
=====
```

4.2.3.50. server-info

Displays the current status of a server.

- Alias

svrinfo, serverinfo, si

- Usage

```
server-info [-server <server-name>]
            [-state | -pid]
            [-g, --group <group-name> | -c, --cluster <cluster-name> |
            -n, --node <node-name>]
```

- Parameters

Parameter	Description
[-server <server-name>]	Server name.
[-state]	If a server is specified, this option displays the server state.
[-pid]	If a server is specified, this option displays the server PID.
[-g, --group <group-name>]	Displays information about server in a specified group.
[-c, --cluster <cluster-name>]	Displays information about servers in a specified cluster.
[-n, --node <node-name>]	Displays information about servers in a specified node.

- Example

```
[MASTER]domain1.adminServer>server-info
Information about Domain (domain1)
```

Server	Status	Node Name	PID	Clus ter	Latest StartTime/Shut downTime	Need to Restart	Listen Ports	Running Engines
adminSe rver (*)	RUNNING (00:21:46)	N/A	12154	N/A	2016-08-26 (Fri) PM 02:29:03 KST	false	base-0.0.0.0 :9736 http-server- 0.0.0.0:8088	jms, ejb, web
server1	RUNNING (00:04:03)	node1	12171	clus ter1	2016-08-26 (Fri) PM 02:36:22 KST	false	base-192.167 .0.124:9836	jms, ejb, web
server2	RUNNING (00:04:03)	node1	12172	clus ter1	2016-08-26 (Fri) PM 02:36:22 KST	false	base-192.167 .0.124:9936	jms ejb, web
ds1 (d)	SHUTDOWN	node1	N/A	temp late1	N/A	N/A	N/A	N/A
ds2 (d)	SHUTDOWN	node1	N/A	temp late1	N/A	N/A	N/A	N/A



1. For the JEUS Master Server, asterisk (*) is attached to its name.
2. For a dynamic server, (d) is attached to its name.

4.2.3.51. server-log

Checks the logs of a specific server.

- Alias

serverlog

- Usage

```
server-log -server <server-name>
          [-basetime <base-time>]
          [-endtime <end-time>]
          [-line <number-of-line>]
```

- Parameters

Parameter	Description
-server <server-name>	Name of the server that retrieves the log.
[-basetime <base-time>]	Starting point of the log in time format. (Format: "yyyy.MM.dd HH:mm:ss" or "HH:mm:ss")
[-endtime <end-time>]	Ending point of the log in time format. (Format: "yyyy.MM.dd HH:mm:ss" or "HH:mm:ss")
[-line <number-of-line>]	Starting point of the log as a line number.

- Example

```
[MASTER]domain1.adminServer>server-log -server adminServer -line 10
[2016.08.26 20:00:39][2] [adminServer-33] [NodeManager-0062] Exceed to count to
connecting to the node manager. Verify that the node manager is functioning normally.
[2016.08.26 20:00:59][2] [adminServer-33] [Console-0010] Attempting to execute
a command: server-log from heejin@192.168.15.59.
[2016.08.26 20:00:59][2] [adminServer-33] [Console-0012] An exception occurred
while processing a command: server-log from heejin@192.168.15.59.
[2016.08.26 20:01:45][2] [adminServer-76] [Console-0010] Attempting to execute
a command: server-log from heejin@192.168.15.59.
[2016.08.26 20:01:45][2] [adminServer-76] [Console-0012] An exception occurred
while processing a command: server-log from heejin@192.168.15.59.
[2016.08.26 20:02:26][2] [adminServer-36] [Console-0010] Attempting to execute
a command: server-log from heejin@192.168.15.59.
[2016.08.26 20:02:26][2] [adminServer-36] [Console-0014] The command: server-log
from heejin@192.168.15.59 is executed successfully.
[2016.08.26 20:02:40][2] [adminServer-73] [Console-0010] Attempting to execute
a command: server-log from heejin@192.168.15.59.
[2016.08.26 20:02:40][2] [adminServer-73] [Console-0014] The command: server-log
from heejin@192.168.15.59 is executed successfully.
[2016.08.26 20:08:16][2] [adminServer-76] [Console-0010] Attempting to execute
a command: server-log from heejin@192.168.15.59.
Successfully got the log messages from the server(adminServer).
[MASTER]domain1.adminServer>
```

4.2.3.52. set-replicate-group

Dynamically specifies a replicate group to a server or server template.

- Alias

setrg

- Usage

```
set-replicate-group <ReplicateGroupName>
                    [-template <name>]
                    [-server <name>]
                    [-f,--forceLock]
                    [-detail]
```

- Parameters

Parameter	Description
<ReplicateGroupName>	Name of the replicate group.
[-template <name>]	Name of the server template to which the replicate group will be specified. It cannot be used with server option.
[-server <name>]	Name of the server to which the replicate group will be specified. It cannot be used with the server template option.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>set-replicate-group RepGrp -server server1
Successfully performed the ADD operation for Replicate Group Name, but all changes were non-
dynamic. They will be applied after restarting.
Check the results using "show-replicate-group".
```

4.2.3.53. show-replicate-group

Checks the replicate group of a server or server template.

- Alias

showrg

- Usage

```
show-replicate-group [-template <name>]
```

`[-server <name>]`

- Parameters

Parameter	Description
<code>[-template <name>]</code>	Name of the server template to which the replicate group will be specified. It cannot be used with server option.
<code>[-server <name>]</code>	Name of the server to which the replicate group will be specified. It cannot be used with the server template option.

- Example

```
[MASTER]domain1.adminServer>show-replicate-group
Replicate Group Name in Server / Server Template
=====
+-----+-----+-----+
| Type | Name | Replicate Group Name |
+-----+-----+-----+
| Server | adminServer | |
| Server | server1 | RepGrp |
| Server | server2 | |
| Template | tm1 | Test |
+-----+-----+-----+
=====
[MASTER]domain1.adminServer>show-replicate-group -server ms1
Replicate Group Name in Server / Server Template
=====
+-----+-----+-----+
| Type | Name | Replicate Group Name |
+-----+-----+-----+
| Server | server1 | RepGrp |
+-----+-----+-----+
=====
[MASTER]domain1.adminServer>show-replicate-group -template tm1
Replicate Group Name in Server / Server Template
=====
+-----+-----+-----+
| Type | Name | Replicate Group Name |
+-----+-----+-----+
| Template | tm1 | Test |
+-----+-----+-----+
=====
```

4.2.3.54. show-current-scf-view

Monitors the current SCF view.

- Alias

scfview, showscf

- Usage

```
show-current-scf-view [-dump]
```

- Parameters

Parameter	Description
[-dump]	Used to dump the server log.

- Example

```
[MASTER]domain1.adminServer>show-current-scf-view
=====
Current SCF Views

+-----+-----+-----+-----+-----+-----+
|                                     Group Leader                                     |
+-----+-----+-----+-----+-----+-----+
| adminServer                                                                    |
+-----+-----+-----+-----+-----+-----+
=====

Synchronized View

+-----+-----+-----+-----+-----+-----+
| Server | Address | PID | Started Time | State | Groups |
| Name   |         |     |              |       |        |
+-----+-----+-----+-----+-----+-----+
| adminSer | 192.168.1.1:9 | 29660 | Tue Aug 30 02:43:15 | ALIVE | [domain1] |
| ver      | 736         |      | KST 2022         |       |           |
+-----+-----+-----+-----+-----+-----+
| server1  | 192.168.1.5:1 | 20500 | Mon Aug 29 10:21:27 | ALIVE | [domain1] |
|          | 9736         |      | KST 2022         |       |           |
+-----+-----+-----+-----+-----+-----+
=====

Individual View

+-----+-----+-----+-----+-----+-----+
| Server | Address | PID | Started Time | State | Groups |
| Name   |         |     |              |       |        |
+-----+-----+-----+-----+-----+-----+
| adminSer | 192.168.1.1:9 | 29660 | Tue Aug 30 02:43:15 | ALIVE | [domain1] |
| ver      | 736         |      | KST 2022         |       |           |
+-----+-----+-----+-----+-----+-----+
| server1  | 192.168.1.5:1 | 20500 | Mon Aug 29 10:21:27 | ALIVE | [domain1] |
|          | 9736         |      | KST 2022         |       |           |
+-----+-----+-----+-----+-----+-----+
=====
[MASTER]domain1.adminServer>show-current-scf-view -dump
=====
Current SCF Views
```

```

+-----+
|                                     |
|                               Group Leader                               |
|-----+
| adminServer                       |
|-----+
=====

Synchronized View

+-----+-----+-----+-----+-----+-----+
| Server | Address | PID | Started Time | State | Groups |
| Name   |         |     |               |       |         |
+-----+-----+-----+-----+-----+-----+
| adminSer | 192.168.1.1:9 | 29660 | Tue Aug 30 02:43:15 | ALIVE | [domain1] |
| ver      | 736          |      | KST 2022          |       |           |
+-----+-----+-----+-----+-----+-----+
| server1  | 192.168.1.5:1 | 20500 | Mon Aug 29 10:21:27 | ALIVE | [domain1] |
|          | 9736          |      | KST 2022          |       |           |
+-----+-----+-----+-----+-----+-----+
=====

Individual View

+-----+-----+-----+-----+-----+-----+
| Server | Address | PID | Started Time | State | Groups |
| Name   |         |     |               |       |         |
+-----+-----+-----+-----+-----+-----+
| adminSer | 192.168.1.1:9 | 29660 | Tue Aug 30 02:43:15 | ALIVE | [domain1] |
| ver      | 736          |      | KST 2022          |       |           |
+-----+-----+-----+-----+-----+-----+
| server1  | 192.168.1.5:1 | 20500 | Mon Aug 29 10:21:27 | ALIVE | [domain1] |
|          | 9736          |      | KST 2022          |       |           |
+-----+-----+-----+-----+-----+-----+
=====

Successfully dumped to server log.
[MASTER]domain1.adminServer>

```

4.2.3.55. start-cluster

Starts MSs that belong to a specific cluster. Available when the server is in SHUTDOWN or STANDBY state. If the server is in SHUTDOWN state, the node configuration must be properly configured to operate.

- Alias

startcluster

- Usage

```

start-cluster <cluster-name>
             [-f, --force]
             [-s, --standby]

```

`[-seq,--sequential]`

- Parameters

Parameter	Description
<code><cluster-name></code>	Cluster name.
<code>[-f, --force]</code>	Forces the server to start.
<code>[-s, --standby]</code>	Starts the cluster in the STANDBY state.
<code>[-seq, --sequential]</code>	Starts the servers belonging to the cluster sequentially.

- Example

```
[MASTER]domain1.adminServer>start-cluster cluster1
The cluster [cluster1] has been successfully started.
```

4.2.3.56. start-domain

Starts all MSs in the current domain. Available when the server is in SHUTDOWN or STANDBY state. If the server is in SHUTDOWN state, the node configuration must be properly configured to operate.

- Alias

`startdomain`, `bootall`

- Usage

```
start-domain [-f, --force]
              [-s, --standby]
              [-seq,--sequential]
```

- Parameters

Parameters	Description
<code>[-f, --force]</code>	Forces the server to start.
<code>[-s, --standby]</code>	Starts the server in the STANDBY state, which is the ready state.
<code>[-seq, --sequential]</code>	Starts servers belonging to the domain sequentially.

- Example

```
[MASTER]domain1.adminServer>start-domain
All managed servers in the domain have been successfully started.
```


4.2.3.57. start-node

Starts all MSs that belong to a specific node. Available when the server is in SHUTDOWN or STANDBY state. If the server is in SHUTDOWN state, the node configuration must be properly configured to operate.

If the JEUS Master Server is included in the node, it is excluded from the target.

- Alias

startnode, bootnode

- Usage

```
start-node <node-list>
          [-f, --force]
          [-s, --standby]
          [-seq, --sequential]
```

- Parameters

Parameter	Description
<node-list>	Node name.
[-f, --force]	Forces the server to start.
[-s, --standby]	Starts the server in the STANDBY state, which is the ready state.
[-seq, --sequential]	Starts servers belonging to the domain sequentially.

- Example

```
[MASTER]domain1.adminServer>start-node node1
All managed servers in the node [node1] have been successfully started.
```

4.2.3.58. start-server

Starts a specific MS. Available when the server is in STANDBY state.

- Alias

startserver, boot

- Usage

```
start-server <server-name>
            [-f, --force]
            [-s, --standby]
            [-r, --restart-policy]
```

`[-seq, --sequential]`

- Parameters

Parameter	Description
<code><server-name></code>	Server name.
<code>[-f, --force]</code>	Starts the server forcibly.
<code>[-s, --standby]</code>	Starts the server in STANDBY.
<code>[-r, --restart-policy]</code>	Sets a policy for restarting host instances. (Default value: Never) <ul style="list-style-type: none">◦ Never: No restart when the process is terminated.◦ Onfailure: If the process is not terminated using sigkill or explicitly by user, the server restarts.◦ Always: If the process is not terminated explicitly by user, the server restarts.
<code>[-seq, --sequential]</code>	Sequentially starts the given servers.

- Example

```
[MASTER]domain1.adminServer>start-server server1
Successfully started the server[server1]. The server state is now RUNNING.
```

4.2.3.59. stop-cluster

Terminates the managed servers that belong to a cluster. If the cluster includes the JEUS Master Server, it is not terminated.

- Alias

stopcluster, shutdowncluster, downcluster

- Usage

```
stop-cluster <cluster-name>
           [-to, --shutdowntimeout <timeout> | -f, --force | -g, --graceful]
```

- Parameters

Parameter	Description
<code><cluster-name></code>	Cluster name.

Parameter	Description
<code>[-to,--shutdowntimeout <timeout>]</code>	Sets the timeout to terminate servers gracefully. The server waits the specified period for the current request to complete. (Unit: ms)
<code>[-f, --force]</code>	Forcibly shuts down the servers instead of gracefully shutting down.
<code>[-g, --graceful]</code>	Option to shut down servers gracefully. If set, the system waits indefinitely for a server to complete the current request.

- Example

```
[MASTER]domain1.adminServer>stop-cluster cluster1
The cluster [cluster1] was successfully stopped.
```

4.2.3.60. stop-domain

Terminates the Managed Servers that belong to the current domain. The [local-shutdown](#) command can be used to terminate the JEUS Master Server.

- Alias

stopdomain, shutdownall, downall

- Usage

```
stop-domain [-to,--shutdowntimeout <timeout> | -f, --force | -g,--graceful]
            [-i]
```

- Parameters

Parameter	Description
<code>[-f, --force]</code>	Forcibly shuts down the servers instead of gracefully shutting down.
<code>[-g, --graceful]</code>	Option to shut down servers gracefully. If set, the system waits indefinitely for a server to complete the current request.
<code>[-to,--shutdowntimeout <timeout>]</code>	Sets the timeout to terminate servers gracefully. The server waits the specified period for the current request to complete. (Unit: second)
<code>[-i]</code>	Terminates the servers immediately without the user's consent.

- Example

```
[MASTER]domain1.adminServer>stop-domain
Executing this command affects the service. Do you want to continue? (y/n)n
[stop-domain] has been canceled.
[MASTER]domain1.adminServer>stop-domain -i
Stopping servers [adminServer, ms1].
Stop server message to all managed servers in the domain were successfully sent.
Unable to shut down JEUS Master Server. To shutdown JEUS Master Server, use the jeusadmin's
"local-shutdown" command instead.
```

4.2.3.61. stop-node

Terminates Managed Servers that belong to a specific node. If the node contains a JEUS Master Server, the JEUS Master Server is excluded from the target.

- Alias

stopnode, downnode

- Usage

```
stop-node <node-list>
        [-to,--shutdowntimeout <timeout> | -f, --force | -g,--graceful]
```

- Parameters

Parameter	Description
<node-list>	Node name.
[-to,--shutdowntimeout <timeout>]	Timeout value used for graceful termination. Waits for the specified amount of time (in milliseconds) for a pending request to complete.
[-f, --force]	Forcibly shuts down servers without applying a graceful timeout.
[-g, --graceful]	Option to gracefully terminate the process. It will wait indefinitely for any pending requests to complete.

- Example

```
[MASTER]domain1.adminServer>stop-node node1
Stop server message to all managed servers in the node were successfully sent.
```

4.2.3.62. stop-server

Terminates one or more Managed Servers. You can use a timeout or enable graceful shutdown to protect transaction results.

- Alias

stopserver, down, shutdown, jeusexit

- Usage

```
stop-server <server-list>
        [-to,--shutdowntimeout <timeout> | -f, --force | -g,--graceful]
```

- Parameters

Parameter	Description
<server-list>	Server name. To specify multiple servers, separate each server with a comma (,).
[-to,--shutdowntimeout <timeout>]	Sets the timeout to terminate servers gracefully. The server waits the specified period for the current request to complete. (Unit: second)
[-f, --force]	Forcibly shuts down the servers instead of gracefully shutting down. (Default value)
[-g, --graceful]	Option to shut down servers gracefully. If set, the system waits indefinitely for a server to complete the current request.

- Example

```
[MASTER]domain1.adminServer>stop-server server1
Stop server message to server [server1] was successfully sent.
```

4.2.3.63. suspend-server

Temporarily suspends a running server.

- Alias

suspend

- Usage

```
suspend-server [-clusters <cluster-list>| -servers <server-list>]
               [-i]
```

- Parameters

Key	Value
Process Id	719151
Thread Count	106
Process CPU Load	0.6 %
User Name	User

4.2.3.65. unblock-client

Unblocks a client that has been blocked.

- Alias

unblockclient, unbanclient

- Usage

```
unblock-client -server <server-name> -address <client-ip>
```

- Parameters

Parameter	Description
-server	Name of the server for which the client will be unblocked.
-address	Address of the client that will be unblocked.

- Example

```
[MASTER]domain1.adminServer>unblock-client -server adminServer -address 192.168.2.15
Successfully unblocked.
```

4.2.4. Domain Configuration Commands

The following is a list of domain configuration commands.

Command	Description
add-cluster	Dynamically adds a cluster. Only available for the JEUS Master Server and Managed Server structure.
add-custom-resource	Dynamically adds a custom resource.
add-custom-resource-to-clusters	Dynamically adds a custom resource to clusters. Only available for the JEUS Master Server and Managed Server structure.
add-data-sources-to-cluster	Dynamically adds data sources to a cluster. Only available for the JEUS Master Server and Managed Server structure.

Command	Description
add-external-resource	Dynamically adds an external resource.
add-external-resource-to-clusters	Dynamically adds an external resource to clusters. Only available for the JEUS Master Server and Managed Server structure.
add-server	Dynamically adds a server. Only available for the JEUS Master Server and Managed Server structure.
add-servers-to-cluster	Dynamically adds a server to a cluster. Only available for the JEUS Master Server and Managed Server structure.
add-server-template	Adds a server template that can be dynamically applied to multiple servers. Only available for the JEUS Master Server and Managed Server structure.
add-dynamic-servers	Creates a cluster that consists of servers that are created automatically by using a template. Only available for the JEUS Master Server and Managed Server structure.
apply-configuration-plan	Offline command that creates a new domain.xml file, which is created by applying a configuration plan to the current domain.xml file.
config-system-clustering-framework	Modifies settings related to the System Clustering Framework features.
create-domain	Creates a new domain. This is a offline command. For a user created by default, the password must be entered separately.
delete-domain	Deletes a domain. This is an offline command.
disable-json-command	Disables JsonCommand.
disable-to-resynchronize-applications	Disables the synchronization of applications when the Managed Server state changes from INDEPENDENT to DEPENDENT.
enable-json-command	Enables JsonCommand.
enable-to-resynchronize-applications	Enables the synchronization of applications when the Managed Server state changes from INDEPENDENT to DEPENDENT.
list-clusters	Displays information about clusters in the current domain. Only available for the JEUS Master Server and Managed Server structure.
list-custom-resources	Displays the custom resources defined in the current domain.
list-external-resources	Retrieves external resources defined in the current domain.
list-domains	Displays a list of domains.
list-servers	Displays the configuration information about servers in the current domain.
modify-cluster	Dynamically modifies a cluster. Only available for the JEUS Master Server and Managed Server structure.
modify-server	Dynamically modifies a server.

Command	Description
modify-dynamic-servers	Modifies the configurations of a cluster created with dynamically configured servers. Only available for the JEUS Master Server and Managed Server structure.
pack-domain	Packs a domain directory for recovery by using domain backup. This is an offline command.
remove-cluster	Dynamically deletes a cluster. Only available for the JEUS Master Server and Managed Server structure.
remove-custom-resource	Dynamically deletes a custom resource.
remove-custom-resource-from-clusters	Dynamically deletes a custom resource from clusters. Only available for the JEUS Master Server and Managed Server structure.
remove-data-sources-from-cluster	Dynamically deletes the data sources registered in a cluster. Only available for the JEUS Master Server and Managed Server structure.
remove-domain-log-config	Deletes the owner and permission setting of log files in the domain.
remove-external-resource	Dynamically deletes an external resource.
remove-external-resource-from-clusters	Dynamically deletes a registered external resource from clusters. Only available for the JEUS Master Server and Managed Server structure.
remove-server	Dynamically deletes a server.
remove-servers-from-cluster	Dynamically deletes servers from a cluster. Only available for the JEUS Master Server and Managed Server structure.
set-domain-backup	Sets a policy for domain backup.
set-domain-log-config	Sets the owner and permission of log files in the domain. This setting is applied if the log file owner and permission are not specified in the logger settings for servers in the domain.
show-domain-log-config	Displays the owner and permission setting of log files in the domain.
show-dynamic-servers	Displays the configurations of a cluster created with dynamically configured servers. Only available for the JEUS Master Server and Managed Server structure.
show-server-template	Displays the configurations of a server template. Only available for the JEUS Master Server and Managed Server structure.
show-system-clustering-framework	Displays settings related to the System Clustering Framework features.
unpack-domain	Unpacks the files packed by the pack-domain command when a server has a failure

4.2.4.1. add-cluster

Dynamically adds a cluster.

- Usage

```
add-cluster [<cluster-name>]
            [-servers <server-list>]
            [-f,--forceLock]
            [-detail]
```

- Parameters

Parameter	Description
[<cluster-name>]	Cluster name to be added.
[-servers <server-list>]	Name of the server to be added to the cluster. To specify multiple servers, separate each server with a comma (,).
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

- Checking the current clusters

```
[MASTER]domain1.adminServer>list-clusters
List of Clusters
=====
+-----+-----+-----+-----+-----+
| Cluster | Server List | MEJB | Class FTP | Running |
+-----+-----+-----+-----+-----+
| cluster1 | server1, server2 | false | false | true |
+-----+-----+-----+-----+-----+
=====
```

- Creating a new cluster that contains servers that do not belong to other clusters

```
[MASTER]domain1.adminServer>add-cluster cluster2 -servers server3,server4
Successfully performed the ADD operation for cluster (cluster2).
Check the results using "list-clusters or add-cluster"
```

4.2.4.2. add-custom-resource

Dynamically adds a custom resource.

- Alias

addcustomresource, addcr

- Usage

```
add-custom-resource [<export-name>]
                    [-resource,--resourceClass <resource-class>]
                    [-factory,--factoryClass <factory-class>]
                    [-p,--properties <properties>]
                    [-servers <server-list>]
                    [-clusters <cluster-list>]
                    [-f,--forceLock]
                    [-detail]
```

- Parameters

Parameter	Description
[<export-name>]	JNDI binding name of the custom resource to be added.
[-resource,--resourceClass <resource-class >]	Class name of the custom resource.
[-factory,--factoryClass <factory-class >]	Name of the factory class that creates the custom resource.
[-p,--properties <properties>]	Property of the custom resource.
[-servers <server-list>]	Adds a custom resource to the domain and concurrently registers the custom resource in the given server list.
[-clusters <cluster-list>]	Adds a custom resource to the domain and concurrently registers the custom resource in the given cluster list.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-custom-resource custom/dog -resource dog.Dog -factory
dog.DogFactory
Successfully performed the ADD operation for A custom resource.
Check the results using "list-custom-resources or add-custom-resource"
```

4.2.4.3. add-custom-resource-to-clusters

Dynamically adds a custom resource to clusters.

- Alias

add-cr-to-clusters

- Usage

```
add-custom-resource-to-clusters <export-name>
                                -clusters <cluster-list>
                                [-f,--forceLock]
                                [-detail]
```

- Parameters

Parameter	Description
<export-name>	JNDI binding name of the custom resource to be added.
-clusters <cluster-list>	Cluster list in which the custom resource is registered.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-custom-resource-to-clusters custom/dog -clusters cluster1
Successfully performed the ADD operation for A custom resource.
Check the results using "list-custom-resources"
```

4.2.4.4. add-data-sources-to-cluster

Dynamically adds data sources to a cluster.

- Alias

adddstocluster

- Usage

```
add-data-sources-to-cluster -cluster <cluster-name>
                             [-ids <data-source-id-list> | -all]
                             [-f,--forceLock]
                             [-detail]
```

- Parameters

Parameter	Description
-cluster <cluster-name>	Cluster name in which data sources are registered.

Parameter	Description
[ids <data-source-id-list>]	List of data source IDs to be registered in a cluster. To specify multiple IDs, separate each ID with a comma (,).
[-all]	Registers all data sources defined in the domain.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-data-sources-to-cluster -cluster cluster1 -ids datasource1
Successfully performed the ADD operation for data sources to the cluster [cluster1].
Check the results using "add-data-sources-to-cluster -cluster cluster1"
```

4.2.4.5. add-external-resource

Dynamically adds an external resource.

- Alias

addexternalresource, adder

- Usage

```
add-external-resource [<export-name>]
                        [-class,--resourceClass <resource-class>]
                        [-p,--properties <properties>]
                        [-servers <server-list>]
                        [-clusters <cluster-list>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
[<export-name>]	External resource name to be added.
[-class,--resourceClass <resource-class>]	Class name of the external resource.
[-p,--properties <properties>]	Properties of the external resource.
[-servers <server-list>]	Adds an external resource to the domain and concurrently registers the custom resource in the given server list.
[-clusters <cluster-list>]	Adds an external resource to the domain and concurrently registers the custom resource in the given cluster list.

Parameter	Description
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-external-resource test/ext -resource
test.ext.TestResourceBootstrapper
Successfully performed the ADD operation for A external resource.
Check the results using "list-external-resources or add-external-resource"
```

4.2.4.6. add-external-resource-to-clusters

Dynamically adds an external resource to clusters.

- Alias

add-er-to-clusters

- Usage

```
add-external-resource-to-clusters <export-name>
                                -clusters <cluster-list>
                                [-f,--forceLock]
                                [-detail]
```

- Parameters

Parameter	Description
<export-name>	External resource name to be added to clusters.
-clusters <cluster-list>	Registers the external resource in the given cluster list.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-external-resource-to-cluster test/ext -clusters cluster1
Successfully performed the ADD operation for A external resource.
Check the results using "list-external-resources"
```

4.2.4.7. add-server

Dynamically adds a server.

- Alias

addserver

- Usage

```
add-server [<server-name>]
    [-target,--duptargetserver <target-server>]
    [-port,--baseport <base-port>]
    [-addr,--baseaddr <base-addr>]
    [-http,--httpport <http-port>]
    [-rg,--replicate-group <name>]
    [-node,--nodeName <node-name>]
    [-jvm,--jvmOptions <jvm-options>]
    [-logdir,--logHomeDirectory <server-log-home-directory>]
    [-a,--actionOnResourceLeak <action-on-resource-leak>]
    [-l,--logStdoutToRawFormat <true | false>]
    [-m,--mejb <true | false>]
    [-c,--classFtp <true | false>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
[<server-name>]	Server name.
[-target,--duptargetserver <target-server>]	Target server name to which the server configurations are copied.
[-port,--baseport <base-port>]	Base port of the server. 9736 is the default value. If multiple servers run on the same machine, each port must be unique to avoid conflicts.
[-addr,--baseaddr <base-addr>]	Address of the server.
[-http,--httpport <http-port>]	HTTP listener port number of the server. 8088 is the default value. If multiple servers run on the same machine, each port must be unique to avoid conflicts.
[-rg,--replicate-group <name>]	JNDI naming server replicate group of the server. Independent of the cluster, it is a JNDI naming server group whose servers with the same values operate in the same way as the cluster for binding object replication, group management, and other functions within the JNDI. Even if server clustering is not performed, it is possible to achieve clustering effects only for JNDI and EJB.

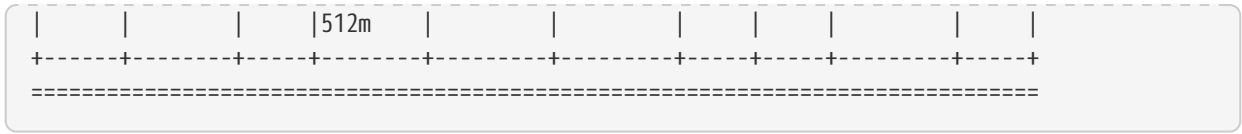
Parameter	Description
<code>[-node,--nodeName <node-name>]</code>	Node name of the machine on which the server is running.
<code>[-jvm,--jvmOptions <jvm-options>]</code>	JVM options that apply to the server. If the option contains whitespace, wrap the option with double quotes (" ").
<code>[-logdir,--logHomeDirectory <server-log-home-directory>]</code>	Log directory in which logs created by the server are located.
<code>[-a,--actionOnResourceLeak <action-on-resource-leak>]</code>	Action to take when a resource leak occurs. Input options: <ul style="list-style-type: none"> • AutoClose • NoAction • Warning
<code>[-l,--logStdoutToRawFormat <true false>]</code>	[Dynamic] Option to print stdout as is or in JEUS logger format. (true false)
<code>[-m,--mejB <true false>]</code>	[Dynamic] Option to use MEJB. (true false)
<code>[-c,--classFtp <true false>]</code>	[Dynamic] Option to use the FTP service class. (true false)
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example
 - Checking the list of servers

```
[MASTER]domain1.adminServer>list-servers
List of Editable Servers
```

```
=====
```

Serv er	Base Listen Address /Port	Node	JVM Configs	Action On Resource Leak	Stdout to Raw Format	MEJB	Cla ss FTP	Server Log Home Directo ry	Type
admi nServ er	0.0.0.0 / 9736	nod e1	-Xmx10 24m -XX:Max Metaspa ceSize= 512m	Warning	true	fal se	true	none	ser ver
serve r1	0.0.0.0 / 19736	nod e1	-Xmx10 24m -XX:Max Metaspa ceSize=	Warning	true	fal se	fal se	none	ser ver



- Adding a server with a new name

```
[MASTER]domain1.adminServer>add-server server2 -port 10000 -node node1 -m false
Successfully performed the ADD operation for server (server2).
NOTICE : base-addr [0.0.0.0] base-port [10000] http-port [8088]
Check the results using "list-servers or add-server"
[MASTER]domain1.adminServer>add-server server3 -port 11000 -http 18088 -node node1
Successfully performed the ADD operation for server (server3).
NOTICE : base-addr [0.0.0.0] base-port [11000] http-port [18088]
Check the results using "list-servers or add-server"
```

4.2.4.8. add-servers-to-cluster

Dynamically adds a server to a cluster.

- Usage

```
add-servers-to-cluster <cluster-name>
                        [-servers <server-list>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
[<cluster-name>]	Cluster name.
[-servers <server-list>]	Name of the server to be added to the cluster. To specify multiple servers, separate each server with a comma (,).
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-servers-to-cluster cluster1 -servers server1
Successfully performed the ADD operation for The server list for cluster(cluster1)..
Check the results using "list-clusters cluster1 or add-servers-to-cluster cluster1"
```

4.2.4.9. add-server-template

Adds a server template that can be dynamically applied to multiple servers.

- Usage

```
add-server-template [<server-template-name>]
                    [-port,--baseport <base-port>]
                    [-addr,--baseaddr <base-addr>]
                    [-http,--httpport <http-port>]
                    [-node,--nodeName <node-name>]
                    [-rg,--replicate-group <name>]
                    [-jvm,--jvmOptions <jvm-options>]
                    [-logdir,--logHomeDirectory <server-log-home-directory>]
                    [-a,--actionOnResourceLeak <action-on-resource-leak>]
                    [-l,--logStdoutToRawFormat <true | false>]
                    [-m,--mejb <true | false>]
                    [-c,--classFtp <true | false>]
                    [-f,--forceLock]
                    [-detail]
```

- Parameters

Parameter	Description
<server-template-name>	Server template name to be added.
[-port,--baseport <base-port>]	Base port of the server. 9736 is the default value.
[-addr,--baseaddr <base-addr>]	Address of the server.
[-http,--httpport <http-port>]	HTTP listener port number of the server. 8088 is the default value.
[-node,--nodeName <node-name>]	Node name of the machine on which the server is running.
[-rg,--replicate-group <name>]	JNDI naming server replicate group of the server template. Independent of the cluster, it is a JNDI naming server group whose servers with the same values operate in the same way as the cluster for binding object replication, group management, and other functions within the JNDI. Even if server clustering is not performed, it is possible to achieve clustering effects only for JNDI and EJB.
[-jvm,--jvmOptions <jvm-options>]	JVM options to be added to the template. If the option contains whitespace, wrap the option with double quotes (" ").

Parameter	Description
<code>[-logdir,--logHomeDirectory <server-log-home-directory>]</code>	Log directory that contains logs created by the server set by the template.
<code>[-a,--actionOnResourceLeak <action-on-resource-leak>]</code>	Action to take when a resource leak occurs. Input options: <ul style="list-style-type: none"> • AutoClose • NoAction • Warning
<code>[-l,--logStdoutToRawFormat <true false>]</code>	[Dynamic] Option to print stdout as is or in JEUS logger format. (true false)
<code>[-m,--mejb <true false>]</code>	[Dynamic] Option to use MEJB. (true false)
<code>[-c,--classFtp <true false>]</code>	[Dynamic] Option to use the FTP service class. (true false)
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-server-template temp1
Successfully performed the ADD operation for server template (temp1), but all changes were non-
dynamic. They will be applied after restarting.
NOTICE : base-addr [0.0.0.0] base-port [9736] http-port [8088]
Check the results using "list-servers or show-server-template or add-server-template".
```

4.2.4.10. add-dynamic-servers

Creates a cluster that consists of servers that are created automatically by using a template. The template must be preset with the configuration information in advance.

- Alias

addservers

- Usage

```
add-dynamic-servers <cluster-name>
    -count <the-number-of-dynamic-servers>
    [-nodes,--nodeNames <node-names>]
    [-prefix,--serverNamePrefix <server-name-prefix>]
    -template,--serverTemplateName <server-template-name>
    [-step,--listenPortStep <listen-port-step>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
<cluster-name>	Name of a cluster to be created using dynamically configured servers.
-count <the-number-of-dynamic-servers>	Number of servers to be included in the cluster.
[-nodes,--nodeName <node-names>]	Names of nodes where the servers to be added are located. Multiple nodes can be specified by using a comma (,) delimiter.
[-prefix,--serverNamePrefix <server-name-prefix>]	Prefix to be added to a server name. If not set, '_server_' is preceded by a cluster name.
-template, --serverTemplateName <server-template-name>	Template to be applied to dynamic servers.
[-step,--listenPortStep <listen-port-step>]	Number to be incremented in the port number of the servers created in the same node.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>add-dynamic-servers cluster1 -count 2 -nodes node1 -template temp1
Successfully performed the ADD operation for Dynamic servers configuration in the cluster (cluster1).
Check the results using "list-clusters or show-dynamic-servers".
```

4.2.4.11. apply-configuration-plan

Command that creates a new domain.xml file, which is created by applying a configuration plan to the current domain.xml file.

- Alias

applycp

- Usage

```
apply-configuration-plan -plan,--configPlanPath <configuration-plan-path>
                        -src,--configSourcePath <configuration-source-path>
                        -target,--configTargetPath <configuration-target-path>
```

- Parameters

Parameter	Description
-plan,--configPlanPath <configuration-plan-path>	Path to the configuration plan.
-src,--configSourcePath <configuration-source-path>	Path to the current domain.xml file, which the configuration plan is applied to.
-target,--configTargetPath <configuration-target-path>	Path to the file, which is the result of applying the configuration plan.

- Example

```
offline>apply-configuration-plan -src /home/jeus/domains/domain1/config/domain.xml
-plan /home/plans/jeus-configuration-plan.xml -target
/home/jeus/domains/domain1/config/domain.xml.new
Successfully applied configuration plan.
```

- Note

This command can be used without being connected to the server.

4.2.4.12. config-system-clustering-framework

Modifies settings related to the System Clustering Framework features.

- Alias

config-scf, configscf, scf

- Usage

```
config-system-clustering-framework
  [-addr <transport-address>]
  [-port <transport-port>]
  [-transport <transport>]
  [-discovery <leader-discovery-timeout>]
  [-detect <failure-detection-timeout>]
  [-max <max-thread-pool-size>]
  [-min <min-thread-pool-size>]
  [-f,--forceLock]
```

- Parameters

Parameter	Description
<code>[-addr <transport-address>]</code>	<p>Address value required for transport operation.</p> <p>The value depends on the configured transport type. For Hybrid Transport, a Multicast address must be set. For Tree-Type Virtual Multicast, the Root Node's IP address must be set. For Mesh-Type Virtual Multicast, the Listen Address of each server is used automatically, so this option does not need to be specified. (Default: 224.0.0.1)</p>
<code>[-port <transport-port>]</code>	<p>Port number required for transport operation.</p> <p>The value depends on the configured transport type. (Default: 12488)</p>
<code>[-transport <transport>]</code>	<p>Transport type.</p> <p>Select one of the four modes: DUMMY, HYBRID, MESH, and TREE. (Default: HYBRID)</p> <ul style="list-style-type: none"> ◦ DUMMY: Operates independently without communicating with other servers. ◦ HYBRID: Performs health checks and simple messaging between each server using multicast, while large-volume messaging is handled via TCP/IP. ◦ MESH: Connects all servers in a full mesh fashion using TCP/IP. ◦ TREE: Uses TCP/IP, but connects each server only to the root, forming a tree structure.
<code>[-discovery <leader-discovery-timeout>]</code>	<p>Maximum time allowed during initial startup to find the leader of an existing group.</p> <p>If a leader is not found within the specified time, the node declares itself the leader. This value is also used when electing a new leader. (Default: 3000 (ms))</p>
<code>[-detect <failure-detection-timeout>]</code>	<p>Interval and timeout value used for detecting failures of peers. (Default: 3000 (ms))</p>
<code>[-max <max-thread-pool-size>]</code>	<p>Maximum thread pool size used by the System Clustering Framework. (Default: 10)</p>
<code>[-min <min-thread-pool-size>]</code>	<p>Minimum thread pool size used by the System Clustering Framework. (Default: 0)</p>
<code>[-f,--forceLock]</code>	<p>Forces the configuration changes to take effect.</p>

• Example

```
[DAS]domain1.adminServer>config-system-clustering-framework -port 15000
```

Executed successfully, but some configurations were not applied dynamically. It might be necessary to restart the server.

Check the result using 'show-system-clustering-framework'.

4.2.4.13. create-domain

Creates a new domain. For a user created by default, the password must be entered separately.

It is encrypted in AES. The default value of the option is set in JEUS_HOME\setup\domain-config-template.properties.

- Alias

createdomain

- Usage

```
create-domain -domain <domain-name>
               [-mastername <master-name>]
               [-baseport <master-base-port>]
               [-baseaddress <master-base-address>]
               [-jmsport <jms-port>]
               [-user <user-name>]
               [-httpport <http-port>]
               [-jvmconfig <jvm-config>]
               [-node <node-name>]
               [-pw,--password]
               [-ttype,--transport.type <transport-type>]
               [-productionmode,--productionmode]
               [-taddress,--transport.address <transport-address>]
               [-tport,--transport.port <transport-port>]
```

- Parameters

Parameter	Description
-domain <domain-name>	Domain name.
[-mastername <master-name>]	JEUS Master Server name that manages the domain.
[-baseport <master-base-port>]	JEUS Master Server base port.
[-baseaddress <master-base-address>]	Base address of the JEUS Master Server.
[-user <user-name>]	Domain user name.
[-httpport <http-port>]	HTTP port of the JEUS Master Server.
[-jvmconfig <jvm-config>]	JVM configurations to be applied to the JEUS Master Server.
[-node <node-name>]	Node name to be applied to the JEUS Master Server.
[-pw,--password]	Receive password only from the console regardless of the template property file configuration.

Parameter	Description
[-ttype,--transport.type <transport-type>]	SCF transport type.
[-productionmode,-- productionmode]	Option to use the created JEUS domain in production mode.
[-taddress,--transport.address <transport-address>]	Transport address used in SCF.
[-tport,--transport.port <transport-port>]	Transport port used in SCF.

- Example

```
offline>create-domain -domain domain1 -mastername adminServer -baseport 9763 -jvmconfig "-Xmx1024m -XX:MaxPermSize=256m"
Enter the password for [administrator]: *****
Confirm the password: *****
Do you want to encrypt the password? (y/n): y
=====
The domain [domain1] was created successfully.
```

Property	Value
Domain name	domain1
JEUS Master Server Name	adminServer
JEUS Master Server Base Listen Port	9763
JEUS Master Server Base Listen Address	0.0.0.0
HTTP Port	8088
User Name	administrator
Node Name	node1
Password	{AES:256}lBljYlIlBrujFDC7v3NSoHZQprgnncVmdB bkt4oxDRg=
JVM Option	-Xmx1024m -XX:MaxMetaspaceSize=256m
Production Mode	true
Transport Type	HYBRID

- Note

This command can be used without being connected to the server.

4.2.4.14. delete-domain

Deletes a created domain. The domain of the currently connected server cannot be deleted.

- Alias

deletedomain

- Usage

```
delete-domain -domain <domain-name>
               [-f, --force]
```

- Parameters

Parameter	Description
-domain <domain-name>	Domain name.
[-f, --force]	Forcibly deletes the domain without asking whether to delete the domain.

- Example

```
offline>delete-domain -domain newDomain
Delete the following domain: [newDomain]
Do you want to execute the delete domain command? (y/n)y
Deleting the domain directory was successful.

offline>delete-domain -domain newDomain -f
Deleting the domain directory was successful.
```

- Note

This command can be used without being connected to the server.

4.2.4.15. disable-json-command

Disables JsonCommand.

- Alias

suspend-json-command, jsonoff

- Usage

```
disable-json-command [-f,--forceLock]
```

- Parameters

Parameter	Description
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>disable-json-command
JsonCommand was successfully disabled.
Applying configuration ...
=====
+-----+
|                                     Result                                     |
+-----+
| Successfully applied the configuration changes.                             |
| Restart the server to apply the changes.                                     |
+-----+
=====
```

4.2.4.16. disable-to-resynchronize-applications

Disables the synchronization of applications when the Managed Server state changes from INDEPENDENT to DEPENDENT.

- Alias

disable-resync-apps, disable-resyncapps

- Usage

```
disable-to-resynchronize-applications [-f,--forceLock]
```

- Parameters

Parameter	Description
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>disable-to-resynchronize-applications
ResyncAppsCommand was successfully disabled.
Applying configuration ...
=====
+-----+
```

```

|                                     Result                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Successfully applied the configuration changes.                               |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
=====

```

4.2.4.17. enable-json-command

Enables JsonCommand.

- Alias

resume-json-command, jsonon

- Usage

```
enable-json-command [-f,--forceLock]
```

- Parameters

Parameter	Description
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```

[MASTER]domain1.adminServer>enable-json-command
JsonCommand was successfully enabled.
Applying configuration ...
=====
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|                                     Result                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Successfully applied the configuration changes.                               |
| Restart the server to apply the changes.                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
=====

```

4.2.4.18. enable-to-resynchronize-applications

Enables the synchronization of applications when the Managed Server state changes from INDEPENDENT to DEPENDENT.

- Alias

enable-resynch-apps, enable-resyncapps, enableresyncapps

- Usage

```
enable-to-resynchronize-applications [-f,--forceLock]
```

- Parameters

Parameter	Description
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>enable-to-resynchronize-applications
ResyncAppsCommand was successfully enabled.
Applying configuration ...
=====
+-----+-----+
|                                     Result                                     |
+-----+-----+
| Successfully applied the configuration changes.                             |
+-----+-----+
=====
```

4.2.4.19. list-clusters

Displays information about clusters in the current domain.

- Usage

```
list-clusters [<cluster-name>]
```

- Parameters

Parameter	Description
[<cluster-name>]	Cluster name.

- Example

```
[MASTER]domain1.adminServer>list-clusters
List of Clusters
=====
+-----+-----+-----+-----+-----+
| Cluster | Server List | MEJB | Class FTP | Running |
+-----+-----+-----+-----+-----+
| cluster1 | newServer, server1 | | | true |
+-----+-----+-----+-----+-----+
=====
```

4.2.4.20. list-custom-resources

Displays the custom resources defined in the current domain.

- Alias

listcustomresources, list-cr, listcr

- Usage

```
list-custom-resources [-name <export-name>] |  
                    [-cluster <cluster-name>] |  
                    [-server <server-name>]
```

- Parameters

Parameter	Description
[-name <export-name>]	Custom resource name.
[-cluster <cluster-name>]	Name of the cluster that checks the custom resource registered in the cluster.
[-server <server-name>]	Name of the server that checks the custom resource registered in the server.

- Example

```
[MASTER]domain1.adminServer>list-custom-resources  
List of Custom Resources  
=====
```

Export Name	Resource Class	Factory Class	Properties
custom/dog	dog.Dog	dog.DogFactory	[test=1, test1=2]

```
=====
```

4.2.4.21. list-external-resources

Checks the external resource defined in the current domain.

- Alias

listexternalresources, list-er, lister

- Usage

```
list-external-resources [-name <export-name>] |
```

```
[-cluster <cluster-name>] |  
[-server <server-name>]
```

- Parameters

Parameter	Description
[-name <export-name>]	External resource name.
[-cluster <cluster-name>]	Name of the cluster that checks the external resource registered in the cluster.
[-server <server-name>]	Name of the server that checks the external resource registered in the server.

- Example

```
[MASTER]domain1.adminServer>list-external-resources  
List of External Resources  
=====
```

+	-----+	-----+	-----+
	Export Name	Resource Class	Properties
+	-----+	-----+	-----+
	test/ext	test.ext.TestResourceBootstrapper	[]
+	-----+	-----+	-----+

```
=====
```

4.2.4.22. list-domains

Displays a list of domains.

- Alias

listdomains

- Usage

```
list-domains
```

- Example

```
offline>list-domains  
List Domains  
=====
```

+	-----+
	Domains
+	-----+
	domain1
+	-----+

=====

- Note

This command can be used without being connected to the server.

4.2.4.23. list-servers

Displays the configuration information about servers in the current domain. Use the [server-info](#) command to display server state information.

- Usage

```
list-servers [<server-name>]
```

- Parameters

Parameter	Description
[<server-name>]	Server name.

- Example

```
[MASTER]domain1.adminServer>list-servers
```

List of Editable Servers

=====										
Serv er	Base Listen Address /Port	Node	JVM Configs	Action On Resource Leak	Stdout to Raw Format	MEJB	Clas s FTP	Server Log Home Directo ry	Type	
admi nServ er	0.0.0.0 / 9736	nod e1	-Xmx10 24m -XX:Max Metaspa ceSize= 512m	Warning	true	fal se	true	none	ser ver	
serv er1	192.16 8.0.124 / 9836	nod e1	-Xmx10 24m -XX:Max Metaspa ceSize= 512m	Warning	true	fal se	fal se	none	ser ver	
serv er2	192.16 8.0.124 / 9936	nod e1	-Xmx10 24m -XX:Max Metaspa ceSize= 512m	Warning	true	fal se	fal se	none	ser ver	

			512m						
dy_s	0.0.0.0	nod	-Xmx10	Warning	true	false	false	none	dyn
erver	/ 9737	e1	24m			se	se		amic
_1									(t1)
dy_s	0.0.0.0	nod	-Xmx10	Warning	true	false	false	none	dyn
erver	/ 9837	e1	24m			se	se		amic
_1									(t1)
=====									

4.2.4.24. modify-cluster

Dynamically modifies a cluster.

- Alias

modifycluster, clusterconf, clusterconfig

- Usage

```
modify-cluster <cluster-name>
    [-m,--mejb <true | false>]
    [-c,--classFtp <true | false>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
[<cluster-name>]	Cluster name.
[-m,--mejb <true false>]	[Dynamic] Option to use MEJB. (true false)
[-c,--classFtp <true false>]	[Dynamic] Option to use the FTP service class. (true false)
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-cluster cluster1 -m true
Successfully performed the MODIFY operation for cluster (cluster1).
Check the results using "list-clusters cluster1 or modify-cluster cluster1"
```

4.2.4.25. modify-server

Dynamically modifies a server.

- Alias

serverconf, serverconfig, modify-server-template

- Usage

```
modify-server <server-name>
    [-removeLogdir,--removeLogHomeDirectory]
    [-node,--nodeName <node-name>]
    [-jvm,--jvmOptions <jvm-options>]
    [-logdir,--logHomeDirectory <server-log-home-directory>]
    [-a,--actionOnResourceLeak <action-on-resource-leak>]
    [-l,--logStdoutToRawFormat <true | false>]
    [-m,--mejb <true | false>]
    [-c,--classFtp <true | false>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
[<server-name>]	Server name.
[-removeLogdir, --removeLogHomeDirectory]	Option to delete the log directory that contains logs created by the server.
[-node,--nodeName <node-name>]	Node name of the machine on which the server is running.
[-jvm,--jvmOptions <jvm-options>]	JVM options that apply to the server. If the option contains whitespace, wrap the option with double quotes (" ").
[-logdir,--logHomeDirectory <server-log-home-directory>]	Log directory in which logs created by the server are located.
[-a,--actionOnResourceLeak <action-on-resource-leak>]	Action to take when a resource leak occurs. Input options: <ul style="list-style-type: none">• AutoClose• NoAction• Warning
[-l,--logStdoutToRawFormat <true false>]	[Dynamic] Option to print stdout as is or in JEUS logger format. (true false)
[-m,--mejb <true false>]	[Dynamic] Option to use MEJB. (true false)
[-c,--classFtp <true false>]	[Dynamic] Option to use the FTP service class. (true false)

Parameter	Description
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-server server1 -a AutoClose -l false
Successfully performed the MODIFY operation for server (server1).
Check the results using "list-servers server1 or modify-server server1"
```

4.2.4.26. modify-dynamic-servers

Modifies the configurations of a cluster created with dynamically configured servers.

- Alias

modifydservers

- Usage

```
modify-dynamic-servers <cluster-name>
    [-count <the-number-of-dynamic-servers>]
    [-nodes,--nodeNames <node-names>]
    [-prefix,--serverNamePrefix <server-name-prefix>]
    [-template,--serverTemplateName <server-template-name>]
    [-step,--listenPortStep <listen-port-step>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
<cluster-name>	Name of a cluster that will modify the configurations of dynamically configured servers.
[-count <the-number-of-dynamic-servers>]	Number of servers to be included in the cluster.
[-nodes,--nodeNames <node-names>]	Names of nodes where servers are located. Multiple nodes can be specified by using a comma (,) delimiter. To target all nodes, use this option without an argument.
[-prefix,--serverNamePrefix <server-name-prefix>]	Prefix to be added to a server name. If not set, 'server' is preceded by a cluster name.

Parameter	Description
<code>[-template,--serverTemplateName <server-template-name>]</code>	Template to be applied to dynamic servers.
<code>[-step,--listenPortStep <listen-port-step>]</code>	Number to be incremented in the port number of the servers created in the same node.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-dynamic-servers cluster1 -count 3
Successfully performed the MODIFY operation for Dynamic servers configuration in the cluster (cluster1).
Check the results using "modify-dynamic-servers or show-dynamic-servers".
```

4.2.4.27. pack-domain

Packs a domain directory for recovery by using domain backup.

- Alias

packdomain

- Usage

```
pack-domain <domain-name>
           [-p <dir-path>]
           [-node <node-name>]
```

- Parameters

Parameter	Description
<code><domain-name></code>	Domain name.
<code>[-p <dir-path>]</code>	Path to the packed file. (Default value: JEUS_HOME/backups/<domain-name>_packed.zip)
<code>[-node <node-name>]</code>	Name of the remote node where the packed file is stored. To use this option, jeusadmin and MASTER must be connected, and the Node Manager must be running on the remote node.

- Example

```
offline>pack-domain domain1
Packing the domain [domain1] configuration completed successfully at the path
[JEUS_HOME/backups/domain1_packed.zip].
```

4.2.4.28. remove-cluster

Dynamically deletes a cluster.

- Usage

```
remove-cluster [<cluster-name>]
               [-f,--forceLock]
               [-detail]
```

- Parameters

Parameter	Description
[<cluster-name>]	Cluster name.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

- Checking the current clusters

```
[MASTER]domain1.adminServer>list-clusters
List of Clusters
=====
+-----+-----+-----+-----+-----+
| Cluster | Server List | MEJB | Class FTP | Running |
+-----+-----+-----+-----+-----+
| cluster1 | server1, server2 | false | false | true |
+-----+-----+-----+-----+-----+
| cluster2 | server3, server4 | true | true | true |
+-----+-----+-----+-----+-----+
=====
```

- Deleting a cluster after checking the list of clusters

```
[MASTER]domain1.adminServer>remove-cluster cluster2
Successfully performed the REMOVE operation for cluster (cluster1).
Check the results using "list-clusters or remove-cluster"
```

4.2.4.29. remove-custom-resource

Dynamically deletes a custom resource.

- Alias

removecr, rmcr

- Usage

```
remove-custom-resource [<export-name>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
[<export-name>]	JNDI binding name of the custom resource to be deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-custom-resource custom/dog
Successfully performed the REMOVE operation for A custom resource.
Check the results using "list-custom-resources or remove-custom-resource"
```

4.2.4.30. remove-custom-resource-from-clusters

Dynamically deletes a custom resource from clusters.

- Alias

remove-cr-from-clusters

- Usage

```
remove-custom-resource-from-clusters <export-name>
                                     -clusters <cluster-list>
                                     [-f,--forceLock]
                                     [-detail]
```

- Parameters

Parameter	Description
<export-name>	JNDI bind name of the customer resource to be deleted from clusters.
-cluster <cluster-list>	Cluster list from which the custom resource is deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-custom-resource-from-clusters custom/dog -clusters cluster1
Successfully performed the REMOVE operation for A custom resource.
Check the results using "list-custom-resources"
```

4.2.4.31. remove-data-sources-from-cluster

Dynamically deletes data sources registered in a cluster.

- Alias

rmclsfromcluster

- Usage

```
remove-data-sources-from-cluster -cluster <cluster-name>
                                [-ids <data-source-id-list> | -all]
                                [-f,--forceLock]
                                [-detail]
```

- Parameters

Parameter	Description
-cluster <cluster-name>	Cluster name from which data sources are deleted.
[-ids <data-source-id-list>]	List of IDs of data sources to be deleted from the cluster. To specify multiple IDs, separate each ID with a comma (,).
[-all]	Deletes all data sources registered with the cluster.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-data-sources-from-cluster -cluster cluster1 -all
Successfully performed the REMOVE operation for data sources from the cluster [cluster1].
```

Check the results using "remove-data-sources-from-cluster -cluster cluster1"

4.2.4.32. remove-domain-log-config

Deletes the owner and permission setting of log files in the domain.

Even after the setting is deleted, the owner and permission setting of the existing log files are not changed.

- Alias

rmdomainlog, rmdomainlogcon, rmdomainlogconfig

- Usage

```
remove-domain-log-config [-perm,--permission]
                        [-own,--owner]
```

- Parameters

Parameter	Description
[-perm,--permission]	Deletes the permission setting of log files in the domain.
[-own,--owner]	Deletes the owner setting of log files in the domain.

- Example

```
[MASTER]domain1.adminServer>remove-domain-log-config -own
Successfully performed the REMOVE operation for Domain Log file configuration for domain1.
Check the results using "show-domain-log-config".
```

4.2.4.33. remove-external-resource

Dynamically deletes an external resource.

- Alias

removecr, rmcr

- Usage

```
remove-external-resource [<export-name>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
[<export-name>]	External resource name to be deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-external-resource test/ext
Successfully performed the REMOVE operation for A external resource.
Check the results using "list-external-resources or remove-external-resource"
```

4.2.4.34. remove-external-resource-from-clusters

Dynamically deletes an external resource from clusters.

- Alias

remove-er-from-clusters

- Usage

```
remove-external-resource-from-clusters <export-name>
                                     -clusters <cluster-list>
                                     [-f,--forceLock]
                                     [-detail]
```

- Parameters

Parameter	Description
<export-name>	External resource name to be deleted from clusters.
-clusters <cluster-list>	Cluster list from which the external resource is deleted.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-external-resource-from-clusters test/ext -clusters cluster1
Successfully performed the REMOVE operation for A external resource.
Check the results using "list-external-resources"
```


4.2.4.35. remove-server

Dynamically deletes a server.

- Usage

```
remove-server [<server-name>]
              [-f,--forceLock]
              [-detail]
```

- Parameters

Parameter	Description
[<server-name>]	Server name.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

- Checking the list of servers

```
[MASTER]domain1.adminServer>server-info
Information about Domain (domain1)
=====
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Server | Status | Node | PID | Clu | Latest | Need | Listen | Running |
|         |        | Name |     | ster | Start  | to   | Ports  | Engines |
|         |        |      |     |      | Time / | Restart |      |         |
|         |        |      |     |      | Shutdown |      |      |         |
|         |        |      |     |      | Time   |      |      |         |
+-----+-----+-----+-----+-----+-----+-----+-----+
| adminS | RUNNIN | nod | 237 | N/A | 2021-03- | false | base-0.0. | jms, web, |
| erver  | G(00:46 | e1 | 60 |      | 25 (Thu) |      | 0.0:9736 | ejb       |
| (*)   | :06)    |    |    |      | PM      |      | http-serv |          |
|         |         |    |    |      | 01:13:48 |      | er-0.0.0.0 |          |
|         |         |    |    |      | KST     |      | :8088     |          |
+-----+-----+-----+-----+-----+-----+-----+-----+
| server | RUNNIN | nod | 132 | N/A | 2021-03- | false | base-0.0. | jms, web, |
| 1      | G(00:02 | e1 | 75 |      | 25 (Thu) |      | 0.0:9836 | ejb       |
|         | :45)    |    |    |      | PM      |      |          |          |
|         |         |    |    |      | 01:13:48 |      |          |          |
|         |         |    |    |      | KST     |      |          |          |
+-----+-----+-----+-----+-----+-----+-----+-----+
| server | SHUTDO | nod | N/A | N/A | N/A      | N/A | N/A      | N/A      |
| 2      | WN     | e1 |    |    |          |      |          |          |
+-----+-----+-----+-----+-----+-----+-----+-----+
=====
```

- Deleting a server after checking if the server terminated

```
[MASTER]domain1.adminServer>remove-server server2
Successfully performed the REMOVE operation for server (server1).
Check the results using "list-servers or remove-server"
```

4.2.4.36. remove-servers-from-cluster

Dynamically deletes servers from a cluster.

- Usage

```
remove-servers-from-cluster <cluster-name>
                               [-servers <server-lists>]
                               [-f,--forceLock]
                               [-detail]
```

- Parameters

Parameter	Description
<cluster-name>	Cluster name.
[-servers <server-lists>]	Name of the server(s) to be deleted from the cluster. To specify multiple servers, separate each server with a comma (,).
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>remove-servers-from-cluster cluster1 -servers server1
Successfully performed the REMOVE operation for The server list for cluster(cluster1)..
Check the results using "list-clusters cluster1 or remove-servers-from-cluster cluster1"
```

4.2.4.37. set-domain-backup

Sets a policy for domain backup.

- Alias

domain-backup

- Usage

```
set-domain-backup [-backupOnBoot <backup-on-boot>]
                  [-backupDir <backup-directory>]
```

```
[-nodeName <nodeName>]
[-f,--forceLock]
[-detail]
```

- Parameters

Parameter	Description
[-backupOnBoot <backup-on-boot>]	Enables or disables backup during startup of JEUS (true or false).
[-backupDir <backup-directory>]	Directory to store backup files.
[-nodeName <node-name>]	Node where the backup file will be located. If this value is specified, backupDir refers to a directory within the specified node. If the transfer to that node fails, the backup file is stored in the domains home directory of the local node.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>set-domain-backup -backupOnBoot true
Successfully performed the MODIFY operation for Domain Backup Policy.
Check the results using "set-domain-backup".
```

4.2.4.38. set-domain-log-config

Sets the owner and permission of log files in the domain. This setting is applied if the log file owner and permission are not specified in the logger settings for servers in the domain.

However, the owner and permission setting in the logger overrides this setting.

- Alias

setdomainlog, setdomainlogcon, setdomainlogconfig

- Usage

```
set-domain-log-config [-perm,--permission <permission>]
                    [-own,--owner <chown>]
```

- Parameters

Parameter	Description
<code>[-perm,--permission <permission>]</code>	Sets the permission of log files in the domain in the rw-rw-r-- format. This setting is available only in a POSIX-compatible OS.
<code>[-own,--owner <chown>]</code>	<p>Sets the owner of log files in the domain in the 'owner name, group' format.</p> <p>If only one of them is specified, enter 'owner name' or ',group'</p>

- Example

```
[MASTER]domain1.adminServer>set-domain-log-config -own user,tmax
Successfully performed the MODIFY operation for Domain Log file configuration for domain1, but
all changes were non-dynamic. They will be applied after restarting.
Check the results using "show-domain-log-config or set-domain-log-config".
[MASTER]domain1.adminServer>set-domain-log-config -own ,tmax -perm rwxrwxrwx
Successfully performed the MODIFY operation for Domain Log file configuration for domain1, but
all changes were non-dynamic. They will be applied after restarting.
Check the results using "show-domain-log-config or set-domain-log-config".
```

4.2.4.39. show-domain-log-config

Displays the owner and permission configuration of log files in the domain.

- Alias

showdomainlog, showdomainlogcon, showdomainlogconfig

- Usage

```
show-domain-log-config
```

- Example

```
[MASTER]domain1.adminServer>show-domain-log-config
Shows the current configuration.
Domain Log file configuration for domain1
=====
+-----+-----+
| Domain Log file permission          | (not set) |
| Domain Log file owner               | (not set) |
+-----+-----+
=====
```

4.2.4.40. show-dynamic-servers

Displays the configurations of a cluster created with dynamically configured servers.

- Alias

showdservers

- Usage

```
show-dynamic-servers <cluster-name>
```

- Parameters

Parameter	Description
<cluster-name>	Name of a cluster whose configurations will be displayed.

- Example

```
[MASTER]domain1.adminServer>show-dynamic-servers cluster1
Shows the current configuration.
Dynamic servers configuration in the cluster (cluster1)
=====
+-----+-----+
| Server Count          | 2    |
| Nodes                 | node1|
| Base Listen Port      | 9736  |
| HTTP Listen Port      | 8088  |
| JMS Listen Port       | 9741  |
| Server Template Name  | temp1 |
| Listen Port Step      | 100   |
+-----+-----+
=====
```

4.2.4.41. show-server-template

Displays the configurations of a server template.

- Alias

show-template

- Usage

```
show-server-template [<server-template-name>]
```

- Parameters

Parameter	Description
[<server-template-name>]	Name of a server template whose configurations will be displayed.

- Example

```
offline>show-server-template temp1
Shows the current configuration.
server template (temp1)
=====
+-----+-----+
| Action On Resource Leak          | WARNING |
| Stdout to Raw Format              | true    |
| MEJB                             | false   |
| Class FTP                        | false   |
| Server Log Home Directory        | none    |
+-----+-----+
=====
```

4.2.4.42. show-system-clustering-framework

Displays settings related to the System Clustering Framework features.

- Alias

show-scf

- Usage

```
show-system-clustering-framework
```

- Example

```
[DAS]domain1.adminServer>show-system-clustering-framework
=====
System clustering framework configurations
+-----+-----+
| transport-address                | 224.0.0.1 |
| transport-port                   | 12488     |
| transport-type                   | HYBRID    |
| leader-discovery-timeout         | 3000      |
| failure-detection-timeout        | 3000      |
| max-thread-pool-size             | 10        |
| min-thread-pool-size             | 0         |
+-----+-----+
=====
```

4.2.4.43. unpack-domain

Unpacks the files packed by the pack-domain command when a server has a failure. The address and port number of the JEUS Master Server can be changed if they are set or the JEUS Master Server's node name is set in the domain configuration.

- Alias

unpackdomain

- Usage

```
unpack-domain -p <file-path> | <domain-name>
               [-delete]
               [-overwrite]
               [-masterurl <master-url>]
               [-nodename <node-name>]
               [-nodeurl <node-url>]
```

- Parameters

Parameter	Description
-p <file-path>	Path to the packed file. (Example: JEUS_HOME/<domain-name>_packed.zip)
<domain-name>	Domain name of the file to unpack. The file to unpack must be in the JEUS_HOME/backups directory.
[-delete]	If the name of the domain to be unpacked already exists in DOMAIN_HOME, the domain will be deleted and then the unpack will be executed.
[-overwrite]	If the name of the domain to be unpacked already exists in DOMAIN_HOME, the existing domain will be overwritten by the domain to be unpacked.
[-masterurl <master-url>]	URL of JEUS Master Server to be configured in the domain.xml file.
[-nodename <node-name>]	Name of a node to be configured in the domain.xml file.
[-nodeurl <node-url>]	Node address of the Master Server to be set in nodes.xml file.

- Example

```
offline>unpack-domain domain1
The JEUS Master Server listener address is already set to [0.0.0.0]. Do you want to change it?
(y/n): y
Enter the JEUS Master Server base listener address: 192.168.34.56
```

```
The JEUS Master Server listener port is already set to [9736]. Do you want to change it? (y/n): n
The JEUS Master Server nodename is already set to [node1]. Do you want to change it? (y/n): y
Enter the JEUS Master Server nodename: node1
The nodemanager of JEUS Master Server listener address is already set to [0.0.0.0]. Do you want
to change it? (y/n): n
The nodemanager of JEUS Master Server listener port is already set to [7730]. Do you want to
change it? (y/n): n
Unpacking the domain [domain1] configuration completed successfully.
```

4.2.5. Thread Management Commands

The following is a list of thread management commands.

Command	Description
interrupt-thread	Sends an interrupt signal to a servlet or an EJB RMI thread.
modify-service-thread-pool	Dynamically changes the thread pool dedicated to a server.
modify-system-thread-pool	Dynamically changes the system thread pool.
print-stack-trace	Displays stack traces of a servlet thread or an EJB RMI thread.
show-service-thread-pool	Displays information about a service thread pool that uses the system thread pool of a server.
show-system-thread-pool	Displays the system thread pool information of a server.
thread-info	Displays information about servlet threads or EJB RMI threads that handle requests.

4.2.5.1. interrupt-thread

Sends an interrupt signal to a servlet or an EJB RMI thread. For more information about the result of sending an interrupt signal to a thread, refer to "Thread monitoring and control" in *JEUS Server Guide*.



This function only sends an interrupt signal. It does not guarantee that the thread stops its operation.

- Alias

interruptthread, interrupt, intthread

- Usage

```
interrupt-thread -server <server-name>
                 -ctx <web-context-name> | -wc <Web Connection Name> | <thread-id>
                 [-svg <Service Group Name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-ctx <web-context-name> -wc <web-connection-name> <thread-id>	<ul style="list-style-type: none"> • -ctx <web-context-name>: If the thread pool that will be interrupted is at the context level, the context name is set as an argument. • -wc: If the thread pool that will be interrupted is at the web-connection level, the web-connection name is set as an argument. • <thread-id>: ID of the thread to which the signal is sent.
-svg <Service Group Name>	Name of the thread pool at the context level. Only available when the -ctx option is specified. If not, all thread pools at the context level are interrupted.

- Example

```
[MASTER]domain1.adminServer>interrupt-thread -server server1 50
Sent an interrupt hint signal to the thread [tid=50] on the server server1.
```

4.2.5.2. modify-service-thread-pool

Dynamically changes the thread pool dedicated to a server. This command applies only for the naming server, scheduler, and the transaction thread pool that use the current integrated configuration. If the configuration is unspecified, this command displays the current configuration.

- Alias

modify-svctp, modifysvctp, svctpconfig, svctpconf

- Usage

```
modify-service-thread-pool -service <service name>
    <server-name>
    [-min <min>]
    [-max <max>]
    [-k,--keepalivetime <keep-alive-time>]
    [-q,--queuesize <queue-size>]
    [-m,--maxstuckthreadtime <max-stuck-thread-time>]
    [-a,--actiononstuckthread <action-on-stuck-thread>]
    [-stop,--stuckthreadcheckperiod <stuck-thread-check-period>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
-service <service name>	Service name that uses the system thread pool. Input options: <ul style="list-style-type: none"> • transaction • scheduler • namingserver
<server-name>	Server name.
[-min <min>]	[Dynamic] Minimum number of threads in the thread pool.
[-max <max>]	[Dynamic] Maximum number of threads in the thread pool.
[-k,--keepalivetime <keep-alive-time>]	[Dynamic] If the number of threads is greater than the minimum number, threads idle for a specified period of time are deleted.
[-q,--queuesize <queue-size>]	Maximum number of worker threads in a queue.
[-m,--maxstuckthreadtime <max-stuck-thread-time>]	[Dynamic] Determines a thread to be in the STUCK state if the execution time of the thread exceeds the specified period.
[-a,--actiononstuckthread <action-on-stuck-thread>]	[Dynamic] Method for handling threads in the STUCK state. Input options: <ul style="list-style-type: none"> • IgnoreAndReplace • Interrupt • None
[-stcp,--stuckthreadcheckperiod <stuck-thread-check-period>]	[Dynamic] Sets the interval at which to check threads in the STUCK state. (Unit: ms)
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
88% [MASTER]domain1.adminServer>modify-service-thread-pool server1 -service transaction -min 10 -max 20
Successfully performed the MODIFY operation for The transaction thread pool of the server (server1)., but all changes were non-dynamic. They will be applied after restarting.
Check the results using "show-service-thread-pool server1 -service transaction or modify-service-thread-pool server1 -service transaction"
```

4.2.5.3. modify-system-thread-pool

Dynamically changes the system thread pool. This command can modify the number of threads

allocated to services that use the system thread pool.

- Alias

modify-systp, modifysystp, systpconfig, systpconf

- Usage

```
modify-system-thread-pool <server-name>
    [-min <min>]
    [-max <max>]
    [-k,--keepalivetime <keep-alive-time>]
    [-q,--queuesize <queue-size>]
    [-m,--maxstuckthreadtime <max-stuck-thread-time>]
    [-a,--actiononstuckthread <action-on-stuck-thread>]
    [-stcp,--stuckthreadcheckperiod <stuck-thread-check-period>]
    [-service <service-name>]
    [-r,--reservednum <reserved-number>]
    [-f,--forceLock]
    [-detail]
```

- Parameters

Parameter	Description
<server-name>	Server name.
[-min <min>]	[Dynamic] Minimum number of threads in the thread pool.
[-max <max>]	[Dynamic] Maximum number of threads in the thread pool.
[-k,--keepalivetime <keep-alive-time>]	[Dynamic] If the number of threads is greater than the minimum number, threads remaining idle for a specified period of time are deleted.
[-q,--queuesize <queue-size>]	Maximum number of worker threads in a queue.
[-m,--maxstuckthreadtime <max-stuck-thread-time>]	[Dynamic] Determines a thread to be in the STUCK state if the execution time of the thread exceeds the specified period.
[-a,--actiononstuckthread <action-on-stuck-thread>]	[Dynamic] Method for handling threads in the STUCK state. Input options: <ul style="list-style-type: none">• IgnoreAndReplace• Interrupt• None
[-stcp,--stuckthreadcheckperiod <stuck-thread-check-period>]	[Dynamic] Sets the interval at which to check threads in the STUCK state. (Unit: ms)

Parameter	Description
<code>[-service <service-name>]</code>	Service name that uses the system thread pool. Input options: <ul style="list-style-type: none"> • transaction • scheduler • namingserver
<code>[-r,--reservednum <reserved-number>]</code>	[Dynamic] Minimum number of threads allocated to services that use the system thread pool.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
85% [MASTER]domain1.adminServer>modify-system-thread-pool server1 -min 10 -max 60
-service transaction -reservednum 20 -detail
Successfully performed the MODIFY operation for the system thread pool of the server (server1).
=====
+-----+-----+-----+-----+-----+-----+
| servers.server.{? name == 'server1' }.systemThreadPool | MODIFY| ACTIVATED|
| servers.server.{? name == 'server1' }.tmConfig          | MODIFY| ACTIVATED|
+-----+-----+-----+-----+-----+-----+
=====
Check the results using "modify-system-thread-pool server1 or show-system-thread -pool server1"
-----details-----
servers.server.{? name == 'server1' }.tmConfig : ACTIVATED
servers.server.{? name == 'server1' }.tmConfig.pooling : ACTIVATED
servers.server.{? name == 'server1' }.tmConfig.pooling.shared : ACTIVATED
servers.server.{? name == 'server1' }.tmConfig.pooling.shared.reservedThreadNum : ACTIVATED
previous value : 0, edited value : 20, result value : 20
servers.server.{? name == 'server1' }.systemThreadPool : ACTIVATED
servers.server.{? name == 'server1' }.systemThreadPool.min : ACTIVATED
previous value : 0, edited value : 10, result value : 10
servers.server.{? name == 'server1' }.systemThreadPool.max : ACTIVATED
previous value : 100, edited value : 60, result value : 60
```

4.2.5.4. print-stack-trace

Displays stack traces of a servlet thread or an EJB RMI thread.

- Alias

stacktrace, strace

- Usage

```
print-stack-trace -server <server-name>
                  -ctx <web-context-name> | -wc <Web Connection Name> | <thread-id>
```

`[-svg <Service Group Name>]`

- Parameters

Parameter	Description
<code>-server <server-name></code>	Server name.
<code>-ctx <web-context-name> -wc <web-connection-name> <thread-id></code>	<ul style="list-style-type: none"><code>-ctx <web-context-name></code>: If the thread pool is at the context level when it displays stack traces, the context name is set as an argument.<code>-wc</code>: If the thread pool is at the web-connection level when it displays stack traces, the web-connection name is set as an argument.<code><thread-id></code>: Thread ID.
<code>-svg <Service Group Name></code>	Name of the thread pool at the context level. Only available when the <code>-ctx</code> option is specified. If not, stack traces of all thread pools at the context level are displayed.

- Example

```
[MASTER]domain1.adminServer>print-stack-trace -server server1 50
servlet thread [tid=50] Stack trace of http1-1 [server1-50] tid=50 java.lang.Thread.State:
WAITING
    at sun.misc.Unsafe.park(Native Method)
    at java.util.concurrent.locks.LockSupport.park(LockSupport.java:156)
    at
    java.util.concurrent.locks.AbstractQueuedSynchronizer$ConditionObject.await(AbstractQueuedSynchronizer.java:1987)
    at java.util.concurrent.LinkedBlockingQueue.take(LinkedBlockingQueue.java:399)
    at jeus.util.ThreadPoolExecutor.getTask(ThreadPoolExecutor.java:1291)
    at jeus.servlet.engine.WebThreadPoolExecutor.getTask(WebThreadPoolExecutor.java:68)
    at jeus.util.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:1215)
    at
    jeus.servlet.engine.WebThreadPoolExecutor$WebRequestWorker.run(WebThreadPoolExecutor.java:332)
    at java.lang.Thread.run(Thread.java:662)
```

4.2.5.5. show-service-thread-pool

Displays the system thread pool information of a server.

- Alias

`show-svctcp, showsvctcp`

- Usage

```
show-service-thread-pool <server-name>
```

```
-service <service-name>
```

- Parameters

Parameter	Description
<server-name>	Server name.
-service <service-name>	Service name. Input options: <ul style="list-style-type: none">• transaction• scheduler• namingserver

- Example

```
[MASTER]domain1.adminServer>show-service-thread-pool server1 -service transaction
Shows the current configuration.
```

```
=====
+-----+-----+
| Min                | 10    |
| Max                | 20    |
| Keep-Alive Time    | 60000 |
| Queue Size         | 4096  |
| Max Stuck Thread Time | 3600000|
| Action On Stuck Thread | NONE  |
| Stuck Thread Check Period | 300000 |
+-----+-----+
=====
```

4.2.5.6. show-system-thread-pool

Displays the system thread pool information of a server.

- Alias

show-systp, showsystp

- Usage

```
show-system-thread-pool <server-name>
                        [-service <service-name>]
```

- Parameters

Parameter	Description
<server-name>	Server name.
[-service <service-name>]	Service name. Input options: <ul style="list-style-type: none"> • transaction • scheduler • namingserver

- Example

```
[MASTER]domain1.adminServer>show-system-thread-pool server1
Shows the current configuration.
the system thread pool of the server (server1).
=====
+-----+-----+
| Min                | 10    |
| Max                | 60    |
| Keep-Alive Time    | 300000|
| Queue Size         | 4096  |
| Max Stuck Thread Time | 0     |
| Action On Stuck Thread | NONE  |
| Stuck Thread Check Period | 300000|
| Reserved Threads for the Service transaction | 0     |
+-----+-----+
=====
```

4.2.5.7. thread-info

Displays information about servlet threads or EJB RMI threads that handle requests and about other JEUS thread pools.

For servlets, information about the listener's thread pool and each worker thread can be checked. For EJB, information about EJB RMI threads that handle remote requests can be checked. From the server, information about server thread pools can be basically checked, and information about all pools can be checked as well depending on the selected option. For batch applications, the information of configured thread pool can be checked.

- Alias

threadinfo, ti

- Usage

```
thread-info [-server <server-name>]
            [-type <thread-type>]
            [-wc <web-connection-name> | -ctx <web-context-name>]
```

```
[-r,--request | -a,--all]
[-s <thread-state>]
[-os,--only-stats]
[-st,--stacktrace]
```

- Parameters

Parameter	Description
[-server <server-name>]	Server name.
[-type <thread-type>]	<p>Input options:</p> <ul style="list-style-type: none"> • servlet : Servlet Thread • ejb : EJB RMI Thread • jms : JMS Thread • server : Server Thread Pool • batch: Thread pool used in the batch application <p>If the -ctx option is specified, enter the following values.</p> <ul style="list-style-type: none"> • context : Context Thread Pool • webasync: Thread pool for servlet 3.0 async processing • upgrade: Thread pool for Async Send of WebSocket Container or HTTP Upgrade NIO Servlet
[-wc <web-connection-name> -ctx <context-name>]	Specifies a web connection or web context. If a web connection is specified, its thread pool information is displayed. If a web context is specified, a desired thread pool can be specified. For no option specified, all information of Context, WebAsync, and WebSocket Thread Pool is displayed.
[-r,--request -a,--all]	<ul style="list-style-type: none"> • -r: Checks only the request information of the servlet thread. Valid only for servlet threads. • -a: For servlets, checks the information of all servlet threads. For servers, checks the information about all thread pools within JEUS.
[-s <thread-state>]	<p>To search for threads in a specific state, enter the state.</p> <ul style="list-style-type: none"> • active • idle • blocked • reconn
[-os,--only-stats]	Servlet only displays statistical information by listener. Server displays only statistical information of pools.

Parameter	Description
[-st,--stacktrace]	Searches the traces of all active threads (thread currently running for actual tasks) that belong to the pools searched by the server. This option only applies to servers.

- Example

```
[MASTER]domain1.adminServer>thread-info -server server1
```

```
Thread information for the server [server1]
There are no EJB RMI threads for the server [server1].
There is no batch thread pool in server [server1].
```

```
=====
The web engine threads for 'ADMIN-HTTP'.
```

tid	name	state	elapsed	uri
45	ADMIN-HTTP-w00	waiting	48521870	

```
elsapsed: Elapsed time (ms)
```

```
=====
```

```
=====
Thread statistics for the 'ADMIN-HTTP'.
```

	total	active	idle	blocked	reconn
The number of threads.	1	0	1	0	0

```
total = active + idle, reconn: reconnecting
```

```
=====
```

```
=====
The web engine threads for 'http1'.
```

tid	name	state	elapsed	uri
46	http1-w00	waiting	48521873	
47	http1-w01	waiting	48521868	
48	http1-w02	waiting	48521868	
49	http1-w03	waiting	48521868	
51	http1-w05	waiting	48521862	
52	http1-w06	waiting	48521858	
53	http1-w07	waiting	48521858	
54	http1-w08	waiting	48521857	
55	http1-w09	waiting	48521857	
21203	http1-w10	waiting	37629	

```
elsapsed: Elapsed time (ms)
```

```

=====

Thread statistics for the 'http1'.

+-----+-----+-----+-----+-----+
|               | total| active| idle| blocked| reconn|
+-----+-----+-----+-----+-----+
| The number of threads. |   10 |    0 |   10 |    0 |    0 |
+-----+-----+-----+-----+-----+

total = active + idle, reconn: reconnecting
=====

The threads for the 'threadpool.System' thread pool.

+-----+-----+-----+-----+
| tid |          name          | thread state | active thread |
+-----+-----+-----+-----+
|  93 | threadpool.System-2    | TIMED_WAITING | false         |
|  92 | threadpool.System-1    | TIMED_WAITING | false         |
|  94 | JMXMP [adminServer-94] | RUNNABLE      | true          |
+-----+-----+-----+-----+
=====

```

```

=====

The statistics for the 'threadpool.System' thread pool.

+-----+-----+-----+-----+-----+-----+
| pool name | minimum | maximum | current | work | remaining work |
|           | pool size | pool size | pool size | queue size | queue size      |
+-----+-----+-----+-----+-----+-----+
| threadpool |      0 |    100 |      3 |  4096 |          4096 |
|.System    |      |      |      |      |              |
+-----+-----+-----+-----+-----+-----+
=====

```

```

=====

The threads for the 'chunk_checkpoint' thread pool.

+-----+-----+-----+-----+
| tid | name | thread state | active thread |
+-----+-----+-----+-----+
(No data available)
=====

```

```

=====

The statistics for the 'chunk_checkpoint' thread pool.

+-----+-----+-----+-----+-----+-----+
| pool name | minimum | maximum | current | work | remaining work |
|           | pool size | pool size | pool size | queue size | queue size      |
+-----+-----+-----+-----+-----+-----+
| chunk_che |      0 |    10 |      0 |  4096 |          4096 |
|ckpoint   |      |      |      |      |              |
+-----+-----+-----+-----+-----+-----+
=====

```

4.2.6. Application Commands

The following is a list of application commands.

Command	Description
add-application-repository	Adds a new application repository.
add-application-target	Adds a server or cluster as a target of a deployed application. Deploys the application to a server or cluster. Only available for the JEUS Master Server and Managed Server structure.
application-info	Displays information about applications in the domain.
deploy-application	Deploys an installed application to the target servers. If deployment fails on a single server, application are undeployed from all successful servers.
deploy-library	Deploys a library to a server or cluster.
deployment-plan-info	Displays the information of an installed deployment plan.
distribute-application	Distributes an installed application to each server or cluster. In order to run the service, the application must be started using the start-application command.
install-application	Installs an application. The application ID can be set.
install-deployment-plan	Installs a deployment plan. At this time, the deployment plan identifier can be defined.
install-library	Installs a library file in a domain.
library-info	Displays information about the libraries that are installed and deployed in a current domain.
list-application-repositories	Displays the information of registered application repositories.
redploy-application	Redeploys an application.
remove-application-repository	Deletes an registered application repository.
remove-application-target	Deletes an application deployed or distributed on a server or cluster from the server or cluster. Only available for the JEUS Master Server and Managed Server structure.
start-application	Starts the deployed application.
stop-application	Suspends a running application.
undeploy-application	Undeploys a deployed application.
uninstall-application	Deletes an installed application.
uninstall-deployment-plan	Deletes an installed deployment plan.
undeploy-library	Undeploys a library deployed in a server or cluster.
uninstall-library	Uninstalls a library file from a domain.

4.2.6.1. add-application-repository

Adds a new application repository to the domain.

- Alias

addapprepo, installapps

- Usage

```
add-application-repository [<application-repository-path>]
                           [-f,--forceLock]
                           [-detail]
```

- Parameters

Parameter	Description
[<application-repository-path>]	Absolute path to the application repository to be added.
[-f, --forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed information.

- Example

```
[MASTER]domain1.adminServer>add-application-repository /home/user1/apps
Successfully performed the ADD operation for An application repository.
Check the results using "add-application-repository or list-application-repositories"
```

4.2.6.2. add-application-target

Adds a server or cluster as a target of a deployed application. Deploys the application to a server or cluster. This command can only be used when the application is in the DEPLOYED, DISTRIBUTED, or RUNNING state. Only available for the JEUS Master Server and Managed Server structure.

- Alias

addapptarget, addtarget

- Usage

```
add-application-target <application-id>
                      [-servers <server-list>]
                      [-clusters <cluster-list>]
                      [-vh,--virtualHost <virtual-host>]
```

- Parameters

Parameter	Description
<i><application-id></i>	ID of the application to which the target is added. Use only when the application is in the DEPLOYED, DISTRIBUTED, or RUNNING states.
<code>[-servers <server-list>]</code>	Names of the servers to which the application is added. To specify multiple servers, separate each server with a comma (,).
<code>[-clusters <cluster-list>]</code>	Names of the clusters to which the application is added. To specify multiple clusters, separate each cluster with a comma (,).
<code>[-vh,--virtualHost <virtual-host>]</code>	Virtual host name.

- Example

```
[MASTER]domain1.adminServer>add-application-target myApp -servers server1
add a target server or cluster to the application for the application [deployment_helloear]
succeeded.
```

4.2.6.3. application-info

Displays information about applications in the domain.

- Alias

appinfo, list-applications

- Usage

```
application-info [-server <server-name>]
                  [-id <application-id> | -state <application-state>]
                  [-type <application-type>]
                  [-module <module-name>]
                  [-bean <bean-name>]
                  [-jndi <jndi-context>]
                  [-mod <jndi-module-name>]
                  [-comp <jndi-component-name>]
                  [-detail,--detail]
                  [-sps,--stateperserver]
```

- Parameters

Parameter	Description
<code>[-server <server-name>]</code>	Name of the server in which the application information is displayed in detail.

Parameter	Description
<code>[-id,--applicationId <application-id>]</code>	Application ID.
<code>[-state <application-state>]</code>	Displays information about applications in the specified state.
<code>[-type <application-type>]</code>	Displays information about applications of the specified type. Input options: <ul style="list-style-type: none"> • EAR • EJB • WAR • CAR • RAR
<code>[-module <module-name>]</code>	Displays the module information of EAR.
<code>[-bean <bean-name>]</code>	Displays detailed information about an EJB Bean. Server, ID, and module information are required.
<code>[-jndi <jndi-context>]</code>	Displays the JNDI information about an application. Server and ID information are required.
<code>[-mod <jndi-module-name>]</code>	Displays the JNDI namespace of a module.
<code>[-comp <jndi-component-name>]</code>	Displays the namespace of a component.
<code>[-detail,--detail]</code>	Displays detailed information about a stand-alone module. For a web module, lists of servlets, filters, listeners, WebSocket Server Endpoints, and EJB Bean (EJB in a .war) are displayed.
<code>[-sps,--stateperserver]</code>	Displays the server status for each application. Servers without a status (e.g. server shutdown) are displayed as 'NO_STATE'.

- Example
 - A basic example.

The following is the result.

```
[MASTER]domain1.adminServer>application-info
Application information for the domain [domain1].
=====
+-----+-----+-----+-----+-----+-----+
| Applicat | Applicati | State | Target | Target | Application Path |
| ion ID  | on Type  |      | Servers | Clusters |                  |
+-----+-----+-----+-----+-----+-----+

```

myApp	EAR	RUNNING	adminServer		\${INSTALL_HOME}/my App/myApp.ear
myEJB	EJB	RUNNING		cluster1	\${INSTALL_HOME}/my EJB/myEJB.jar
myWeb	WAR	RUNNING	server1,adm inServer		\${INSTALL_HOME}/my Web/myWeb.war

- An example where the stateperserver option is used.

The server status for each application is displayed. Servers without a status are displayed as 'NO_STATE'.

```
[MASTER]domain1.adminServer>application-info -sps
Application information for the domain [domain1].
=====
+-----+-----+-----+-----+-----+-----+
| Applicat | Applicati | State | Target | Target | Application Path |
| ion ID   | on Type   |       | Servers | Clusters |                  |
+-----+-----+-----+-----+-----+-----+
| myApp    | EAR       | RUNNING | adminServer |      | ${INSTALL_HOME}/my |
|          |           |         |             |      | App/myApp.ear      |
+-----+-----+-----+-----+-----+-----+
| myEJB    | EJB       | RUNNING |      | cluster1 | ${INSTALL_HOME}/my |
|          |           |         |      |           | EJB/myEJB.jar      |
+-----+-----+-----+-----+-----+-----+
| myWeb    | WAR       | RUNNING | server1,adm |      | ${INSTALL_HOME}/my |
|          |           |         | inServer   |      | Web/myWeb.war      |
+-----+-----+-----+-----+-----+-----+
=====

Server-specific state information for each application in the domain [domain1]
=====
+-----+-----+-----+-----+-----+-----+
| Applicati | Application | State | Server | Cluster | Application Path |
| on ID     | Type        |       |        |         |                  |
+-----+-----+-----+-----+-----+-----+
| myApp     | EAR         | RUNNING | adminSe |      | ${INSTALL_HOME}/my |
|           |             |         | rver    |      | App/myApp.ear      |
+-----+-----+-----+-----+-----+-----+
| myEJB     | EJB         | RUNNING | server2 | cluster1 | ${INSTALL_HOME}/my |
|           |             |         |         |           | EJB/myEJB.jar      |
+-----+-----+-----+-----+-----+-----+
| myEJB     | EJB         | NO STATE | server3 | cluster1 | ${INSTALL_HOME}/my |
|           |             |         |         |           | EJB/myEJB.jar      |
+-----+-----+-----+-----+-----+-----+
| myWeb     | WAR         | NO STATE | server1 |      | ${INSTALL_HOME}/my |
|           |             |         |         |      | Web/myWeb.war      |
+-----+-----+-----+-----+-----+-----+
| myWeb     | WAR         | RUNNING | adminSe |      | ${INSTALL_HOME}/my |
|           |             |         | rver    |      | Web/myWeb.war      |
+-----+-----+-----+-----+-----+-----+
=====
```

4.2.6.4. deploy-application

Deploys an installed application to the target servers. If deployment fails on a single server, application are undeployed from all successful servers.

- Alias

deployapp, deploy

- Usage

```
deploy-application [<application-id>]
    [-path,--applicationPath <path>]
    [-servers <server-list>]
    [-clusters <cluster-list>]
    [-all]
    [-exmaster,--excludeMaster]
    [-vh,--virtualHost <virtual-host>]
    [-svh,--systemVirtualHost]
    [-type,--applicationType <application-type>]
    [-cl,--classloading <classloading-mode>]
    [-auto,--autoRedeployCheckInterval <auto-redeploy-check-interval>]
    [-security,--securityDomainName <security-domain-name>]
    [-fast,--fastDeploy]
    [-keep,--keepGenerated]
    [-shared,--sharedDisk]
    [-u,--upgrade]
    [-plan,--deploymentPlanName <deployment-plan-name>]
    [-ctxp,--contextPath <context-path>]
    [-staging]
    [-lib,--libraryId <library-IDs>]
    [-version,--libraryVersion <library-versions>]
    [-con,--concurrent]
    [-thn <thread-pool-name>]
    [-tmin <thread-pool-min>]
    [-tmax <thread-pool-max>]
    [-tidle <thread-pool-maxIdleTimeout>]
    [-qs <thread-pool-maxQueueCount>]
    [-b <thread-pool base> | -uri <thread-pool-uri>]
    [-jwdp <jeus-web-dd.xml path>]
    [-wp <web.xml path>]
    [-ss,--sessionScope <scope-name>]
```

- Parameters

Parameter	Description
[<application-id>]	Application ID entered when the application was installed. To specify multiple application IDs, separate each ID with a comma (,). An ID can be given to an application when a file path is used for distribution. When using a file path, only one ID and one path can be entered.
[-path,--applicationPath <path>]	Path to application files. This option can be used when using the file path without installing the application. This is possible only when the files are in the same machine as JEUS Master Server.
[-servers <server-list>]	Names of the servers to which the application is to be deployed. To specify multiple servers, separate each server with a comma (,).
[-clusters <cluster-list>]	Names of the clusters to which the application is to be deployed. To specify multiple clusters, separate each cluster with a comma (,).
[-all]	Deploys to all the servers in the domain.
[-exmaster,--excludeMaster]	Excludes the JEUS Master Server from the list of servers to which applications are deployed when the 'all' option is used.
[-vh,--virtualHost <virtual-host>]	Virtual host address. A virtual host name defined in the web engine can be selected. This option only operates in a web module.
[-svh,--systemVirtualHost]	Deploys an application to a system virtual host.
[-type,--applicationType <application-type>]	<p>Sets the application type.</p> <p>Input options:</p> <ul style="list-style-type: none"> • EAR • EJB • WAR • CAR • RAR <p>If not specified, this option can be set automatically through DD or annotation.</p>
[-cl,--classloading <classloading-mode>]	<p>Sets the class loading type.</p> <p>Input options:</p> <ul style="list-style-type: none"> • SHARED • ISOLATED (Default value)

Parameter	Description
[-auto,--autoRedeployCheckInterval <auto-redeploy-check-interval>]	Interval at which to check for automatic application redeployment. (Unit: ms)
[-security,--securityDomainName <security-domain-name>]	Security domain name to be applied to the application. By default, the value set in default-application-domain of the domain configuration is used.
[-fast,--fastDeploy]	Option to use previously created files (if any exists) to speed up the deployment process.
[-keep,--keepGenerated]	Option to keep the files generated during deployment.
[-shared,--sharedDisk]	Uses NAS to avoid copying the application file.
[-u,--upgrade]	Changes the DD format of JEUS 6 or earlier to make it compatible with the current version before deploying an application that has not been installed.
[-plan,-deploymentPlanName <deployment-plan-name>]	Sets the deployment plan file name.
[-ctxp,--contextPath <context-path>]	Sets the context for web applications.
[-staging]	Compresses applications in an exploded module type to send to other machines.
[-lib,--libraryId <library-IDs>]	Library to be referenced by applications. Multiple libraries can be specified by using a comma (,) delimiter.
[-version,--libraryVersion <library-versions>]	Version of the library to be referenced. Multiple libraries can be specified by using a comma (,) delimiter.
[-con, --concurrent]	Option to deploy multiple applications concurrently.
[-thn <thread-pool name>]	Name of a thread pool that will process application-related requests. One context thread pool can be set with the command. For this parameter, -tmin and -tmax options are required.
[-tmin <thread-pool min>]	Minimum number of worker threads maintained in a context thread pool.
[-tmax <thread-pool max>]	Maximum number of worker threads maintained in a context thread pool.
[-tidle <thread-pool max-idle-time>]	Maximum time during which a worker thread is in the idle state before removed from a context thread pool.
[-qs <thread-pool max-queue>]	Maximum requests that can wait in a queue in a context thread pool.

Parameter	Description
<code>[-b <thread-pool base> -uri <thread-pool uri>]</code>	Option to identify whether a thread pool to add is a base thread pool or service group thread pool. If '-b' option is specified, the thread pool is recognized as a base thread pool. If no option is specified, a service group thread pool is created, and uri will be an empty string. Multiple URIs can be specified by using a comma (,) delimiter.
<code>[-jwdp <jeus-web-dd.xml path>]</code>	Path to the jeus-web-dd.xml file to be used. If there are multiple jeus-web-dd.xml, only one with the highest priority is applied. The order of priority is as follows: path mentioned in DeploymentPlan and DeployApplicationCommand, WEB-INF.
<code>[-wp <web.xml path>]</code>	Path to the web.xml file to be used. If there are multiple web.xml files, only one with the highest priority is applied, which cannot be merged. The order of priority is as follows: path specified in DeploymentPlan and DeployApplicationCommand, WEB-INF, domain/config/servlet.
<code>[-ss,--sessionScope <scope-name>]</code>	Scope to include applications.

- Example

You can choose one of the following options for target servers or cluster: [-servers], [-clusters], [-all]

- Applications installed

Can be deployed using the application-id.

```
[MASTER]domain1.adminServer>deploy-application myApp -servers server1
deploy the application for the application [myApp] succeeded.
```

- Applications not installed

Can be deployed by only specifying the path or by using both the application-id and the path.

Specifying the path only

```
[MASTER]domain1.adminServer>deploy-application -path /home/user/apps/sample.war -servers
server1
deploy the application for the application [/home/user/apps/sample.war] succeeded.
```

Using both the application-id and path

```
[MASTER]domain1.adminServer>deploy-application myApp -path /home/user/apps/sample.war
```

```
-servers server1
deploy the application for the application [myApp] succeeded.
```

4.2.6.5. deploy-library

Deploys a library installed in a domain to a server or cluster.

- Alias

deploylib

- Usage

```
deploy-library <library-id>
                [-version,--libraryVersion <version>]
                [-all]
                [-clusters <cluster-list>]
                [-servers <server-list>]
```

- Parameters

Parameter	Description
<library-id>	ID of the library to be deployed.
[-version,--libraryVersion <version>]	Version of the library to be deployed.
[-all]	Deploys the library to all servers.
[-clusters <cluster-list>]	Clusters to which the application is to be deployed. To specify multiple clusters, separate each cluster with a comma (,).
[-servers <server-list>]	Server where the library will be deployed to. Multiple servers can be specified by using a comma (,) delimiter.

- Example

```
[MASTER]domain1.adminServer>deploy-library log4j -version 1.2.17 -servers adminServer
deploy the library [log4j] succeeded.
```

4.2.6.6. deployment-plan-info

Displays the information of an installed deployment plan.

- Alias

dpinfo

- Usage

```
deployment-plan-info [-name,--deploymentPlanName <deployment-plan-name>]
```

- Parameters

Parameter	Description
[-name,--deploymentPlanName <deployment-plan-name>]	Sets the deployment plan name (identifier).

- Example

```
[MASTER]domain1.adminServer>deployment-plan-info
The list of deployment plans installed in the domain and the applications to which each
deployment plan applies
=====
+-----+-----+
|          Deployment plan          | Applications |
+-----+-----+
| plan1                             |              |
+-----+-----+
=====
```

4.2.6.7. distribute-application

Distributes an installed application to each server or cluster. In order to run the service, the application must be started using the [start-application](#) command.

- Alias

distributeapp, distapp, distribute

- Usage

```
distribute-application [<application-id>]
    [-path,--applicationPath <path>]
    [-servers <server-list>]
    [-clusters <cluster-list>]
    [-all]
    [-exmaster,--excludeMaster]
    [-vh,--virtualHost <virtual-host>]
    [-svh,--systemVirtualHost]
    [-type,--applicationType <application-type>]
    [-cl,--classloading <classloading-mode>]
    [-auto,--autoRedeployCheckInterval <auto-redeploy-check-interval>]
    [-security,--securityDomainName <security-domain-name>]
    [-fast,--fastDeploy]
    [-keep,--keepGenerated]
```

```

[-shared,--sharedDisk]
[-u,--upgrade]
[-plan,--deploymentPlanName <deployment-plan-name>]
[-ctxp,--contextPath <context-path>]
[-staging]
[-lib,--libraryId <library-IDs>]
[-version,--libraryVersion <library-versions>]
[-con,--concurrent]

```

- Parameters

Parameter	Description
[<application-id>]	Application ID entered when the application was installed. To specify multiple application IDs, separate each ID with a comma (,). An ID can be given to an application when a file path is used for distribution. When using a file path, only one ID and one path can be entered.
[-path,--applicationPath <path>]	Path to application files. This option can be used when using the file path without installing the application. This is possible only when the files are in the same machine as JEUS Master Server.
[-servers <server-list>]	Names of the servers to which the application is distributed. To specify multiple servers, separate each server with a comma (,).
[-clusters <cluster-list>]	Names of the clusters to which the application is distributed. To specify multiple clusters, separate each cluster with a comma (,).
[-all]	Installs onto all servers in the domain.
[-exmaster,--excludeMaster]	Excludes the JEUS Master Server from the list of servers to which applications are deployed when the 'all' option is used.
[-vh,--virtualHost <virtual-host>]	Virtual host address. A virtual host name defined in the web engine can be selected. This option only operates in a web module.
[-svh,--systemVirtualHost]	Deploys an application to a system virtual host.

Parameter	Description
[-type,--applicationType <application-type>]	<p>Sets the application type.</p> <p>Input options:</p> <ul style="list-style-type: none"> • EAR • EJB • WAR • CAR • RAR <p>If not specified, this option can be set automatically through DD or annotation.</p>
[-cl,--classloading <classloading-mode>]	<p>Sets the class loading type.</p> <p>Input options:</p> <ul style="list-style-type: none"> • SHARED • ISOLATED (Default value)
[-auto,--autoRedeployCheckInterval <auto-redeploy-check-interval>]	<p>Interval at which to check for automatic application redeployment.</p> <p>(Unit: ms)</p>
[-security,--securityDomainName <security-domain-name>]	<p>Security domain name to be applied to the application. By default, the value set in default-application-domain of the domain configuration is used.</p>
[-fast,--fastDeploy]	<p>Option to use previously created files (if any exists) to speed up the deployment process.</p>
[-keep,--keepGenerated]	<p>Option to keep the files generated during deployment.</p>
[-shared,--sharedDisk]	<p>Uses NAS to avoid copying the application file.</p>
[-u,--upgrade]	<p>Changes the DD format of JEUS 6 or earlier to make it compatible with the current version before deploying an application that has not been installed.</p>
[-plan,--deploymentPlanName <deployment-plan-name>]	<p>Sets the deployment plan file name.</p>
[-ctxp,--contextPath <context-path>]	<p>Sets the context for web applications.</p>
[-staging]	<p>Compresses applications in an exploded module type to send to other machines.</p>
[-lib,--libraryId <library-IDs>]	<p>Library to be referenced by applications. Multiple libraries can be specified by using a comma (,) delimiter.</p>

Parameter	Description
[-version,--libraryVersion <library-versions>]	Version of the library to be referenced. Multiple libraries can be specified by using a comma (,) delimiter.
[-con, --concurrent]	Option to deploy multiple applications simultaneously during deployment.

- Example

You can choose one of the following options for target servers or cluster: [-servers], [-clusters], [-all]

- Applications installed

Can be deployed using the application-id.

```
[MASTER]domain1.adminServer>distributed-application myApp -servers server1
distributed the application for the application [myApp] succeeded.
```

- Applications not installed

Can be deployed by only specifying the path or by using both the application-id and the path.

Specifying the path only

```
[MASTER]domain1.adminServer>distributed-application -path /home/user/apps/sample.war -servers
server1
distributed the application for the application [/home/user/apps/sample.war] succeeded.
```

Using both the application-id and path

```
[MASTER]domain1.adminServer>distributed-application myApp -path /home/user/apps/sample.war
-servers server1
distributed the application for the application [myApp] succeeded.
```

4.2.6.8. install-application

Installs an application. The application ID can be set. The application file name can be used instead of the ID, and the '.' character is replaced with the '_' character.

- Alias

installapp, install-app

- Usage

```
install-application <application-source-path>
                [-id,--applicationId <application-id>]
```



```
[-f,--force]
[-u,--upgrade]
```

- Parameters

Parameter	Description
<application-source-path>	Path to the application.
[-id,--applicationId <application-id>]	Application ID.
[-f,--force]	Overwrites the existing application with the same ID.
[-u,--upgrade]	Changes the DD format of JEUS 6 or earlier versions to make it compatible with the current version.

- Example

```
[MASTER]domain1.adminServer>install-application /home/apps/myApp.ear -id myApp
Successfully installed the application [myApp].
```

4.2.6.9. install-deployment-plan

Installs a deployment plan. An identifier of the deployment plan can be defined.

- Alias

installdp

- Usage

```
install-deployment-plan -path,--deploymentPlanPath <deployment-plan-path>
                        [-name,--deploymentPlanName <deployment-plan-name>]
                        [-f,--force]
```

- Parameters

Parameter	Description
-path,--deploymentPlanPath <deployment-plan-path>	Path to the deployment plan.
[-name,--deploymentPlanName <deployment-plan-name>]	Sets the deployment plan name (identifier).
[-f,--force]	Overwrites the existing deployment plan with the same name.

- Example

```
[MASTER]domain1.adminServer>install-deployment-plan -path /home/plans/jeus-deployment-plan.xml
-name plan1
Installing the deployment plan [plan1] was successful.
```

4.2.6.10. install-library

Installs a library file in a domain.

- Alias

installlib, install-lib

- Usage

```
install-library <library-id>
               -path <library-source-path>
               [-version,--libraryVersion <version>]
```

- Parameters

Parameter	Description
<library-id>	ID of the library to be installed.
-path <library-source-path>	Path to the library to be installed.
[-version,--libraryVersion <version>]	Version of the library to be installed. (Default value: 1.0)

- Example

```
[MASTER]domain1.adminServer>install-library log4j -path /home/lib/apache-log4j-1.2.17/log4j-
1.2.17.jar -version 1.2.17
Successfully installed the library [log4j] version [1.2.17].
```

4.2.6.11. library-info

Displays information about the libraries that have been installed and deployed.

- Alias

libinfo, list-libraries

- Usage

```
library-info
```

- Example

```
[MASTER]domain1.adminServer>library-info
Library information
=====
+-----+-----+-----+-----+-----+-----+
| Library ID| Version| State | Target Servers| Target Clusters | Applications|
+-----+-----+-----+-----+-----+-----+
| log4j     | 1.2.17 | RUNNING| adminServer  |                  |              |
+-----+-----+-----+-----+-----+-----+
=====
```

4.2.6.12. list-application-repositories

Displays the information about registered application repositories.

- Alias

listapprepos

- Usage

```
list-application-repositories
```

- Example

```
[MASTER]domain1.adminServer>list-application-repositories
Application Repositories
=====
+-----+-----+-----+-----+-----+-----+
| Path of Application Repository |
+-----+-----+-----+-----+-----+-----+
| /home/user1/apps/              |
| //host1/shared/apps            |
+-----+-----+-----+-----+-----+-----+
=====
```

4.2.6.13. redeploy-application

Redeploys an application.

- Alias

redapp, redeploy

- Usage

```
redeploy-application <application-id>
```

```

[-path,--uploadPath <application-upload-path>]
[-masterPath,--pathManuallyInstalled
<application-source-path-in-master>]
[-to <graceful-timeout>]
[-f,--force]
[-distonly,--distributeOnly]
[-plan,-deploymentPlanName <deployment-plan-name>]
[-lib,--libraryId <library-IDs>]
[-version,--libraryVersion <library-versions>]
[-u,--upgrade]

```

- Parameters

Parameter	Description
<application-id>	Application ID. To specify multiple application IDs, separate each ID with a comma (,).
[-path, --uploadPath <application-upload-path>]	Path to the modified application files. This can be used to reinstall files.
[-masterPath, --pathManuallyInstalled <application-source-path-in-master>]	Path to the local files of the changed application. This can be accessed from the JEUS Master Server. This does not include the installation steps.
[-to <graceful-timeout>]	Timeout value for graceful undeployment. (Unit: second)
[-f,--force]	Keeps the existing application running on the server.
[-distonly,--distributeOnly]	Distributes the application to each server.
[-plan,-deploymentPlanName <deployment-plan-name>]	Sets the deployment plan file name.
[-lib,--libraryId <library-IDs>]	Library to be referenced by applications. Multiple libraries can be specified by using a comma (,) delimiter.
[-version,--libraryVersion <library-versions>]	Version of the library to be referenced. Multiple libraries can be specified by using a comma (,) delimiter.
[-u, --upgrade]	Upgrades the DD of a new application for the current version of JEUS. This option is enabled only when the application has been specified using the path option or the masterPath option.

- Example

```

[MASTER]domain1.adminServer>redploy-application myApp
redploy application on JEUS Master Server for the application [myApp] succeeded.

```

4.2.6.14. remove-application-repository

Deletes a registered application repository.

- Alias

rmapprepo, removeapprepo, uninstallapps

- Usage

```
remove-application-repository [<application-repository-path>]
                               [-f, --forceLock]
                               [-detail]
```

- Parameters

Parameter	Description
[<application-repository-path>]	Path to the application repository to be deleted.
[-f, --forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed information.

- Example

```
[MASTER]domain1.adminServer>remove-application-repository /home/user1/apps
Successfully performed the REMOVE operation for An application repository.
Check the results using "remove-application-repository or list-application-repositories"
```

4.2.6.15. remove-application-target

Deletes an application deployed or distributed on a server or a cluster from a server or cluster. Only available for the JEUS Master Server and Managed Server structure.

- Alias

remove-app-target, remove-target, rm-app-target, rmapptarget

- Usage

```
remove-application-target <application-id>
                          [-servers <server-list>]
                          [-clusters <cluster-list>]
                          [-vh, --virtualHost <virtual-host>]
```

- Parameters

Parameter	Description
<i><application-id></i>	ID of the application to be deleted.
<i>[-servers <server-lists>]</i>	Server from which the application is deleted. To specify multiple servers, separate each server with a comma (,).
<i>[-clusters <cluster-lists>]</i>	Cluster from which the application is deleted. To specify multiple clusters, separate each cluster with a comma (,).
<i>[-vh,--virtualHost <virtual-host>]</i>	Virtual host name.

- Example

```
[MASTER]domain1.adminServer>remove-application-target myApp -servers server1
remove server or cluster target from the application for the application [myApp] succeeded.
```

4.2.6.16. start-application

Starts the deployed application.

- Alias

startapp, start-app

- Usage

```
start-application <application-id>
                  [-con,--concurrent]
```

- Parameters

Parameter	Description
<i><application-id></i>	ID of the application to be started. To specify multiple applications, separate each application with a comma (,).
<i>[-con, --concurrent]</i>	Option to start multiple applications simultaneously.

- Example

```
[MASTER]domain1.adminServer>start-application myApp
start the application for the application [myApp] succeeded.
```

4.2.6.17. stop-application

Suspends a running application.

- Alias

stopapp, stop-app

- Usage

```
stop-application <application-id>  
                [-con,--concurrent]
```

- Parameters

Parameter	Description
<application-id>	ID of the application to be stopped. To specify multiple applications, separate each application with a comma (,).
[-con, --concurrent]	Option to stop multiple applications simultaneously.

- Example

```
[MASTER]domain1.adminServer>stop-application myApp  
stop the application for the application [myApp] succeeded.
```

4.2.6.18. undeploy-application

Undeploys a deployed application.

- Alias

undeployapp, undeploy

- Usage

```
undeploy-application <application-id>  
                    [-to,--gracefultimeout <graceful-undeploy-timeout>]  
                    [-f,--force <non-graceful undeploy>]  
                    [-new | -old | -all]  
                    [-con,--concurrent]  
                    [-rss,--removeSessionScope]
```

- Parameters

Parameter	Description
<application-id>	Application ID. To specify multiple application IDs, separate each ID with a comma (,).

Parameter	Description
<code>[-to,--gracefultimeout <graceful-undeploy-timeout>]</code>	Period in which to apply graceful undeployment. Waits the specified period for the current request to complete. (Unit: second)
<code>[-f,--force <non-graceful undeploy>]</code>	Graceful undeployment is not performed. The current process requests are ignored, and the application is undeployed.
<code>[-new]</code>	When gracefully redeploying, undeploys a new application and runs the existing application.
<code>[-old]</code>	When gracefully redeploying, undeploys the existing application.
<code>[-all]</code>	When gracefully redeploying, undeploys both new and existing applications.
<code>[-con, --concurrent]</code>	Option to undeploy multiple applications concurrently.
<code>[-rss,--removeSessionScope]</code>	Deletes applications within the configured scope.

- Example

```
[MASTER]domain1.adminServer>undeploy-application myApp
Undeploying [myApp] (This may take time due to graceful undeployment) .....
undeploy the application for the application [myApp] succeeded.
Successfully undeployed (elapsed = 2822ms)
```

4.2.6.19. undeploy-library

Undeploys a library deployed to a server or cluster.

- Alias

undeploylib

- Usage

```
undeploy-library <library-id>
                [-version,--libraryVersion <version>]
```

- Parameters

Parameter	Description
<code><library-id></code>	ID of the library to be deployed.
<code>[-version,--libraryVersion <version>]</code>	Version of the library to be undeployed.

- Example

```
[MASTER]domain1.adminServer>undeploy-library log4j -version 1.2.17
undeploy the library [log4j] succeeded.
```

4.2.6.20. uninstall-application

Deletes installed applications.

- Alias

uninstallapp, uninstall

- Usage

```
uninstall-application <application-id> | [-all]
```

- Parameters

Parameter	Description
<application-id>	Application ID. To specify multiple application IDs, separate each ID with a comma (,).
[-all]	Deletes all applications from the domain.

- Example

```
[MASTER]domain1.adminServer>uninstall-application myApp
uninstall the application for the application [myApp] succeeded. : Successfully deleted [myApp].
```

4.2.6.21. uninstall-deployment-plan

Deletes the installed deployment plan.

- Alias

uninstalldp

- Usage

```
uninstall-deployment-plan <deployment-plan-name> | [-all]
```

- Parameters

Parameter	Description
<i><deployment-plan-name></i>	Deployment plan identifier (name) to be deleted.
<i>[-all]</i>	Deletes all deployment plans.

- Example

```
[MASTER]domain1.adminServer>uninstall-deployment-plan plan1
Uninstalling the deployment plan was successful.
```

4.2.6.22. uninstall-library

Uninstalls a library file from a domain.

- Alias

uninstalllib

- Usage

```
uninstall-library <library-id>
                    [-version,--libraryVersion <version>]
```

- Parameters

Parameter	Description
<i><library-id></i>	ID of the library to be uninstalled.
<i>[-version,--libraryVersion <version>]</i>	Version of the library to be uninstalled.

- Example

```
[MASTER]domain1.adminServer>uninstall-library log4j -version 1.2.17
uninstall the library [log4j] succeeded. : Successfully deleted [log4j].
```

4.2.7. EJB Engine Commands

The following is a list of EJB engine commands.

Command	Description
cancel-ejb-timer	Cancels the EJB timer of a server.
ejb-timer-info	Displays the EJB timer information of a server.

Command	Description
modify-active-management	Changes the active management of a server.
modify-check-resolution	Changes the resolution of a server.
show-active-management	Displays the active management information of a server.
show-check-resolution	Displays the resolution information of a server.

4.2.7.1. cancel-ejb-timer

Cancels the EJB timer of a server.

- Alias

cancelejbtimer, canceltimer

- Usage

```
cancel-ejb-timer -server <server-name>
                  -module <module-id> | -timer <timer-id>
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-module <module-id>	ID of the module for which the timer will be canceled.
-timer <timer-id>	ID of the timer to be canceled.

- Example

```
[MASTER]domain1.adminServer>cancel-ejb-timer -server server1 -timer 502
Successfully canceled.
```

4.2.7.2. ejb-timer-info

Displays the EJB timer information of a server.

- Alias

ejbtimerinfo, timerinfo, scheduler

- Usage

```
ejb-timer-info -server <server-name>
```

```
[-module <module-id> | -all]
[-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[-module <module-id>]	Name of the EJB module for which the timer information is to be displayed.
[-all]	Displays the timer information for all EJB modules.
[-detail]	Displays detailed timer information.

- Example

```
[MASTER]domain1.adminServer>ejb-timer-info -server server1 -all -detail
Persistent Timer List: server[server1]
Module ID: Timer
=====
+---+-----+-----+-----+-----+-----+
| ID | BEAN   | METHOD | SCHEDULE          | INFO | NEXT          |
+---+-----+-----+-----+-----+-----+
| 52 | Persistence | print() | sec=*,min=*,hour=* |      | 2016-08-29 (Mon) PM | |
|    | TestBean   |         | ,dayOfMonth=*,dayOf |      | 03:50:34 KST        |
|    |             |         | Week=*,month=*,year |      |                      |
|    |             |         | |=*                |      |                      |
+---+-----+-----+-----+-----+-----+
=====
```

4.2.7.3. modify-active-management

Changes the active management of a server.

- Alias

modifyam

- Usage

```
modify-active-management -server <server-name>
                        [-mbt,--maxBlockedThread <max-blocked-thread>]
                        [-mit,--maxIdleTime <max-idle-time>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[-mbt,--maxBlockedThread <max-blocked-thread>]	[Dynamic] Maximum number of blocked threads.
[-mit,--maxIdleTime <max-idle-time>]	[Dynamic] Maximum idle time to determine the blocked state.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-active-management -server server1 -mbt 5 -mit 300001
Successfully performed the MODIFY operation for active-management for the server (server1)..
Check the results using "show-active-management -server server1"
```

4.2.7.4. modify-check-resolution

Changes the resolution of a server.

- Alias

modifyresolution, ejbengineresolution

- Usage

```
modify-check-resolution -server <server-name>
                        [-r,--resolution <resolution>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
[-r,--resolution <resolution>]	[Dynamic] Resolution of the EJB engine to be changed.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-check-resolution -server server1 -r 3000001
Successfully performed the MODIFY operation for The EJB engine resolution of the server
(server1)..
```

Check the results using "show-check-resolution -server server1"

4.2.7.5. show-active-management

Displays the active management information of a server.

- Alias

showam

- Usage

```
show-active-management -server <server-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server name.

- Example

```
[MASTER]domain1.adminServer>show-active-management -server server1
Shows the current configuration.
active-management for the server (server1).
=====
+-----+-----+
| Max Blocked Thread          | 5      |
| Max Idle Time               | 300001 |
+-----+-----+
=====
```

4.2.7.6. show-check-resolution

Displays the resolution information of a server.

- Alias

showresolution

- Usage

```
show-check-resolution -server <server-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server name.

- Example

```
[MASTER]domain1.adminServer>show-check-resolution -server server1
Shows the current configuration.
The EJB engine resolution of the server (server1).
=====
+-----+-----+
| Resolution                               | 3000001 |
+-----+-----+
=====
```

4.2.8. Web Engine Commands

The following are two types of web engine commands.

- Monitoring and control commands

These commands are for checking or controlling the states of web contexts that are deployed. These commands also check and control the states of web engines.

Command	Description
resume-web-component	Resumes a temporarily suspended web component (servlet).
suspend-web-component	Suspends a web component (servlet).
reload-web-context	Reloads the specified context from a disk dynamically.
show-web-engine-configuration	Displays web engine configurations.
show-web-statistics	Displays different statistics information about a web engine.
clear-thread-local	Specifies whether to delete thread local information stored in the web-connection thread pool.
clear-web-statistics	Resets the statistical data requested by the specified component.
show-request-processing-flow	Displays the process flow for a request received through a URL pattern or a specific host name.
precompile-jsp	Precompiles the JSP files of deployed web contexts.
notify-auto-scale	Notifies added or deleted web servers or JEUS managed servers.

- Configuration change commands

These commands dynamically add, delete, or change the configuration of the web engine. Some commands may not immediately apply the changes to configurations. The modified

configurations are saved in the domain.xml file but are not reflected in the currently running service (memory area). In order to apply the changes to the actual service, the server must be restarted.

Command	Description
add-web-cookie-policy	Adds an HTTP Cookie Policy to the web engine.
modify-web-cookie-policy	Changes the HTTP Cookie Policy configurations of the web engine.
remove-web-cookie-policy	Deletes a Cookie Policy configuration.
add-web-encoding	Adds a Character Set Encoding configuration.
modify-web-encoding	Changes the property configurations of the web engine.
remove-web-encoding	Deletes a Character Set Encoding configuration.
add-web-properties	Adds property configurations to the web engine.
modify-web-properties	Changes the property configurations of the web engine.
remove-web-properties	Deletes property configurations from the web engine.
add-response-header	Adds an HTTP Response Custom Header configuration.
modify-response-header	Changes the HTTP Response Custom Header configuration.
remove-response-header	Deletes an HTTP Response Custom Header configuration.
modify-jsp-engine	Changes the JSP engine configurations.
add-virtual-host	Adds a virtual host.
modify-virtual-host	Changes certain configurations of virtual hosts.
remove-virtual-host	Deletes a virtual host.
add-valve	Adds a valve.
remove-valve	Deletes a valve.
set-valve-property	Adds a valve property configuration.
remove-valve-property	Deletes a valve property configuration.
add-webtob-connector	Adds a WebtoB connector.
modify-webtob-connector	Changes certain configurations of a WebtoB connector.
remove-webtob-connector	Deletes a WebtoB connector.
show-webtob-connector	Displays WebtoB connector information.
add-backup-webtob	Adds a backup WebtoB.
remove-backup-webtob	Deletes a backup WebtoB.
add-tmax-connector	Adds a Tmax connector.
modify-tmax-connector	Changes the configuration of a Tmax connector.
remove-tmax-connector	Deletes a Tmax connector.
add-ajp-listener	Adds an AJP listener.

Command	Description
add-http-listener	Adds an HTTP listener.
add-tcp-listener	Adds a TCP listener.
modify-web-listener	Changes the configuration of HTTP, TCP, and AJP listeners.
remove-web-listener	Deletes an HTTP, TCP, or AJP listener.
modify-web-engine-configuration	Changes the web engine configuration dynamically.

4.2.8.1. Shared Options

The following options are shared by web engine commands. Only one of the following options can be set.

- [-cluster <cluster-name>] option
 - This option is used to specify the cluster to which each command applies. If the option is not set, the command is applied to the web engine of the currently connected server.
 - The description of this option is omitted from each command option description. Note that precompile-jsp does not offer this option.
- [-server <server-name>] option
 - This option is used to specify the server to which each command is applied. If this option is not set, the command is applied to the web engine of the currently connected server.
 - The description of this option is omitted from each command option description.



1. For a configuration that is not immediately applied in the server, if a command is executed that reconfigures a pending configuration to the initial configuration, the "Restart the Server" message is not displayed.
2. In the JEUS Master Server, either the -cluster or -server option is required. If the command is executed from a Managed Server instead of the JEUS Master Server, even if options are not specified, the command is executed using the connected server.

4.2.8.2. add-ajp-listener

Adds an AJP listener.

- Related schema

web-engine.xsd - web-engine/web-connections/ajp13-listener

- Alias

addajpl

- Usage

```
add-ajp-listener -cluster <cluster-name> | -server <server-name>
                  [-f, --forceLock]
                  -name <web-connection-name>
                  -slref <server-listener-ref-name>
                  -tmin <minimum-thread-num>
                  [-tmax <maximum-thread-num>]
                  [-tidle <max-idle-time>]
                  [-qs <max-queue-size>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Listener name.
-slref <server-listener-ref-name>	Service listener name registered to the server.
-tmin <minimum-thread-num>	Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	Maximum number of threads in the thread pools. If not specified, it is the same as the -tmin value.
[-tidle <max-idle-time>]	Maximum idle time of worker threads before they are removed from the thread pools.
[-qs <max-queue-size>]	Size of the queue that holds tasks waiting to be processed in the thread pools.

- Example

```
add-ajp-listener -name ajp1 -server server1 -slref ajp-server -tmin 10
```

4.2.8.3. add-backup-webtob

Adds a backup WebtoB.

- Related schema

web-engine.xsd - web-engine/web-connections/webtob-connector/webtob-backup

- Alias

addbackupwebtob

- Usage

```
add-backup-webtob -cluster <cluster-name> | -server <server-name>
                  [-f, --forceLock]
                  -name <web-connection-name>
                  [-addr <server-address>]
                  -port <server-port> | -dsocket
                  [-wbhome <webtob-home>]
                  [-ipcport <ipc-base-port>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Name of the WebtoB connector to which a backup WebtoB will be added.
[-addr <server-address>]	Backup WebtoB server address. If -port is used, this option is required.
-port <server-port>	Backup WebtoB server port number.
-dsocket	Option to use Unix domain sockets (pipes) for communication between JEUS and WebtoB.
[-wbhome <webtob-home>]	Absolute path to the backup WebtoB in case it is installed in the same machine as JEUS.
[-ipcport <ipc-base-port>]	Default port number used for communication between internal processes of WebtoB in a Windows environment.

- Example

```
add-backup-webtob -server server1 -name webtob1 -port 9999 -addr localhost
```

4.2.8.4. add-http-listener

Adds an HTTP listener.

- Related schema

web-engine.xsd - web-engine/web-connections/http-listener

- Alias

addhttp

- Usage

```
add-http-listener -cluster <cluster-name> | -server <server-name>
```

```

[-f, --forceLock]
-name <web-connection-name>
-slref <server-listener-ref-name>
-tmin <minimum-thread-num>
[-tmax <maximum-thread-num>]
[-tidle <max-idle-time>]
[-qs <max-queue-size>]
[-http2]

```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Listener name.
-slref <server-listener-ref-name>	Service listener name registered to the server.
-tmin <minimum-thread-num>	Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	Maximum number of threads in the thread pools. If not specified, it is the same as the -tmin value.
[-tidle <max-idle-time>]	Maximum idle time of worker threads before they are removed from the thread pools.
[-qs <max-queue-size>]	Size of the queue that holds tasks waiting to be processed in the thread pools.
[-http2]	Option to use HTTP/2.

- Example

```
add-http-listener -name http1 -server server1 -slref http-server -tmin 5 -tmax 10 -http2
```

4.2.8.5. add-response-header

Adds an HTTP Response Header configuration to the web engine. The Response Header is not case-sensitive. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/response-header

- Alias

addwebrh

- Usage

```
add-response-header -cluster <cluster-name> | -server <server-name>
                    [-f, --forceLock]
                    [-n, --name <header-name>]
                    [-v, --value <header-value>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-n, --name <header-name>]	Name of HTTP Response Header to be added. The name is case-insensitive. Each header name must be unique.
[-v, --value <header-value>]	Value of HTTP Response Header to be added. The value is case-insensitive.

- Example

```
add-response-header -server server1 -n testHeader -v testValue
```

4.2.8.6. add-tcp-listener

Adds a TCP listener. However, the TCP listener is only reflected in the domain.xml file. To apply the listener to services, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/web-connections/tcp-listener

- Alias

addtcpl

- Usage

```
add-tcp-listener -cluster <cluster-name> | -server <server-name>
                 [-f, --forceLock]
                 -name <web-connection-name>
                 -slref <server-listener-ref-name>
                 -dcc <dispatcher-config-class>
                 -tmin <minimum-thread-num>
                 [-tmax <maximum-thread-num>]
                 [-tidle <max-idle-time>]
                 [-qs <max-queue-size>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Listener name.
-slref <server-listener-ref-name>	Service listener name registered to the server.
-dcc <dispatcher-config-class>	Class name that implements the jeus.servlet.tcp.TCPDispatcherConfig interface.
-tmin <minimum-thread-num>	Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	Maximum number of threads in the thread pools. If not specified, it is the same as the -tmin value.
[-tidle <max-idle-time>]	Maximum idle time of worker threads before they are removed from the thread pools.
[-qs <max-queue-size>]	Size of the queue that holds tasks waiting to be processed in the thread pools.

- Example

```
add-tcp-listener -name tcp1 -slref tcp -server server1 -dcc tcp.DispatcherConfigImpl -tmin 5
-tmax 10
```

4.2.8.7. add-tmax-connector

Adds a Tmax connector. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/web-connections/tmax-connector

- Alias

addtmaxcon

- Usage

```
add-tmax-connector -cluster <cluster-name> | -server <server-name>
[-f, --forceLock]
-name <web-connection-name>
-addr <server-address>
-port <server-port>
-svrg <server-group-name>
-svr <server-name>
-dcc <dispatcher-config-class>
-tmin <minimum-thread-num>
[-tmax <maximum-thread-num>]
```

`[-tidle <max-idle-time>]`

`[-qs <max-queue-size>]`

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code>-name <web-connection-name></code>	Tmax connector name.
<code>-addr <server-address></code>	Tmax server address.
<code>-port <server-port></code>	Tmax server port number.
<code>-svrg <server-group-name></code>	Server group name of Tmax server.
<code>-svr <server-name></code>	Tmax server name.
<code>-dcc <dispatcher-config-class></code>	Class name that implements the <code>jeus.servlet.tcp.TCPDispatcherConfig</code> interface.
<code>-tmin <minimum-thread-num></code>	Minimum number of threads in the thread pools.
<code>[-tmax <maximum-thread-num>]</code>	Maximum number of threads in the thread pools. If not specified, it is the same as the <code>-tmin</code> value.
<code>[-tidle <max-idle-time>]</code>	Maximum idle time of worker threads before they are removed from the thread pools.
<code>[-qs <max-queue-size>]</code>	Size of the queue that holds tasks waiting to be processed in the thread pools.

- Example

```
add-tmax-connector -name tmax1 -addr 5.0.1.2 -port 1024  
-svrg group1 -svr server1 -server server1 -dcc serice.DispatcherConfig
```

4.2.8.8. add-virtual-host

Adds a virtual host.

- Related schema

`web-engine.xsd` - `web-engine/virtual-host`

- Alias

`addvh`

- Usage

```
add-virtual-host -cluster <cluster-name> | -server <server-name>
```

```
[-f, --forceLock]
<virtual-host-name>
-list <host-name-list>
[-tmin <minimum-thread-num>]
[-tmax <maximum-thread-num>]
[-tidle <max-idle-time>]
[-qs <max-queue-size>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
<virtual-host-name>	Virtual host name.
-list <host-name-list>	Domain name or IP address to be registered in the virtual host.
[-tmin <minimum-thread-num>]	Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	Maximum number of threads in the thread pools.
[-tidle <max-idle-time>]	Maximum idle time of worker threads before they are removed from the thread pools.
[-qs <max-queue-size>]	Maximum number of requests waiting in the queue of the thread pools.

- Example

```
add-virtual-host -server server1 host2 -list www.foo.com,192.168.1.2 -tmin 1 -tmax 10 -tidle 20000
```

4.2.8.9. add-valve

Adds a valve.

- Related schema

web-engine.xsd - pipeline/valve

- Alias

addvlv

- Usage

```
add-valve -cluster <cluster-name> | -server <server-name>
[-f, --forceLock]
-cn, --classname <class-name>
```



```
-p, --properties <property>  
[-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-cn, --classname <class-name>	Specifies a valve class to apply to a server and virtual host. It must be a class that inherits JEUS ValveBase.
-p,--properties <properties>	Valve properties. <ul style="list-style-type: none">• For a single property, use the "key=value" format.• To specify multiple properties, separate each property with a comma (,).
[-vh <virtual-host-name>]	Name of the virtual host to add a valve to. If not set, a valve is added at the server level.

- Example

```
add-valve -server server1 -cn UserValveBase  
-p jeus.servlet.jsp.compile-java-source-concurrently=false,userProperty=myValue
```

4.2.8.10. add-web-cookie-policy

Adds an HTTP cookie policy configuration. It is applied only in the domain.xml file. To apply the added setting to the actual service, restart the server.

- Related schema

web-engine.xsd - web-engine/cookie-policy

- Alias

addcookie

- Usage

```
add-web-cookie-policy -cluster <cluster-name> | -server <server-name>  
[-f, -forceLock]  
[-a-uer,--apply-url-encoding-rule <apply-url-encoding-rule>]  
[-enc,--charset-encoding <charset-encoding>]  
[-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-auer,--apply-url-encoding-rule <apply-url-encoding-rule>]	Option to apply URL encoding rules.
[-enc,--charset-encoding <charset-encoding>]	Charset encoding used when applying URL encoding rules. If not set, the request encoding value is used.
[-vh <virtual-host-name>]	Virtual host.

- Example

```
add-web-cookie-policy -server server1 -auer true
add-web-cookie-policy -server server1 -enc EUC-KR
```

4.2.8.11. add-web-encoding

Adds a Character Set Encoding to the web engine. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted. (To add an encoding, delete the existing encoding first. When encoding is changed, the change is applied after the server restarts.)

- Related schema

web-engine.xsd - web-engine/encoding

- Alias

addenc

- Usage

```
add-web-encoding -cluster <cluster-name> | -server <server-name>
    [-f, -forceLock]
    <charset-encoding>
    -co | -default | -forced
    [-url]
    [-req]
    [-res]
    [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.

Parameter	Description
< charset-encoding >	Character set encoding name to be set. If an invalid value is entered, an error message is displayed and the command fails.
-co -default -forced	Sets the entered encoding to either 'default' or 'forced'. For a request encoding, 'client-override' also can be set in addition to the two options.
[-url]	Character set encoding of Request URL.
[-req]	Character set encoding of requests.
[-res]	Character set encoding of responses.
[-vh <virtual-host-name>]	Virtual host.

- Example

```
add-web-encoding -server server1 -default -url UTF-8
addenc -server server1 UTF-8 -forced -req -res
```

4.2.8.12. add-web-properties

Adds property configurations to the web engine. The added property is case-sensitive. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/properties

- Alias

addwebpr

- Usage

```
add-web-properties -cluster <cluster-name> | -server <server-name>
                    [-f, -forceLock]
                    -p, --properties <properties>
                    [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.

Parameter	Description
-p,--properties <properties>	Properties to be added to the web engine. <ul style="list-style-type: none"> • For a single property, use the "key=value" format. • To specify multiple properties, separate each property with a comma (,).
[-vh <virtual-host-name>]	Virtual host.

- Example

```
add-web-properties -server server1 -p jeus.servlet.jsp.modern=false

add-web-properties -server server1 -p jeus.servlet.jsp.compile-java-source-
concurrently1=false,jeus.servlet.jsp.assure-utf8-file-encoding-detection=true
```

4.2.8.13. add-webtob-connector

Adds a WebtoB connector. The added WebtoB connector can be used for the actual service. Once added, the WebtoB address and port cannot be changed.

- Related schema

web-engine.xsd - web-engine/web-connections/webtob-connector

- Alias

addwebtobcon

- Usage

```
add-webtob-connector -cluster <cluster-name> | -server <server-name>
    [-f, --forceLock]
    -name <web-connection-name>
    -conn <connection-count>
    -regid <registration-id>
    -tmin <minimum-thread-num>
    [-tmax <maximum-thread-num>]
    [-tidle <max-idle-time>]
    [-qs <max-queue-size>]
    [-hth <hth-count>]
    [-useNio <true | false>]
    [-ver <wjp-version>]
    [-addr <server-address>]
    [-port <server-port> | -dsocket]
    [-wbhome <webtob-home>]
    [-ipcport <ipc-base-port>]
    [-sndbuf <send-buffer-size>]
```

`[-rcvbuf <receive-buffer-size>]`

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code>-name <web-connection-name></code>	WebtoB connector name.
<code>-conn <connection-count></code>	Number of connections to WebtoB.
<code>-tmin <minimum-thread-num></code>	Minimum number of threads in the thread pools.
<code>[-tmax <maximum-thread-num>]</code>	Maximum number of threads in the thread pools. If not specified, it is the same as the <code>-tmin</code> value.
<code>[-tidle <max-idle-time>]</code>	Maximum idle time of worker threads before they are removed from the thread pools.
<code>[-qs <max-queue-size>]</code>	Size of the queue that holds tasks waiting to be processed in the thread pools.
<code>[-hth <hth-count>]</code>	Number of HTH processes.
<code>[-useNio <true false>]</code>	Option to use NIO.
<code>[-ver <wjp-version>]</code>	Version of the protocol used to communicate with WebtoB. Enter 1 or 2.
<code>[-addr <server-address>]</code>	WebtoB server address. If <code>-port</code> is used, this option is required.
<code>[-port <server-port>]</code>	WebtoB server port number.
<code>-regid <registration-id></code>	Registration ID in WebtoB.
<code>[-dsocket]</code>	Option to use Unix domain sockets (pipes) for communication between JEUS and WebtoB.
<code>[-wbhome <webtob-home>]</code>	Absolute path to WebtoB in case it is installed in the same machine as JEUS.
<code>[-ipcport <ipc-base-port>]</code>	Default port number used for communication between internal processes of WebtoB in a Windows environment.
<code>[-sndbuf <send-buffer-size>]</code>	SO_SNDBUF. The size of the send buffer of a TCP socket or the Unix domain socket. If set to 0, the default value of the OS is used.
<code>[-rcvbuf <receive-buffer-size>]</code>	SO_RCVBUF. The size of the receive buffer of a TCP socket or the Unix domain socket. If set to 0, the default value of the OS is used.

- Example

```
add-webtob-connector -server server1 -name webtob1 -conn 10 -tmin 10 -hth 2 -regid MyGroup -port 9999 -addr localhost
```

4.2.8.14. clear-thread-local

Specifies whether to delete the thread local information stored in all web-connection thread pools. By default, it is not deleted, and if deleted, each thread checks and deletes before executing a task. This function can be switched on/off.

- Related schema

web-engine.xsd

- Alias

clrtl, cltl

- Usage

```
clear-thread-local -cluster <cluster-name> | -server <server-name>  
                  [-f,--forceLock]  
                  -wc <web-connection-name>  
                  -off | -on
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-wc <web-connection-name>]	Web connection name.
-off -on	<ul style="list-style-type: none">• -off: Does not clear thread locals.• -on: Clears thread locals.

- Example

```
clear-thread-local -server server1 -wc http-listener -on
```

4.2.8.15. clear-web-statistics

Resets the statistical data requested by the specified component.

- Related schema

web-engine.xsd

- Alias

clrstat, clst, clrwebstat

- Usage

```
clear-web-statistics -server <server-name>
                    [-ctx,--context <context-name>]
                    [-servlet <servlet-name>]
```

- Parameters

Parameter	Description
[-ctx <context-name>]	Context for which the request count, processing time records, and work thread information are deleted.
[-servlet <servlet-name>]	Servlet for which the request count and processing time records are deleted.

- Example

```
clear-web-statistics -server server1 -ctx ctx1
```

4.2.8.16. modify-jsp-engine

Changes the JSP engine configurations of the web engine. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/jsp-engine

- Alias

modjsp

- Usage

```
modify-jsp-engine -cluster <cluster-name> | -server <server-name>
                 [-f, --forceLock]
                 [-rjwd,--remove-jsp-work-dir | -jwd,--jsp-work-dir <jsp-work-dir>]
                 [-javac,--java-compiler <java-compiler>]
                 [-cod,--compile-output-dir <compile-output-dir> |
                 -rcod,--remove-compile-output-dir]
                 [-rcopt,--remove-compile-option | -copt,--compile-option <compile-option>]
                 [-cij,--check-included-jspfile <check-included-jspfile>]
                 [-kg,--keep-generated <keep-generated>]
```

```
[ -gjr, --graceful-jsp-reloading <graceful-jsp-reloading>]
[ -gjr, --graceful-jsp-reloading-period <graceful-jsp-reloading-period>]
[ -umc, --use-in-memory-compilation <use-in-memory-compilation>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-rjwd, --remove-jsp-work-dir -jwd, --jsp-work-dir <jsp-work-dir>]	<p>The -jwd, --jsp-work-dir <jsp-work-dir> sets the location of the files created in Java from JSP and the class files created by compiling the files. The value must be a absolute path.</p> <p>The configuration can be deleted using -rjwd, --remove-jsp-work-dir. If deleted, the default value of the engine is used.</p>
[-javac, --java-compiler <java-compiler>]	<p>Java compiler, which is used to compile Java source files of JSP to servlet class files.</p> <p>Input options:</p> <ul style="list-style-type: none"> • java6 (Default value) • sun.tools.javac • javac • com.sun.tools.javac • eclipse <p>The default value is recommended because it is the most efficient.</p>
[-cod, --compile-output-dir <compile-output-dir> -rcod, --remove-compile-output-dir]	<p>The -cod, --compile-output-dir <compile-output-dir> stores class files created from JSP files to a different directory instead of the JSP Work Dir. If not set, class files are located in the JSP Work Dir.</p> <p>The configuration can be deleted using -rcod, --remove-compile-output-dir. If deleted, the default value of the engine is used.</p>
[-rcopt, --remove-compile-option -copt, --compile-option <compile-option>]	<p>Options used in the servlet compiler.</p> <p>The value can be deleted using -rcopt, --remove-compile-option.</p>
[-cij, --check-included-jspfile <check-included-jspfile>]	Checks if the included JSP file and Tag files are changed. If the file are changed, this option determines whether to recompile the JSP files.

Parameter	Description
[<i>-kg</i> ,--keep-generated <i><keep-generated></i>]	Compiles Java source files created from JSP pages to create servlet class files, and then determines whether to store the Java source files.
[<i>-gjr</i> ,--graceful-jsp-reloading <i><graceful-jsp-reloading></i>]	Compiles JSP files, which are exclusive on a JVM, into a batch type Java file. The JSP sources and compiled class files are shared. This option only works when a shared directory is specified in JSP Work Dir.
[<i>-gjr</i> <i>p</i> ,--graceful-jsp-reloading-period <i><graceful-jsp-reloading-period></i>]	Interval at which to perform Graceful JSP reloading.
[<i>-umc</i> ,--use-in-memory-compilation <i><use-in-memory-compilation></i>]	When recompiling JSP files that are in use, 'java' and '.class' files are created in memory and compiled. '.class' files are written on a file system using a background thread so they are not recompiled during reboot. If <i><keep-generated></i> is true, 'java' files are written on a file system using a background thread.

- Example

```
modify-jsp-engine -server server1 -jwd /home/jeus/jsp
```

4.2.8.17. modify-response-header

Changes the Response Header configuration to the web engine. The Response Header is not case-sensitive. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/response-header

- Alias

modwebrh

- Usage

```
modify-response-header -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        [-n,--name <header-name>]
                        [-v,--value <header-value>]
```

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code>[-n, --name <header-name>]</code>	Name of the HTTP Response Header to be changed. The name is case-insensitive. Each header name must be unique.
<code>[-v, --value <header-value>]</code>	Value of the HTTP Response Header to be changed. The value is case-insensitive.

- Example

```
modify-response-header -server server1 -n testheader -v testvalue3
```

4.2.8.18. modify-tmax-connector

Changes the thread pool configuration of a Tmax connector.

- Related schema

web-engine.xsd - web-engine/web-connections/tmax-connector

- Alias

modtmaxcon

- Usage

```
modify-tmax-connector -cluster <cluster-name> | -server <server-name>
    [-f, --forceLock]
    -name <web-connection-name>
    [-tmin <minimum-thread-num>]
    [-tmax <maximum-thread-num>]
    [-tidle <max-idle-time>]
    [-obuf <output-buffer-size>]
    [-addr <server-address>]
    [-port <server-port>]
    [-svrg <server-group-name>]
    [-svr <server-name>]
```

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code>-name <web-connection-name></code>	Tmax connector name.

Parameter	Description
[-tmin <minimum-thread-num>]	[Dynamic] Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	[Dynamic] Maximum number of threads in the thread pools.
[-tidle <max-idle-time>]	Maximum idle time of threads in the thread pools.
[-obuf <output-buffer-size>]	Servlet response buffer size.
[-addr <server-address>]	Tmax server address.
[-port <server-port>]	Tmax server port number.
[-svrg <server-group-name>]	Server group name of Tmax server.
[-svr <server-name>]	Tmax server name.

- Example

```
modify-tmax-connector -name tmax1 -tmin 30 -server server1 -obuf 20000
```

4.2.8.19. modify-virtual-host

Changes the access log format configuration of virtual hosts. If the access log of a virtual host is not in the enable state, the server must be restarted to apply the command to the actual service.

- Related schema

web-engine.xsd - web-engine/virtual-host

- Alias

modvh

- Usage

```
modify-virtual-host -cluster <cluster-name> | -server <server-name>
    [-f, --forceLock]
    <virtual-host-name>
    [-tmin <minimum-thread-num>]
    [-tmax <maximum-thread-num>]
    [-tidle <max-idle-time>]
    [-aluph <true | false>]
    -alf <access-log-format> |
    -aluse <true | false> |
    -alhnl <true | false> |
    -alex <access-log-excluded-extensions>]
    [-hnm <host-name> | -hnadd <host-name>]
    [-ast <attach-stacktrace-on-error>]
    [-fhn <access-log-handler-file-handler-name>]
    [-fhp <access-log-handler-file-handler-permission>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
<virtual-host-name>	Virtual host name.
[-tmin <minimum-thread-num>]	[Dynamic] Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	[Dynamic] Maximum number of threads in the thread pools.
[-tidle <max-idle-time>]	Maximum idle time of threads in the thread pools.
[-aluph <true false>]	[Dynamic] Option to record a web engine access log. (true false or t f)
[-alf <access-log-format>]	[Dynamic] Access log format. If the option contains whitespace, wrap the option with double quotes (" "). For more information about log formats, refer to "Access log format settings" in <i>JEUS Web Engine Guide</i> .
[-aluse <true false>]	[Dynamic] Option to use the access logs. (true false or t f)
[-alhn1 <true false>]	[Dynamic] Option to use DNS Resolution for the IP address when logging in the %h format.
[-alex <access-log-excluded-extensions>]	[Dynamic] Extensions that do not leave any records in the access logs. To specify multiple extensions, separate each extension with a comma(.). E.g., '.gif', '.jpg'. Enter only a comma for no entry.
[-hnm <host-name>]	Deletes a host name registered to the virtual host.
[-hnadd <host-name>]	Registers a new host name to the virtual host.
[-ast <attach-stacktrace-on-error>]	Option to attach the stack trace to the error page sent by JEUS.
[-fhn <access-log-handler-file-handler-name>]	Name of the file handler where permission is modified. This option is required when using the '-fhp'.
[-fhp <access-log-handler-file-handler-permission>]	Modifies the permission for accessing the log file. This option is required when using the '-fhn'.

- Example

```
modify-virtual-host -server server1 vhost1 -tmin 1 -tmax 20 -alf "common %I"
```

4.2.8.20. modify-web-cookie-policy

Changes the HTTP Cookie Policy configurations of the web engine. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/cookie-policy

- Alias

modcookie

- Usage

```
modify-web-cookie-policy -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        [-auer,--apply-url-encoding-rule <apply-url-encoding-rule>]
                        [-enc,--charset-encoding <charset-encoding>]
                        [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-auer,--apply-url-encoding-rule <apply-url-encoding-rule>]	Option to apply URL encoding rules.
[-enc,--charset-encoding <charset-encoding>]	Charset encoding used when applying URL encoding rules.
[-vh <virtual-host-name>]	Virtual host.

- Example

```
modify-web-cookie-policy -server server1 -auer false
modify-web-cookie-policy -server server1 -enc UTF-8
```

4.2.8.21. modify-web-encoding

Changes the encoding of the web engine. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/encoding

- Alias

modenc

- Usage

```

modify-web-encoding -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        <charset-encoding>
                        -co | -default | -forced
                        [-url]
                        [-req]
                        [-res]
                        [-vh <virtual-host-name>]

```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
<charset-encoding>	Character set encoding name to be changed. If an invalid value is entered, an error message is displayed and the command fails.
-co -default -forced	Sets the entered encoding to either 'default' or 'forced'. For a request encoding, 'client-override' also can be set in addition to the two options.
[-url]	Character set encoding of Request URL.
[-req]	Character set encoding of requests.
[-res]	Character set encoding of responses.
[-vh <virtual-host-name>]	Virtual host.

- Example

```

modify-web-encoding -server server1 EUC-KR -forced -url

modify-web-encoding -server server1 ISO-8859-1 -default -url -res -req

```

4.2.8.22. modify-web-properties

Changes property configurations of the web engine. The changed properties are case-sensitive. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/properties

- Alias

modwebpr

- Usage

```
modify-web-properties -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        -p,--properties <properties>
                        [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-p,--properties <properties>	Properties to be changed in the web engine. <ul style="list-style-type: none">• For a single property, use the "key=value" format.• To specify multiple properties, separate each property with a comma (,).
[-vh <virtual-host-name>]	Virtual host.

- Example

```
modify-web-properties -server server1
-p jeus.servlet.jsp.compile-java-source-concurrently=false
```

4.2.8.23. modify-web-engine-configuration

Changes the web engine configuration dynamically. The command can only change the configurations that apply to the actual service. The monitoring cycle and the access log format information can be updated.

- Related schema

web-engine.xsd - web-engine

- Alias

setwebcfg, setwebconf, set-web-engine-configuration, modwebcfg, modwebconf

- Usage

```
modify-web-engine-configuration -cluster <cluster-name> | -server <server-name>
                                [-f, --forceLock]
                                [-tpp <monitoring/check-thread-pool>]
                                [-crp <monitoring/check-class-reload>]
                                [-sp <monitoring/check-session>]
                                [-alf <access-log-format>]
```

```

[-aluse <true | false>]
[-alhn1 <true | false>]
[-alex <access-log-excluded-extensions>]
[-ast <attach-stacktrace-on-error>]
[-att <async-timeout-min-threads>]
[-rerp | -erp <default-error-page>]
[-fhn <access-log-handler-file-handler-name>]
[-fhp <access-log-handler-file-handler-permission>]

```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-tpp <monitoring/check-thread-pool>]	Thread Pool check cycle.
[-crp <monitoring/check-class-reload>]	Web context reloading check cycle.
[-sp <monitoring/check-session>]	Session check cycle.
[-alf <access-log-format>]	[Dynamic] Access log format. If the option contains whitespace, wrap the option with double quotes (" "). For more information about log formats, refer to "Access log format settings" in <i>JEUS Web Engine Guide</i> .
[-aluse <true false>]	[Dynamic] Option to use the access logs. (true false or t f)
[-alhn1 <true false>]	[Dynamic] Option to use DNS Resolution for the IP address when logging in the %h format.
[-alex <access-log-excluded-extensions>]	[Dynamic] Extensions that do not leave any records in the access logs. To specify multiple extensions, separate each extension with a comma(.). E.g., '.gif', '.jpg'. Enter only a comma for no entry.
[-ast <attach-stacktrace-on-error>]	Option to attach the stack trace to the error page sent by JEUS.
[-att <async-timeout-min-threads>]	Minimum number of threads pools used to handle timeout when asynchronous servlets in Servlet 3.0 are used. Set a value greater than or equal to 1. Otherwise, timeout may not be handled correctly.
[-rerp -erp <default-error-page>]	-erp <default-error-page> sets the error page used when an error page is not set in web applications. Only a static page (HTML, HTM) can be set. Use an absolute path. Using the -rerp option can delete the configuration.

Parameter	Description
<code>[-fhn <access-log-handler-file-handler-name>]</code>	Name of the file handler where permission is modified. This option is required when using the '-fhp'.
<code>[-fhp <access-log-handler-file-handler-permission>]</code>	Modifies the permission for accessing the log file. This option is required when using the '-fhn'.

- Example

- The `[-alf <access-log-format>]` option is used.

```
modify-web-engine-configuration -server server1 -alf "common %I"
modify-web-engine-configuration -server server1 -alf "%h %l %u %t \"%r\" %>s %b"
```

- The `[-aluse <use-access-log >]` option is used.

```
modify-web-engine-configuration -server server1 -aluse false
```

- The `[-alex <access-log-excluded-extensions>]` option is used.

```
modify-web-engine-configuration -server server1 -alex .gif
modify-web-engine-configuration -server server1 -alex .gif,.jpg
```

- The `[-alex <access-log-excluded-extensions>]` option is used to remove the existing extension information.

```
modify-web-engine-configuration -server server1 -alex
```

- The `[-tpp <monitoring/check-thread-pool>]`, `[-crp <monitoring/check-class-reload>]`, and `[-sp <monitoring/check-session>]` options are used.

```
modify-web-engine-configuration -tpp 10000 -crp 20000 -server server1 -sp 25000
```

- The `[-ast <attach-stacktrace-on-error>]` option is used.

```
modify-web-engine-configuration -server server1 -ast true
```

- The `[-att <async-timeout-min-threads>]` option is used.

```
modify-web-engine-configuration -server server1 -att 10
```

- The [-rerp | -erp <default-error-page>] option is used.

```
modify-web-engine-configuration -server server1 -erp /home/jeus/error/error.html
```

4.2.8.24. modify-web-listener

Changes the thread pool configurations of the HTTP, TCP, and AJP listeners.

- Related schema

web-engine.xsd - web-engine/web-connections/http-listener, ajp13-listener, tcp-listener

- Alias

modwebl

- Usage

```
modify-web-listener -cluster <cluster-name> | -server <server-name>
                    [-f, --forceLock]
                    -name <web-connection-name>
                    [-tmin <minimum-thread-num>]
                    [-tmax <maximum-thread-num>]
                    [-tidle <max-idle-time>]
                    [-obuf <output-buffer-size>]
                    [-http2 <true | false>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Listener name.
[-tmin <minimum-thread-num>]	[Dynamic] Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	[Dynamic] Maximum number of threads in the thread pools.
[-tidle <max-idle-time>]	Maximum idle time of threads in the thread pools.
-obuf <output-buffer-size>	Response buffer size used by servlets.
[-http2 <true false>]	Option to use HTTP/2.

- Example

```
modify-web-listener -name http1 -server server1 -obuf 200000 -http2 true
```

4.2.8.25. modify-webtob-connector

Changes the thread pool configuration of a WebtoB connector. The number of threads in the thread pools changes during the thread pool check cycle.

- Related schema

web-engine.xsd - web-engine/web-connections/webtob-connector

- Alias

modwebtobcon

- Usage

```
modify-webtob-connector -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        -name <web-connection-name>
                        [-conn <connection-count>]
                        [-hth <hth-count>]
                        [-tmin <minimum-thread-num>]
                        [-tmax <maximum-thread-num>]
                        [-tidle <max-idle-time>]
                        [-obuf <output-buffer-size>]
                        [-ver <wjp-version>]
                        [-addr <server-address>]
                        [-port <server-port> | -dsocket]
                        [-wbhome <webtob-home>]
                        [-cloud <cloud-mode>]
                        [-ipcport <ipc-base-port>]
                        [-regid <registration-id>]
                        [-sndbuf <send-buffer-size>]
                        [-rcvbuf <receive-buffer-size>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	WebtoB connector name.
[-conn <connection-count>]	[Dynamic] Number of connections to WebtoB.
[-hth <hth-count>]	Number of HTH processes.
[-tmin <minimum-thread-num>]	[Dynamic] Minimum number of threads in the thread pools.
[-tmax <maximum-thread-num>]	[Dynamic] Maximum number of threads in the thread pools.
[-tidle <max-idle-time>]	Maximum idle time of threads in the thread pools.
[-obuf <output-buffer-size>]	Servlet response buffer size.

Parameter	Description
<code>[-ver <wjp-version>]</code>	Version of the protocol used to communicate with WebtoB. Enter 1 or 2.
<code>[-addr <server-address>]</code>	WebtoB server address. If <code>-port</code> is used, this option is required.
<code>[-port <server-port>]</code>	WebtoB server port number.
<code>[-regid <registration-id>]</code>	Registration ID in WebtoB.
<code>[-dsocket]</code>	Option to use Unix domain sockets (pipes) for communication between JEUS and WebtoB.
<code>[-wbhome <webtob-home>]</code>	Absolute path to WebtoB when WebtoB is installed on the same machine as JEUS.
<code>[-cloud <cloud-mode>]</code>	Option to use the cloud mode.
<code>[-ipcport <ipc-base-port>]</code>	Default port number used for communication between internal processes of WebtoB in a Windows environment. Can be set when using <code>-dsocket</code> .
<code>[-sndbuf <send-buffer-size>]</code>	SO_SNDBUF. The size of the send buffer of a TCP socket or the Unix domain socket. If set to 0, the default value of the OS is used.
<code>[-rcvbuf <receive-buffer-size>]</code>	SO_RCVBUF. The size of the receive buffer of a TCP socket or the Unix domain socket. If set to 0, the default value of the OS is used.

- Example

```
modify-webtob-connector -name webtob1 -conn 30 -tmin 30 -sndbuf 1200 -rcvbuf 2400 -server server1
```

4.2.8.26. notify-auto-scale

Notifies added or deleted web servers or JEUS managed servers.

- Related schema

web-engine.xsd

- Alias

nas

- Usage

```
notify-auto-scale -wscaleout | -wscalein | -wunlink | -jscaleout | -jscalein
```

```
-address <ip-address>
[-port <server-port>]
[-group <group-id>]
```

- Parameters

Parameter	Description
-wscaleout	Notifies that a web server has been added.
-wscalein	Notifies that a web server has been deleted.
-wunlink	Notifies that a web server has been terminated.
-jscaleout	Notifies that JEUS managed server has been added.
-jscalein	Notifies that JEUS managed server has been deleted.
-address <ip-address>	IP address of a added or deleted server.
[-port <server-port>]	Port of a added or deleted server. If you are using WebtoB, enter the JSVPORT value specified in the WebtoB settings, which is otherwise not used.
[-group <group-id>]	ID of the group to perform CWDP.

- Example

```
notify-auto-scale -wscaleout -address 192.168.0.2 -port 9900
notify-auto-scale -wscalein -address 192.168.0.2 -port 9900
```

4.2.8.27. precompile-jsp

Precompiles the JSP files of deployed web contexts.

JSP files are generally compiled when the web engine receives JSP file requests from web browsers. Initial JSP file requests consume a large amount of resources for parsing and compiling, which lengthens the response time.

If there is a large number of JSP files and frequent web user requests, the time and resources required to handle the initial request can affect overall service. To prevent this effect, the **precompile-jsp** command is used, and the JSP source files are compiled in advance before the service starts.

The precompile-jsp command compiles the deployed modules after JEUS boots up. To use the command when JEUS is not started, use [appcompiler](#) instead.



1. precompile-jsp does not offer cluster as an option.
2. In JEUS 6, the jspc command is used under the \$JEUS_HOME/bin directory as a

batch compiler. In JEUS 7, an internal jeusadmin command is used.

- Related schema

web-engine.xsd

- Alias

jspc

- Usage

```
precompile-jsp [-server <server-name>]
               -ctx <context-name> | -id <application-id>
               [-e <excluded-jsp-list-file> | -l <included-jsp-list-file>]
```

- Parameters

Parameter	Description
-ctx <context-name>	Web context name. If the context is in EAR, the input format must be ear-name#context-name.
-id <application-id>	ID of the application that includes the web context. If the application is in an EAR file, the ID cannot be set, the '-ctx' option must be used.
[-e <excluded-jsp-list-file>]	Text file that describes paths that are not compiled based on a web context. JSP paths must be relative paths from the context root and must start with a slash (/). Use an absolute path to jsp-list-file.
[-l <included-jsp-list-file>]	Text file that describes paths compiled based on a web context. JSP paths must be relative paths from the context root and must start with a slash (/). Use an absolute path to jsp-list-file.

- Example

```
precompile-jsp -server server1 -ctx myctx
```

- Note

This command can be used without being connected to the server.

4.2.8.28. reload-web-context

Reloads the specified entity (web context) from a disk. Reloads already loaded servlets (JSP) and classes. This command can be used when the reload functions of a servlet or class, such as enable-reload and check-class-reload, are deactivated. (enable-reload, check-class-reload).

When connecting to jeusadmin from a managed server, the server will be set automatically. Therefore, skip the cluster or server option.

- Related schema

jeus-web-dd.xsd

- Alias

webreload, reloadctx

- Usage

```
reload-web-context -cluster <cluster-name> | -server <server-name>
                  -ctx <context-name>
```

- Parameters

Parameter	Description
-ctx <context-name>	Context to be reloaded. A value is required.

- Example

```
reload-web-context -server server1 -ctx servlets-examples
```

4.2.8.29. remove-backup-webtob

Deletes a backup WebtoB.

- Related schema

web-engine.xsd - web-engine/web-connections/webtob-connector/webtob-backup

- Alias

rmbackupwebtob

- Usage

```
remove-backup-webtob -cluster <cluster-name> | -server <server-name>
                    [-f, --forceLock]
```

```
-name <web-connection-name>
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Name of the WebtoB connector that has a backup to delete.

- Example

```
remove-backup-webtob -server server1 -name webtob1
```

4.2.8.30. remove-response-header

Deletes an HTTP Response Custom Header configuration from the web engine. The deleted Response Headers are case-insensitive. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/response-header

- Alias

rmwebrh

- Usage

```
remove-response-header -cluster <cluster-name> | -server <server-name>  
                        [-f,--forceLock]  
                        [-a,--all | -n,--name <header-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-a,--all -n,--name <header-name>]	<ul style="list-style-type: none">-n, --name <header-name> deletes an HTTP Response Header. The value is case-insensitive. To specify multiple headers, separate each header with a comma (,).-a, --all deletes all HTTP Response Headers that are currently set.

- Example


```
remove-response-header -server server1 -n testheader

remove-response-header -server server1 -n testheader2,testheader4

remove-response-header -server server1 -a
```

4.2.8.31. remove-tmax-connector

Deletes a Tmax connector. This command only applies to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/web-connections/tmax-connector

- Alias

rmtmaxcon

- Usage

```
remove-tmax-connector -cluster <cluster-name> | -server <server-name>
                        [-f,--forceLock]
                        <web-connection-name>
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	Tmax connector name.

- Example

```
remove-tmax-connector -server server1 tmax1
```

4.2.8.32. remove-virtual-host

Deletes a virtual host.

- Related schema

web-engine.xsd - web-engine/virtual-host

- Alias

rmvh

- Usage

```
remove-virtual-host -cluster <cluster-name> | -server <server-name>
                    [-f, --forceLock]
                    <virtual-host-name>
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
<virtual-host-name>	Virtual host name.

- Example

```
remove-virtual-host -server server1 host2
```

4.2.8.33. remove-valve

Deletes a valve.

- Related schema

web-engine.xsd - pipeline/valve

- Alias

rmvlv

- Usage

```
remove-valve -cluster <cluster-name> | -server <server-name>
              [-f, --forceLock]
              -cn, --classname <class-name>
              [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-cn, --classname <class-name>	Valve class to delete from a server or virtual host.

Parameter	Description
<code>[-vh <virtual-host-name>]</code>	Virtual host from which a valve will be deleted. If not set, a valve is deleted from a server.

- Example

```
remove-valve -server server1 -cn UserValveBase -vh host1
```

4.2.8.34. remove-valve-property

Deletes a valve property configuration. The changes only apply to the .xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - pipeline/valve/property

- Alias

rmvlpvprop

- Usage

```
remove-valve-property -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        -cn, --classname <class-name>
                        -k, --key <key>
                        [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code>-cn, --classname <class-name></code>	Valve class that contains a property to delete. It must be a class that inherits JEUS's ValveBase.
<code>-k, --key <key></code>	Key of a property to delete.
<code>[-vh <virtual-host-name>]</code>	Name of the virtual host that contains a valve of a property to delete. If not set, a property of a valve is deleted from a server.

- Example

```
remove-valve-property -server server1 -cn UserValveBase -k userProperty -vh host1
```

4.2.8.35. remove-web-cookie-policy

Removes an HTTP Cookie Policy configuration from the web engine. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/cookie-policy

- Alias

rmcp, rmcookie

- Usage

```
remove-web-cookie-policy -cluster <cluster-name> | -server <server-name>
                        [-f,--forceLock]
                        [-auer,--apply-url-encoding-rule]
                        [-enc,--charset-encoding]
                        [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-auer,--apply-url-encoding-rule]	Deletes the configuration that determines whether to apply URL Encoding Rule.
[-enc,--charset-encoding]	Deletes Charset Encoding, which is used when applying URL Encoding Rule.
[-vh <virtual-host-name>]	Virtual host.

- Example

```
remove-web-cookie-policy -server server1 -auer
```

4.2.8.36. resume-web-component

Resumes a temporarily suspended web component (servlet).

When connecting to jeusadmin from a managed server, the server will be set automatically. Therefore, skip the cluster or server option.



In JEUS 6, the **webresume** and **webtob -r** commands are two separate commands. From JEUS 7 onwards, however, the two commands are merged into one command. In addition, starting from JEUS 7, the start command for web contexts

is no longer supported. Instead, it is recommended to use the [start-application](#) command in JEUS Master Server.

- Related schema

web-engine.xsd - web-engine/web-connections

- Alias

webresume

- Usage

```
resume-web-component -cluster <cluster-name> | -server <server-name>
                        -ctx,--context <context>
                        -svl,--servlet <servlet>
```

- Parameters

Parameter	Description
-ctx, --context <context>	Web context that contains the servlet to be started. This parameter must be used in conjunction with the -svl option. Set <context> to the module name from the result of executing the command that used the application-information -type option.
[-svl,--servlet <servlet>]	Servlet to be restarted. This parameter can be used only when the context option is set.

- Example

- [-svl,--servlet <servlet>] option is used

```
resume-web-component -server server1 -ctx servlets -svl CookieExample
```

4.2.8.37. remove-web-encoding

Deletes a Character Set Encoding from the web engine. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/encoding

- Alias

rmenc

- Usage

```
remove-web-encoding -cluster <cluster-name> | -server <server-name>
                    [-f,--forceLock]
                    [-url]
                    [-req]
                    [-res]
                    [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
[-url]	Deletes the character set encoding of a request URL.
[-req]	Deletes the character set encoding of a request.
[-res]	Deletes the character set encoding of a response.
[-vh <virtual-host-name>]	Virtual host.

- Example

```
remove-web-encoding -server server1 -url
remove-web-encoding -server server1 -req -res
```

4.2.8.38. remove-web-listener

Deletes an HTTP, TCP, or AJP listener. This command only applies to the domain.xml file. In order to apply changes to the actual service, the server must be restarted. The ADMIN-HTTP listener is not deleted.

- Related schema

web-engine.xsd - web-engine/web-connections/http-listener, ajp13-listener, tcp-listener

- Alias

rmwebl

- Usage

```
remove-web-listener -cluster <cluster-name> | -server <server-name>
                    [-f,--forceLock]
```

`<web-connection-name>`

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code><web-connection-name></code>	Listener name.

- Example

```
remove-web-listener -server server1 http1
```

4.2.8.39. remove-web-properties

Deletes property configurations from the web engine. The deleted properties are case-sensitive. The changes only apply to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/properties

- Alias

rmwebpr

- Usage

```
remove-web-properties -cluster <cluster-name> | -server <server-name>  
    [-f, --forceLock]  
    -a, --all | -k, --keys <keys>  
    [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
<code>[-f, --forceLock]</code>	Forcibly applies the configuration changes.
<code>-a, --all -k, --keys <keys></code>	<ul style="list-style-type: none"><code>-k, --keys <keys></code> deletes a specified property from the web engine. The value is case-sensitive. To specify multiple keys, separate each key with a comma (,).<code>-a, --all</code> deletes all properties currently set.
<code>[-vh <virtual-host-name>]</code>	Virtual host.

- Example

```
remove-web-properties -server server1 -k jeus.servlet.jsp.compile-java-source-concurrently1  
remove-web-properties -server server1 -a
```

4.2.8.40. remove-webtob-connector

Deletes a WebtoB connector. This command only applies to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - web-engine/web-connections/webtob-connector

- Alias

rmwebtobcon

- Usage

```
remove-webtob-connector -cluster <cluster-name> | -server <server-name>  
                        [-f,--forceLock]  
                        <web-connection-name>
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	WebtoB connector name.

- Example

```
remove-webtob-connector -server server1 webtob1
```

4.2.8.41. set-valve-property

Adds a valve property configuration. An added property is case-sensitive. This command only applies to the domain.xml file. In order to apply changes to the actual service, the server must be restarted.

- Related schema

web-engine.xsd - pipeline/valve/property

- Alias

addvlyprop

- Usage

```
set-valve-property -cluster <cluster-name> | -server <server-name>
                    [-f, --forceLock]
                    -cn, --classname <class-name>
                    -k, --key <key>
                    -v, --value <value>
                    [-vh <virtual-host-name>]
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-cn, --classname <class-name>	Valve class to add a property to. It must be a class that inherits JEUS's ValveBase.
-k, --key <key>	Key to add to valve.
-v, --value <value>	Value to add to valve.
[-vh <virtual-host-name>]	Name of the virtual host to add a property. If not set, a property of a valve is added to a server.

- Example

```
set-valve-property -server server1 -cn UserValveBase -k userProperty -v true -vh host1
```

4.2.8.42. show-request-processing-flow

Displays the process flow for a request received through a URL pattern or a host name.

When connecting to jeusadmin from a managed server, the server will be set automatically. Therefore, skip the cluster or server option.

- Related schema

web-app_4_0.xsd

- Alias

reqflow

- Usage

```
show-request-processing-flow -cluster <cluster-name> | -server <server-name>
```

```
-path <url-pattern>
[-hostname <host-name>]
```

- Parameters

Parameter	Description
-path <url-pattern>	URL pattern that starts with a slash (/).
[-hostname <host-name>]	Host name specified in the HTTP host header.

- Example

```
show-request-processing-flow -server server1 -path /test/index.jsp

show-request-processing-flow -server server1 -path /test -hostname examples.com
```

4.2.8.43. show-web-engine-configuration

Displays web engine configurations. For more information about the items and fields displayed when executing this command, refer to the web engine structure reference in the domain.xml file.

An item not set in the domain.xml file is not displayed. In other words, if a value is displayed, the configuration is set or is assigned a default value.

- Related schema

web-engine.xsd - web-gine

- Alias

webcfg, webconf, showwebcfg, showwebconf

- Usage

```
show-web-engine-configuration -cluster <cluster-name> | -server <server-name>
                                [-vh,--virtual host]
                                [-cn,--web-connections <connection-type>]
                                [-al,--access-log]
                                [-sc,--session-config]
                                [-rh,--response-header]
                                [-mo,--monitoring]
                                [-enc,--encoding]
                                [-cp,--cookie-policy]
                                [-jsp,--jsp-engine]
                                [-pr,--properties]
                                [-erp,--error-page]
                                [-att,--async-timeout_thread]
                                [-ast,--attach-stacktrace]
```

- Parameters

Parameter	Description
[-vh,--virtual host]	Displays the virtual host configuration information.
[-cn,--web-connections <connection-type>]	Displays all web connection configuration information. If a connection type is specified, only the corresponding information will be displayed.
[-al,--access-log]	Displays the access log configuration information.
[-sc,--session-config]	Displays the web engine session configuration information.
[-rh,--response-header]	Displays the response header configuration information.
[-mo,--monitoring]	Displays the web engine monitoring configuration information.
[-enc,--encoding]	Displays the web engine encoding configuration information.
[-cp,--cookie-policy]	Displays the cookie policy configuration information.
[-jsp,--jsp-engine]	Displays the JSP engine configuration information.
[-pr,--properties]	Displays the web engine property configuration information.
[-erp,--error-page]	Displays the default error page configuration of the web engine.
[-att,--async-timeout_thread]	Displays the timeout thread configuration information of an asynchronous servlet.
[-ast,--attach-stacktrace]	Displays the configuration that determines whether to add the stack trace when an error occurs.

- Example

- Display all web engine configurations.

```
show-web-engine-configuration -server server1
```

- Display web engine configurations by options.

```
show-web-engine-configuration -erp -att -server server1
```

```
show-web-engine-configuration -server server1 -sc
```

4.2.8.44. show-web-statistics

Displays the JVM memory information of the web engine, the thread pool states of each listener and connector of the web engine, and the request count and the process time of the context.

- Related schema

web-engine.xsd

- Alias

webstats, stat, st

- Usage

```
show-web-statistics -server <server-name>
                    [-ctx,--context <context-name>]
                    [-t,--thread | -s,--session | -r,--request | -m,--memory]
```

- Parameters

Parameter	Description
[-t,--thread]	Displays the thread pool states of the web engine at each WebContainer and context level. The information displayed includes the number of allocated worker threads, the number of clients in the wait queue, and the maximum number of threads in the thread pool.
[-s,--session]	Displays the connection information of the session servers in the web engine. The information displayed includes the name of the currently connected session server, the total number of sessions, and the number of session servers and connections used in the pool.
[-r,--request]	Displays the accumulated number of processed requests and the average process time for each context.
[-m,--memory]	Displays the state of the memory used by the current JVM in the web engine.

- Example

- Display thread pool information.

```
show-web-statistics -server server1 -ctx test -t
```

- Display session server information.

```
show-web-statistics -server server1 -s
```

4.2.8.45. show-webtob-connector

Displays WebtoB connection information. It shows the current connection status.

- Related schema

web-engine.xsd - web-engine/web-connections/webtob-connector

- Alias

webtobcon

- Usage

```
show-webtob-connector -cluster <cluster-name> | -server <server-name>
                        [-f, --forceLock]
                        -name <web-connection-name>
```

- Parameters

Parameter	Description
[-f, --forceLock]	Forcibly applies the configuration changes.
-name <web-connection-name>	WebtoB connector name.

- Example

```
show-webtob-connector -server server1 -name webtob1
```

4.2.8.46. suspend-web-component

Suspends the specified servlet and shows an error page for a client.

When connecting to jeusadmin from a managed server, the server will be set automatically. Therefore, skip the cluster or server option.



In JEUS 6, the websuspend and webtob -s commands are two separate commands. From JEUS 7 onwards, however, the two commands are merged into one command. In addition, starting from JEUS 7, the suspend command for web contexts is no longer supported. Instead, it is recommended to use the [stop-application](#) command in JEUS Master Server.

- Related schema

web-engine.xsd - web-engine/web-connections

- Alias

websuspend

- Usage

```
suspend-web-component -cluster <cluster-name> | -server <server-name>
                        -ctx,--context <context>
                        -svl,--servlet <servlet>
```

- Parameters

Parameter	Description
-ctx, --context <context>	Web context that contains the servlet to be suspended. This parameter must be used in conjunction with the -svl option. Set <context> to the module name from the result of executing the command that used the application-information -type option.
-svl, --servlet <servlet>	Servlet to be suspended. This parameter can be used only when the context option is set.

- Example

- [-svl,--servlet <servlet>] option is used

```
suspend-web-component -svl CookieExample -server server1 -ctx servlets
```

4.2.9. Session Commands

The following are two types of session commands.

- Monitoring and control commands

These commands are used for checking or controlling the states of sessions.

Command	Description
list-session	Displays the information of sessions sorted by idle time.
remove-session	Removes sessions that have been idle during a specified period of time regardless of a session timeout.
show-session-server-backup-table	Displays the current backup table information of a session server.

- Configuration change commands

These commands add, delete, or change the configuration of the session. Any modified configurations apply to the domain.xml file but not to the currently running service (memory area). Only the domain.xml file is changed. In order to apply the changes to the actual service, the server must be restarted.

Command	Description
show-session-configuration	Displays session information.
modify-session-configuration	Changes the session configurations.

- Session server commands

These commands are used for session storage configuration. To apply the configuration, server must restart.

Command	Description
list-sessionstorages	Displays the existing session storage list.
add-sessionstorage	Adds a session storage to a session server. For multiple session storages to be added, each name of the session storage must be unique.
remove-sessionstorage	Deletes a session storage from a session server.
rename-sessionstorage	Changes the name of session storage.
set-sessionstorage-property	Adds or changes a session storage property.
remove-sessionstorage-property	Deletes a session storage property.
add-sessionstorage-scope	Adds a scope to a session storage. For multiple scopes to be added, each scope must be unique. If a scope is set to DOMAIN_WIDE, it can be used in the DOMAIN_WIDE cluster mode.
set-sessionstorage-scope	Changes an application or cluster that will be included in a scope.
remove-sessionstorage-scope	Deletes a scope from a session storage.
set-sessionstorage-scope-session-config	Sets session configuration to be used in the context within a scope.
list-sessionserver-property	Displays a list of session server properties.
set-sessionserver-property	Adds or changes a session server property.
remove-sessionserver-property	Deletes a session server property.

- Centralized session server commands

These commands are used to configure session servers in the centralized session clustering. They enable or disable a specific server to operate as a centralized session server. Additionally, commands are provided to configure groups of centralized session servers.

After configuration, the related server must be restarted for the changes to take effect.

Command	Description
add-central-session-server	Sets a specific server to operate as a centralized session server.

Command	Description
modify-central-session-server	Modifies the centralized session server group associated with a specific server.
remove-central-session-server	Disables a specific server from operating as a centralized session server.
add-central-session-definition	Adds or changes a server within a group in the centralized session server definition.
remove-central-session-server-definition	Removes a group from the centralized session server definition, or a server from the group.
list-central-session-server-session	Displays information about sessions that exist on the centralized session server.
show-central-session-server-statistics	Displays memory usage and session information of a running central session server.

4.2.9.1. Shared Options

The following options are shared by monitoring and control commands. Only one of the following options can be set.

- `[-server <server-name>]` option
 - This option is used to specify the server to which each command is applied. If this option is not set, the command is applied to the web engine of the currently connected server.
 - The description of this option is omitted from each command option description.



1. For a configuration that is not immediately applied in the server, if a command is executed that reconfigures a pending configuration to the initial configuration, the "Restart the Server" message is not displayed.
2. In JEUS Master Server, the option is required. If the command is executed from a Managed Server instead of JEUS Master Server, even if the options is not specified, the command is executed using the connected server.

4.2.9.2. list-session

Displays the information of sessions sorted in idle time.

- Related schema

`jeus-session-server.xsd`, `jeus-session-domain.xsd`

- Alias

`lisession`, `lss`

- Usage

```
list-session -server <server-name>
             [-s,--simple ]
             [-count <count>]
             [-target <manager-name>]
             [-id <target-id>]
```

- Parameters

Parameter	Description
-server	Specifies the target servers. This option is required.
[-s,--simple]	Results are displayed in a simple format.
[-count <count>]	Number of sessions to be monitored. (Default value: 100)
[-target <manager-name>]	Target session manager whose session information will be displayed. If not set, information about all managers within a server will be displayed.
[-id <target-id>]	Session ID used to search for a session.

- Example

- No option is used.

```
list-session -server server1
```

- The [-s,--simple] option is used.

```
list-session -server server1 --simple
```

4.2.9.3. remove-session

Removes the sessions that have been idle during a specified period of time regardless of session timeout.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

rmsession, rms

- Usage

```
remove-session -server <server-name>
               -time,--timeout <timeout(min)>
```

- Parameters

Parameter	Description
-server	Specifies the target servers. This option is required.
-time,--timeout <timeout(min)>	Sets the timeout for removing a session. This option is required.

- Example

- The [-time,--timeout <timeout(min)>] option is used.

```
remove-session -server server1 --timeout 3
```

4.2.9.4. show-session-server-backup-table

Displays the current backup table information of a session server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

sssbt, sbt

- Usage

```
show-session-server-backup-table -server <server-name>
```

- Parameters

Parameter	Description
-server	Specifies the target servers. This option is required.

- Example

```
show-session-server-backup-table -server server1
```

4.2.9.5. show-session-configuration

Displays session information.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

getsc, ssc

- Usage

```
show-session-configuration -server <server-name>
[-h, --help]
```

- Parameters

Parameter	Description
[-server <server-name>]	Displays the configurations about the sessions set in a web engine.
[-h, --help]	Displays usage and describes each parameter. Using this command without an option will have the same result.

- Example

- The [-server <server-name>] option is used.

```
show-session-configuration -server server1
```

4.2.9.6. modify-session-configuration

Changes the session configurations.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

setsc, msc

- Usage

```
modify-session-configuration -server <server-name>
[-f, --forceLock]
```

```

[-to,--timeout <int timeout>]
[-mc,--max-session-count <int limit count>]
[-rp,--reload-persistent <boolean reload-persistent>]
[-tmc,--tracking-mode.cookie <boolean enable-cookie>]
[-tmu,--tracking-mode.url <boolean enable-url>]
[-tms,--tracking-mode.ssl <boolean enable-ssl>]
[-scn,--session-cookie.cookie-name <string cookie-name>]
[-sucn,--session-cookie.url-cookie-name <string url-cookie-name>]
[-scv,--session-cookie.version <int version(1 or 0)>]
[-scd,--session-cookie.domain <string domain-scope>]
[-scp,--session-cookie.path <string path-scope>]
[-scm,--session-cookie.max-age <int max-age(sec)>]
[-scs,--session-cookie.secure <boolean secure>]
[-sch,--session-cookie.http-only <boolean http-only>]
[-sca,--session-cookie.same-site <string same-site>]
[-scc,--session-cookie.comment <string comment>]

```

- Parameters

Parameter	Description
-server <server-name>	Changes the configurations for the sessions set in a web engine. This option is required.
[-f, --forceLock]	Forcibly applies the configuration changes.
[-to,--timeout <int timeout>]	Session timeout of session-config.
[-mc,--max-session-count <int maxCount>]	Maximum number of sessions to be stored.
[-rp,--reload-persistent <boolean reload-persistent>]	Reload persistent of session-config.
[-tmc,--tracking-mode.cookie <boolean enable-cookie>]	Cookie for the session-config tracking mode.
[-tmu,--tracking-mode.url <boolean enable-url>]	URL rewriting for the session-config tracking mode.
[-tms,--tracking-mode.ssl <boolean enable-ssl>]	SSL for the session-config tracking mode.
[-scn,--session-cookie.cookie-name <string cookie-name>]	Session cookie name.
[-sucn,--session-cookie.url-cookie-name <string url-cookie-name>]	Session cookie name used when sending a session by using url rewriting
[-scv,--session-cookie.version <int version(1 or 0)>]	Compilation version of session cookies.
[-scd,--session-cookie.domain <string domain-scope>]	Determines the domain scope of session cookies.

Parameter	Description
<code>[-scp,--session-cookie.path <string path-scope>]</code>	Determines the path scope of session cookies.
<code>[-scm,--session-cookie.max-age <int max-age>]</code>	Determines the length of time to keep session cookies on a browser.
<code>[-scs,--session-cookie.secure <boolean secure>]</code>	Determines if a browser sends cookies only over SSL.
<code>[-sch,--session-cookie.http-only <boolean http-only>]</code>	Determines if a browser uses session cookies only for HTTP requests.
<code>[-sca,--session-cookie.same-site <string same-site>]</code>	Security to prevent session ID cookies from being used in an unintentional request (cross-site request forgery).
<code>[-scc,--session-cookie.comment <string comment>]</code>	Session cookie description when the cookie version is 1.

- Example
 - The `[-server <server-name>]` option is used.

```
modify-session-configuration -server server1 -to 40 -sh true -scs true
```

4.2.9.7. list-sessionstorages

Displays the existing session storage list.

- Related schema
jeus-session-server.xsd, jeus-session-domain.xsd
- Alias
listsessionstorages, listss
- Usage

```
list-sessionstorages
```

4.2.9.8. add-sessionstorage

Adds a session storage to a session server. For multiple session storages to be added, each name of the session storage must be unique.

- Related schema
jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

addsessionstorage, addss, addsessionstor

- Usage

```
add-sessionstorage <session-storage-name>
    [-provider <provider>]
    [-property <property>]
    [-csm,--centralSessionManager <target-group-name>]
```

- Parameters

Parameter	Description
<session-storage-name>	Name of the session storage to add.
[-provider <provider>]	<p>Provider of the session manager to use. Set a reserved word or the used package.</p> <p>Only one of the following reserved words can be specified:</p> <ul style="list-style-type: none"> • DISTRIBUTE: Uses distributed session manager (server) provided by JEUS. • CENTRAL: Uses the centralized session manager provided by JEUS. • REDIS: Uses the Redis session manager provided by JEUS. • HAZELCAST: Uses the Hazelcast session manager provided by JEUS. • RUNTIME: If another provider exists, the provider is used. If not, the JEUS session manager is used.
[-property <property >]	Property of the session storage.
[-csm <target-group-name>]	Name of the centralized session server group.

- Example

```
add-sessionstorage sessionStorage1 -provider CENTRAL -property connect-timeout=10000,full-search-timeout=20000
```

4.2.9.9. remove-sessionstorage

Deletes a session storage from a session server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

removess, rmss, removesessionstor, rmsessionstor, rm,sessionstorage

- Usage

```
remove-sessionstorage <session-storage-name>
```

- Parameters

Parameter	Description
<session-storage-name>	Name of the session storage to delete.
-csm <target-group-name>	Name of the centralized session server group to delete.

- Example

```
remove-sessionstorage sessionStorage1
```

4.2.9.10. rename-sessionstorage

Changes the name of session storage.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

renamesessionstor, renamesessionstor

- Usage

```
rename-sessionstorage <session-storage-name>  
                        -name <new-session-storage-name>
```

- Parameters

Parameter	Description
<session-storage-name>	Name of the session storage to change.
-name <new-session-storage-name>	New session storage name. This option is required.

- Example

```
rename-sessionstorage sessionStorage1 -name new_sessionStorage
```

4.2.9.11. set-sessionstorage-property

Adds or changes a session storage property.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

setsessionstorageproperty, setsessionstorprop, setsstorprop

- Usage

```
set-sessionstorage-property <session-storage-name>  
                        [-key <key-of-property> -value <value-of-property>] | [-property <  
property>]
```

- Parameters

Parameter	Description
<session-storage-name>	Name of the session storage to add property.
[-key <key-of-property>]	Key of a property to add or change. Change the property value of an existing key if it is already configured, or add a new key if none is configured. This cannot be used with the [-property] option.
[-value <value-of-property>]	Value of the property to add or change. Required if the [-key] option is used.
[-property <property >]	Property to add or change. Change the property value of an existing key if it is already configured, or add a new key if none is configured. This cannot be used with the [-key] option.



[-key] or [-property] must be specified.

- Example

- Example of using [-key <key-of-property> -value <value-of-property>] option

```
set-sessionstorage-property sessionStorage1 -key full-search-timeout -value 10000
```

- Example of using the [-property <property>] option

```
set-sessionstorage-property sessionStorage1 -property full-search-timeout=10000,backup-queue-size=200
```

4.2.9.12. remove-sessionstorage-property

Deletes a session storage property.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

rmsessionstorageproperty, rmsessionstorprop, rmsstorprop

- Usage

```
remove-sessionstorage-property <session-storage-name>  
                                -key <key-of-property>
```

- Parameters

Parameter	Description
<session-storage-name>	Name of the session storage from which to delete the property.
-key <key-of-property>	Key of the property to delete from the session storage. This option is required.

- Example

```
remove-sessionstorage-property sessionStorage1 -key full-search-timeout
```

4.2.9.13. add-sessionstorage-scope

Adds a scope to a session storage. For multiple scopes to be added, each scope must be unique.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

addsessionstoragescope, addssscope, addsessionstorscope, addsss

- Usage

```
add-sessionstorage-scope <scope-name>
                        -target <storage-name>
                        [-clusters <target-cluster-list> | -applications <target-application-list>]
```

- Parameters

Parameter	Description
<scope-name>	Name of a session scope to add.
-target <storage-name>	Name of the session storage to add a scope. Required.
[-clusters <target-cluster-list>]	Cluster list to be included in the scope. It cannot be used with the [-applications] option.
[-applications <target-application-list>]	Application list to be included in the scope. It cannot be used with the [-clusters] option.

- Example

- Example of using the [-clusters <target-cluster-list>] option

```
add-sessionstorage-scope scope1 -target sessionStorage -clusters cluster1,cluster2
```

- Example of using [-applications <target-application-list>] option

```
add-sessionstorage-scope scope1 -target sessionStorage -applications app1,app2
```

4.2.9.14. set-sessionstorage-scope

Changes an application or cluster that will be included in a scope. The existing target-application or target-cluster is deleted and newly configured.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

setsessionstoragescope, setsessionstorscope, setsss, setssscope

- Usage

```
set-sessionstorage-scope <scope-name>
                        [-clusters <target-cluster-list> | -applications <target-application-list>]
```

- Parameters

Parameter	Description
<scope-name>	Name of a session scope to add.
[-clusters <target-cluster-list>]	Cluster list to be included in the scope. It cannot be used with the [-applications] option.
[-applications <target-application-list>]	Application list to be included in the scope. It cannot be used with the [-clusters] option.

- Example

- Example of using the [-clusters <target-cluster-list>] option

```
set-sessionstorage-scope scope1 -clusters cluster1,cluster2
```

- Example of using [-applications <target-application-list>] option

```
set-sessionstorage-scope scope1 -applications app1,app2
```

4.2.9.15. remove-sessionstorage-scope

Deletes a scope from a session storage.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

removessscope, rmssscope, rmsessionstorscope, removesessionstoragescope

- Usage

```
remove-sessionstorage-scope <scope-name>
```

- Parameters

Parameter	Description
<code><scope-name></code>	Name of the session scope to delete.

- Example

```
remove-sessionstorage-scope scope1
```

4.2.9.16. set-sessionstorage-scope-session-config

Sets the session configuration to be used in the context within a scope.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

setsessionstoragescopesessionconfig, setssssc, setsessionstorscopesc

- Usage

```
set-sessionstorage-scope-session-config <scope-name>
    [-timeout <timeout>]
    [-msc, --max-session-count <limit-count>]
    [-rp, --reload-persistent <reload-persistent>]
    [-tm, --tracking-mode <tracking-mode>]
    [-sc, --session-cookie <session-cookie>]
```

- Parameters

Parameter	Description
<code><scope-name></code>	Name of the scope to set session configuration.
<code>[-timeout <timeout>]</code>	Session timeout of session-config. (Default value: 30)
<code>[-msc, --max-session-count <limit-count>]</code>	Maximum number of sessions to be stored. (Default value: -1 (Unlimited))
<code>[-rp, --reload-persistent <reload-persistent>]</code>	Reload persistent of session-config. (Default value: false)

Parameter	Description
[-tm, --tracking-mode <tracking-mode>]	<p>Property to add or change. Change the property value of an existing key if it is already configured, or add a new key if none is configured.</p> <p>Key of the property:</p> <ul style="list-style-type: none"> • cookie: Sets cookie for the session-config tracking mode. The value type is Boolean. (Default value: true) • url: Sets URL rewriting for the session-config tracking mode. The value type is Boolean. (Default value: false) • ssl: Sets SSL for the session-config tracking mode. The value type is Boolean. (Default value: false)

Parameter	Description
<code>[-sc, --session-cookie <session-cookie>]</code>	<p>Property to add or change. Change the property value of an existing key if it is already configured, or add a new key if none is configured.</p> <p>Key of the property:</p> <ul style="list-style-type: none"> • <code>cookie-name</code>: Sets a session cookie name when the cookie is used to send the session. The value type is string. (Default value: <code>JSESSIONID</code>) • <code>url-cookie-name</code>: Sets a session cookie name when url rewriting is used to send the session. The value type is string. (Default value: <code>jsessionid</code>) • <code>version</code>: Sets cookie ID version. The value type is integer. (Default value: <code>0</code>) • <code>domain</code>: Sets a domain name to apply the session cookie. The value type is string that contains at least one character. • <code>path</code>: Sets a path to apply the session cookie. The value type is string that contains at least one character. • <code>max-age</code>: Sets the length of time to keep the session cookie on browser. The value type is integer. (Default value: <code>-1</code>) • <code>secure</code>: Sets secure property of the session ID cookie. If set to <code>true</code>, the session ID cookie is only sent to the secure HTTP connection. The value type is Boolean. (Default value: <code>false</code>) • <code>http-only</code>: Determines if a browser uses the session cookie only for HTTP requests. The value type is Boolean. (Default value: <code>true</code>) • <code>same-site</code>: Sets the security option to prevent attacks (Cross-Site Request Forgery) wherein the session cookie ID is used for unintended requests. The value type is one of the following: <code>None</code>, <code>Strict</code>, <code>Lax</code> or <code>Disable</code>. • <code>comment</code>: Records purposes or description of the cookie. The value type is string that contains at least one character.

- Example

```
set-sessionstorage-scope-session-config scope1 -timeout 20
-shared true -session-cookie secure=true,http-only=true,path=/ -tracking-mode cookie=true
```

4.2.9.17. list-sessionserver-property

Displays a list of session server properties.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

listsessionserverproperty, listssp, listsessionserverprop

- Usage

```
list-sessionserver-property
```

4.2.9.18. set-sessionserver-property

Adds or changes a session server property.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

setsessionserverproperty, setsessionserverprop, setsservprop

- Usage

```
set-sessionserver-property [-key <key-of-property> -value <value-of-property>] | [-property <property>]
```

- Parameters

Parameter	Description
[-key <key-of-property>]	Key of a property to add or change. Change the property value of an existing key if it is already configured, or add a new key if none is configured. This cannot be used with the [-property] option.
[-value <value-of-property>]	Value of the property to add or change. Required if the [-key] option is used.

Parameter	Description
<code>[-property <property>]</code>	Property to add or change. Change the property value of an existing key if it is already configured, or add a new key if none is configured. This cannot be used with the <code>[-key]</code> option.



`[-key]` or `[-property]` must be specified.

- Example

- Example of using `[-key <key-of-property> -value <value-of-property>]` option

```
set-sessionserver-property -key encoding-rule -value base64
```

- Example of using the `[-property <property>]` option

```
set-sessionserver-property -property encoding-rule=raw
```

4.2.9.19. remove-sessionserver-property

Deletes a session server property.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

removesessionserverproperty, rmsessionserverprop, rmsservprop

- Usage

```
remove-sessionserver-property -key <key-of-property>
```

- Parameters

Parameter	Description
<code>-key <key-of-property></code>	Key of the property to delete from a session server.

- Example


```
remove-sessionserver-property -key excluded-servers
```

4.2.9.20. add-central-session-server

Sets a specific server to operate as a centralized session server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

addcss, add-css

- Usage

```
add-central-session-server <server-name> -g <group-name>
```

- Parameters

Parameter	Description
<server-name>	Name of the target server to act as a centralized session server.
-g <group-name>	Target group name set in the central session server definition.

- Example

```
add-central-session-server server1 -g central1
```

4.2.9.21. modify-central-session-server

Modifies the centralized session server group associated with a specific server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

mvcss, mv-css

- Usage

```
modify-central-session-server <server-name> -g <group-name>
```

- Parameters

Parameter	Description
<code><server-name></code>	Name of the target server to change.
<code>-g <group-name></code>	Name of the centralized session server group to change.

- Example

```
modify-central-session-server server1 -g central2
```

4.2.9.22. remove-central-session-server

Disables a specific server from operating as a centralized session server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

rmcss, rm-css

- Usage

```
remove-central-session-server <server-name>
```

- Parameters

Parameter	Description
<code><server-name></code>	Name of the server to exclude from the central session server.

- Example

```
remove-central-session-server server1
```

4.2.9.23. add-central-session-server-definition

Adds or changes (primary and backup) servers within a group in the centralized session server definition.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

add-central-session-def, addcsd, add-csd

- Usage

```
add-central-session-server-definition -g <group-name> -p <primary> [-b <backup>]
```

- Parameters

Parameter	Description
-g <group-name>	Name of the target group to which the server is added.
-p <primary>	Primary server address. Specify in 'IP(hostname):port' format.
[-b <backup>]	Backup server address. Specify in 'IP(hostname):port' format. When specifying multiple values, separate them with commas (,).

- Example

```
add-central-session-server-definition -g central1 -p localhost:9736 -b  
localhost:19736,localhost:29736
```

4.2.9.24. remove-central-session-server-definition

Removes a group from the centralized session server definition, or a server from the group.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

remove-central-session-def, rmcsd, rm-csd

- Usage

```
remove-central-session-server-definition -g <group-name> [-p <primary>] [-b <backup>]
```

- Parameters

Parameter	Description
-g <group-name>	Name of the target group to remove.
[-p <primary>]	Primary server address of the target group to remove. At least one server must be maintained in the setup.
[-b <backup>]	Backup server address of the target group to remove. Specify in 'IP(hostname):Port' format. When specifying multiple values, separate them with commas (,).

- Example

```
remove-central-session-server-definition -g central1 -p localhost:9736 -b localhost:9735
remove-central-session-server-definition -g central1 -p localhost:9736
remove-central-session-server-definition -g central2
```

4.2.9.25. list-central-session-server-session

Displays information about sessions that exist on the centralized session server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

list-css-session, lscsss

- Usage

```
list-central-session-server-session [-server <server-name>] [-a,--address <server-address>] [-c,--count <count> ] [-i,--id <expectedToContain>] [-s,--simple]
```

- Parameters

Parameter	Description
[-server <server-name>]	Name of the session server within the same domain.
[-a,--address <server-address>]	Address of the session server to show.
[-c,--count <count>]	Number of sessions to query. (Default: 100)
[-i,--id <expectedToContain>]	Used to show sessions that contain the specified string.
[-s,--simple]	Used to briefly display the output format.

- Example

```
list-central-session-server-session -a localhost:19736
```

4.2.9.26. show-central-session-server-statistics

Displays memory usage and session information of a running central session server.

- Related schema

jeus-session-server.xsd, jeus-session-domain.xsd

- Alias

cssst, stcss, css-stat

- Usage

```
show-central-session-server-statistics [-server <server-name>] [-a,--address <server-address>] [-s,--session] [-m,--memory]
```

- Parameters

Parameter	Description
[-server <server-name>]	Name of the session server within the same domain.
[-a,--address <server-address>]	Address of the session server to show.
[-s,--session]	Displays information about the session server, including its name, number of sessions, and backup server.
[-m,--memory]	Displays the memory usage status of the configured server JVM.

- Example

```
show-central-session-server-statistics -a localhost:19736
```

4.2.10. JMS Engine Commands

The following is a list of JMS engine commands.

Command	Description
ban-jms-client	Forcibly disconnects from a JMS client.
add-jms-connection-factory	Dynamically adds a new connection factory.
add-jms-destination	Dynamically adds a new destination to the JMS engine.

Command	Description
add-jms-durable-subscription	Adds a new durable subscription.
add-jms-message-sort	Dynamically adds a new message sort.
add-jms-quota	Adds a new quota.
add-jms-service-config	Adds a new service config.
commit-jms-pending-transaction	Forcibly commits a pending transaction.
control-jms-destination	Controls the service status of a specified destination.
control-jms-durable-subscription	Controls service status of a specified durable subscription.
delete-jms-messages	Deletes messages from a destination.
export-jms-messages	Exports an XML type message from a specified destination.
import-jms-messages	Imports an XML type message exported to a specified destination.
list-jms-clients	Displays a list of all connected clients.
list-jms-connection-factories	Displays a list of all connection factories registered with the JMS engine or the information of a specified connection factory.
list-jms-destinations	Displays a list of all destinations registered with the JMS engine or the information of a specified destination.
list-jms-durable-subscriptions	Displays a list of all durable subscriptions.
list-jms-message-sorts	Displays a list of message sorts.
list-jms-messages	Displays destination message information.
list-jms-pending-transactions	Displays a list of pending transactions.
list-jms-quotas	Displays a list of quotas or information of a specified quota.
list-jms-service-configs	Displays a list of service configs or information of a specified service config.
modify-jms-connection-factory	Modifies the information of a specified connection factory.
modify-jms-destination	Modifies the information of a specified destination.
modify-jms-durable-subscription	Modifies the information of a specified durable subscription.
modify-jms-message-sort	Modifies the information of a specified message sort.
modify-jms-quota	Modifies the information of a specified quota.
modify-jms-service-config	Modifies the information of a specified service config.
move-jms-messages	Moves messages to a different destination.
remove-jms-connection-factory	Dynamically deletes a specified connection factory.
remove-jms-destination	Dynamically deletes a destination from the JMS engine.
remove-jms-durable-subscription	Dynamically deletes a specified durable subscription.
remove-jms-message-sort	Deletes a specified message sort.
remove-jms-quota	Deletes a specified quota.

Command	Description
remove-jms-service-config	Deletes a specified service config.
set-jms-engine-quota	Sets a quota of the JMS engine.
set-jms-failover-check	Sets an option to check whether the JMS engine is alive before failover.
set-jms-persistence-store	Sets a persistence store of the JMS engine.
view-jms-message	Displays detailed information of a specified message.

4.2.10.1. Shared Options

The following options are shared by JMS engine commands. Only one of the following options can be set.

- `[-cluster <cluster-name>]` option
 - This option is used to specify the cluster to which each command applies. This option can only be used when connected to the Master Server. If connected to a Managed Server, the server command is used.
 - This option is only supported for destination related commands.
- `[-server <server-name>]` option
 - This option is used to specify the server to which each command applies. This option can only be used when connected to the Master Server. If connected to a Managed Server, the server command is used.
 - This option is only supported for non-destination related commands.

4.2.10.2. add-jms-connection-factory

Dynamically adds a new connection factory to the JMS engine. A queue or a topic connection factory can be created.

- Alias

`add-connection-factory, addconf, createconf`

- Usage

```
add-jms-connection-factory -server <server-name>
                           -type <factory-type>
                           -name <factory-name>
                           [-export <export-name>]
                           [-clientid <client-id>]
```

- Parameters

Parameter	Description
-server <server-name>	Target server name.
-type <factory-type>	Connection factory type Input options: <ul style="list-style-type: none"> • nonxa • xa • queue • topic • xaqueue • xatopic
-name <factory-name>	Connection factory name. The name must be unique within the JMS engine.
[-export <export-name>]	JNDI name of the new connection factory. The name must be unique within the JEUS JNDI server.
[-clientid <client-id>]	Client ID given to a connection created by the connection factory.

- Example

```
[MASTER]domain1.adminServer>add-jms-connection-factory -server adminServer -type nonxa -name
MyConnectionFactory
Executed Successfully.
View the results using 'list-jms-connection-factories -server adminServer -name
MyConnectionFactory'.
[MASTER]domain1.adminServer>list-jms-connection-factories -server adminServer
Connection Factory Information
=====
+-----+-----+-----+
|          Factory Name          |          Export Name          |   Type   |
+-----+-----+-----+
| ConnectionFactory              | ConnectionFactory             | nonxa    |
| MyConnectionFactory           | MyConnectionFactory         | nonxa    |
| XAConnectionFactory           | XAConnectionFactory         | xa       |
+-----+-----+-----+
=====
```

4.2.10.3. add-jms-destination

Dynamically adds a new destination to the JMS engine.

- Alias

add-destination, adddest, createdest

- Usage

```
add-jms-destination -cluster <cluster-name> | -server <server-name>
                    -type <destination-type>
                    -name <destination-name>
                    [-export <export-name>]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the destination belongs.
-type <destination-type>	Destination type. (queue or topic)
-name <destination-name>	Destination name to be created. The name must be unique within the JMS engine.
[-export <export-name>]	JNDI name of the new connection factory. The name must be unique within the JEUS JNDI server. If not specified, the value of destination-name is used.

- Example

```
[MASTER]domain1.adminServer>add-jms-destination -server adminServer -type queue -name MyQueue
Executed Successfully.
View the results using 'list-jms-destinations -server adminServer -name MyQueue'.
[MASTER]domain1.adminServer>list-jms-destinations -server adminServer
Destination information in Server adminServer
=====
+-----+-----+-----+-----+-----+-----+-----+
| Name | Export | Type | Remaining | Dead Letter | Produce | Consume |
|      | Name  |      | Messages  | Destination | Suspended | Suspended |
+-----+-----+-----+-----+-----+-----+-----+
| MyQueue | MyQueue | Queue | 0 | JEUSMQ_DLQ | false | false |
+-----+-----+-----+-----+-----+-----+-----+
| Examples | Examples | Topic | 0 | JEUSMQ_DLQ | false | false |
| Topic    | Topic    |      |   |           |      |      |
+-----+-----+-----+-----+-----+-----+-----+
| Examples | Examples | Queue | 0 | JEUSMQ_DLQ | false | false |
| Queue    | Queue    |      |   |           |      |      |
+-----+-----+-----+-----+-----+-----+-----+
| JEUSMQ_D | JEUSMQ_D | Queue | 0 | JEUSMQ_DLQ | false | false |
| LQ       | LQ       |      |   |           |      |      |
+-----+-----+-----+-----+-----+-----+-----+

For detailed information, use the -name option
=====
```

4.2.10.4. add-jms-durable-subscription

Dynamically adds a new durable subscription to the JMS engine.

- Alias

add-durable, adddur, createdur

- Usage

```
add-jms-durable-subscription -cluster <cluster-name> | -server <server-name>
                             -clientid <client-id>
                             -name <durable-subscription-name>
                             -topic <topic-name>
                             [-shared]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the durable subscription belongs.
-clientid <client-id>	ID of the client to subscribe.
-name <durable-subscription-name>	Name of the durable subscription to create. The name must be unique and not match any existing durable subscription within the JMS engine.
-topic <topic-name>	Name of a durable subscription topic.
[-shared]	Option to create a shared durable subscription.

- Example

```
[MASTER]domain1.adminServer>add-jms-durable-subscription -server adminServer -clientid testClient
-name testDurable -topic testTopic
Executed Successfully.
View the results using 'list-jms-durable-subscriptions -server adminServer'.
[MASTER]domain1.adminServer>list-jms-durable-subscriptions -server adminServer
Durable Subscription Information
=====
+-----+-----+-----+-----+-----+
| Durable Name | Client ID | Shared | Message Selector | Remaining Messages |
+-----+-----+-----+-----+-----+
| testDurable | testClient| false |                  | 0                  |
+-----+-----+-----+-----+-----+
=====
```

4.2.10.5. add-jms-message-sort

Adds a new message sort to the JMS engine.

- Alias

add-message-sort, addmsgsort

- Usage

```
add-jms-message-sort -server <server-name>
                    -name <message-sort-name>
                    -key <key>
                    [-type <type>]
                    -direction <direction>
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the message sort belongs.
-name <message-sort-name>	Name of the message sort to create. The name must be unique and not match any existing message sort within the JMS engine.
-key <key>	Key as a criterion for sorting messages.
[-type <type>]	Key type.
-direction <direction>	Sorting order of messages.

- Example

```
[MASTER]domain1.adminServer>add-jms-message-sort -server adminServer -name testSort -key
JMSPriority -type Integer -direction Ascending
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-message-sorts -server adminServer -name testSort'.
[MASTER]domain1.adminServer>list-jms-message-sorts -server adminServer -name testSort
Detailed Message Sort Information
=====
testSort

+-----+-----+
| Message Sort Name | testSort |
| Key               | JMSPriority |
| Type              | INTEGER   |
| Direction         | ASCENDING |
+-----+-----+
=====
```

4.2.10.6. add-jms-quota

Add a new quota to the JMS engine.

- Alias

add-quota, addquota

- Usage

```
add-jms-quota -server <server-name>
               -name <quota-name>
               [-byte <max-bytes>]
               [-msg <max-messages>]
               [-shared <shared>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the quota belongs.
-name <quota-name>	Name of the quota to create. The name must be unique and not match any existing quota within the JMS engine.
[-byte <max-bytes>]	Maximum bytes.
[-msg <max-messages>]	Maximum number of messages.
[-shared <shared>]	Determines whether to share the quota with multiple destinations.

- Example

```
[MASTER]domain1.adminServer>add-jms-quota -server adminServer -name testQuota -byte 128M -msg 1M
-shared false
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-quotas -server adminServer -name testQuota'.
[MASTER]domain1.adminServer>list-jms-quotas -server adminServer -name testQuota
Detailed Quota Information
=====
testQuota

+-----+-----+
| Quota Name          | testQuota |
| Max Bytes           | 128M      |
| Max Messages        | 1M        |
| Shared              | false     |
+-----+-----+
=====
```

4.2.10.7. add-jms-service-config

Adds a new service to the JMS engine.

- Alias

add-service-config, addjmservice

- Usage

```
add-jms-service-config -server <server-name>
                        -name <service-name>
                        [-limit <client-limit>]
                        [-timeout <client-keepalive-timeout>]
                        [-listener <listener>]
                        [-virtual]
                        [-address <address>]
                        [-port <port>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the service belongs.
-name <service-name>	Name of the service to create. The name must be unique and not match any existing quota within the JMS engine.
[-limit <client-limit>]	Maximum allowed clients.
[-timeout <client-keepalive-timeout>]	Time to wait for reconnection in the event of abnormal termination.
[-listener <listener>]	Listener of the service.
[-virtual]	Option to use a virtual listener.
[-address <address>]	Address of the virtual listener.
[-port <port>]	Port of the virtual listener.

- Example

```
[MASTER]domain1.adminServer>add-jms-service-config -server adminServer -name testService -limit
1000 -timeout 30 -listener base
Executed Successfully.
View the results using 'list-jms-service-configs -server adminServer -name testService'.
[MASTER]domain1.adminServer>list-jms-service-configs -server adminServer -name testService
Detailed Service Config Information
=====
testService

+-----+-----+
| Service Config Name | testService |
| Client Limit       | 1000       |
+-----+-----+
```

Client Keepalive Timeout	30
Listener Name	base

+-----+-----+

=====

4.2.10.8. ban-jms-client

Forcibly disconnects a connection with a JMS client.

- Alias

killentry, banentry

- Usage

```
ban-jms-client -server <server-name>
               -name <entry-name>
```

- Parameters

Parameter	Description
-server <server-name>	Target server name.
-name <entry-name>	JMS client name to which a connection is forcibly closed. The name can be displayed using the list-jms-clients command.

4.2.10.9. commit-jms-pending-transaction

Forcibly commits a pending transaction.

- Alias

jmsptcommit, ptcommit

- Usage

```
commit-jms-pending-transaction -server <server-name>
                                -id <tx-id>
```

- Parameters

Parameter	Description
-server <server-name>	Target server name.
-id <tx-id>	Transaction ID to be forcibly committed. The list-jms-pending-transactions command can be used to check the ID.

4.2.10.10. control-jms-destination

Controls the service status of a specified destination.

- Alias

destctrl

- Usage

```
control-jms-destination -cluster <cluster-name> | -server <server-name>
                        -dest <destination-name>
                        -suspend | -resume
                        [-produce]
                        [-consume]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the destination belongs.
-dest <destination-name>	Destination name to be controlled.
-suspend -resume	Destination state to be controlled. <ul style="list-style-type: none">• suspend: The destination service is temporarily suspended.• resume: The destination service is resumed.
[-produce]	Determines whether to control the produce of the specified destination.
[-consume]	Determines whether to control the consume of the specified destination.

- Example

```
[MASTER]domain1.adminServer>control-jms-destination -server adminServer -dest ExamplesQueue
-suspend -produce
Controlling destination is successful in ExamplesQueue : [production] is suspended

[MASTER]domain1.adminServer>control-jms-destination -server adminServer -dest ExamplesQueue
-resume -produce
Controlling destination is successful in ExamplesQueue : [production] is resumed
```

4.2.10.11. control-jms-durable-subscription

Controls service status of a specified durable subscription in the JMS engine.

- Alias

control-durable, durctrl

- Usage

```
control-jms-durable-subscription -cluster <cluster-name> | -server <server-name>
                                -name <durable-subscription-name>
                                -suspend | -resume
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the durable subscription belongs.
-name <durable-subscription-name>	Name of the durable subscription to control.
-suspend -resume	Status of the durable subscription to control. <ul style="list-style-type: none"> • suspend: Suspends the durable subscription service. • resume: Resumes the durable subscription service.

- Example

```
[MASTER]domain1.adminServer>control-jms-durable-subscription -server adminServer -name testDS
-suspend
Executed Successfully
View the results using 'list-jms-durable-subscriptions -server adminServer'.
[MASTER]domain1.adminServer>list-jms-durable-subscriptions -server adminServer
Durable Subscription Information
=====
+-----+-----+-----+-----+-----+-----+-----+
| Durable | Client | Shared | Message | Remaining Messages | Suspended |
| Name   | ID     |        | Selector | (current)           | (current) |
+-----+-----+-----+-----+-----+-----+-----+
| testDS | testDS | false  |         | 0                   | true      |
+-----+-----+-----+-----+-----+-----+-----+
=====
```

4.2.10.12. delete-jms-messages

Deletes a message or all messages from a queue or durable subscriber.

- Alias

deletemsg, deletemessage, removemsg, removemessage, rmmsg

- Usage

```
delete-jms-message -cluster <cluster-name> | -server <server-name>
                  -dest <destination-name> | -durable <client-id>_<durable-name>
                  -id <message-id> | -all
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server name to which the destination or the durable subscriber belongs.
-dest <destination-name> -durable <client-id>_<durable-name>	Destination name or durable subscriber name of the message to be deleted.
-id <message-id> -all	ID of the message to be deleted. Individual message IDs or all messages can be selected.

4.2.10.13. export-jms-messages

Exports a message of a destination in the XML type.

- Alias

exmsg

- Usage

```
export-jms-message -cluster <cluster-name> | -server <server-name>
                  -dest <destination-name> | -durable <client-id>_<durable-name>
                  -path <file-path>
                  -id <message-id> | -all
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server name to which the destination or the durable subscriber belongs.
-dest <destination-name> -durable <client-id>_<durable-name>	Destination name or durable subscriber name of the message to be exported.
-path <file-path>	Path to the file to which exported messages are saved.
-id <message-id> -all	ID of the message to be exported. Individual message IDs or all messages can be selected.

- Example

```
[MASTER]domain1.adminServer>export-jms-messages -server adminServer -dest ExamplesQueue -all
-path exported.xml
Successfully exported 5 messages.
```

4.2.10.14. import-jms-messages

Imports all messages from an XML file in a destination.

- Alias

immsg

- Usage

```
import-jms-message -cluster <cluster-name> | -server <server-name>
                    -dest <destination-name>
                    -path <file-path>
                    [-overwrite]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the destination belongs.
-dest <destination-name>	Target destination of the message.
-path <file-path>	Path to the file to which imported messages are saved.
[-overwrite]	Does not issue a new JMSMessageID for an imported message. A message with the same ID is overwritten.

- Example

```
[MASTER]domain1.adminServer>list-jms-messages -server adminServer -dest ExamplesQueue
There are no messages in ExamplesQueue.

[MASTER]domain1.adminServer>import-jms-messages -server adminServer -dest ExamplesQueue -path
exported.xml
Successfully imported 5 of 5 messages.
[MASTER]domain1.adminServer>list-jms-messages -server adminServer -dest ExamplesQueue
Messages in Destination ExamplesQueue
=====
+-----+-----+-----+
| Message ID | Message Type | Created Time |
+-----+-----+-----+
| ID:796886517700001:1:5 | Text | Tue Nov 19 19:52:54 KST 2016 |
| ID:796886517700001:1:6 | Text | Tue Nov 19 19:52:54 KST 2016 |
```

ID:796886517700001:1:7	Text	Tue Nov 19 19:52:54 KST 2016
ID:796886517700001:1:8	Text	Tue Nov 19 19:52:54 KST 2016
ID:796886517700001:1:9	Text	Tue Nov 19 19:52:54 KST 2016

+-----+-----+-----+

=====

4.2.10.15. list-jms-clients

Displays a list of all connected clients.

- Alias

jmsclient, jmsentry

- Usage

```
list-jms-clients -server <server-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server name of which a list of clients is displayed.

- Example

```
[MASTER]domain1.adminServer>list-jms-clients -server adminServer
JEUS MQ client information
=====
+-----+-----+-----+-----+-----+
| Entry Name | Remote Address | Start Time | Connection | Session |
|            |                |            | Count      | Count    |
+-----+-----+-----+-----+-----+
| JMSClient-RE63 | 192.168.34.33/192.168 | Tue Nov 07 | 1 | 1 |
| 675900002      | .34.33:49490       | 16:14:32 KST 2016 |   |   |
+-----+-----+-----+-----+-----+
| JMSClient-RE63 | 192.168.34.33/192.168 | Tue Nov 07 | 1 | 1 |
| 675900001      | .34.33:49484       | 16:14:23 KST 2016 |   |   |
+-----+-----+-----+-----+-----+
=====
```

4.2.10.16. list-jms-connection-factories

Displays a list of all connection factories registered with the JMS engine or the information of a specified connection factory.

- Alias

jmscf, jmsconf

- Usage

```
list-jms-connection-factories -server <server-name>
                               [-n, --name <factory-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server name to which the connection factory belongs.
[-n, --name <factory-name>]	Connection factory name. If not specified, brief descriptions of all connection factories are displayed.

- Example

```
[MASTER]domain1.adminServer>list-jms-connection-factories -server adminServer
Connection Factory Information
=====
+-----+-----+-----+
| Factory Name | Export Name | Type |
+-----+-----+-----+
| ConnectionFactory | ConnectionFactory | nonxa |
| XAConnectionFactory | XAConnectionFactory | xa |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>list-jms-connection-factories -server adminServer -name
ConnectionFactory
=====
ConnectionFactory

+-----+-----+
| Factory Name | ConnectionFactory |
| Export Name | ConnectionFactory |
| Type | nonxa |
| Client ID | not-set |
| Max Client Session Threads | 100 |
| Clustered | false |
| Broker Selection Policy | round-robin |
+-----+-----+
=====

=====
+-----+-----+
| Addresses |
+-----+-----+
| 192.168.0.26:9741(JMSServiceChannel-internal) |
+-----+-----+
=====
```

4.2.10.17. list-jms-destinations

Displays a list of all destinations registered with the JMS engine or the information of a specified destination.

- Alias

jmsdest, dest

- Usage

```
list-jms-destinations -cluster <cluster-name> | -server <server-name>
                        [-n, --name <destination-name>]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the destination belongs.
[-n, --name <destination-name>]	Destination name. If not specified, brief descriptions of all destinations are displayed.

- Example

```
[[MASTER]domain1.adminServer>list-jms-destinations -server adminServer
Destination information in Server adminServer
=====
+-----+-----+-----+-----+-----+-----+-----+
| Name   | Export | Type | Remaining | Dead Letter | Produce | Consume |
|        | Name   |      | Messages  | Destination | Suspended | Suspended |
+-----+-----+-----+-----+-----+-----+-----+
| Examples| Examples| Topic |          0 | JEUSMQ_DLQ | false  | false  |
| Topic   | Topic   |      |          |             |        |        |
+-----+-----+-----+-----+-----+-----+-----+
| Examples| Examples| Queue |          0 | JEUSMQ_DLQ | false  | false  |
| Queue   | Queue   |      |          |             |        |        |
+-----+-----+-----+-----+-----+-----+-----+
| JEUSMQ_D| JEUSMQ_D| Queue |          0 | JEUSMQ_DLQ | false  | false  |
| LQ      | LQ      |      |          |             |        |        |
+-----+-----+-----+-----+-----+-----+-----+

For detailed information, use the -name option
=====

[[MASTER]domain1.adminServer>list-jms-destinations -server adminServer -name ExamplesQueue
Detailed destination information in Server adminServer
=====
ExamplesQueue
+-----+-----+-----+
| Export Name | ExamplesQueue |
| Type       | Queue         |
```

Dead Letter Destination	JEUSMQ_DLQ	
Consumer Count		0
Processed Messages		0
Remaining Messages		0
Pending Messages		0
Dispatched Messages		0
Delivered Messages		0
Expired Messages		0
Moved Messages		0
Memory Usage (current)	0kb	
Memory Usage (high mark)	0kb	
Produce Suspended	false	
Consume Suspended	false	

+-----+-----+

=====

4.2.10.18. list-jms-durable-subscriptions

Displays a list of all durable subscriptions registered with the JMS engine.

- Alias

durable, dur

- Usage

```
list-jms-durable-subscriptions -cluster <cluster-name> | -server <server-name>
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Server or cluster whose list of durable subscribers is displayed.

- Example

```
[MASTER]domain1.adminServer>list-jms-durable-subscriptions -server adminServer
Durable Subscription Information
=====
+-----+-----+-----+-----+-----+
| Durable Name | Client ID | Shared | Message Selector | Remaining Messages |
+-----+-----+-----+-----+-----+
| testDurable | testClient| false  |                  | 5                  |
+-----+-----+-----+-----+-----+
=====
```

4.2.10.19. list-jms-message-sorts

Displays a list of all message sorts registered with the JMS engine or information of a specified message sort.

- Alias

list-message-sorts, msgsort

- Usage

```
list-jms-destinations -server <server-name>
                        [-name <message-sort-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the message sort belongs.
[-name <message-sort-name>]	Name of the message sort to display its information. If not specified, brief descriptions of all message sorts is displayed.

- Example

```
[[MASTER]domain1.adminServer>list-jms-message-sorts -server adminServer
Message Sort Information
=====
+-----+-----+-----+
| Message Sort Name | Key | Type |
+-----+-----+-----+
| testSort          | JMSPriority | INTEGER |
+-----+-----+-----+
=====

[[MASTER]domain1.adminServer>list-jms-message-sorts -server adminServer -name testSort
Detailed Message Sort Information
=====
testSort

+-----+-----+
| Message Sort Name | testSort |
| Key               | JMSPriority |
| Type              | INTEGER   |
| Direction         | DESCENDING |
+-----+-----+
=====
```

4.2.10.20. list-jms-messages

Displays destination message information.

- Alias

message, msg

- Usage

```
list-jms-messages -cluster <cluster-name> | -server <server-name>
                  -dest <destination-name> | -durable <client-id>_<durable-name>
                  [-s,--selector <message-selector>]
                  [-offset <offset>]
                  [-size <size>]
                  [-id <message-id-pattern>]
                  [-type <message-type>]
                  [-from <YYYY:MM:DD:HH:MM:SS>]
                  [-to <YYYY:MM:DD:HH:MM:SS>]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server name to which the destination or the durable subscriber belongs.
-dest <destination-name> -durable <client-id>_<durable-name>	Destination name or durable subscriber name of the message to be displayed.
[-s, --selector <message-selector>]	Only messages with the specified message selector can be displayed.
[-offset <offset>]	Offset from which messages are displayed when messages are divided before displayed.
[-size <size>]	Number of messages to be displayed when messages are divided before displayed.
[-id <message-id-pattern>]	Only messages with the specified message ID pattern can be displayed.
[-type <message-type>]	Only messages with the specified message type can be displayed.
[-from <YYYY:MM:DD:HH:MM:SS>]	Only messages received after the specified time can be displayed.
[-to <YYYY:MM:DD:HH:MM:SS>]	Only messages received before the specified time can be displayed.

- Example

```
[MASTER]domain1.adminServer>list-jms-messages -server adminServer -dest ExamplesQueue
Messages in Destination ExamplesQueue.
```



```
=====
+-----+-----+-----+
| Message ID | Message Type | Created Time |
+-----+-----+-----+
| ID:7968865177000001:1:1 | Text | Mon Nov 07 20:10:01 KST 2016 |
| ID:7968865177000001:1:2 | Text | Mon Nov 07 20:10:03 KST 2016 |
| ID:7968865177000001:1:3 | Text | Mon Nov 07 20:10:04 KST 2016 |
| ID:7968865177000001:1:4 | Text | Mon Nov 07 20:10:06 KST 2016 |
+-----+-----+-----+
=====
```

4.2.10.21. list-jms-pending-transactions

Displays a list of transactions in the indoubt state.

- Alias

jmspt, pt

- Usage

```
list-jms-pending-transactions -server <server-name>
```

- Parameters

Parameter	Description
-server <server-name>	Name of the server whose transactions are in the indoubt state are displayed.

4.2.10.22. list-jms-quotas

Displays a list of all quotas registered with the JMS engine or information of a specified quota.

- Alias

list-quotas, jmsquota

- Usage

```
list-jms-quotas -server <server-name>
                 [-name <quota-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the quota belongs.

Parameter	Description
<code>[-name <quota-name>]</code>	Name of the quota to display its information. If not specified, brief descriptions of all quotas are displayed.

- Example

```
[[MASTER]domain1.adminServer>list-jms-quotas -server adminServer
Quota Information
=====
+-----+-----+-----+
|      Quota Name      | Max Bytes | Shared |
+-----+-----+-----+
| testQuota            | 128M      | false  |
+-----+-----+-----+
=====

[[MASTER]domain1.adminServer>list-jms-quotas -server adminServer -name testQuota
Detailed Quota Information
=====
testQuota

+-----+-----+-----+
| Quota Name            | testQuota |
| Max Bytes             | 128M      |
| Max Messages          | 1M        |
| Shared                | false     |
+-----+-----+-----+
=====
```

4.2.10.23. list-jms-service-configs

Displays a list of service registered with the JMS engine or information of a specified service.

- Alias

list-service-config, jmsservice

- Usage

```
list-jms-service-configs -server <server-name>
                        [-name <service-name>]
```

- Parameters

Parameter	Description
<code>-server <server-name></code>	Server to which the service belongs.
<code>[-name <service-name>]</code>	Name of the service to display its information. If not specified, brief descriptions of all services are displayed.

- Example

```

[[MASTER]domain1.adminServer>list-jms-service-configs -server adminServer
Service Config Information
=====
+-----+-----+-----+
| Service Config Name | Listener Name | Virtual Listener |
+-----+-----+-----+
| default             | jms           |                  |
| testService         | base          |                  |
+-----+-----+-----+
=====

[[MASTER]domain1.adminServer>list-jms-service-configs -server adminServer -name testService
Detailed Service Config Information
=====
testService

+-----+-----+
| Service Config Name | testService |
| Client Limit       | 1000        |
| Client Keepalive Timeout | 30         |
| Listener Name      | base        |
+-----+-----+
=====

```

4.2.10.24. modify-jms-connection-factory

Modifies the information of a specified connection factory

- Alias

modify-connection-factory, modifyconf

- Usage

```

modify-jms-connection-factory -server <server-name>
                               -name <factory-name>
                               [-type <factory-type>]
                               [-service <service-name>]
                               [-export <export-name>]
                               [-clientid <client-id>]
                               [-policy <server-selection-policy>]
                               [-time <request-blocking-time>]
                               [-re <reconnect-enabled>]
                               [-period <reconnect-period>]
                               [-interval <reconnect-interval>]

```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-name <factory-name>	Name of the connection factory to modify.
[-type <factory-type>]	Connection factory type Input options: <ul style="list-style-type: none"> • nonxa • xa • queue • topic • xaqueue • xatopic
[-service <service-name>]	Service of the connection factory.
[-export <export-name>]	JNDI name of the new connection factory. The name must be unique within the JEUS JNDI server.
[-clientid <client-id>]	Client ID given to a connection created by the connection factory.
[-policy <server-selection-policy>]	Policy of selecting a channel when creating a connection. Input options: <ul style="list-style-type: none"> • Round-robin • Random
[-time <request-blocking-time>]	Time for the client to wait for a response.
[-re <reconnect-enabled>]	Determines whether to reconnect when the connection is lost.
[-period <reconnect-period>]	Maximum time to attempt reconnection.
[-interval <reconnect-interval>]	Interval of attempting reconnection.

- Example

```
[MASTER]domain1.adminServer>modify-jms-connection-factory -server adminServer -name
MyConnectionFactory -type xa -service testService -export MyCF -clientid MyId -policy Random
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-connection-factories -server adminServer -name
MyConnectionFactory'.
[MASTER]domain1.adminServer>list-jms-connection-factories -server adminServer -name
MyConnectionFactory
Detailed Connection Factory Information
=====
MyConnectionFactory
```

```

+-----+-----+
| Factory Name           | MyConnectionFactory |
| Export Name            | MyCF                |
| Type                   | xa                  |
| Client ID              | MyId                |
| Max Client Session Threads |                    100 |
| Clustered              | false               |
| Server Selection Policy | Random              |
+-----+-----+
=====

=====
+-----+
|                               |
|                               | Addresses                |
|                               |                               |
+-----+
| 192.168.13.13:9736(JMSServiceChannel-testService) |
|                               |                               |
+-----+
=====

```

4.2.10.25. modify-jms-destination

Modifies the information of a specified destination.

- Alias

modify-destination, modifydest

- Usage

```

modify-jms-destination -cluster <cluster-name> | -server <server-name>
                        -name <destination-name>
                        [-type <destination-type>]
                        [-export <export-name>]
                        [-subLimit <subscription-limit>]
                        [-quota <quota>]
                        [-pendLimit <max-pending-limit>]
                        [-dispatch <resume-dispatch-factor>]
                        [-sort <message-sort>]
                        [-deadLetter <dead-letter-destination>]
                        [-policy <expiration-policy>]
                        [-delay <redelivery-delay>]

```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the destination to be modified belongs.
-name <destination-name>	Name of the destination to modify.
[-type <destination-type>]	Destination type. (queue or topic)

Parameter	Description
[-export <export-name>]	JNDI name of the destination. The name must be unique within the JEUS JNDI server.
[-subLimit <subscription-limit>]	Maximum consumers that can access the destination.
[-quota <quota>]	Quota to limit message data of the destination.
[-pendLimit <max-pending-limit>]	Maximum allowable messages that did not receive an acknowledgement.
[-disptach <resume-dispatch-factor>]	Factor to dispatch the pending messages.
[-sort <message-sort>]	Message sort to be applied to the destination.
[-deadLetter <dead-letter-destination>]	Name of the destination to store unprocessed messages.
[-policy <expiration-policy>]	Option of handling the expired messages: Input options: <ul style="list-style-type: none"> • Delete • Redirect
[-delay <redelivery-delay>]	Delay time until a message is resent.

- Example

```
[MASTER]domain1.adminServer>modify-jms-destination -server adminServer
-name MyQueue -type topic -export MyTopic -deadLetter ExamplesTopic
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-destinations -server adminServer -name MyQueue'.
[MASTER]domain1.adminServer>list-jms-destinations -server adminServer -name MyQueue
Detailed destination information in Server adminServer
=====
MyQueue

+-----+-----+
| Export Name           | MyTopic |
| Type                  | Topic   |
| Dead Letter Destination | ExamplesTopic |
| Consumer Count        | 0       |
| Processed Messages    | 0       |
| Remaining Messages (current) | 0       |
| Remaining Messages (high mark) | 0       |
| Pending Messages      | -       |
| Dispatched Messages   | -       |
| Delivered Messages     | 0       |
| Expired Messages      | 0       |
| Moved Messages       | -       |
| Removed Messages      | -       |
| Poisoned Messages     | 0       |
| Memory Usage (current) | 0kb     |
+-----+-----+
```

Memory Usage (high mark)	0kb	
Production Suspended	false	
Consumption Suspended	false	
+-----+-----+	+-----+	+
=====	=====	=====

4.2.10.26. modify-jms-durable-subscription

Modifies the information of a specified durable subscription

- Alias

modify-durable-subscription, modify-durable, modifydur

- Usage

```
modify-jms-durable-subscription -cluster <cluster-name> | -server <server-name>
                                -name <durable-subscription-name>
                                [-clientid <client-id>]
                                [-topic <topic-name>]
                                [-shared <shared>]
                                [-selector <message-selector>]
                                [-sort <message-sort>]
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which a durable subscription to be modified belongs.
-name <durable-subscription-name>	Name of the durable subscription to modify.
[-clientid <client-id>]	ID of the client to subscribe.
[-topic <topic-name>]	Topic name of the durable subscription.
[-shared <shared>]	Determines whether the durable subscription is shared.
[-selector <message-selector>]	Message selector name of the durable subscription.
[-sort <message-sort>]	Message sort name of the durable subscription.

- Example

```
[MASTER]domain1.adminServer>modify-jms-durable-subscription -server adminServer
-name testDS -clientid testClientID -shared false -selector TESTNO>=1
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-durable-subscriptions -server adminServer'.
[MASTER]domain1.adminServer>list-jms-durable-subscriptions -server adminServer
```

Durable Subscription Information

Durable Name	Client ID	Shared	Message Selector	Remaining Messages (current)	Suspended (current)
testDS	testClientID	false	TESTNO>=1	0	false

4.2.10.27. modify-jms-message-sort

Modifies the information of a specified message sort.

- Alias

modify-message-sort, modmsgsort

- Usage

```
modify-jms-message-sort -server <server-name>
                        -name <message-sort-name>
                        [-key <key>]
                        [-type <type>]
                        [-direction <direction>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the message sort to be modified belongs.
-name <message-sort-name>	Name of the message sort to modify.
[-key <key>]	Key as a criterion for sorting messages.
[-type <type>]	Key type.
[-direction <direction>]	Sorting order of messages.

- Example

```
[MASTER]domain1.adminServer>modify-jms-message-sort -server adminServer
-name testSort -key JMSMessageID -type String -direction Descending
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-message-sorts -server adminServer -name testSort'.
[MASTER]domain1.adminServer>list-jms-message-sorts -server adminServer -name testSort
Detailed Message Sort Information
=====
testSort
```


Message Sort Name	testSort
Key	JMSMessageID
Type	STRING
Direction	DESCENDING

4.2.10.28. modify-jms-quota

Modifies the information of a specified quota

- Alias

modify-quota, modquota

- Usage

```
modify-jms-quota -server <server-name>
                  -name <quota-name>
                  [-byte <max-bytes>]
                  [-msg <max-messages>]
                  [-shared <shared>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the quota to be modified belongs.
-name <quota-name>	Name of the quota to modify.
[-byte <max-bytes>]	Maximum bytes.
[-msg <max-messages>]	Maximum number of messages.
[-shared <shared>]	Determines whether to share the quota with multiple destinations.

- Example

```
[MASTER]domain1.adminServer>modify-jms-quota -server adminServer
-name testQuota -byte 256M -msg 2M -shared true
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-quotas -server adminServer -name testQuota'.
[MASTER]domain1.adminServer>list-jms-quotas -server adminServer -name testQuota
Detailed Quota Information
=====
testQuota
```

Quota Name	testQuota
Max Bytes	256M
Max Messages	2M
Shared	true

4.2.10.29. modify-jms-service-config

Modifies the information of a specified service.

- Alias

modify-service-config, modifyjmsservice

- Usage

```
modify-jms-service-config -server <server-name>
                        -name <service-name>
                        [-limit <client-limit>]
                        [-timeout <client-keepalive-timeout>]
                        [-listener <listener>]
                        [-virtual]
                        [-address <address>]
                        [-port <port>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the service to be modified belongs.
-name <service-name>	Name of the service to modify.
[-limit <client-limit>]	Maximum allowed clients.
[-timeout <client-keepalive-timeout>]	Time to wait for reconnection in the event of abnormal termination.
[-listener <listener>]	Listener of the service.
[-virtual]	Option to use a virtual listener.
[-address <address>]	Address of the virtual listener.
[-port <port>]	Port of the virtual listener.

- Example

```
[MASTER]domain1.adminServer>modify-jms-service-config -server adminServer
-name testService -limit 2000 -timeout 100
```

```

Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-service-configs -server adminServer -name testService'.
[MASTER]domain1.adminServer>list-jms-service-configs -server adminServer -name testService
Detailed Service Config Information
=====
testService

+-----+-----+
| Service Config Name | testService |
| Client Limit        |      2000  |
| Client Keepalive Timeout |      100  |
| Listener Name       | base      |
+-----+-----+
=====

```

4.2.10.30. move-jms-messages

Moves messages to a different destination.

- Alias

mvmsg

- Usage

```

move-jms-message -cluster <cluster-name> | -server <server-name>
                  -dest <destination-name> | -durable <client-id>_<durable-name>
                  -id <message-id> | -all
                  -target <destination-name>

```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server name to which the destination or the durable subscriber belongs.
-dest <destination-name> -durable <client-id>_<durable-name>	Destination name or durable subscriber name of the message to be displayed.
-id <message-id> -all	ID of the message to be moved. Individual message IDs or all messages can be selected.
-target <destination-name>	Target destination of the message.

- Example

```

[MASTER]domain1.adminServer>list-jms-destinations -server adminServer
Destination information in Server adminServer

```

```
=====
```

Name	Export Name	Type	Remaining Messages	Dead Letter Destination	Produce Suspended	Consume Suspended
MyQueue	MyQueue	Queue	0	JEUSMQ_DLQ	false	false
ExamplesTopic	ExamplesTopic	Topic	0	JEUSMQ_DLQ	false	false
ExamplesQueue	ExamplesQueue	Queue	5	JEUSMQ_DLQ	false	false
JEUSMQ_DLQ	JEUSMQ_DLQ	Queue	0	JEUSMQ_DLQ	false	false

```
=====
```

For detailed information, use the -name option

```
=====
```

```
[MASTER]domain1.adminServer>move-jms-messages -server adminServer -dest ExamplesQueue -all
-target MyQueue
```

Successfully moved all messages from ExamplesQueue to MyQueue is successful

```
[MASTER]domain1.adminServer>list-jms-destinations -server adminServer
```

Destination information in Server adminServer

```
=====
```

Name	Export Name	Type	Remaining Messages	Dead Letter Destination	Produce Suspended	Consume Suspended
MyQueue	MyQueue	Queue	5	JEUSMQ_DLQ	false	false
ExamplesTopic	ExamplesTopic	Topic	0	JEUSMQ_DLQ	false	false
ExamplesQueue	ExamplesQueue	Queue	0	JEUSMQ_DLQ	false	false
JEUSMQ_DLQ	JEUSMQ_DLQ	Queue	0	JEUSMQ_DLQ	false	false

```
=====
```

For detailed information, use the -name option

```
=====
```

4.2.10.31. remove-jms-connection-factory

Dynamically deletes a specified connection factory from the JMS engine.

- Alias

remove-connection-factory, deleteconf, removeconf

- Usage

```
remove-jms-connection-factory -server <server-name>
                             -name <factory-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server name to which the connection factory belongs.
-name <factory-name>	Connection factory to be deleted.

- Example

```
[MASTER]domain1.adminServer>list-jms-connection-factories -server adminServer
Connection Factory information
=====
+-----+-----+-----+
|          Factory Name          |          Export Name          |   Type   |
+-----+-----+-----+
| ConnectionFactory              | ConnectionFactory              | nonxa    |
| MyConnectionFactory           | MyConnectionFactory           | nonxa    |
| XAConnectionFactory           | XAConnectionFactory           | xa       |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>remove-jms-connection-factory -server adminServer -name
MyConnectionFactory
Executed Successfully.
View the results using 'list-jms-connection-factories -server adminServer'.
[MASTER]domain1.adminServer>list-jms-connection-factories -server adminServer
Connection Factory information
=====
+-----+-----+-----+
|          Factory Name          |          Export Name          |   Type   |
+-----+-----+-----+
| ConnectionFactory              | ConnectionFactory              | nonxa    |
| XAConnectionFactory           | XAConnectionFactory           | xa       |
+-----+-----+-----+
=====
```

4.2.10.32. remove-jms-destination

Dynamically deletes a destination from the JMS engine.

- Alias

remove-destination, deletedest, removedest

- Usage

```
remove-jms-destination -cluster <cluster-name> | -server <server-name>
```

-name <destination-name>

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the destination belongs.
-name <destination-name>	Destination name to be deleted.

- Example

```
[MASTER]domain1.adminServer>list-jms-destinations -server adminServer
Destination information in Server adminServer
```

```
=====
```

Name	Export Name	Type	Remaining Messages	Dead Letter Destination	Produce Suspended	Consume Suspended
MyQueue	MyQueue	Queue	0	JEUSMQ_DLQ	false	false
Examples Topic	Examples Topic	Topic	0	JEUSMQ_DLQ	false	false
Examples Queue	Examples Queue	Queue	0	JEUSMQ_DLQ	false	false
JEUSMQ_DLQ	JEUSMQ_DLQ	Queue	0	JEUSMQ_DLQ	false	false

```
=====
```

For detailed information, use the -name option

```
=====
```

```
[MASTER]domain1.adminServer>remove-jms-destination -server adminServer -name MyQueue
Executed Successfully.
View the results using 'list-jms-destinations -server adminServer'.
[MASTER]domain1.adminServer>list-jms-destinations -server adminServer
Destination information in Server adminServer
```

```
=====
```

Name	Export Name	Type	Remaining Messages	Dead Letter Destination	Produce Suspended	Consume Suspended
Examples Topic	Examples Topic	Topic	0	JEUSMQ_DLQ	false	false
Examples Queue	Examples Queue	Queue	0	JEUSMQ_DLQ	false	false
JEUSMQ_DLQ	JEUSMQ_DLQ	Queue	0	JEUSMQ_DLQ	false	false

```
=====
```

For detailed information, use the -name option

=====

4.2.10.33. remove-jms-durable-subscription

Dynamically deletes a specified durable subscription from the JMS engine.

- Alias

remove-durable, deletedur, removedur

- Usage

```
remove-jms-durable-subscription -cluster <cluster-name> | -server <server-name>
                                -name <durable-subscription-name>
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server to which the durable subscription belongs.
-name <durable-subscription-name>	Name of the durable subscription to delete.

- Example

```
[MASTER]domain1.adminServer>list-jms-durable-subscriptions -server adminServer
Durable Subscription Information
=====
+-----+-----+-----+-----+-----+
| Durable Name | Client ID | Shared | Message Selector | Remaining Messages |
+-----+-----+-----+-----+-----+
| testDurable1 | client1   | false  |                  | 5                  |
| testDurable2 | client2   | false  |                  | 0                  |
+-----+-----+-----+-----+-----+
=====

[MASTER]domain1.adminServer>remove-jms-durable-subscription -server adminServer -name
testDurable2
Executed Successfully.
View the results using 'list-jms-durable-subscriptions -server adminServer'.
[MASTER]domain1.adminServer>list-jms-durable-subscriptions -server adminServer
Durable Subscription Information
=====
+-----+-----+-----+-----+-----+
| Durable Name | Client ID | Shared | Message Selector | Remaining Messages |
+-----+-----+-----+-----+-----+
| testDurable1 | client1   | false  |                  | 5                  |
+-----+-----+-----+-----+-----+
=====
```

4.2.10.34. remove-jms-message-sort

Deletes a specified message sort from the JMS engine.

- Alias

remove-message-sort, removemsgsort

- Usage

```
remove-jms-message-sort -server <server-name>
                        -name <message-sort-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the message sort belongs.
-name <message-sort-name>	Name of the message sort to delete.

- Example

```
[MASTER]domain1.adminServer>list-jms-message-sorts -server adminServer
Message Sort Information
=====
+-----+-----+-----+
|      Message Sort Name      |      Key      |      Type      |
+-----+-----+-----+
| testSort                    | JMSMessageID  | STRING         |
| testSort2                   | JMSPriority    | INTEGER        |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>remove-jms-message-sort -server adminServer -name testSort2
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-message-sorts -server adminServer'.
[MASTER]domain1.adminServer>list-jms-message-sorts -server adminServer
Message Sort Information
=====
+-----+-----+-----+
|      Message Sort Name      |      Key      |      Type      |
+-----+-----+-----+
| testSort                    | JMSMessageID  | STRING         |
+-----+-----+-----+
=====
```

4.2.10.35. remove-jms-quota

Deletes a specified quota from the JMS engine.

- Alias

remove-quota, removequota

- Usage

```
remove-jms-quota -server <server-name>
                  -name <quota-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the quota belongs.
-name <quota-name>	Name of the quota to delete.

- Example

```
[MASTER]domain1.adminServer>list-jms-quotas -server adminServer
Quota Information
=====
+-----+-----+-----+
|      Quota Name      | Max Bytes | Shared |
+-----+-----+-----+
| testQuota            | 256M      | true   |
| testQuota2           | 128M      | false  |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>remove-jms-quota -server adminServer -name testQuota2
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-quotas -server adminServer'.
[MASTER]domain1.adminServer>list-jms-quotas -server adminServer
Quota Information
=====
+-----+-----+-----+
|      Quota Name      | Max Bytes | Shared |
+-----+-----+-----+
| testQuota            | 256M      | true   |
+-----+-----+-----+
=====
```

4.2.10.36. remove-jms-service-config

Deletes a specified service config from the JMS engine.

- Alias

remove-service-config, deletejmsservice, removejmsservice

- Usage

```
remove-jms-service-config -server <server-name>
                        -name <service-name>
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the service belongs.
-name <service-name>	Name of the service to delete.

- Example

```
[MASTER]domain1.adminServer>list-jms-service-configs -server adminServer
Service Config Information
=====
+-----+-----+-----+
| Service Config Name | Listener Name | Virtual Listener |
+-----+-----+-----+
| default             | jms           |                  |
| testService         | base          |                  |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>remove-jms-service-config -server adminServer -name testService
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'list-jms-service-configs -server adminServer'.
[MASTER]domain1.adminServer>list-jms-service-configs -server adminServer
Service Config Information
=====
+-----+-----+-----+
| Service Config Name | Listener Name | Virtual Listener |
+-----+-----+-----+
| default             | jms           |                  |
+-----+-----+-----+
=====
```

4.2.10.37. set-jms-engine-quota

Sets a quota of the JMS engine.

- Alias

set-engine-quota

- Usage

```
set-jms-engine-quota -server <server-name>
```

```
[-byte <max-bytes>]
[-msg <max-messages>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the JMS engine to configure belongs.
[-byte <max-bytes>]	Maximum bytes allowed in the JMS engine.
[-msg <max-messages>]	Maximum number of messages allowed in the JMS engine.

- Example

```
[MASTER]domain1.adminServer>set-jms-engine-quota -server adminServer -byte 256M -msg 1M
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'set-jms-engine-quota -server adminServer'.
[MASTER]domain1.adminServer>set-jms-engine-quota -server adminServer
Engine Quota Information
=====
JMS Engine

+-----+-----+
| Max Bytes           | 256M |
| Max Messages        | 1M   |
+-----+-----+
=====
```

4.2.10.38. set-jms-failover-check

Sets an option to check whether the JMS engine is alive before failover

- Alias

set-jms-failover, set-failover

- Usage

```
set-jms-failover-check -server <server-name>
                        [-timeout <timeout>]
                        [-count <count>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the JMS engine to configure belongs.

Parameter	Description
[-timeout <timeout>]	Time to check whether the JMS engine is alive before failover.
[-count <count>]	Maximum number of checks to determine whether the JMS engine is alive before failover.

- Example

```
[MASTER]domain1.adminServer>set-jms-failover-check -server adminServer -timeout 10 -count 5
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
View the results using 'set-jms-failover-check -server adminServer'.
[MASTER]domain1.adminServer>set-jms-failover-check -server adminServer
Failover check Information
=====
JMS Engine

+-----+-----+
| Failover Check Timeout |      10 |
| Failover Check Count  |      5 |
+-----+-----+
=====
```

4.2.10.39. set-jms-persistence-store

Sets a persistence store of the JMS engine.

- Alias

set-jms-store, set-persistence-store, setjmsstore

- Usage

```
set-jms-persistence-store -server <server-name>
                          -none | -journal | -jdbc
                          [-dir <base-dir>]
                          [-init <initial-log-file-count>]
                          [-max <max-log-file-count>]
                          [-size <log-file-size>]
                          [-dest <destination-table>]
                          [-durSub <durable-subscription-table>]
                          [-property <property>]
                          [-source <data-source>]
                          [-msg <message-table>]
                          [-subMsg <subscription-message-table>]
                          [-tx <transaction-table>]
```

- Parameters

Parameter	Description
-server <server-name>	Server to which the JMS engine to configure belongs.
-none -journal -jdbc	Option to select the store type.
[-dir <base-dir>]	Directory where the journal store is configured.
[-init <initial-log-file-count>]	Number of log files to initially create when creating a journal store.
[-max <max-log-file-count>]	Maximum number of log files of the journal store.
[-size <log-file-size>]	Log file size of the journal store.
[-dest <destination-table>]	Destination table name of the journal and JDBC store.
[-durSub <durable-subscription-table>]	Durable subscription table name of the journal and JDBC store.
[-property <property>]	Additional setting of the journal store.
[-source <data-source>]	Data Source of the JDBC store.
[-msg <message-table>]	Message table name of the JDBC store.
[-subMsb <subscription-message-table>]	Subscription table name of the JDBC store.
[-tx <transaction-table>]	Transaction table name of the JDBC store.

- Example

```
[MASTER]domain1.adminServer>set-jms-persistence-store -server adminServer
-journal -dir store -init 5 -max 50 -size 256M -dest ADMIN_DEST -durSub ADMIN_DS
Executed successfully, but some configurations were not applied dynamically. It might be
necessary to restart the server.
```

4.2.10.40. view-jms-message

Displays detailed information of a specified message.

- Alias

viewmsg

- Usage

```
view-jms-messages -cluster <cluster-name> | -server <server-name>
                  -dest <destination-name> | -durable <client-id>_<durable-name>
                  -id <message-id>
```

- Parameters

Parameter	Description
-cluster <cluster-name> -server <server-name>	Cluster or server name to which the destination or the durable subscriber belongs.
-dest <destination-name> -durable <client-id>_<durable-name>	Destination name or durable subscriber name of the message to be displayed.
-id <message-id>	Message ID of the message to be displayed.

- Example

```
[MASTER]domain1.adminServer>list-jms-messages -server adminServer -dest ExamplesQueue
Messages in Destination ExamplesQueue
```

```
=====
```

Message ID	Message Type	Created Time
ID:1242976880:1:0	Text	Tue Nov 19 15:53:17 KST 2016
ID:1242976880:1:1	Text	Tue Nov 19 15:53:17 KST 2016
ID:1242976880:1:2	Text	Tue Nov 19 15:53:17 KST 2016
ID:1242976880:1:3	Text	Tue Nov 19 15:53:17 KST 2016
ID:1242976880:1:4	Text	Tue Nov 19 15:53:17 KST 2016

```
=====
```

```
[MASTER]domain1.adminServer>view-jms-message -server adminServer
-dest ExamplesQueue -id ID:1242976880:1:0 Message ID:1242976880:1:0
```

```
=====
```

Attribute name	Value
Message ID	ID:1242976880:1:0
Destination Name	ExamplesQueue
Delivery Mode	2
Message Type	Text
Correlation ID	
Created Time	Tue Nov 19 15:53:17 KST 2016
Expiration Time	-
Time-to-live	0
Priority	4
Redelivered	false
Delivery Time	Tue Nov 19 15:53:17 KST 2016
Redelivery Limit	4
Reply To	
Message Body	Test Message

```
=====
```

4.2.11. Data Source Commands

The following is a list of data source commands that manage data sources and change data source configurations.

Command	Description
add-cluster-data-source	Dynamically adds a cluster data source to the domain.
add-data-source	Dynamically adds a data source to the domain.
list-cluster-data-sources	Displays a list of all cluster data sources in the domain. If a data source ID is specified, its configuration is displayed in detail.
list-data-sources	Displays a list of all data sources in the domain. If a data source ID is specified, its configuration is displayed in detail.
modify-cluster-data-source	Changes the configuration of a cluster data source. Most configurations can be changed dynamically.
modify-data-source	Changes the configuration of a data source. Some configurations can be changed dynamically.
remove-cluster-data-source	Deletes a cluster data source from the domain.
remove-data-source	Deletes a data source from the domain.
test-data-source-config	Checks if a data source configuration is correct.

4.2.11.1. add-cluster-data-source

Dynamically adds a cluster data source to the domain.

- Alias

addcds

- Usage

```
add-cluster-data-source [-id,--dataSourceID <data-source-id>]
                        [-en,--exportName <export-name>]
                        [-dss,--dataSourceSelector <data-source-selector>]
                        [-lb,--loadBalance <true | false>]
                        [-ipc,--isPreConn <is-pre-conn>]
                        [-ufb,--useFailback <use-failback>]
                        [-cds,--componentDataSources <component-data-sources>]
                        [-oc,--onsConfig <ons-config>]
                        [-dsa,--dataSourceAffinity <data-source-affinity>]
                        [-f,--forceLock]
                        [-detail]
```

- Parameters

Parameter	Description
<code>[-id,--dataSourceID <data-source-id>]</code>	Cluster data source ID. The cluster data source ID must be unique within a domain.

Parameter	Description
<code>[-en,--exportName <export-name>]</code>	<p>JNDI name of the cluster data source. If two data sources are guaranteed to be bound to different JNDIs on different servers, they can have the same JNDI name. Different data sources with the same JNDI names are not allowed on the same server.</p> <p>If not specified, the cluster data source ID is used as the JNDI name.</p> <p>Multiple JNDI names can be specified by using comma (,) delimiter, and JNDI lookup can be used for any of these specified JNDI names.</p>
<code>[-dss,--dataSourceSelector <data-source-selector>]</code>	<p>When obtaining connections from cluster data sources, users or developers can customize policies for a specific component data source selection by inheriting and implementing the <code>jeus.jdbc.helper.DataSourceSelector</code> abstract class. Next, the class name to include the implementation class package name must be set. After it is set, the Load Balance configuration is ignored, and failover and failback are performed unconditionally.</p> <ul style="list-style-type: none"> • Failover is performed for one round, starting from the next index of the component data source that was initially selected. • Failback is performed in the same fashion as when Use Failback is set. The implementor must consider synchronization when defining the policy.
<code>[-lb,--loadBalance <true false>]</code>	<p>Option to use load balancing.</p> <ul style="list-style-type: none"> • true : the configuration <code>--useFailback</code> is ignored.
<code>[-ipc,--isPreConn <is-pre-conn>]</code>	<p>Option to create connection pools of component data sources that belong to the cluster data source, in advance. Although creating connection pools in advance can improve performance, it is not a good use of resources.</p>
<code>[-ufb,--useFailback <use-failback>]</code>	<p>This option provides compatibility with earlier versions of JEUS that only support failover.</p> <p>Option to perform failback using the main data source after performing failover using the assistant data source. By default, failback is performed.</p> <p>To perform failback, <code>--checkQuery</code> and <code>--checkQueryPeriod</code> must be set for the main data source.</p>
<code>[-cds,--componentDataSources <component-data-sources>]</code>	<p>Data source ID of the component data sources that belong to the cluster data source.</p>

Parameter	Description
<code>[-oc,--onsConfig <ons-config>]</code>	<p>Set to use a cluster data source associated with ONS. Specify an IP address and a port number used for each ONS RAC node to perform ONS communication. The cluster data source uses the information to make a socket connection and operates as an ONS client.</p> <p>Use the following format.</p> <pre>nodes=host1:6200,host2:6200</pre>
<code>[-dsa,--dataSourceAffinity <data-source-affinity>]</code>	Option for data source affinity configuration for transactions. If this option is turned on, a transaction process is executed only for a single member data source instance. Therefore, global transaction performance is improved, and the performance is ensured even for local transactions with XA emulation configuration when using cluster data sources.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays the detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>add-cluster-data-source -id cds1 -cds ds1,ds2
Successfully performed the ADD operation for cluster data source [cds1] to domain.
Check the results using "add-cluster-data-source"
```

4.2.11.2. add-data-source

Dynamically adds a data source to the domain.

- Alias

addds

- Usage

```
add-data-source [-id,--dataSourceID <data-source-id>]
                [-user,--user <user>]
                [-pw,--password <password>]
                [-algorithm,--algorithm <algorithm>]
                [-ac,--autoCommit <auto-commit-value>]
                [-sqt,--stmtQueryTimeout <statement-query-timeout>]
                [-aocl,--actionOnConnectionLeak <action-on-connection-leak>]
                [-min,--min <minimum-size>]
                [-max,--max <maximum-size>]
                [-step,--step <resizing-step>]
```

```

[-period,--period <resizing-period>]
[-ew,--enableWait <true | false>]
[-wt,--waitTime <wait-time>]
[-dds,--delegationDataSource <delegation-data-source>]
[-muc,--maxUseCount <max-use-count>]
[-cq,--checkQuery <check-query>]
[-cqt,--checkQueryTimeout <check-query-timeout>]
[-nvi,--nonValidationInterval <non-validation-interval>]
[-cqp,--checkQueryPeriod <check-query-period>]
[-cqrc,--checkQueryRetrialCount <check-query-retrial-count>]
[-dpocq,--destroyPolicyOnCheckQuery <destroy-policy-on-check-query>]
[-scs,--stmtCachingSize <stmt-caching-size>]
[-sfs,--stmtFetchSize <stmt-fetch-size>]
[-ct,--connectionTrace <true | false>]
[-get,--getConnectionTrace <get-connection-trace>]
[-act,--autoCommitTrace <auto-commit-trace>]
[-ust,--useSqlTrace <use-sql-trace>]
[-kcho,--keepConnectionHandleOpen <keep-connection-handle-open>]
[-en,--exportName <export-name>]
[-dscn,--dataSourceClassName <data-source-class-name>]
[-dst,--dataSourceType <data-source-type>]
[-vendor,--vendor <vendor>]
[-desc,--description <description>]
[-sn,--serverName <server-name>]
[-pn,--portNumber <port-number>]
[-dn,--databaseName <database-name>]
[-lt,--loginTimeout <login-timeout>]
[-il,--isolationLevel <isolation-level>]
[-pdt,--poolDestroyTimeout <pool-destroy-timeout>]
[-prop,--property <property>]
[-sxe,--supportXaEmulation <support-xa-emulation>]
[-ddba,--delegationDbc <delegation-dba>]
[-dbat,--dbaTimeout <dba-timeout>]
[-cqc,--checkQueryClass <check-query-class>]
[-is,--initSql <init-sql>]
[-f,--forceLock]
[-detail]

```

- Parameters

Parameter	Description
[-id,--dataSourceID <data-source-id>]	Data source ID. The data source ID must be unique within the domain.
[-user,--user <user>]	Database user ID. The user must have the proper permissions to handle transactions.
[-pw,--password <password>]	Database user password. To encrypt the password before storing, use the '{algorithm:keysize}ciphertext' format.

Parameter	Description
[-algorithm,--algorithm <algorithm>]	<p>[Dynamic] Encryption algorithm for the database user password. This option must be used with the -password option.</p> <p>The following algorithm can be used:</p> <ul style="list-style-type: none"> • base64 • DES • DESede • AES • SEED • Blowfish
[-ac,--autoCommit <TRUE FALSE DRIVER>]	<p>Option to use the auto-commit configuration of the data source.</p> <ul style="list-style-type: none"> • TRUE • FALSE • DRIVER: If DRIVER is selected, the auto-commit configuration of the JDBC driver is used. The configuration value can only be set when the transaction is not linked to the connection pool data sources that use the XA emulation function or linked to XA data sources.
[-sqt,--stmtQueryTimeout <statement-query-timeout>]	<p>Query timeout used for java.sql.Statement objects created through the data source connection.</p> <p>JEUS calls the query timeout configuration method (java.sql.Statement#setQueryTimeout) defined in the JDBC API and implemented by the JDBC driver vendor. The query timeout differs depending on the JDBC driver vendors. (Unit: ms)</p>
[-aocl,--actionOnConnectionLeak <action-on-connection-leak>]	<p>Determines the action JEUS takes when it detects JDBC connections used by applications (stateless component - servlet/JSP, stateless session bean, MDB), but not yet returned.</p> <p>Input options: (If not specified, the configuration of the server is used.)</p> <ul style="list-style-type: none"> • NO_ACTION: Take no actions. • WARNING: Log the information of the JDBC connections that are not returned. • AUTO_CLOSE: Log the information of the unreturned JDBC connections and collect them.

Parameter	Description
<code>[-min,--min <minimum-size>]</code>	Minimum number of connections in the connection pool.
<code>[-max,--max <maximum-size>]</code>	Maximum number of connections in the connection pool.
<code>[-step,--step <resizing-step>]</code>	Number of DB connections obtained if the number of connections is insufficient and the number of connections in the connection pool is less than the maximum value.
<code>[-period,--period <resizing-period>]</code>	Period in which to adjust the connection pool size based on the minimum value. If the connection pool size is greater than the minimum value, unused connections are closed. If the size is less than the minimum value, new DB connections are obtained. (Unit: ms)
<code>[-ew,--enableWait <true false>]</code>	<p>Determines how to handle connection requests when no connections are available in the pool and additional connections cannot be added.</p> <ul style="list-style-type: none"> • true: Wait until a connection is available. • false: Create a new (disposable) connection that does not enter the pool and is discarded after use.
<code>[-wt,--waitTime <wait-time>]</code>	Period in which to wait for a connection if --enable-wait is true. If a connection cannot be obtained within the period, JEUS generates a timeout exception. (Unit: ms)
<code>[-dds,--delegationDataSource <delegation-data-source>]</code>	<p>If a request does not involve a transaction, it is better to get a connection from the connection pool data source instead of from the XA data source.</p> <p>In this situation, a connection from the connection pool data source provides the same functionality as a connection from the XA data source, but with a smaller impact on system performance. Therefore, when using the XA data source, delegate connection requests unrelated to transactions to the connection pool data source.</p> <p>When Oracle and DB2 use XA connections for both cases, with or without transactions, unexplained errors can occur; using this configuration can help avoid such situation.</p>
<code>[-muc,--maxUseCount <max-use-count>]</code>	<p>Maximum number of times a connection can be used. If the number of times a connection is used exceeds the specified number, the connection is replaced with a new connection.</p> <p>The default value is 0: a connection is not replaced.</p>
<code>[-cq,--checkQuery <check-query>]</code>	<p>Query (query-check) that checks the connection status.</p> <p>Simple selection queries are recommended when validating the connection to the DB.</p>

Parameter	Description
[<code>-cqt,--checkQueryTimeout <check-query-timeout></code>]	<p>When a check-query is executed to check the connection status, a driver can be in the wait state indefinitely if the DB does not respond. Apply a timeout to the check-query to avoid this situation.</p> <p>This can be set by using the <code>java.sql.Statement#setQueryTimeout</code> method defined in the JDBC API.</p> <p>If the value is less than 1000ms, the value is set to 0. (Unit: ms)</p>
[<code>-nvi,--nonValidationInterval <non-validation-interval></code>]	<p>Option to skip connection checks if the interval between the last check and the recent check is within the specified interval.</p> <p>This option is useful for when overhead is created by frequent connection checks. (Unit: ms)</p> <p>For example, if the option is set to 5000 ms, and 5 seconds has not passed since the last connection check, connections are sent to the applications without being checked.</p>
[<code>-cqp,--checkQueryPeriod <check-query-period></code>]	<p>Checks the connections in the connection pool at the specified interval to delete faulty connections. (Unit: ms)</p> <p>For data sources that belong to cluster data sources, this option must be set to be used for checking its own state.</p>
[<code>-cqrc,--checkQueryRetrialCount <check-query-retrial-count></code>]	<p>If <code>--destroyPolicyOnCheckQuery</code> is set to <code>FAILED_CONNECTION_ONLY</code>, a connection check is performed only once.</p> <p>If <code>--destroyPolicyOnCheckQuery</code> is set to <code>ALL_CONNECTIONS</code> and a problem is detected during the first connection check, all other connections are also checked, resulting in the connection check being performed twice.</p> <p>The total connection check count is determined by adding this option value to the default connection check value.</p>
[<code>-dpocq,--destroyPolicyOnCheckQuery <destroy-policy-on-check-query></code>]	<p>Policy for connections in the connection pool when invalid connections are found.</p> <ul style="list-style-type: none"> • <code>FAILED_CONNECTION_ONLY</code>: Delete only invalid connections. • <code>ALL_CONNECTIONS</code>: Delete invalid connections and validate other connections in the connection pool. If another invalid connection is detected in the pool, delete all the connections from the connection pool.

Parameter	Description
<code>[-scs,--stmtCachingSize <stmt-caching-size>]</code>	<p>JDBC driver parses SQL statements sent as parameters whenever applications request prepared statements. Parsing SQL statements can affect system performance, so JEUS offers a function that internally caches the prepared statements. This option sets the number of prepared statements that can be cached. If this option is used, connections are always open, so the clear job performed by the driver is not executed.</p> <p>For example, when the Oracle JDBC driver sets auto-commit to false and closes the connection without executing commit or rollback, commit is executed unconditionally.</p> <p>The use of the statement caching function is recommended if provided by the JDBC driver.</p>
<code>[-sfs,--stmtFetchSize <stmt-fetch-size>]</code>	Fetch size of the JDBC driver statement.
<code>[-ct,--connectionTrace <true false>]</code>	<p>Option to offer additional information for connections.</p> <ul style="list-style-type: none"> • false: <code>--getConnectionTrace</code> and <code>--autoCommitTrace</code> cannot be used.
<code>[-gct,--getConnectionTrace <get-connection-trace>]</code>	Displays the stack trace when the application calls <code>java.sql.DataSource#getConnection</code> .
<code>[-act,--autoCommitTrace <auto-commit-trace>]</code>	Records logs and the stack trace to server logs when <code>java.sql.Connection#setAutoCommit</code> is called. The log level of <code>jeus.jdbc.connection-trace</code> logger must be set to FINE.
<code>[-ust,--useSqlTrace <use-sql-trace>]</code>	<p>Displays SQL queries used by connections.</p> <p>If the <code>jeus.jdbc.sql</code> logger level is set to FINE, the SQL query history can be checked in server logs. If this function is used, the statement implementation class of the JDBC driver is wrapped by a JEUS class. Therefore, applications that cast and use statement objects of the JDBC driver cannot use this function.</p>
<code>[-kcho,--keepConnectionHandleOpen <keep-connection-handle-open>]</code>	<p>If this option is set to true and an XA connection is used and returned to the pool, the handle (or the logical connection) is kept open.</p> <p>This function is required when using DB2 universal drivers. If this option is used, connections are always open, so the clear job performed by the driver is not executed.</p> <p>For example, when the Oracle JDBC driver sets auto-commit to false and closes the connection without executing commit or rollback, commit is executed unconditionally.</p>

Parameter	Description
<code>[-en,--exportName <export-name>]</code>	<p>JNDI name of the data source.</p> <p>If two data sources are guaranteed to be bound to different JNDIs on different servers, they can have the same JNDI name. Different data sources with the same JNDI names are not allowed on the same server.</p> <p>If not specified, the data source ID is used as the JNDI name.</p> <p>Multiple JNDI names can be specified by using comma (,) delimiter, and JNDI lookup can be used for any of these specified JNDI names.</p>
<code>[-dscn,--dataSourceClassName <data-source-class-name>]</code>	JDBC driver data source class name. Enter the full name, including the package name.
<code>[-dst,--dataSourceType <data-source-type>]</code>	<p>Data source type.</p> <ul style="list-style-type: none"> • DATA_SOURCE: Connection pooling service is not provided. • CONNECTION_POOL_DATA_SOURCE: Connection pooling service is provided. • XA_DATA_SOURCE: XA interface and the connection pooling service are provided.
<code>[-vendor,--vendor <vendor>]</code>	JDBC driver vendor name.
<code>[-desc,--description <description>]</code>	Displays data source descriptions.
<code>[-sn,--serverName <server-name>]</code>	Host name or IP at which the database runs.
<code>[-pn,--portNumber <port-number>]</code>	Listener port number of the database.
<code>[-dn,--databaseName <database-name>]</code>	<p>Database name.</p> <p>Sets the database SID (for Oracle).</p>
<code>[-lt,--loginTimeout <login-timeout>]</code>	Maximum time to wait for the login screen to connect to the database. (Unit: seconds)
<code>[-il,--isolationLevel <isolation-level>]</code>	Transaction isolation level defined in java.sql.Connection.

Parameter	Description
<code>[-pdt,--poolDestroyTimeout <pool-destroy-timeout>]</code>	<p>Amount of time in wait for the connection pool destroy command to complete. (Unit: ms)</p> <p>The connection pool is destroyed when applications that defined the data sources are undeployed or when the server goes down. During this process, if the connection is used for network communication with a DB, the destroy process can be blocked and left hanging indefinitely. This option is used to avoid this situation. If this option is set, connection pool destruction waits the specified time period and then performs undeployment or terminates the server.</p>
<code>[-prop,--property <property>]</code>	<p>This option provides a unified configuration method to accommodate all property configurations that can differ by JDBC driver.</p> <p>For a single property, use the 'name:type=value' format.</p> <p>To specify multiple properties, separate each property with a comma (,).</p>
<code>[-sxe,--supportXaEmulation <support-xa-emulation>]</code>	<p>This option only applies to the connection pool data source type. This option emulates the connection pool data source connection to participate in a global transaction (XA).</p> <p>For JEUS 6 and earlier versions, this option is an alternative to LocalXADataSource. It is used in the ConnectionPoolDataSource type connection pools.</p> <p>Note that only one connection pool data source can participate per transaction.</p>

Parameter	Description
<code>[-ddba,--delegationDb <delegation-dba>]</code>	<p>JNDI name of the data source (hereafter DBA delegation data source), which has permission to forcibly terminate database sessions (DBA permission). If there is a delay in handling a query through the connection received from the data source, a query that forcibly terminates the DB session is sent to the DB using the DBA delegation data source. After the application handles exceptions that occurred due to the disabled connection, it closes the connection. JEUS then deletes the connection and gets a new connection from the DB and assigns it to the connection pool.</p> <p>Currently, this function is supported for Tibero, Oracle, and Sybase. It was created to suspend queries that take too long to perform for JDBC driver version 2.0 and earlier. For JDBC driver version 3.0 and later, it is recommended to use <code>java.sql.Statement#setQueryTimeout</code> instead of forcibly terminating DB sessions.</p> <p>Especially for XA data sources, if DB sessions are terminated while XA operates normally, the XA operation can generate an error. Therefore, use the statement query timeout and the transaction timeout properties.</p>
<code>[-dbat,--dbaTimeout <dba-timeout>]</code>	<p>The delegation DBA data source waits the specified time period for queries on a connection to finish. If timeout occurs, a query is sent to the DB that forcibly terminates the DB session.</p> <p>This option only applies when <code>--delegationDb</code> is set. (Unit: ms)</p>
<code>[-cqc,--checkQueryClass <check-query-class>]</code>	<p>Class name, which includes the package name, that implements the function for users or developers who want to customize the connection check function.</p> <p>The class must implement the <code>jeus.jdbc.connectionpool.JEUSConnectionChecker</code> interface.</p>
<code>[-is,--initSql <init-sql>]</code>	SQL query that is initially handled after a connection has been created.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays the detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>add-data-source -id ds1 -dst ConnectionPoolDataSource
-dscn oracle.jdbc.pool.OracleConnectionPoolDataSource -sn 61.77.153.4 -pn 1521
-dn orcl -user scott -password tiger -property driverType;java.lang.String;thin
```

Successfully performed the ADD operation for data source [ds1] to domain.
Check the results using "add-data-source"

4.2.11.3. list-cluster-data-sources

Displays a list of all cluster data sources in the domain. If a data source ID is specified, its configuration is displayed in detail.

- Alias

listcds, lscds

- Usage

```
list-cluster-data-sources [-id,--dataSourceID <data-source-id>]
```

- Parameters

Parameter	Description
[-id,--dataSourceID <data-source-id>]	Cluster data source ID.

- Example

```
[MASTER]domain1.adminServer>list-cluster-data-sources
The list of cluster data sources
=====
+-----+-----+-----+
| Data source ID | JNDI export name | Component data sources |
+-----+-----+-----+
| cds1           | cds1             | [ds1, ds2]             |
| cds2           | cds2             | [ds3, ds4]             |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>list-cluster-data-sources -id cds1
The configuration of cluster data source [cds1]
=====
+-----+-----+
| Configuration name | Configuration value |
+-----+-----+
| id                 | cds1                 |
| export-name        | cds1                 |
| load-balance       | false                |
| is-pre-conn        | false                |
| use-failback       | true                 |
| component-data-sources | [ds1, ds2]          |
+-----+-----+
=====
```

4.2.11.4. list-data-sources

Displays a list of all data sources in the domain. If a data source ID is specified, its configuration is displayed in detail.

- Alias

listds, lsds

- Usage

```
list-data-sources [-id,--dataSourceID <data-source-id>]
```

- Parameters

Parameter	Description
[-id,--dataSourceID <data-source-id>]	Data source ID.

- Example

```
[MASTER]domain1.adminServer>list-data-sources
The list of data sources
=====
+-----+-----+-----+
| Data source ID | JNDI export name | Data source type |
+-----+-----+-----+
| ds1            | ds1              | ConnectionPoolDataSource |
| ds2            | ds2              | ConnectionPoolDataSource |
| ds3            | ds3              | ConnectionPoolDataSource |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>list-data-sources -id ds1
The configuration of the data source [ds1]
=====
+-----+-----+
| Configuration name | Configuration value |
+-----+-----+
| id                 | ds1                  | |
| export-name        | ds1                  |
| data-source-class-name | oracle.jdbc.pool.OracleConnectionPoolDataSource |
| data-source-type    | ConnectionPoolDataSource |
| vendor              | oracle               |
| server-name         | 61.77.153.4          |
| port-number         |                       | 1521 |
| database-name       | orcl                 |
| user                | scott                 |
| password            | tiger                 |
| login-timeout        |                       | 0    |
| auto-commit         | DRIVER               |
| stmt-query-timeout   |                       | 0    |
| pool-destroy-timeout |                       | 10000 |
+-----+-----+
```

property	[driverType;java.lang.String;thin]	
action-on-connection-leak	Warning	
support-xa-emulation	false	
min		10
max		50
step		1
period		3600000
enable-wait	false	
wait-time		10000
max-use-count		0
dbaTimeout		-1
stmt-caching-size		-1
stmt-fetch-size		-1
connection-trace	false	
get-connection-trace	true	
auto-commit-trace	false	
use-sql-trace	false	
keep-connection-handle-open	false	
+-----+		
=====		

4.2.11.5. modify-cluster-data-source

Changes the configuration of a cluster data source. Most configurations can be changed dynamically.

- Alias

modifycnds

- Usage

```

modify-cluster-data-source -id,--dataSourceID <data-source-id>
                        [-en,--exportName <export-name>]
                        [-dss,--dataSourceSelector <data-source-selector>]
                        [-lb,--loadBalance <true | false>]
                        [-ipc,--isPreConn <is-pre-conn>]
                        [-ufb,--useFailback <use-failback>]
                        [-cds,--componentDataSources <component-data-sources>]
                        [-oc,--onsConfig <ons-config>]
                        [-dsa,--dataSourceAffinity <data-source-affinity>]
                        [-f,--forceLock]
                        [-detail]

```

- Parameters

Parameter	Description
-id,--dataSourceID <data-source-id>]	Cluster data source ID. The cluster data source ID must be unique within a domain.

Parameter	Description
<code>[-en,--exportName <export-name>]</code>	<p>JNDI name of the cluster data source. If two data sources are guaranteed to be bound to different JNDIs on different servers, they can have the same JNDI name. Different data sources with the same JNDI names are not allowed on the same server.</p> <p>If not specified, the cluster data source ID is used as the JNDI name. In order to undo this setting, enter "unset" as the option value.</p> <p>Multiple JNDI names can be specified by using comma (,) delimiter, and JNDI lookup can be used for any of these specified JNDI names.</p>
<code>[-dss,--dataSourceSelector <data-source-selector>]</code>	<p>[Dynamic] When obtaining connections from cluster data sources, users or developers can customize policies for a specific component data source selection by inheriting and implementing the <code>jeus.jdbc.helper.DataSourceSelector</code> abstract class.</p> <p>Next, the class name to include the implementation class package name must be set. After it is set, the Load Balance configuration is ignored, and failover and failback are performed unconditionally.</p> <ul style="list-style-type: none"> • Failover is performed for one round, starting from the next index of the component data source that was initially selected. • Failback is performed in the same fashion as when Use Failback is set. The implementor must consider synchronization when defining the policy. To undo this setting, enter 'unset' as the option value.
<code>[-lb,--loadBalance <true false>]</code>	<p>[Dynamic] Option to use load balancing.</p> <ul style="list-style-type: none"> • true : the configuration <code>--useFailback</code> is ignored.
<code>[-ipc,--isPreConn <is-pre-conn>]</code>	<p>[Dynamic] Option to create connection pools of component data sources that belong to the cluster data source, in advance. Although creating connection pools in advance can improve performance, it is not a good use of resources.</p>
<code>[-ufb,--useFailback <use-failback>]</code>	<p>[Dynamic] This option provides compatibility with earlier versions of JEUS that only support failover.</p> <p>Option to perform failback using the main data source after performing failover using the assistant data source. By default, failback is performed. To perform failback, <code>--checkQuery</code> and <code>--checkQueryPeriod</code> must be set for the main data source.</p>

Parameter	Description
<code>[-cds,--componentDataSources <component-data-sources>]</code>	[Dynamic] Data source ID of the component data sources that belong to the cluster data source.
<code>[-oc,--onsConfig <ons-config>]</code>	<p>Set to use a cluster data source associated with ONS. Specify an IP address and a port number used for each ONS RAC node to perform ONS communication. The cluster data source uses the information to make a socket connection and operates as an ONS client.</p> <p>Use the following format.</p> <pre>nodes=host1:6200,host2:6200</pre>
<code>[-dsa,--dataSourceAffinity <data-source-affinity>]</code>	Option for data source affinity configuration for transactions. If this option is turned on, a transaction process is executed only for a single member data source instance. Therefore, global transaction performance is improved, and the performance is ensured even for local transactions with XA emulation configuration when using cluster data sources.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays the detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>modify-cluster-data-source -id cds1 -cds ds1
Successfully performed the MODIFY operation for configuration of the cluster data source [cds1].
Check the results using "modify-cluster-data-source -id cds1"
```

4.2.11.6. modify-data-source

Changes the configuration of a data source. Some configurations can be changed dynamically.

- Alias

modifyds

- Usage

```
modify-data-source -id,--dataSourceID <data-source-id>
    [-user,--user <user>]
    [-pw,--password <password>]
    [-algorithm,--algorithm <algorithm>]
    [-ac,--autoCommit <TRUE | FALSE | DRIVER> ]
    [-sqt,--stmtQueryTimeout <statement-query-timeout>]
    [-aocl,--actionOnConnectionLeak <action-on-connection-leak>]
```

```

[-min,--min <minimum-size>]
[-max,--max <maximum-size>]
[-step,--step <resizing-step>]
[-period,--period <resizing-period>]
[-ew,--enableWait <true | false>]
[-wt,--waitTime <wait-time>]
[-dds,--delegationDataSource <delegation-data-source>]
[-muc,--maxUseCount <max-use-count>]
[-cq,--checkQuery <check-query>]
[-cqt,--checkQueryTimeout <check-query-timeout>]
[-nvi,--nonValidationInterval <non-validation-interval>]
[-cqp,--checkQueryPeriod <check-query-period>]
[-cqrc,--checkQueryRetrialCount <check-query-retrial-count>]
[-dpocq,--destroyPolicyOnCheckQuery <destroy-policy-on-check-query>]
[-scs,--stmtCachingSize <stmt-caching-size>]
[-sfs,--stmtFetchSize <stmt-fetch-size>]
[-ct,--connectionTrace <true | false>]
[-gct,--getConnectionTrace <get-connection-trace>]
[-act,--autoCommitTrace <auto-commit-trace>]
[-ust,--useSqlTrace <use-sql-trace>]
[-kcho,--keepConnectionHandleOpen <keep-connection-handle-open>]
[-en,--exportName <export-name>]
[-dscn,--dataSourceClassName <data-source-class-name>]
[-dst,--dataSourceType <data-source-type>]
[-vendor,--vendor <vendor>]
[-desc,--description <description>]
[-sn,--serverName <server-name>]
[-pn,--portNumber <port-number>]
[-dn,--databaseName <database-name>]
[-lt,--loginTimeout <login-timeout>]
[-il,--isolationLevel <isolation-level>]
[-pdt,--poolDestroyTimeout <pool-destroy-timeout>]
[-prop,--property <property>]
[-sxe,--supportXaEmulation <support-xa-emulation>]
[-ddba,--delegationDbc <delegation-dba>]
[-dbat,--dbaTimeout <dba-timeout>]
[-cqc,--checkQueryClass <check-query-class>]
[-is,--initSql <init-sql>]
[-f,--forceLock]
[-detail]

```

- Parameters

Parameter	Description
[-id,--dataSourceID <data-source-id>]	Data source ID. The data source ID must be unique within the domain.

Parameter	Description
<code>[-user,--user <user>]</code>	<p>[Dynamic] Database user ID. The user must have the proper permissions to handle transactions.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-pw,--password <password>]</code>	<p>[Dynamic] Database user password.</p> <p>To encrypt the password before storing, use the '{algorithm:keysize}ciphertext' format.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-algorithm,--algorithm <algorithm>]</code>	<p>[Dynamic] Encryption algorithm for the database user password. This option must be used with the -password option.</p> <p>The following algorithm can be used:</p> <ul style="list-style-type: none"> • base64 • DES • DESede • AES • SEED • Blowfish
<code>[-ac,--autoCommit <TRUE FALSE DRIVER>]</code>	<p>[Dynamic] Option to use the auto-commit configuration of the data source.</p> <ul style="list-style-type: none"> • TRUE • FALSE • DRIVER: If DRIVER is selected, the auto-commit configuration of the JDBC driver is used. <p>The configuration value can only be set when the transaction is not linked to the connection pool data sources that use the XA emulation function or linked to XA data sources.</p>
<code>[-sqt,--stmtQueryTimeout <statement-query-timeout>]</code>	<p>[Dynamic] Query timeout used for java.sql.Statement objects created through the data source connection.</p> <p>JEUS calls the query timeout configuration method (java.sql.Statement#setQueryTimeout) defined in the JDBC API and implemented by the JDBC driver vendor. The query timeout differs depending on the JDBC driver vendors. (Unit: ms)</p>

Parameter	Description
[-aocl,--actionOnConnectionLeak <action-on-connection-leak>]	<p>[Dynamic] Determines the action JEUS takes when it detects JDBC connections used by applications (stateless component - servlet/JSP, stateless session bean, MDB), but not yet returned.</p> <p>Input options:</p> <ul style="list-style-type: none"> • NO_ACTION: Take no actions. • WARNING: Log the information of the JDBC connections that are not returned. • AUTO_CLOSE: Log the information of the unreturned JDBC connections and collect them. <p>If not specified, the configuration of the server is used. To undo this setting, enter "unset" as the option value.</p>
[-min,--min <minimum-size>]	[Dynamic] Minimum number of connections in the connection pool.
[-max,--max <maximum-size>]	[Dynamic] Maximum number of connections in the connection pool.
[-step,--step <resizing-step>]	[Dynamic] Number of DB connections to be obtained if the number of connections is insufficient and the number of connections in the connection pool is less than the maximum value.
[-period,--period <resizing-period>]	[Dynamic] Period in which to adjust the connection pool size based on the minimum value. If the connection pool size is greater than the minimum value, unused connections are closed. If the size is less than the minimum value, new DB connections are obtained. (Unit: ms)
[-ew,--enableWait <true false>]	<p>[Dynamic] Determines how to handle connection requests when no connections are available in the pool and additional connections cannot be added.</p> <ul style="list-style-type: none"> • true: Wait until a connection is available. • false: Create a new (disposable) connection that does not enter the pool and is discarded after use.
[-wt,--waitTime <wait-time>]	[Dynamic] Period in which to wait for a connection if --enable-wait is true. If a connection cannot be obtained within the period, JEUS generates a timeout exception. (Unit: ms)

Parameter	Description
<code>[-dds,--delegationDataSource <delegation-data-source>]</code>	<p>[Dynamic] If a request does not involve a transaction, it is better to get a connection from the connection pool data source instead of from the XA data source.</p> <p>In this situation, a connection from the connection pool data source provides the same functionality as a connection from the XA data source, but with a smaller impact on system performance. Therefore, when using the XA data source, delegate connection requests unrelated to transactions to the connection pool data source.</p> <p>When Oracle and DB2 use XA connections for both cases, with or without transactions, unexplained errors can occur; using this configuration can help avoid such situation.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-muc,--maxUseCount <max-use-count>]</code>	<p>[Dynamic] Maximum number of times a connection can be used. If the number of times a connection is used exceeds the specified number, the connection is replaced with a new connection. The default value is 0: a connection is not replaced.</p>
<code>[-cq,--checkQuery <check-query>]</code>	<p>[Dynamic] Query (query-check) that checks the connection status. Simple selection queries are recommended when validating the connection to the DB.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-cqt,--checkQueryTimeout <check-query-timeout>]</code>	<p>[Dynamic] When a check-query is executed to check the connection status, a driver can be in the wait state indefinitely if the DB does not respond. Apply a timeout to the check-query to avoid this situation. This can be set by using the <code>java.sql.Statement#setQueryTimeout</code> method defined in the JDBC API.</p> <p>If the value is less than 1000ms, the value is set to 0. (Unit: ms)</p>
<code>[-nvi,--nonValidationInterval <non-validation-interval>]</code>	<p>[Dynamic] Option to skip connection checks if the interval between the last check and the recent check is within the specified time period. This option is useful for when overhead is created by frequent connection checks. (Unit: ms)</p> <p>For example, if the option is set to 5000 ms, and 5 seconds has not passed since the last connection check, connections are sent to the applications without being checked.</p>

Parameter	Description
<code>[-cqp,--checkQueryPeriod <check-query-period>]</code>	<p>[Dynamic] Checks the connections in the connection pool at the specified interval to delete faulty connections. (Unit: ms)</p> <p>For data sources that belong to cluster data sources, this option must be set to be used for checking its own state.</p>
<code>[-cqrc,--checkQueryRetrialCount <check-query-retrial-count>]</code>	<p>[Dynamic] If <code>--destroyPolicyOnCheckQuery</code> is set to <code>FAILED_CONNECTION_ONLY</code>, a connection check is performed only once.</p> <p>If <code>--destroyPolicyOnCheckQuery</code> is set to <code>ALL_CONNECTIONS</code> and a problem is detected during the first connection check, all other connections are also checked, resulting in the connection check being performed twice. The total connection check count is determined by adding this option value to the default connection check value.</p>
<code>[-dpocq,--destroyPolicyOnCheckQuery <destroy-policy-on-check-query>]</code>	<p>[Dynamic] Policy for connections in the connection pool when invalid connections are found.</p> <ul style="list-style-type: none"> • <code>FAILED_CONNECTION_ONLY</code>: Delete only invalid connections. • <code>ALL_CONNECTIONS</code>: Delete invalid connections and validate other connections in the connection pool. If another invalid connection is detected in the pool, delete all the connections from the connection pool.
<code>[-scs,--stmtCachingSize <stmt-caching-size>]</code>	<p>[Dynamic] JDBC driver parses SQL statements sent as parameters whenever applications request prepared statements. Parsing SQL statements can affect system performance, so JEUS offers a function that internally caches the prepared statements. This option sets the number of prepared statements that can be cached. If this option is used, connections are always open, so the clear job performed by the driver is not executed.</p> <p>For example, when the Oracle JDBC driver sets auto-commit to false and closes the connection without executing commit or rollback, commit is executed unconditionally.</p> <p>The use of the statement caching function is recommended if provided by the JDBC driver.</p>
<code>[-sfs,--stmtFetchSize <stmt-fetch-size>]</code>	<p>[Dynamic] Fetch size of JDBC driver statement.</p>

Parameter	Description
<code>[-ct,--connectionTrace <true false>]</code>	<p>[Dynamic] Option to offer additional information for connections.</p> <ul style="list-style-type: none"> • false: <code>--getConnectionTrace</code> and <code>--autoCommitTrace</code> cannot be used.
<code>[-gct,--getConnectionTrace <get-connection-trace>]</code>	<p>[Dynamic] Displays the stack trace when the application calls <code>java.sql.DataSource#getConnection</code>.</p>
<code>[-act,--autoCommitTrace <auto-commit-trace>]</code>	<p>[Dynamic] Records logs and the stack trace to server logs when <code>java.sql.Connection#setAutoCommit</code> is called. The log level of <code>jeus.jdbc.connection-trace</code> logger must be set to FINE.</p>
<code>[-ust,--useSqlTrace <use-sql-trace>]</code>	<p>[Dynamic] Displays SQL queries used by connections. If the <code>jeus.jdbc.sql</code> logger level is set to FINE, the SQL query history can be checked in server logs. If this function is used, the statement implementation class of the JDBC driver is wrapped by a JEUS class. Therefore, applications that cast and use statement objects of the JDBC driver cannot use this function.</p>
<code>[-kcho,--keepConnectionHandleOpen <keep-connection-handle-open>]</code>	<p>[Dynamic] If this option is set to true and an XA connection is used and returned to the pool, the handle (or the logical connection) is kept open.</p> <p>This function is required when using DB2 universal drivers. If this option is used, connections are always open, so the clear job performed by the driver is not executed.</p> <p>For example, when the Oracle JDBC driver sets auto-commit to false and closes the connection without executing commit or rollback, commit is executed unconditionally.</p>
<code>[-en,--exportName <export-name>]</code>	<p>JNDI name of the data source. If two data sources are guaranteed to be bound to different JNDIs on different servers, they can have the same JNDI name. Different data sources with the same JNDI names are not allowed on the same server.</p> <p>If not specified, the data source ID is used as the JNDI name. To undo this setting, enter "unset" as the option value.</p> <p>Multiple JNDI names can be specified by using comma (,) delimiter, and JNDI lookup can be used for any of these specified JNDI names.</p>
<code>[-dscn,--dataSourceClassName <data-source-class-name>]</code>	<p>JDBC driver data source class name. Enter the full name, including the package name.</p>

Parameter	Description
<code>[-dst,--dataSourceType <data-source-type>]</code>	<p>Data source type.</p> <ul style="list-style-type: none"> • DATA_SOURCE: Connection pooling service is not provided. • CONNECTION_POOL_DATA_SOURCE: Connection pooling service is provided. • XA_DATA_SOURCE: XA interface and the connection pooling service are provided.
<code>[-vendor,--vendor <vendor>]</code>	<p>JDBC driver vendor name.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-desc,--description <description>]</code>	<p>Displays data source descriptions.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-sn,--serverName <server-name>]</code>	<p>Host name or IP at which the database runs.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-pn,--portNumber <port-number>]</code>	<p>Listener port number of the database. To undo this setting, enter "unset" as the option value.</p>
<code>[-dn,--databaseName <database-name>]</code>	<p>Database name. Sets the database SID (for Oracle). To undo this setting, enter "unset" as the option value.</p>
<code>[-lt,--loginTimeout <login-timeout>]</code>	<p>Maximum time to wait for the login screen to connect to the database. (Unit: seconds)</p>
<code>[-il,--isolationLevel <isolation-level>]</code>	<p>Transaction isolation level defined in java.sql.Connection. If not specified, the default configuration of the JDBC driver is used.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>

Parameter	Description
<code>[-pdt,--poolDestroyTimeout <pool-destroy-timeout>]</code>	<p>Amount of time in wait for the connection pool destroy command to complete. (Unit: ms)</p> <p>The connection pool is destroyed when applications that defined the data sources are undeployed or when the server goes down. During this process, if the connection is used for network communication with the DB, the destroy process can be blocked and left hanging indefinitely. This option is used to avoid this situation. If this option is set, connection pool destruction waits the specified time period and then performs undeployment or server termination.</p> <p>If this option is set, connection pool destruction waits the specified time period and then performs undeployment or server termination.</p>
<code>[-prop,--property <property>]</code>	<p>This option provides a unified configuration method to accommodate all property configurations that can differ by JDBC driver.</p> <ul style="list-style-type: none"> • For a single property, use the 'name:type=value' format. • To specify multiple properties, separate each property with a comma (,).
<code>[-sxe,--supportXaEmulation <support-xa-emulation>]</code>	<p>This option only applies to the connection pool data source type. This option emulates the connection pool data source connection to participate in a global transaction (XA).</p> <p>For JEUS 6 and earlier versions, this option is an alternative to LocalXADataSource. It is used in the ConnectionPoolDataSource type of connection pools. Note that only one connection pool data source can participate per transaction.</p>

Parameter	Description
<code>[-ddba,--delegationDb <delegation-dba>]</code>	<p>JNDI name of the data source (hereafter DBA delegation data source), which has permission to forcibly terminate database sessions (DBA permission). If there is a delay in handling a query through the connection received from the data source, a query that forcibly terminates the DB session is sent to the DB using the DBA delegation data source. After the application handles exceptions that occurred due to the disabled connection, it closes the connection. JEUS then deletes the connection and gets a new connection from the DB and assigns it to the connection pool.</p> <p>Currently, this function is supported for Tibero, Oracle, and Sybase. It was created to suspend queries that take too long to perform for JDBC driver version 2.0 and earlier. For JDBC driver version 3.0 and later, it is recommended to use <code>java.sql.Statement#setQueryTimeout</code> instead of forcibly terminating DB sessions. Especially for XA data sources, if DB sessions are terminated while XA operates normally, the XA operation can generate an error. Therefore, use the statement query timeout and the transaction timeout properties.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-dbat,--dbaTimeout <dba-timeout>]</code>	<p>The delegation DBA data source waits the specified time period for queries on a connection to finish. If timeout occurs, a query is sent to the DB that forcibly terminates the DB session.</p> <p>This option only applies when <code>--delegationDb</code> is set. (Unit: ms)</p>
<code>[-cqc,--checkQueryClass <check-query-class>]</code>	<p>Class name, which includes the package name, that implements the function for users or developers who want to customize the connection check function. The class must implement the <code>jeus.jdbc.connectionpool.JEUSConnectionChecker</code> interface.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-is,--initSql <init-sql>]</code>	<p>SQL query that is initially handled after a connection has been created.</p> <p>In order to undo this setting, enter "unset" as the option value.</p>
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.

Parameter	Description
[-detail]	Displays the detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>modify-data-source -id ds1 -min 10 -max 50
Successfully performed the MODIFY operation for configuration of the data source [ds1].
Check the results using "modify-data-source -id ds1"
```

4.2.11.7. remove-cluster-data-source

Deletes a cluster data source from the domain.

- Alias

rmcds

- Usage

```
remove-cluster-data-source [-id,--dataSourceID <data-source-id>]
                           [-f,--forceLock]
                           [-detail]
```

- Parameters

Parameter	Description
[-id,--dataSourceID <data-source-id>]	Cluster data source ID.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays the detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-cluster-data-source -id cds1
Successfully performed the REMOVE operation for cluster data source [cds1] from domain.
Check the results using "remove-cluster-data-source"
```

4.2.11.8. remove-data-source

Deletes a data source from the domain.

- Alias

rmlds

- Usage

```
remove-data-source [-id,--dataSourceID <data-source-id>]
                  [-f,--forceLock]
                  [-detail]
```

- Parameters

Parameter	Description
[-id,--dataSourceID <data-source-id>]	Data source ID.
[-f,--forceLock]	Forcibly applies the configuration changes.
[-detail]	Displays the detailed results of the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-data-source -id ds1
Successfully performed the REMOVE operation for data source [ds1] from the domain.
Check the results using "remove-data-source"
```

4.2.11.9. test-data-source-config

Checks if a data source configuration is correct.

- Alias

testdsconf, testdsconfig, testdscfg

- Usage

```
test-data-source-config -id <data-source-id>
                       [-all]
```

- Parameters

Parameter	Description
-id <data-source-id>	Data source ID.
[-all]	Only available in jeusadmin of JEUS Master Server. Sends the command to running domain servers that set the data source as a target and displays the results.

- Example

```
[MASTER]domain1.adminServer>test-data-source-config -id ds1
The data source [ds1] is properly configured and can be used.
```

4.2.12. Connection Pool Controlling and Monitoring Commands

The following is a list of commands that monitor and control JDBC/JCA Connection pools.

Command	Description
connection-pool-info	Monitors JDBC/JCA connection pools. If a connection pool ID is specified, its information is displayed in detail.
control-connection-pool	Controls JDBC/JCA connection pools. This command can create, activate, deactivate, refresh, or shrink connection pools.
control-cluster-data-source	Controls cluster data sources. Displays a list of component data sources of cluster data sources or performs failback.
create-connection-pool	Creates a JDBC connection pool. This does not apply to JCA connection pools.
destroy-connection	Forcibly ends an active connection.
disable-connection-pool	Deactivates a JDBC connection pool. This does not apply to JCA connection pools.
enable-connection-pool	Activates a JDBC connection pool. This does not apply to JCA connection pools.
refresh-connection-pool	Replaces connections in the JDBC connection pool with new connections. This does not apply to JCA connection pools.
return-connection	Returns an active connection to a connection pool.
shrink-connection-pool	Reduces the number of connections in the JDBC connection pool to the minimum number. This does not apply to JCA connection pools.

4.2.12.1. connection-pool-info

Monitors JDBC/JCA connection pools. If a connection pool ID is specified, its information is displayed in detail.

- Alias

cpinfo

- Usage

```
connection-pool-info [-server <server-name>]
                    [-id <connection-pool-id>]
                    [-jca | -jdbc]
                    [-jndi]
                    [-active]
                    [-t]
                    [-stmt]
```

- Parameters

Parameter	Description
[-server <server-name>]	Server name.
[-id <connection-pool-id>]	Connection pool ID.
[-jca]	Displays only JCA connection pool information.
[-jdbc]	Displays only JDBC connection pool information.
[-jndi]	Displays the JNDI name of the connection pool.
[-active]	Displays the created connection pools on the server.
[-t]	Displays the name of the thread that most recently used the connection. This parameter requires the -id parameter to be used.
[-stmt]	Statement cache information by each connection.

- Example

```
[MASTER]domain1.adminServer>connection-pool-info -server server1 -jndi -jdbc
The connection pool information on the server [server1].
=====
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Connection | JNDI | Min | Max | Act | Act | Act | Idle | Dis | Tot | Wait | Ena |
| Pool ID   | Expo |     |     | ive | ive | ive |      | posa | al  |      | bled |
|           | rt   |     |     | Max |     | Aver |      | ble  |     |      |      |
|           | Name |     |     |     |     | age  |      |     |     |      |      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ds1       | ds1  | 2   | 30  | 0   | 0   | 0.0  | 2   | 0   | 2   | fal  | true |
|           |      |     |     |     |     |      |     |     |     | se   |      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ds2 *     | ds2  | 2   | 30  | 0   | 0   | 0.0  | 0   | 0   | 0   | fal  | fal  |
|           |      |     |     |     |     |      |     |     |     | se   | se   |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

* : has not been created, total = active + idle + disposable
=====

[MASTER]domain1.adminServer>connection-pool-info -server server1 -id ds1 -t -jdbc
Information about connections in the server [server1]'s connection pool [ds1].
```

```

=====
+-----+-----+-----+-----+-----+-----+
| Connection ID | State | State time(sec.) | Use count | Type | Thread name |
+-----+-----+-----+-----+-----+-----+
| ds1-1        | active | 1105.954 | 1 | pooled | http-w1 |
| ds1-2        | idle  | 1105.923 | 0 | pooled |          |
+-----+-----+-----+-----+-----+-----+
=====

[MASTER]domain1.adminServer>connection-pool-info -server server1 -id ds1 -stmt -jdbc
Information about statement caches in the server [server1]'s connection pool [ds1].
=====
+-----+-----+-----+-----+-----+-----+-----+
| Connection ID | Access | Hit | Miss | Add | Remove | Current |
|               | Count  | Count | Count | Count | Count  | Size     |
+-----+-----+-----+-----+-----+-----+-----+
| ds1-1        | 5      | 0   | 5    | 5    | 0      | 5        |
+-----+-----+-----+-----+-----+-----+-----+
| ds1-2        | 5      | 2   | 3    | 3    | 0      | 3        |
+-----+-----+-----+-----+-----+-----+-----+
=====

```

4.2.12.2. control-connection-pool

Controls JDBC/JCA connection pools. This command can create, activate, deactivate, refresh, or shrink connection pools.

- Alias

controlcp, ctrlcp

- Usage

```

control-connection-pool -id <connection-pool-id>
                        [-server <server-name>]
                        -enable | -shrink | -disable | -refresh | -create

```

- Parameters

Parameter	Description
-id <connection-pool-id>	Connection pool ID.
[-server <server-name>]	Server name.
-enable	Activates a connection pool.
-shrink	Reduces the connections count of a connection pool to the minimum number.
-disable	Deactivates a connection pool.
-refresh	Replaces connections in the connection pool with new connections.
-create	Creates a connection pool.

- Example

```
[MASTER]domain1.adminServer>control-connection-pool -id ds1 -server server1 -enable
Servers that successfully enabled a connection pool : server1
Servers that failed to enable a connection pool : none.

[MASTER]domain1.adminServer>control-connection-pool -id ds1 -server server1 -shrink
Servers that successfully shrank a connection pool : server1
Servers that failed to shrink a connection pool : none.

[MASTER]domain1.adminServer>control-connection-pool -id ds1 -server server1 -disable
Servers that successfully disabled a connection pool : server1
Servers that failed to disable a connection pool : none.

[MASTER]domain1.adminServer>control-connection-pool -id ds1 -server server1 -refresh
Servers that successfully refreshed a connection pool : server1
Servers that failed to refresh a connection pool : none.

[MASTER]domain1.adminServer>control-connection-pool -id ds1 -server server1 -create
Servers that successfully created a connection pool : server1
Servers that failed to create a connection pool : none.
```

4.2.12.3. control-cluster-data-source

Controls cluster data sources. Performs failback or displays a list of component data sources of cluster data sources.

- Alias

controlcds, ctrlcds

- Usage

```
control-cluster-data-source -server <server-name>
                           -id <data-source-id>
                           [-failback]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
-id <data-source-id>	Cluster data source ID.
[-failback]	Performs failback for cluster data sources.

- Example

```
[MASTER]domain1.adminServer>control-cluster-data-source -server server1 -id cds1
Component data sources of the cluster data source [cds1] : ds1, ds2
```

```
[MASTER]domain1.adminServer>control-cluster-data-source -server server1 -id cds1 -failback
The failback for the cluster data source [cds1] succeeded.
```

4.2.12.4. create-connection-pool

Creates a JDBC connection pool. This does not apply to JCA connection pools.

- Alias

createcp

- Usage

```
create-connection-pool -id <connection-pool-id>
                        [-server <server-name>]
```

- Parameters

Parameter	Description
-id <connection-pool-id>	JDBC connection pool ID.
[-server <server-name>]	Server name.

- Example

```
[MASTER]domain1.adminServer>create-connection-pool -id ds1 -server server1
Servers that successfully created a connection pool : server1
Servers that failed to create a connection pool : none.
```

4.2.12.5. destroy-connection

Forcibly ends an active connection.

The command can be used to end an active connection with an issue when an application requests a connection. It is only available for active connections. Note that this command forcibly ends an actual physical connection.

- Alias

destroyconnection

- Usage

```
destroy-connection -server <server-name>
```

`[-cpid <connection-pool-id> | -cid <connection-id>]`

- Parameters

Parameter	Description
<code>-server <server-name></code>	Name of the server that has the connection pool with the connection to forcibly end.
<code>[-cpid <connection-pool-id>]</code>	Connection pool ID. All connections that belong to this pool are ended.
<code>[-cid <connection-id>]</code>	Connection ID. A specific connection in a connection pool is ended. You can specify multiple connection IDs by using a comma (,) as a delimiter. To check connection IDs, use the connection-pool-info command with the <code>-id</code> option.

- Example

```
[MASTER]domain1.adminServer>destroy-connection -server server1 -cpid ds1
Successfully destroyed the connections from the connection pool.

[MASTER]domain1.adminServer>return-connection -server server1 -cid ds1-1,ds1-2
Successfully destroyed the connections from the connection pool.
```

4.2.12.6. disable-connection-pool

Activates a JDBC connection pool. This does not apply to JCA connection pools.

- Alias

`disablecp`

- Usage

```
disable-connection-pool -id <connection-pool-id>
                        [-server <server-name>]
```

- Parameters

Parameter	Description
<code>-id <connection-pool-id></code>	JDBC connection pool ID.
<code>[-server <server-name>]</code>	Server name.

- Example

```
[MASTER]domain1.adminServer>disable-connection-pool -id ds1 -server server1
Servers that successfully disabled a connection pool : server1
Servers that failed to disable a connection pool : none.
```

4.2.12.7. enable-connection-pool

Activates a JDBC connection pool. This does not apply to JCA connection pools.

- Alias

enablecp

- Usage

```
enable-connection-pool -id <connection-pool-id>
                        [-server <server-name>]
```

- Parameters

Parameter	Description
-id <connection-pool-id>	JDBC connection pool ID.
[-server <server-name>]	Server name.

- Example

```
[MASTER]domain1.adminServer>enable-connection-pool -id ds1 -server server1
Servers that successfully enabled a connection pool : server1
Servers that failed to enable a connection pool : none.
```

4.2.12.8. refresh-connection-pool

Replaces connections in the JDBC connection pool with new connections. This does not apply to JCA connection pools.

- Alias

refreshcp

- Usage

```
refresh-connection-pool -id <connection-pool-id >
                        [-server <server-name>]
```


- Parameters

Parameter	Description
-id <connection-pool-id>	JDBC connection pool ID.
[-server <server-name>]	Server name.

- Example

```
[MASTER]domain1.adminServer>refresh-connection-pool -id ds1 -server server1
Servers that successfully refreshed a connection pool : server1
Servers that failed to refresh a connection pool : none.
```

4.2.12.9. return-connection

Returns an active connection to a connection pool.

If an application does not close a connection and the data source setting, "Action On Connection Leak" is not set AutoClose, a leak occurs because the connection's status remains active. The command can be used to avoid this issue. It is only available for active connections. However, if a connection to return is being used for the current transaction, it is not returned. If an error occurs while a connection is returned, the connection is destroyed.

- Alias

returnconnection

- Usage

```
return-connection -server <server-name>
                  [-cpid <connection-pool-id> | -cid <connection-id>]
```

- Parameters

Parameter	Description
-server <server-name>	Name of the server that has the connection pool to which the connection is returned.
[-cpid <connection-pool-id>]	Connection pool ID. All connections that belong to this pool are returned.
[-cid <connection-id>]	Connection ID. A specific connection in a connection pool is returned. You can specify multiple connection IDs by using a comma (,) as a delimiter. To check connection IDs, use the connection-pool-info command with the -id option.

- Example

```
[MASTER]domain1.adminServer>return-connection -server server1 -cpid ds1
Successfully returned the connections to the connection pool.

[MASTER]domain1.adminServer>return-connection -server server1 -cid ds1-1,ds1-2
Successfully returned the connections to the connection pool.
```

4.2.12.10. shrink-connection-pool

Reduces the number of connections in the JDBC connection pool to the minimum number. This does not apply to JCA connection pools.

- Alias

shrinkcp

- Usage

```
shrink-connection-pool -id <connection-pool-id****>
                        [-server <server-name>]
```

- Parameters

Parameter	Description
-id <connection-pool-id>	JDBC connection pool ID.
[-server <server-name>]	Server name.

- Example

```
[MASTER]domain1.adminServer>shrink-connection-pool -id ds1 -server server1
Servers that successfully shrank a connection pool : server1
Servers that failed to shrink a connection pool : none.
```

4.2.13. Transaction Commands

The following is a list of transaction commands.

Command	Description
modify-transaction-manager	Changes the configuration of the transaction manager of a server.
recover-transactions	Recovers the resource manager of a server. Resources can be selectively recovered.
show-transaction-manager	Checks the configuration of the transaction manager of a server.

Command	Description
transaction-info	Checks the transaction by its status on a server.

4.2.13.1. modify-transaction-manager

Changes the configuration of the transaction manager of a server.

- Alias

modify-tm, modifytm, tmconfig, tmconf

- Usage

```

modify-transaction-manager <server-name>
    [-at,--activeTimeout <active-timeout>]
    [-pt,--prepareTimeout <prepare-timeout>]
    [-pdt,--preparedTimeout <prepared-timeout>]
    [-ct,--commitTimeout <commit-timeout>]
    [-rt,--recoveryTimeout <recovery-timeout>]
    [-it,--incompleteTimeout <incomplete-timeout>]
    [-d,--txLogDir <transaction-log-directory>]
    [-a,--automaticRecovery <automatic-recovery-enable/disable>]
    [-f,--forceLock]
    [-detail]

```

- Parameters

Parameter	Description
<server-name>	Name of the server for which the transaction configuration is changed.
[-at,--activeTimeout <active-timeout>]	Period in which to commit when starting a transaction. If timeout occurs, the transaction is forcibly rolled back.
[-pt,--prepareTimeout <prepare-timeout>]	Period in which the root coordinator receives a response from a sub-coordinator after sending the prepare command.
[-pdt,--preparedTimeout <prepared-timeout>]	Period in which the sub-coordinator waits for global decisions from the root coordinator after sending the prepare response.
[-ct,--commitTimeout <commit-timeout>]	Period in which the root coordinator receives a response after sending the commit command to a sub-coordinator.
[-rt,--recoveryTimeout <recovery-timeout>]	Period in which to receive the recovery information. If timeout occurs, the recovery is delegated to the user.
[-it,--incompleteTimeout <incomplete-timeout>]	Period in which incomplete transactions recover. If timeout occurs, incomplete transactions are deleted.

Parameter	Description
<code>[-d,--txLogDir <transaction-log-directory>]</code>	Directory that stores transactions for recovery. For more information, refer to "Recovery Related Log File" in <i>JEUS Server Guide</i> .
<code>[-a,--automaticRecovery <automatic-recovery-enable/disable>]</code>	[Dynamic] Option to let another server recover incomplete transactions when an error occurs in the server. For more information, refer to "Transaction Recovery" in <i>JEUS Server Guide</i> .
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the configuration changes.

- Example

- Check the current configuration.

```
[MASTER]domain1.adminServer>modify-transaction-manager server1
Shows the current configuration.
transaction of server (server1)
=====
+-----+-----+
| Active Timeout      | 600000 |
| Prepare Timeout    | 120000 |
| Prepared Timeout    | 60000  |
| Commit Timeout      | 240000 |
| Recovery Timeout    | 120000 |
| Incomplete Timeout  | 86400000 |
| Tx Log Dir          | ${SERVER_HOME}/.workspace/tmlog |
| Automatic Recovery  | false  |
+-----+-----+
=====
```

- Dynamically turn on the transaction auto-recovery function.

```
[MASTER]domain1.adminServer>modify-transaction-manager server1 -automaticRecovery true
Successfully performed the MODIFY operation for transaction of server (server1).
Check the results using "show-transaction-manager server1 or modify-transaction-manager sever1"
```

- Change the timeout configuration that applies when the server reboots.

```
[MASTER]domain1.adminServer>modify-transaction-manager server1 -activeTimeout 20000
Successfully performed the MODIFY operation for transaction of server (server1),
but all changes were non-dynamic. They will be applied after restarting.
Check the results using "show-transaction-manager server1 or modify-transaction-manager server1"
```

- Change the configuration that allows dynamic changes and the configuration that applies

when the server reboots.

```
[MASTER]domain1.adminServer>modify-transaction-manager server1 -automaticRecovery true
-activeTimeout 20000
Successfully performed the MODIFY operation for transaction of server (server1),
but some changes were non-dynamic. They will be applied after restarting.
Check the results using "show-transaction-manager server1 or modify-transaction-manager
server1"
```

4.2.13.2. recover-transactions

Recovers the resource manager of a server. Resources can be selectively recovered.

- Alias

recovertx, tmresync

- Usage

```
recover-transactions -server <server-name>
                     <resource-type>
                     <export-name>
                     [<connector-module-name>]
```

- Parameters

Parameter	Description
-server <server-name>	Server name.
<resource-type>	Resource type to be recovered. <ul style="list-style-type: none">• sql : JDBC XADataSource• jms : JMS Connection Factory• connector: Connector Resource Adapter
<export-name>	<i>export-name</i> of the resource.
[<connector-module-name>]	If the resource is a connector, sets the name of the connector module.

- Example

```
[MASTER]domain1.adminServer>recover-transactions -server server1 sql jdbc/derby/XADataSource
The recover-transactions command was executed on the server1 server.
```

4.2.13.3. show-transaction-manager

Checks the configuration of the transaction manager of a server.

- Alias

show-tm, showtm

- Usage

```
show-transaction-manager <server-name>
```

- Parameters

Parameter	Description
[<server-name>]	Server name.

- Example

```
[MASTER]domain1.adminServer>show-transaction-manager server1
Shows the current configuration.
transaction of server (server1)
=====
+-----+-----+
| Active Timeout      | 600000 |
| Prepare Timeout     | 120000 |
| Prepared Timeout    | 60000  |
| Commit Timeout      | 240000 |
| Recovery Timeout    | 120000 |
| Incomplete Timeout  | 8640000|
| Tx Log Dir          | ${SERVER_HOME}/.workspace/tmlog |
| Automatic Recovery  | false  |
+-----+-----+
=====
```

4.2.13.4. transaction-info

Checks the transaction by its status on a server.

- Alias

transactioninfo, txinfo

- Usage

```
transaction-info -server <server-name>
                  [-i,--inflight]
                  [-d,--indoubt]
```

`[-r,--retrying]`

- Parameters

Parameter	Description
<code>-server <server-name></code>	Server name.
<code>[-i,--inflight]</code>	Checks the running transactions, transactions in the memory that have not reached the commit or rollback step.
<code>[-d,--indoubt]</code>	Checks the incomplete transactions, transactions that require recovery or that have undetermined status.
<code>[-r,--retrying]</code>	Checks the transactions to be retried within JEUS because one-phase-commit or two-phase-commit was not successfully performed due to problems with the resource manager.

- Example

```
[MASTER]domain1.adminServer>transaction-info -server server1
<transactions of server1>
```

In-Flight Transaction Information

```
=====
+-----+-----+-----+-----+-----+-----+-----+
|      XID      | Coordina| Extern| Status | Timeout | Elapse | XAResources|
|               | tor    | al XID |        |         |        |            |
+-----+-----+-----+-----+-----+-----+-----+
| 049FE5.00C0A80011| 192.168.|      | STATUS | 5000(ms)| 7418(ms)| jdbc/derby/|
| 2608221CC3D6B40000|0.17:9736|      | _MARKED_|         |         | XADatasource|
| 000000000011.00  |         |      | ROLLBACK|         |         |            |
+-----+-----+-----+-----+-----+-----+-----+
=====
```

In-doubt Transaction Information

```
=====
+---+-----+-----+-----+-----+-----+
| XID| Coordinator | External XID | Status| Decision | Sub-XID|
+---+-----+-----+-----+-----+-----+
(No data available)
=====
```

Retrying Transaction Information

```
=====
+---+-----+-----+-----+-----+-----+
| XID| Name| Failure Count | Status| Decision|
+---+-----+-----+-----+-----+-----+
(No data available)
=====
```

4.2.14. Security Commands

The following is a list of security commands for user, group, and policy.

- User management commands

User management commands are used to add, change, and delete users.

Command	Description
add-user	Adds a new user to the security system.
remove-user	Deletes a user.
list-user-names	Displays a list of all users (user names) that logged onto the current domain and the lock and expiration states of each user.
show-user	Displays detailed user information.
modify-default-password-validator	Adds a new default password validator, or modify or delete the existing one.
show-default-password-validator	Displays the settings for the default password validator.
add-custom-password-validator	Defines a new class to the custom password validator.
remove-custom-password-validator	Removes a defined class from the custom password validator.
show-custom-password-validator	Displays the list of classes defined to the custom password validator.
show-subject-validation	Displays the information about the current settings for the subject validation service.
set-password	Dynamically sets the user password.
lock-user	Dynamically sets a lock on a user.
unlock-user	Dynamically releases a lock on a user.
expire-user	Sets an expiration time for a specific user.
unexpire-user	Removes the expiration time set for a specific user.

- Group management commands

Group management commands are used to add, update, or delete groups.

Command	Description
add-group	Dynamically adds a new group to the security system.
add-user-to-group	Dynamically adds a user to a group.
remove-user-from-group	Dynamically deletes a user from a group.
remove-group	Dynamically deletes a group.

Command	Description
list-group-names	Displays a list of groups.
show-group	Displays detailed group information.
check-group-member	Checks if the user is registered with a group.

- Policy management commands

Policy commands are used to manage security system policies.

Command	Description
show-policy	Displays policies that include a context ID.
add-role	Adds a new role.
modify-role	Changes the configuration of a role.
remove-role	Deletes a role.
add-resource	Adds a new resource.
modify-resource	Changes the configuration of a resource.
remove-resource	Deletes a resource.
assign-role-to-principal	Assigns a principal to a role.
unassign-role-from-principal	Deletes a principal from a role.
assign-resource-to-role	Assigns a role to a resource.
unassign-resource-from-role	Deletes a role from a resource.



Due to the sensitive nature of the information processed by these commands, the user must have proper permissions.

4.2.14.1. Shared Options

The following options are shared by all security commands.

- [-domain <domain-name>] option
 - Specifies the security domain, which is the scope where JEUS applies security (default: SYSTEM_DOMAIN). For more information about the domain, refer to "JEUS Security Guide".
 - The description of this option is omitted from each command option description.

4.2.14.2. add-custom-password-validator

Adds a new class to the custom password validator. For information about password validation, refer

to "Configuring Password Security" in *JEUS Security Guide*.

- Alias

add-custom-validator

- Usage

```
add-custom-password-validator [-class <class-name>]
```

- Parameters

Parameter	Description
<class-name>	Name of the class that is placed under DOMAIN_HOME/lib/application as a JAR file to be added to the custom password validator. The class must implement the jeus.util.PasswordValidator interface.

- Example

```
[MASTER]domain1.adminServer> add-custom-password-validator -class MyValidator
Custom password validator [MyValidator] is added successfully.
Check the results using show-custom-password-validator.
```

4.2.14.3. add-group

Dynamically adds a new group to the security system. The group name must be unique within the current domain. Domain names can be checked using the [list-group-names](#) command. The group name is used to refer to a specific group during the calling process, it corresponds to the ID of the group.

- Alias

addgroup

- Usage

```
add-group <group-name>
        [-domain <domain-name>]
        [-f,--forceLock]
```

- Parameters

Parameter	Description
<group-name>	Group name.

Parameter	Description
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> add-group group1
The group [group1] has been successfully added.
```

4.2.14.4. add-resource

Dynamically adds a new resource to the security system. The resource name and actions must be unique within the current domain and context. Resource names can be checked with the [show-policy](#) command.

- Alias

addresource

- Usage

```
add-resource <resource-name>
  <actions>
    [-contextid <context-id>]
    [-classname <class-name>]
    [-role <role-name>]
    [-excluded]
    [-unchecked]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<code><resource-name></code>	Name of a resource to add.
<code><actions></code>	<p>Actions that will be assigned to the resource.</p> <p>A list of actions for a resource. Each action is separated by a blank space. For example, the jeus.server resource has "boot" and "down" as its actions.</p> <p>If -actions is set, actions are the second parameter of the constructor of the class configured with -classname. The default class name is jeus.security.resource.ResourcePermission, and its constructor parameters are "resource" and "actions".</p>

Parameter	Description
[-contextid <context-id>]	Context name that distinguishes policies. The contextid is used to specify a context other than the default context.
[-classname <class-name>]	<p>Permission class name.</p> <p>A class configured with -classname must be a Java class that extends the class java.security.Permission abstract. The class must have at least one constructor that receives a string type "resource" as an argument.</p> <p>For more information about resource permissions, refer to the jeus.security.resource.ResourcePermission class. For more information about which resource permissions are checked in JEUS, refer to "JEUS Server Permissions" in <i>JEUS Security Guide</i>.</p>
[-role <role-name>]	A list of roles to assign the resource.
[-excluded]	Prevents anyone from getting the permission.
[-unchecked]	Allows anyone to get the permission.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> add-resource resource1 jeus.*
The resource [name=resource1, actions=jeus.*] has been successfully added.
```

4.2.14.5. add-role

Dynamically adds a new role to the security system. The role name must be unique within the current domain. Role names can be checked with the [show-policy](#) command.

- Alias

addrole

- Usage

```
add-role <role-name>
    [-principal <principal>]
    [-classname <classname>]
    [-excluded]
    [-unchecked]
    [-actions <actions>]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<role-name>	Name of a role to add.
[-principal <principal>]	Principal to which the role is assigned.
[-classname <classname>]	Permission class name. A class configured with -classname must be a Java class that extends the class java.security.Permission abstract. The class must have at least one constructor that receives a string type "role" as an argument. For more information about role permissions, refer to the jeus.security.resource.RolePermission class. For more information about which role permissions are checked in JEUS, refer to "JEUS Server Permissions" in <i>JEUS Security Guide</i> .
[-excluded]	Prevents anyone from getting the permission.
[-unchecked]	Allows anyone to get the permission.
[-actions <actions>]	A list of actions for the role.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> add-role role1
The role [role1] has been successfully added.
```

4.2.14.6. add-user

Dynamically adds a new user to the security system. The user name must be unique within the current domain. User names can be checked with the [list-user-names](#) command. The user name is used to refer to a user during the calling process, it corresponds to the ID of the user.

- Alias

adduser

- Usage

```
add-user <user-name>
      [-domain <domain-name>]
      [-f,--forceLock]
      [<password>]
```

- Parameters

Parameter	Description
<user-name>	User name.
[-f,--forceLock]	Forcibly applies the configuration changes.
[<password>]	Password.

- Example

```
[MASTER]domain1.adminServer> add-user user1
The user [user1] has been successfully added.
```

4.2.14.7. add-user-to-group

Dynamically adds a new member to a group registered with the security system.

- Alias

addusertogroup

- Usage

```
add-user-to-group <group-name>
    <user-name>
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<group-name>	Group name.
<user-name>	User name.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> add-user-to-group group1 user1
The user [user1] has been successfully added to the group [group1].
```

4.2.14.8. assign-resource-to-role

Dynamically assigns a resource and action to a role.

- Alias

assignresource, assignres

- Usage

```
assign-resource-to-role <resource-name>
    <actions>
    <role-name>
    [-contextid <context-id>]
    [-classname <classname>]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<resource-name>	[Dynamic] Resource name. Resource names are Java class names that represent the resource. E.g., jeus.server.
<actions>	[Dynamic] Actions assigned to the role. A list of actions for a resource. Each action is separated by a blank space. For example, the jeus.server resource has "boot" and "down" as its actions. If -actions is set, actions are the second parameter of the constructor of the class configured with -classname. The default class name is jeus.security.resource.ResourcePermission, and its constructor parameters are "resource" and "actions".
<role-name>	Role name.
[-contextid <context-id>]	Context name that distinguishes policies. The contextid is used to specify a context other than the default context.
[-classname <classname>]	[Dynamic] Permission class name. A class configured with -classname must be a Java class that extends the class java.security.Permission abstract. The class must have at least one constructor that receives a string type "role" as an argument. For more information about resource permissions, refer to the jeus.security.resource.ResourcePermission class. For more information about which resource permissions are checked in JEUS, refer to "JEUS Server Permissions" in <i>JEUS Security Guide</i> .
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> assign-resource-to-role jeus.* deploy-applications deployRole
The resource [name=jeus.*, actions=deploy-applications] is assigned to the role [deployRole].
```

4.2.14.9. assign-role-to-principal

Dynamically assigns a role to a principal. A class configured with `-classname` must be a Java class that extends the class `java.security.Permission` abstract. The class must have at least one constructor that receives a string type "role" as an argument. The default class is `jeus.security.resource.RolePermission`. However, for an anonymous, a role can be allocated only when it has an unchecked permission.

- Alias

`assignrole, assign-role`

- Usage

```
assign-role-to-principal <role-name>
                        <principal>
                        [-domain <domain-name>]
                        [-f,--forceLock]
```

- Parameters

Parameter	Description
<code><role-name></code>	[Dynamic] Role name.
<code><principal></code>	Principal name.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> assign-role-to-principal AdministratorsRole user1
The role [AdministratorsRole] is assigned to the principal [user1].
```

4.2.14.10. check-group-member

Checks if the user is registered with a group.

- Alias

`checkgroupmember, ismember`

- Usage


```
check-group-member <group-name>
                  <user-name>
                  [-domain <domain-name>]
```

- Parameters

Parameter	Description
<group-name>	Group name.
<user-name>	User name.

- Example

```
[MASTER]domain1.adminServer> check-group-member group1 user1
The user [user1] is a member of the group [group1].
```

4.2.14.11. expire-user

Sets an expiration time on a specific user. If SubjectExpirationValidationService is set properly, the user is valid before the expiration time. The user's login fails before calling [unexpire-user](#). For information about subject validation, refer to "SubjectValidationService SPI" in *JEUS Security Guide*.

- Alias

expireuser, exuser

- Usage

```
expire-user <user-name>
          [-domain <domain-name>]
          [-year <year>]
          [-month <month>]
          [-day <day>]
          [-hour <hour>]
          [-minute <minute>]
```

- Parameters

Parameter	Description
<user-name>	User name.
[-year <year>]	Year of the expiration time in the format of yyyy. (Default value: current year)

Parameter	Description
[-month < <i>month</i> >]	Month of the expiration time in the format of MM. (Default value: current month)
[-day < <i>day</i> >]	Date of the expiration time in the format of dd. (Default value: current date)
[-hour < <i>hour</i> >]	Hour of the expiration time in the format of hh. (Default value: current hour)
[-minute < <i>minute</i> >]	Minute of the expiration time in the format of mm. (Default value: current minute)

- Example

```
[MASTER]domain1.adminServer> expire-user user1 -year 2020 -month 12 -day 31 -hour 12 -minute 30
The user [user1] is valid only until [2020-12-31 12:30].
```

4.2.14.12. list-group-names

Displays the list of all groups in the current domain.

- Alias

listgroupnames, getgroupnames

- Usage

```
list-group-names [-domain <domain-name>]
```

- Example

```
[MASTER]domain1.adminServer> list-group-names
=====
+-----+
|                               Group Name                               |
+-----+
| Administrators                 |
+-----+
| group1                        |
+-----+
=====
```

4.2.14.13. list-user-names

Displays a list of all users (user names) that logged onto the current domain and the lock and expiration states of each user.

- Alias

listusernames, getusernames

- Usage

```
list-user-names [-domain <domain-name>]
```

- Example

```
[MASTER]domain1.adminServer> list-user-names
=====
+-----+-----+-----+
| User Name | Lock State | ExpiryTime State |
+-----+-----+-----+
| jeus      | unlocked  | Unexpired         |
| admin     | locked    | 2020-01-01 12:00  |
+-----+-----+-----+
=====
```

4.2.14.14. lock-user

Dynamically sets a lock on a user. If "SubjectLockoutValidationService" is properly configured on the server, all login attempts by the user fail until the unlock-user command is called.

For information about subject validation, see "SubjectValidationService SPI" in *JEUS Security Guide*.

- Alias

lockuser

- Usage

```
lock-user <user-name>
        [-domain <domain-name>]
```

- Parameters

Parameter	Description
<user-name>	User name.

- Example

```
[MASTER]domain1.adminServer> lock-user user2
The user [user2] has been locked out.
```

4.2.14.15. modify-default-password-validator

Dynamically adds, changes, or deletes the configurations for the default password validator. For information about password validation, refer to "Configuring Password Security" in *JEUS Security Guide*.

- Alias

modify-password-validator

- Usage

```
modify-default-password-validator [-disable]
    [-min <min-length>]
    [-max <max-length>]
    [-special <true | false>]
    [-digit <true | false>]
    [-capital <true | false>]
    [-small <true | false>]
    [-excludeID <true | false>]
```

- Parameters

Parameter	Description
[-disable]	[Dynamic] Disables the default password validator and discards the existing settings.
[-min <min-length>]	[Dynamic] Minimum number of digits for the password. (Range: 1 - 255, default value: 1)
[-max <max-length>]	[Dynamic] Maximum number of digits for the password. (Range: 1 - 255, default value: 1)
[-special <true false>]	[Dynamic] Indicates whether a special character must be included in a password. (Default value: false)
[-digit <true false>]	[Dynamic] Indicates whether a number must be included in a password. (Default value: false)
[-capital <true false>]	[Dynamic] Indicates whether an uppercase letter must be included in a password. (Default value: false)
[-small <true false>]	[Dynamic] Indicates whether a lowercase letter must be included in a password. (Default value: false)

Parameter	Description
<code>[-excludeID <true false>]</code>	[Dynamic] Indicates whether the user ID is prevented from being part of a password. (Default value: false)

- Example

```
[MASTER]domain1.adminServer> modify-default-password-validator -min 4 -special true
Default password validator is updated successfully.
Check the results using "show-default-password-validator or modify-default-password-validator".
```

4.2.14.16. modify-resource

Dynamically changes the configuration of a resource. If you need to modify the configuration of a resource assigned to a role, use [assign-resource-to-role](#) or [unassign-resource-from-role](#) command.

- Alias

modifyresource

- Usage

```
modify-resource <resource-name>
    <actions>
    [-contextid <context-id>]
    [-classname <classname>]
    [-excluded <true | false>]
    [-unchecked <true | false>]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<code><resource-name></code>	Name of the resource to change the configuration.
<code><actions></code>	Action list of the resource to change the configuration.
<code>[-contextid <context-id>]</code>	Context name that distinguishes policies. The contextid is used to specify a context other than the default context.

Parameter	Description
<code>[-classname <classname>]</code>	<p>Permission class name.</p> <p>A class configured with <code>-classname</code> must be a Java class that extends the class <code>java.security.Permission</code> abstract. The class must have at least one constructor that receives a string type "resource" as an argument.</p> <p>For more information about resource permissions, refer to the <code>jeus.security.resource.ResourcePermission</code> class. For more information about which resource permissions are checked in JEUS, refer to "JEUS Server Permissions" in <i>JEUS Security Guide</i>.</p>
<code>[-excluded <true false>]</code>	Prevents anyone from getting the permission. (true false)
<code>[-unchecked <true false>]</code>	Allows anyone to get the permission. (true false)
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> modify-resource resource1 jeus.* -excluded true -unchecked false
The resource [name=resource1, actions=jeus.*] has been successfully modified.
```

4.2.14.17. modify-role

Dynamically changes the configuration of a role. To change a role assigned to the user, use [assign-role-to-principal](#) or [unassign-role-from-principal](#) command.

- Alias

`modifyrole`

- Usage

```
modify-role <role-name>
    [-classname <classname>]
    [-excluded <true | false>]
    [-unchecked <true | false>]
    [-actions <actions>]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<code><role-name></code>	Name of the role to change the configuration.

Parameter	Description
<code>[-classname <classname>]</code>	<p>Permission class name.</p> <p>A class configured with <code>-classname</code> must be a Java class that extends the class <code>java.security.Permission</code> abstract. The class must have at least one constructor that receives a string type "role" as an argument.</p> <p>For more information about role permissions, refer to the <code>jeus.security.resource.RolePermission</code> class. For more information about which role permissions are checked in JEUS, refer to "JEUS Server Permissions" in <i>JEUS Security Guide</i>.</p>
<code>[-excluded <true false>]</code>	Prevents anyone from getting the permission. (true false)
<code>[-unchecked <true false>]</code>	Allows anyone to get the permission. (true false)
<code>[-actions <actions>]</code>	A list of actions for the role.
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> modify-role role1 -excluded true -unchecked false
The role [role1] has been successfully modified.
```

4.2.14.18. remove-custom-password-validator

Deletes the class registered in Custom Password Validator. For more information about password validation, refer to "Configuring Password Security" in *JEUS Security Guide*.

- Alias

`remove-custom-validator`

- Usage

```
remove-custom-password-validator -class <class-name>
```

- Parameters

Parameter	Description
<code>-class <class-name></code>	Name of the class that has been placed under <code>DOMAIN_HOME/lib/application</code> as a JAR file and added to the custom password validator using the add-custom-password-validator command.

- Example

```
[MASTER]domain1.adminServer> remove-custom-password-validator -class MyValidator
Custom password validator [MyValidator] is removed successfully.
Check the results using show-custom-password-validator.
```

4.2.14.19. remove-group

Dynamically deletes a group from the current domain. Only groups with no users can be deleted.

- Alias

removegroup

- Usage

```
remove-group <group-name>
           [-domain <domain-name>]
           [-f,--forceLock]
```

- Parameters

Parameter	Description
<group-name>	Group name.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> remove-group group1
The group [group1] has been successfully removed.
```

4.2.14.20. remove-resource

Dynamically deletes a resource from the current domain.

- Alias

rmresource

- Usage

```
remove-resource <resource-name>
              <actions>
              [-contextid <context-id>]
```



```
[ -domain <domain-name>]
[ -f,--forceLock]
```

- Parameters

Parameter	Description
<resource-name>	Name of the resource to delete.
<actions>	Action list of the resource to delete.
[-contextid <context-id>]	Context name that distinguishes policies. The contextid is used to specify a context other than the default context.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> remove-resource resource1 jeus.*
The resource [name=resource1, actions=jeus.*] has been successfully removed.
```

4.2.14.21. remove-role

Dynamically deletes a role from the current domain.

- Alias

rmrole

- Usage

```
remove-role <role-name>
    [ -domain <domain-name>]
    [ -f,--forceLock]
```

- Parameters

Parameter	Description
<role-name>	Name of the role to delete.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> remove-role role1
The role [role1] has been successfully removed.
```

4.2.14.22. remove-user

Dynamically deletes a user from the current domain.

- Alias

removeuser

- Usage

```
remove-user <user-name>
           [-domain <domain-name>]
           [-f,--forceLock]
```

- Parameters

Parameter	Description
<user-name>	User name.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>remove-user user1
The account information about the user [user1] will be permanently removed from accounts.xml. Do
you really want to remove the user [user1]? (y/n)y
The user [user1] has been successfully removed.
```

4.2.14.23. remove-user-from-group

Dynamically deletes a user member from a group in the current domain.

- Alias

removeuserfromgroup

- Usage

```
remove-user-from-group <group-name>
                      <user-name>
                      [-domain <domain-name>]
                      [-f,--forceLock]
```

- Parameters

Parameter	Description
<group-name>	Group name.
<user-name>	User name.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> remove-user-from-group group1 user1
The user [user1] has been successfully removed from the group [group1].
```

4.2.14.24. set-password

Dynamically sets the user password. The password must be created using plain characters without any encryption or encoding. The password can be encrypted using the -algorithm option. The user must login again with a new password.



This command deletes all previous passwords set for the user.

- Alias

setpassword

- Usage

```
set-password <user-name>
    <password>
    [-algorithm <algorithm>]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<user-name>	User name.
<password>	[Dynamic] User password.

Parameter	Description
[-algorithm < algorithm>]	[Dynamic] Password encryption algorithms. Input options: <ul style="list-style-type: none"> • AES • base64 • DES • DESede • Blowfish • SEED • SHA • SSHA
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer>set-password user1 pass1 -algorithm AES
※ For accounts without a password, please press enter.
Please enter the current password of user [user1]:
The password is set for [user1].
```

4.2.14.25. show-custom-password-validator

Displays the current default password validator settings. For more information about password validation, refer to "Configuring Password Security" in *JEUS Security Guide*.

- Alias

show-custom-validator

- Usage

```
show-custom-password-validator
```

- Example

```
[MASTER]domain1.adminServer> show-custom-password-validator
=====
+-----+
| custom password validator class names |
+-----+
| MyValidator |
+-----+
```

=====

4.2.14.26. show-default-password-validator

Displays the current default password validator settings. For more information about password validation, refer to "Configuring Password Security" in *JEUS Security Guide*.

- Alias

show-password-validator

- Usage

```
show-default-password-validator
```

- Example

```
[MASTER]domain1.adminServer> show-default-password-validator
=====
+-----+-----+
|                property                | value |
+-----+-----+
| min length                            |    4  |
| max length                            |   255 |
| include special characters             | true  |
| include digit characters               | false |
| include capital characters             | false |
| include small characters               | false |
| exclude user id                       | false |
+-----+-----+
=====
```

4.2.14.27. show-subject-validation

Displays the current subject validation service settings. For more information about subject validation, refer to "[Subject Validation] menu" in *JEUS Security Guide*.

- Alias

ssv

- Usage

```
show-subject-validation
```

- Example

```
[MASTER]domain1.adminServer> show-subject-validation
```

```
=====
+-----+-----+
|          Type          |          Class name          |
+-----+-----+
| DefaultSubjectValidation | jeus.security.impl.expiration.SubjectExpirationVa |
|                          | lidityService               |
+-----+-----+
| DefaultSubjectValidation | jeus.security.impl.lockout.SubjectLockoutValidati |
|                          | onService                   |
+-----+-----+
=====
```

4.2.14.28. show-group

Displays detailed group information.

- Alias

showgroup, getgroup

- Usage

```
show-group <group-name>
          [-domain <domain-name>]
```

- Parameters

Parameter	Description
<group-name>	Group name.

- Example

```
[MASTER]domain1.adminServer> show-group Administrators
Administrators(members:Principal admin,Principal user1)
```

4.2.14.29. show-policy

Displays policies that include a context ID. If a context-id is not specified, it is set to "default".

- Alias

showpolicy, getpolicy

- Usage

```
show-policy [-contextid <context-id>]
            [-domain <domain-name>]
```

- Parameters

Parameter	Description
[-contextid <context-id>]	Context name that distinguishes policies.

- Example

```
[MASTER]domain1.adminServer> show-policy
_____POLICY_____
ROLE PERMISSIONS:
PERMISSION MAP
-----
Excluded permissions:
(none)

Unchecked permissions:
(jeus.security.resource.RolePermission jndiUser)

Checked permissions:
Permission owner:
Principal user1
Permissions of owner:
(jeus.security.resource.RolePermission AdministratorsRole)

Permission owner:
Principal anonymous
Permissions of owner:
(jeus.security.resource.RolePermission jndiUser)

Unassigned permissions:

RESOURCE PERMISSIONS:
Context id: default
PERMISSION MAP
-----
Excluded permissions:
(none)
Unchecked permissions:
(none)

Checked permissions:
Permission owner:
Role jndiUser
Permissions of owner:
(jeus.security.resource.ResourcePermission jeus.jndi.* lookup)

Permission owner:
Role AdministratorsRole
Permissions of owner:
(jeus.security.resource.ResourcePermission jeus.* *)
```

Unassigned permissions:

4.2.14.30. show-user

Displays detailed user information.

- Alias

showuser, getuser

- Usage

```
show-user [<user-name>]
          [-domain <domain-name>]
```

- Parameters

Parameter	Description
<user-name>	User name.

- Example

```
[MASTER]domain1.adminServer> show-user user1
[SUBJECT]
Description: No description
Domain: SYSTEM_DOMAIN
Main principal: Principal user1
Principals: [Principal user1,Administrators(members:Principal admin,Principal user1)]
Public credentials: []
```

4.2.14.31. unassign-role-from-principal

Dynamically deletes a role from a principal.

- Alias

unassignrole, unassign-role

- Usage

```
unassign-role-from-principal <principal>
                             <role-name>
                             [-domain <domain-name>]
                             [-f,--forceLock]
```


- Parameters

Parameter	Description
<principal>	Principal name.
<role-name>	[Dynamic] Role name.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> unassign-role-from-principal jeus jndiuser
The role [jndiuser] has been successfully unassigned from the principal [jeus].
```

4.2.14.32. unassign-resource-from-role

Dynamically deletes a resource from a role. The role cannot access the resource.

- Alias

unassignresource, usassignres

- Usage

```
unassign-resource-from-role <resource-name>
    <actions>
    <role-name>
    [-contextid <context-id>]
    [-domain <domain-name>]
    [-f,--forceLock]
```

- Parameters

Parameter	Description
<resource-name>	[Dynamic] Resource name.
<actions>	[Dynamic] List of actions for the resource.
<role-name>	Role name.
[-contextid <context-id>]	[Dynamic] Context name that distinguishes policies.
[-f,--forceLock]	Forcibly applies the configuration changes.

- Example

```
[MASTER]domain1.adminServer> unassign-resource-from-role jeus.* -actions deploy-applications
deployRole
The resource [name=jeus.*, actions=deploy-applications] has been successfully unassigned from the
```

```
role [deployRole].
```

4.2.14.33. unexpire-user

Removes the expiration time that has been set using [expire-user](#).

- Alias

unexpireuser, unexuser

- Usage

```
unexpire-user <user-name>  
            [-domain <domain-name>]
```

- Parameters

Parameter	Description
<user-name>	User name.

- Example

```
[MASTER]domain1.adminServer> unexpire-user user2  
The expiry time for user [user2] is canceled.
```

4.2.14.34. unlock-user

Releases a lock that has been set using [lock-user](#).

- Alias

unlockuser

- Usage

```
unlock-user <user-name>  
            [-domain <domain-name>]
```

- Parameters

Parameter	Description
<user-name>	User name.

- Example

```
[MASTER]domain1.adminServer> unlock-user user2
The user [user2] has been successfully unlocked.
```

4.2.15. Node Management Commands

This section describes commands related to node management. A node refers to a single JEUS instance installed on a single machine. These commands can be used only when connected to the DAS, as they are intended for the remote server management of the DAS. For more information about nodes, refer to *JEUS Node Manager Guide*.

The following is a list of node management commands.

Command	Description
add-java-node	Dynamically adds a Java node.
add-ssh-node	Dynamically adds an SSH node.
apply-patch	Applies a patch to the node.
check-jeus-installed	Checks whether JEUS is installed on the node.
check-ssh-node	Verifies that SSH is properly configured on the SSH node.
install-jeus	Installs JEUS on the node, including the current domain configuration.
list-nodes	Displays the list of nodes.
modify-java-node	Modifies a saved Java node.
modify-node	Modifies a saved node.
modify-ssh-node	Modifies a saved SSH node.
patch-info	Displays information about patches applied to the node.
remove-node	Removes a saved node.
remove-patch	Removes a patch applied to the node.
show-node	Displays the configuration of the node.
uninstall-jeus	Uninstalls JEUS from the node.

4.2.15.1. add-java-node

Dynamically adds a new Java node. Enter appropriate values for each option to ensure a proper connection to the Java NodeManager configured for the node.

- Alias

addjavanode

- Usage

```
add-java-node <node-name>
    -host <host-name>
    [-port <port-number>]
    [-ssl]
    [-truststore <truststore-path>]
    [-truststorepassword <truststore-password>]
```

- Parameters

Parameter	Description
<node-name>	Name of the node to add. This value must be unique as it is used as an ID.
-host <host-name>	Host address used by the node manager of the corresponding node.
[-port <port-number>]	Port number used by the node manager of the corresponding node. (Default: 7730)
[-ssl]	Specifies whether to use SSL.
[-truststore <truststore-path>]	Path to the truststore file.
[-truststorepassword <truststore-password>]	Password for the truststore file.

- Example

```
[MASTER]domain1.adminServer> add-java-node node1 -host 192.168.34.55 -port 7730
The node [node1] was successfully added.
```

4.2.15.2. add-ssh-node

Dynamically adds a new SSH node. Enter appropriate values for each option to ensure SSH accessibility. You can check SSH accessibility using the [check-ssh-node](#) command, and modify a created SSH node with the [modify-ssh-node](#) command.

- Alias

addsshnode

- Usage

```
add-ssh-node <node-name>
    -host <host-name>
    [-dir <install-dir>]
    [-port <port-number>]
```

```
[-user <user-name>]
[-privatekey <file-path>]
```

- Parameters

Parameter	Description
<node-name>	Name of the remote node to add. This value must be unique as it is used as an ID.
-host <host-name>	Host address of the remote node.
[-dir <install-dir>]	JEUS installation directory of the remote node.
[-port <port-number>]	SSH connection port number. (Default: 22)
[-user <user-name>]	User name for SSH connection.
[-privatekey <file-path>]	Path to the private key file for the SSH connection.

- Example

```
[MASTER]domain1.adminServer> add-ssh-node node1 -host 192.168.34.55 -dir /home/sshUser/jeus -user sshUser
The node [node1] was successfully added.
```

4.2.15.3. apply-patch

Applies a patch to the node.

- Alias

applypatch

- Usage

```
apply-patch [<file-name>]
            [-nodes <node-name>]
            [-rolling]
            [-nomaster]
            [-action <action-on-error>]
```

- Parameters

Parameter	Description
<file-name>	Patch file to apply. If not specified, the entire contents of the JEUS_HOME/lib/jext directory are transferred.

Parameter	Description
<code>[-nodes <node-name>]</code>	List of nodes to which the patch will be applied. If not specified, the patch is applied to all nodes within the domain.
<code>[-rolling]</code>	Specifies whether to restart the server after transferring the patch file in order to apply it.
<code>[-nomaster]</code>	Specifies not to reboot MASTER.
<code>[-action <action-on-error>]</code>	Action to take if the patch file application fails. Specify one of the following options: <ul style="list-style-type: none"> • CONTINUE • ROLLBACK • STOP

- Example

```
[MASTER]domain1.adminServer>apply-patch -nodes node2 jext.jar
The patch was successfully applied to the nodes [node1].
```

4.2.15.4. check-jeus-installed

Checks whether JEUS is installed on a specific node. The result displays the JEUS version information for the node.

- Alias

checkjeusinstalled, isjeusinstalled

- Usage

```
check-jeus-installed <node-name>
```

- Parameters

Parameter	Description
<code><node-name></code>	Name of the node.

- Example

```
[MASTER]domain1.adminServer> check-jeus-installed node1
The JEUS version on the node [node1]: JEUS 9.1
```

4.2.15.5. check-ssh-node

Verifies that SSH is properly configured on a specific SSH node by executing the Java command.

- Alias

checksshnode, checknode

- Usage

```
check-ssh-node <node-name>
```

- Parameters

Parameter	Description
<node-name>	Name of the node.

- Example

```
[MASTER]domain1.adminServer> check-ssh-node node1  
The Domain Administration Server can execute the "java" process via SSH.
```

4.2.15.6. install-jeus

Installs JEUS on a specific node, including the current domain configuration. The installation process may take some time depending on your environment, as it involves file compression and copying.

- Alias

installjeus

- Usage

```
install-jeus <node-name>
```

- Parameters

Parameter	Description
<node-name>	Name of the node.

- Example

```
[MASTER]domain1.adminServer> install-jeus node1  
JEUS was successfully installed on the node [node1].
```

4.2.15.7. list-nodes

Displays a list of currently configured nodes. The information includes each node's name, type, controllability status, and JEUS installation version.

- Alias

listnodes, nodelist

- Usage

```
list-nodes [-onlyname]
```

- Parameters

Parameter	Description
[-onlyname]	Displays only the node names.

- Example

```
[MASTER]domain1.adminServer> list-nodes
=====
+-----+-----+-----+-----+
| Node name | Type | Under control | JEUS version |
+-----+-----+-----+-----+
| node1     | SSH | Y             | -            |
| node2     | SSH | Y             | JEUS 9.1    |
| node3     | JAVA| N             | -            |
+-----+-----+-----+-----+
=====
```

4.2.15.8. modify-java-node

Modifies configuration of a specific Java node.

- Alias

modifyjavanode

- Usage

```
modify-java-node <node-name>
                [-host <host-name>]
                [-port <port-number>]
                [-ssl <enable-SSL>]
                [-truststore <truststore-path>]
                [-truststorepassword <truststore-password>]
```


- Parameters

Parameter	Description
<code><node-name></code>	Name of the node.
<code>[-host <host-name>]</code>	Host address used by the node manager of the corresponding node.
<code>[-port <port-number>]</code>	Port number used by the node manager of the corresponding node. (Default: 7736)
<code>[-ssl <enable-SSL>]</code>	Specifies whether to use SSL.
<code>[-truststore <truststore-path>]</code>	Path to the truststore file.
<code>[-truststorepassword <truststore-password>]</code>	Password for the truststore file.

- Example

```
[MASTER]domain1.adminServer> modify-java-node node1 -port 7731
The node [node1] was modified successfully. Check the results using "show-node"
```

4.2.15.9. modify-node

Modifies the configuration of a specific node. The node manager type can also be changed.

- Usage

```
modify-node <node-name>
    [-type <node-type>]
    [-host <host-name>]
    [-port <port-number>]
    [-ssl <enable-ssl>]
    [-truststore <truststore-path>]
    [-truststorepassword <truststore-password>]
    [-dir <install-dir>]
    [-user <user-name>]
    [-privatekey <file-path>]
```

- Parameters

Parameter	Description
<code><node-name></code>	Name of the node.
<code>[-type <node-type>]</code>	Modifies the node type. Specify either java or ssh.

Parameter	Description
<code>[-host <host-name>]</code>	Host address used by the node manager of the corresponding node.
<code>[-port <port-number>]</code>	Port number used by the node manager of the corresponding node. (Default: 7730 for Java type, 22 for SSH type)
<code>[-ssl <enable-ssl>]</code>	Specifies whether to use SSL.
<code>[-truststore <truststore-path>]</code>	Path to the Truststore file.
<code>[-truststorepassword <truststore-password>]</code>	Password for the truststore file.
<code>[-dir <install-dir>]</code>	Path to the JEUS installation directory on the node.
<code>[-user <user-name>]</code>	User name for the SSH connection.
<code>[-privatekey <file-path>]</code>	Path to the private key file used for the SSH connection.

- Example

```
[MASTER]domain1.adminServer> modify-node node1 -type ssh -port 23
The node [node1] was modified successfully. Check the results using "show-node"
```

4.2.15.10. modify-ssh-node

Modifies the configuration of a specific SSH node.

- Alias

modifysshnode, modifynode

- Usage

```
modify-ssh-node <node-name>
    [-host <host-name>]
    [-dir <install-dir>]
    [-port <port-number>]
    [-user <user-name>]
    [-privatekey <file-path>]
```

- Parameters

Parameter	Description
<code><node-name></code>	Name of the node.

Parameter	Description
[-host <host-name>]	Host address of the remote node.
[-dir <install-dir>]	JEUS installation directory on the remote node.
[-port <port-number>]	SSH connection port number. (Default: 22)
[-user <user-name>]	User name for the SSH connection.
[-privatekey <file-path>]	Path to the private key file used for the SSH connection.

- Example

```
[MASTER]domain1.adminServer> modify-ssh-node node1 -port 23
The node [node1] was modified successfully. Check the results using "show-node"
```

4.2.15.11. patch-info

Displays information about patches applied to the node.

- Alias

patchinfo, patch-list, patchlist, list-patch, listpatch

- Usage

```
patch-info [<node-names>]
```

- Parameters

Parameter	Description
[<node-names>]	Name of the node. For multiple nodes, separate them with commas (,).

- Example

```
[MASTER]domain1.adminServer>patch-info
Successfully got patch information for the nodes.
=====
Node Name[node1]

+-----+-----+
|          Patch File Name          | Patch Contents |
+-----+-----+
(No data available)

Unable to get patch information to SSH NodeManager
=====
```

```

=====
Node Name[node2]

+-----+-----+
|           Patch File Name           | Patch Contents |
+-----+-----+
| jext_patch_test.jar                 | patch test    |
+-----+-----+
=====

```

4.2.15.12. remove-node

Removes a specific node.

- Alias

removenode, rmnode, rm-node

- Usage

```
remove-node <node-name>
```

- Parameters

Parameter	Description
<node-name>	Name of the node.

- Example

```

[MASTER]domain1.adminServer>remove-node node1
The node [node1] was successfully removed.

```

4.2.15.13. remove-patch

Removes the patch file applied to the specified node.

- Alias

removepatch, rmpatch, rm-patch

- Usage

```

remove-patch [<file-name>]
              [-nodes <node-name>]
              [-rolling]
              [-nomaster]

```

`[-action <action-on-error>]`

- Parameters

Parameter	Description
<code>[<file-name>]</code>	Patch file to remove. If not specified, the entire contents of JEUS_HOME/lib/jext directory will be removed.
<code>[-nodes <node-name>]</code>	List of nodes from which the patch will be removed. If not specified, the patch will be removed from all nodes within the domain.
<code>[-rolling]</code>	Specifies whether to apply the changes when restarting the server after removing the patch file.
<code>[-nomaster]</code>	Specifies not to reboot the MASTER.
<code>[-action <action-on-error>]</code>	Action to take when the patch removal fails. Specify one of the following options: <ul style="list-style-type: none">• CONTINUE• STOP• ROLLBACK

- Example

```
[MASTER]domain1.adminServer>remove-patch -nodes node2 jext.jar
The nodes [node2] have successfully removed patch file.
```

4.2.15.14. show-node

Displays information about a specific node. In addition to the node's basic information, it also retrieves information about the server mapped to that node.

The basic information of an SSH node can be modified using the [modify-ssh-node](#) command. Mapped server information can be modified using the [modify-server](#) command.

- Alias

shownode, nodeinfo

- Usage

```
show-node <node-name>
```

- Parameters

Parameter	Description
<code><node-name></code>	Name of the node.

- Example

```
[MASTER]domain1.adminServer> show-node node1
=====
+-----+-----+
| Property | Value |
+-----+-----+
| Node Name | node1 |
| Host      | 192.168.34.55 |
| Mapped Servers | adminServer server1 |
| Node Type | JAVA |
| NodeManager Port | 7730 |
| Use SSL   | false |
+-----+-----+
=====
```

4.2.15.15. uninstall-jeus

Uninstalls JEUS from a specific node.

- Alias

`uninstalljeus`

- Usage

```
uninstall-jeus <node-name>
```

- Parameters

Parameter	Description
<code><node-name></code>	Name of the node.

- Example

```
[MASTER]domain1.adminServer> uninstall-jeus node1
JEUS was successfully uninstalled from the node [node1].
```

4.2.16. Node Manager Commands

This section describes commands that can be used by connecting to the node manager. A node refers to a single JEUS instance installed on a single machine. You can start a server or check its

status by connecting to the Java-based node manager. For details about the Java-based node manager, refer to *JEUS Node Manager Guide*.

The following is a list of node management commands.

Command	Description
connect-nodemanager	Connects to the Node Manager.
disconnect-nodemanager	Disconnects from the Node Manager. This command can only be used while connected to the node manager.
stop-nodemanager	Terminates the Node Manager. This command can only be used while connected to the node manager.
nm-start-server	Starts the server via the Node Manager. This command can only be used while connected to the node manager.
nm-stop-server	Terminates a server started via the Node Manager. This command can only be used while connected to the Node Manager.
nm-state-server	Displays the status of a server started via Node Manager. This command can only be used while connected to the Node Manager.

4.2.16.1. connect-nodemanager

Connects to the Node Manager.

- Alias

connect-nm, connectnm, nm-connect, nmconnect

- Usage

```
connect-nodemanager -domain <domain-name>
                    -h,--host <host-address>
                    -p,--port <port>
                    [-t,--type <connect-type>]
                    [-ts,--truststoreFile <truststore-file>]
                    [-tsp,--truststorePass <truststore-password>]
```

- Parameters

Parameter	Description
-domain <domain-name>	Name of the domain managed by the Node Manager.
-h,--host <host-address>	Host address of the Node Manager to connect to.
-p,--port <port>	Port number of the Node Manager to connect to.

Parameter	Description
<code>[-t,--type <connect-type>]</code>	Specifies whether to use SSL when connecting to the Node Manager. Specify one of the following options: <ul style="list-style-type: none"> • ssl • plain (default)
<code>[-ts,--truststoreFile <truststore-file>]</code>	Path to the truststore file when using SSL.
<code>[-tsp,--truststorePass <truststore-password>]</code>	Password for the truststore file when using SSL.

- Example

```
offline>connect-nodemanager -host 192.168.34.55 -port 7730 -domain domain1
The connection to the node manager domain1 has been established.
```

- Note

This command can be used without being connected to the server.

4.2.16.2. disconnect-nodemanager

Disconnects from the Node Manager.

- Alias

disconnect-nm, disconnectnm, disconnm, nm-disconnect, nmdisconnect

- Usage

```
disconnect-nodemanager
```

- Example

```
[NodeManager]domain1>disconnect-nodemanager
disconnect to node manager.
```

- Note

This command can be used without being connected to the server.

4.2.16.3. stop-nodemanager

Terminates the Node Manager.

- Alias

stop-nm, stopnm, nm-stop, nmstop

- Usage

```
stop-nodemanager [-verbose]
                  [-p --properties <properties-file>]
                  [-host <host-address>]
                  [-port <port>]
                  [-t, --type <connect-type>]
                  [-ts, --truststoreFile <truststore-file>]
                  [-tsp, --truststorePass <truststore-password>]
                  [-stopServer]
                  [-f]
                  [-g]
                  [-to <shutdowntimeout>]
```

- Parameters

Parameter	Description
[-verbose]	Displays detailed execution results.
[-p --properties <properties-file>]	File containing the settings required to execute the command.
[-host <host-address>]	Host address of the Node Manager to terminate.
[-port <port>]	Port number of the Node Manager to terminate.
[-t,--type <connect-type>]	Specifies whether to use SSL when connecting to the Node Manager. Specify one of the following options: <ul style="list-style-type: none">• ssl• plain (default)
[-ts,--truststoreFile <truststore-file>]	Path to the truststore file when using SSL.
[-tsp,--truststorePass <truststore-password>]	Password for the truststore file when using SSL.
[-stopServer]	Terminates the servers managed by the Node Manager.
[-f]	Forces immediate termination without attempting a graceful shutdown (default).
[-g]	Specifies whether to gracefully terminate the process. Waits indefinitely for any pending requests to complete.

Parameter	Description
<code>[-to,--shutdowntimeout]</code>	Timeout period for graceful termination. Waits up to the specified time (in seconds) for pending requests to complete.

- Example

```
[NodeManager]domain1>stop-nodemanager
Succeed to stop the node manager.
```

- Note

This command can be used without being connected to the server.

4.2.16.4. nm-start-server

Starts the server via Node Manager.

- Alias

nmstart, nmstartserver

- Usage

```
nm-start-server [-domain <domain-name>]
                -server <server-name>
                -u,--user <user-name>
                -p,--password <password>
                [-masterurl <masterurl>]
                [-f,--force]
                [-s,--standby]
                [-host <nm-host>]
                [-port <nm-port>]
                [-t,--type <connect-type>]
                [-ts,--truststoreFile <truststore-file>]
                [-tsp,--truststorePass <truststore-password>]
```

- Parameters

Parameter	Description
<code>[-domain <domain-name>]</code>	Name of the domain to which the server to start belongs.
<code>-server <server-name></code>	Name of the server to start.
<code>-u,--user <user-name></code>	Account name required to start the server.
<code>-p,--password <password></code>	Password for the account required to start the server.
<code>[-masterurl <masterurl>]</code>	MASTER URL required to start MS.

Parameter	Description
[-f, --force]	Forces the server state to RUNNING even if application deployment fails when starting MS.
[-s, --standby]	Starts MS only up to the STANDBY state.
[-host <nm-host>]	Host address for connecting to the Node Manager to start the server when not already connected.
[-port <nm-port>]	Port number for connecting to the Node Manager to start the server when not already connected.
[-t --type <connect-type>]	Specifies whether to use SSL when connecting to the Node Manager. Specify one of the following options: <ul style="list-style-type: none"> • ssl • plain (default)
[-ts,--truststoreFile <truststore-file>]	Path to the truststore file when using SSL.
[-tsp,--truststorePass <truststore-password>]	Password for the truststore file when using SSL.

- Example

```
[NodeManager]domain1>nm-start-server -server server1 -u jeus -p jeus
succeed to start server[server1].
RUNNING
```

- Note

This command can be used without being connected to the server.

4.2.16.5. nm-stop-server

Terminates a server started via the Node Manager.

- Alias

nmstop-server, nmstopserver

- Usage

```
nm-stop-server [-domain <domain-name>]
               -server <server-name>
               -u,--user <user-name>
               -p,--password <password>
               [-to,--timeout <to>]
               [-g,--graceful]
```

- Parameters

Parameter	Description
<code>[-domain <domain-name>]</code>	Name of the domain to which the server to shut down belongs.
<code>-server <server-name></code>	Name of the server to shut down.
<code>-u,--user <user-name></code>	Account name required to connect to the server to shut down.
<code>-p,--password <password></code>	Password for the account used to connect to the server to shut down.
<code>[-to,--timeout <to>]</code>	Timeout period for graceful termination. Waits up to the specified time (in seconds) for pending requests to complete.
<code>[-g, --graceful]</code>	Specifies whether to gracefully terminate the process. Waits indefinitely for any pending requests to complete.

- Example

```
[NodeManager]domain1>nm-stop-server -server server1 -u jeus -p jeus
succeed to stop server[server1].
```

- Note

This command can be used without being connected to the server.

4.2.16.6. nm-state-server

Displays the status of a server started via Node Manager.

- Alias

nmstate-server, nmstateserver

- Usage

```
nm-state-server [-domain <domain-name>]
                -server <server-name>
                -u,--user <user-name>
                -p,--password <password>
```

- Parameters

Parameter	Description
<code>[-domain <domain-name>]</code>	Name of the domain to which the server whose status is being checked belongs.
<code>-server <server-name></code>	Name of the server whose status to check.

Parameter	Description
-u,--user <user-name>	Account name required to connect to the server to check its status.
-p,--password <password>	Password for the account used to connect to the server to check its status.

- Example

```
[NodeManager]domain1>nm-state-server -server server1 -u jeus -p jeus
server[server1] : RUNNING
```

- Note

This command can be used without being connected to the server.

4.2.17. Configuration Editing Commands

This section describes the commands that edit JEUS configurations. JEUS's dynamic configuration modification tool can be used through the console by using these commands.



For detailed explanations on the dynamic configuration change feature, refer to "Changing Domain Settings" in *JEUS Domain Guide*

The following needs to be pointed out before describing the commands.

- JEUS configurations edited by using the configuration editing commands

The configuration editing commands are used to edit Java objects which are used by the JEUS server to save configurations. These objects used JAXB to change the XML schema defined in domain.xml (which expresses JEUS configuration) to Java objects. As a result, the object structure and the names of each item are similar to those in domain.xml, but some parts may be expressed differently.

- Simple Type

Does not contain child items.

- Complex Type

Contains child items. A child can have simple types, or lists that contain complex types and simple types, or lists that contain complex types.

- List

Also contains configuration items in the list format containing simple types or complex types as elements.

- Path

Configuration editing commands indicate the location of each item as a path in JEUS configurations. A path consists of the name of a configuration item, the identifier of a complex type, or an index. Each item is separated by a slash (/).

1. A root is expressed as a single slash.
2. The current location is expressed as a single dot.
3. The parent item of the current location is expressed as two dots. For example, the path name for the parent of the '/servers' item is expressed as '/servers/..'.
4. The name of a configuration item is usually the path name of the configuration item. For example, the path of the servers item under 'root' are expressed as '/servers'. The servers item has child items, and if one of the item's name is called 'server', then the path of the server item is '/servers/server'.
5. A list that contains a complex type as an element uses the value of the identifier of the complex type as the path name. An identifier is a child item with a unique value that identifies a specific complex type when multiple complex types in the same format exist. For example, '/servers/server' is a list that consists of multiple complex types that contains the configurations of each server in the domain configuration. An identifier is specified to use the server name in a complex type, which contains the server configuration. As a result, the path name of the configuration item for server1 can be expressed as '/servers/server/server1'.
6. A list that has a simple type (instead of a complex type) as an element cannot contain an identifier. As a result, an index, which identifies the element number in the list, is used as the path name. An index number with an integer greater than 0 is specified inside brackets. For example, if there is a list with a path named '/a/b' and 'b' as the simple type, then the first element of the list is expressed as '/a/b/[0]'.



The first element when expressing the path for a simple type list is expressed as [0], not [1].

7. Each configuration editing command may specify or modify the current path. The current path is stored in a server. As a result, if multiple jeusadmin are executed, and configuration changes are applied in multiple places, then the current path may be changed inadvertently. This may result in abnormal execution of the command. Therefore, when modifying a configuration, it is recommended that only one jeusadmin is executed.

The following table describes the list of commands used for editing configurations. All these commands can only be used when connected to a server.

Command	Description
activate-configuration	Applies modified configurations to a server and displays the results.
cancel	Disables the lock for dynamic configuration changes, and deletes the modified history stored in a server. This command can be used even when there is no lock.

Command	Description
change-current-path	Checks or changes the current path.
create-empty-element	Creates an empty complex type in a specified item, or creates a new item in a list that has complex type as an element.
delete-element	Deletes an item located in a specified path.
set-element-value	Changes the value of a specified simple type, or adds a new item to a list that has simple type as an element.
start-configuration-editing	Sends a request to a server to request a lock for dynamic configuration changes.
show-element	Displays the information about an item that exists in a specified path.

4.2.17.1. activate-configuration

Applies modified configurations to a server and displays the results.

- Alias

activate

- Usage

```
activate-configuration
```

- Example

```
[MASTER]domain1.adminServer>cd /

[MASTER]domain1.adminServer>ls
description                Not specified (string      )
productionMode              true
id                          982883233
securityManager             complex type
passwordValidator           Not specified (complex type)
adminServerName             adminServer
domainLogHome               Not specified (string      )
systemClusteringFramework  complex type
domainBackup                complex type
enableWebadmin              true
enableJsonCommand           false
enableToResynchronizeApplications false
servers                    complex type
sessionCluster              complex type
clusters                   Not specified (complex type)
serverTemplates             Not specified (complex type)
lifecycleInvocation         list of [lifecycleInvocation]
applicationRepositories     Not specified (complex type)
deployedApplications        Not specified (complex type)
deployedLibraries           Not specified (complex type)
```

```

resources                                Not specified (complex type)

[MASTER]domain1.adminServer>set description "Hello, world"
The value Hello, world is set at the specified location /description.
[MASTER]domain1.adminServer>ls
description                             Hello, world
productionMode                           true
id                                         982883233
securityManager                           complex type
passwordValidator                         Not specified (complex type)
adminServerName                           adminServer
domainLogHome                             Not specified (string      )
systemClusteringFramework                 complex type
domainBackup                             complex type
enableWebadmin                            true
enableJsonCommand                         false
enableToResynchronizeApplications         false
servers                                   complex type
sessionCluster                            complex type
clusters                                 Not specified (complex type)
serverTemplates                           Not specified (complex type)
lifecycleInvocation                       list of [lifecycleInvocation]
applicationRepositories                    Not specified (complex type)
deployedApplications                      Not specified (complex type)
deployedLibraries                         Not specified (complex type)
resources                                 Not specified (complex type)

[MASTER]domain1.adminServer>activate
The activation completed successfully.

[Details]
domain.xml : ACTIVATED
domain : ACTIVATED
domain.description : ACTIVATED

```

4.2.17.2. cancel

Deletes changes, and releases the lock for dynamic configuration changes. This can be used even when a user that executes commands does not acquire a lock. This is a command that can forcibly release the lock intended for dynamic configuration changes.

- Usage

```
cancel
```

- Example

```

[MASTER]domain1.adminServer>edit
Successfully acquired a configuration lock from Domain Administration Server.

[MASTER]domain1.adminServer>ls
description                             Hello, world
productionMode                           true

```



```

id                      982883233
securityManager         complex type
passwordValidator       Not specified (complex type)
adminServerName         adminServer
domainLogHome           Not specified (string      )
systemClusteringFramework complex type
domainBackup            complex type
enableWebadmin          true
enableJsonCommand       false
enableToResynchronizeApplications false
servers                 complex type
sessionCluster          complex type
clusters                Not specified (complex type)
serverTemplates         Not specified (complex type)
lifecycleInvocation     list of [lifecycleInvocation]
applicationRepositories Not specified (complex type)
deployedApplications    Not specified (complex type)
deployedLibraries       Not specified (complex type)
resources               Not specified (complex type)

```

```

[MASTER]domain1.adminServer>cancel
Current configuration editing status is cleared, and the configuration lock is released.

```

```

[MASTER]domain1.adminServer>ls
Current user does not have the configuration lock.

```

4.2.17.3. change-current-path

Changes a specified path to the current path. If a path is not specified, then the current path will be displayed.

- Alias

```
cd
```

- Usage

```
change-current-path [<path>]
```

- Parameters

Parameter	Description
[<path>]	Either an absolute path or a relative path to change.

- Example

```

[MASTER]domain1.adminServer>change-current-path servers/server/adminServer
Current path is changed to /servers/server/adminServer

[MASTER]domain1.adminServer>change-current-path ..
Current path is changed to /servers/server

```

```
[MASTER]domain1.adminServer>change-current-path .
Current path is changed to /servers/server

[MASTER]domain1.adminServer>change-current-path /
Current path is changed to /

[MASTER]domain1.adminServer>change-current-path servers/server/server1/../../../../server/adminServer
Current path is changed to /servers/server/adminServer

[MASTER]domain1.adminServer>cd /servers/server/adminServer
```

4.2.17.4. create-empty-element

Creates a new complex type in a specified location. The complex type will be empty, and it must be filled manually. If an element with a complex type uses an identifier value as an item name, it creates a type in which a specified value becomes an identifier value, and adds the type to the list.

- Alias

create

- Usage

```
create-empty-element <name>
                    [<type>]
```

- Parameters

Parameter	Description
<name>	Name of the item to be created. When adding a new complex type in a list that has a complex type as an element, then this parameter creates a complex type which uses the value specified by using the item name as the identifier value.
[<type>]	Type of the item to be created. Typically they do not need to be specified. However, for a list with multiple types as the element, then the type to be created needs to be specified.

- Example

- The following is an example of creating an empty complex type.

```
[MASTER]domain1.adminServer>cd /
[MASTER]domain1.adminServer>create-empty-element passwordValidator
Created an empty complex type of passwordValidator at path /
```

- The following is an example of adding a new complex type to a list that has a complex type as

an element. A new server item that uses 'server2' as the server name (which is an identifier) is created and added to the list.

```
[MASTER]domain1.adminServer>cd /servers/server
Current path is changed to /servers/server

[MASTER]domain1.adminServer>ls
  adminServer
  server1

Current list can contain the following type of elements:
[server]
The name of the identifier element of [server] element is [name].

[MASTER]domain1.adminServer>create-empty-element server2
Added a new element of type server with id [name == server2] to the list at path
/servers/server

[MASTER]domain1.adminServer>ls
  adminServer
  server1
  server2

Current list can contain the following type of elements:
[server]
The name of the identifier element of [server] element is [name].
```

- The following is an example of specifying the complex type to be created by using the type option. The results of the show-element command shows multiple types of elements. If a type is not specified, then a help message will be displayed.

```
[MASTER]domain1.adminServer>cd /servers/server/adminServer/systemLogging/jeus/handler/
fileHandlerOrSmtphandlerOrSocketHandler
[MASTER]domain1.adminServer>ls
  fileHandler

Current list can contain the following type of elements:
  [fileHandler, userHandler, smtpHandler, socketHandler]
The name of the identifier element of [fileHandler, userHandler,
smtpHandler, socketHandler] element is [name].

[MASTER]domain1.adminServer>create-empty-element handler1
Must specify an element type to create a new element. Available types are fileHandler,
userHandler, smtpHandler, socketHandler.

[MASTER]domain1.adminServer>create-empty-element handler1 userHandler
Added a new element of type userHandler with id [name == handler1] to the list at path
/servers/server/adminServer/systemLogging/jeus/handler/fileHandlerOrSmtphandlerOrSocketHandle
r

[MASTER]domain1.adminServer>ls fileHandler handler1

Current list can contain the following type of elements:
  [fileHandler, userHandler, smtpHandler, socketHandler]
The name of the identifier element of [fileHandler, userHandler,
```

smtpHandler, socketHandler] element is [name].

4.2.17.5. delete-element

Deletes an item located in a specified path.

- Alias

delete, rm

- Usage

```
delete-element <path>
```

- Parameters

Parameter	Description
<path>	Path of the item whose value will be deleted.

- Example

```
[MASTER]domain1.adminServer>cd /
Current path is changed to /

[MASTER]domain1.adminServer>ls
description                Hello,world
productionMode              true
id                          982883233
securityManager             complex type
passwordValidator           Not specified (complex type)
adminServerName             adminServer
domainLogHome               Not specified (string      )
systemClusteringFramework  complex type
domainBackup                complex type
enableWebadmin              true
enableJsonCommand           false
enableToResynchronizeApplications false
servers                     complex type
sessionCluster              complex type
clusters                    Not specified (complex type)
serverTemplates             Not specified (complex type)
lifecycleInvocation         list of [lifecycleInvocation]
applicationRepositories     Not specified (complex type)
deployedApplications        Not specified (complex type)
deployedLibraries           Not specified (complex type)
resources                   Not specified (complex type)

[MASTER]domain1.adminServer>delete-element description
Successfully delete the target element at /description.

[MASTER]domain1.adminServer>ls
```

description	Not specified (string)
productionMode	true
id	982883233
securityManager	complex type
passwordValidator	Not specified (complex type)
adminServerName	adminServer
domainLogHome	Not specified (string)
systemClusteringFramework	complex type
domainBackup	complex type
enableWebadmin	true
enableJsonCommand	false
enableToResynchronizeApplications	false
servers	complex type
sessionCluster	complex type
clusters	Not specified (complex type)
serverTemplates	Not specified (complex type)
lifecycleInvocation	list of [lifecycleInvocation]
applicationRepositories	Not specified (complex type)
deployedApplications	Not specified (complex type)
deployedLibraries	Not specified (complex type)
resources	Not specified (complex type)

4.2.17.6. start-configuration-editing

Acquires a lock for dynamic configuration changes by sending a request to a server. If a lock is acquired, then the server's current path is initialized. When a lock is not acquired, commands (excluding the cancel command) are not executed. As a result, a lock must be acquired by first executing this command.

- Alias

lock-and-edit, edit

- Usage

```
start-configuration-editing [-f]
```

- Parameters

Parameter	Description
[-f]	When another user has a lock for dynamic configuration changes, this parameter ignores this and attempts to forcibly acquire the lock.

- Example

```
[MASTER]domain1.adminServer>start-configuration-editing
Successfully acquired a configuration lock from Domain Administration Server.
```

4.2.17.7. set-element-value

This is used for modifying the value of a simple type item, or adding a value to a list that has simple type as an element.

- Alias

set

- Usage

```
set-element-value <path><value>
```

- Parameters

Parameter	Description
<path>	Specifies the path of the item to modify.
<value>	Specifies the value to modify.

- Example

- This is an example of setting a value called "Hello,world!" in the description item by using the set-element-value command.

```
[MASTER]domain1.adminServer>cd /
Current path is changed to /

[MASTER]domain1.adminServer>ls
description                Not specified (string      )
productionMode             true
id                         982883233
securityManager            complex type
passwordValidator          Not specified (complex type)
adminServerName            adminServer
domainLogHome              Not specified (string      )
systemClusteringFramework complex type
domainBackup               complex type
enableWebadmin             true
enableJsonCommand          false
enableToResynchronizeApplications false
servers                    complex type
sessionCluster             complex type
clusters                   Not specified (complex type)
serverTemplates            Not specified (complex type)
lifecycleInvocation        list of [lifecycleInvocation]
applicationRepositories     Not specified (complex type)
deployedApplications       Not specified (complex type)
deployedLibraries          Not specified (complex type)
resources                  Not specified (complex type)

[MASTER]domain1.adminServer>set-element-value description "Hello,world"
The value Hello,world is set at the specified location /description.
```

```
[MASTER]domain1.adminServer>ls
description                Hello,world
productionMode             true
id                         982883233
securityManager            complex type
passwordValidator          Not specified (complex type)
adminServerName            adminServer
domainLogHome              Not specified (string      )
systemClusteringFramework complex type
domainBackup               complex type
enableWebadmin             true
enableJsonCommand          false
enableToResynchronizeApplications false
servers                    complex type
sessionCluster             complex type
clusters                   Not specified (complex type)
serverTemplates            Not specified (complex type)
lifecycleInvocation        list of [lifecycleInvocation]
applicationRepositories    Not specified (complex type)
deployedApplications       Not specified (complex type)
deployedLibraries          Not specified (complex type)
resources                  Not specified (complex type)
```

- This is an example of adding a value to a list that has simple type as an element. The path of the list in which a value will be added is used as an item name.

```
[MASTER]domain1.adminServer>start-configuration-editing
Successfully acquired a configuration lock from Domain Administration Server.

[MASTER]domain1.adminServer>cd lifecycleInvocation
Current path is changed to /lifecycleInvocation

[MASTER]domain1.adminServer>create-empty-element com.tmax.sample
Added a new element of type lifecycleInvocation with id [className == com.tmax.sample] to the
list at path /lifecycleInvocation

[MASTER]domain1.adminServer>cd com.tmax.sample
Current path is changed to /lifecycleInvocation/com.tmax.sample

[MASTER]domain1.adminServer>cd invocation
Current path is changed to /lifecycleInvocation/com.tmax.sample/invocation

[MASTER]domain1.adminServer>create-empty-element invocation
Added a new element of type invocation to the list at path
/lifecycleInvocation/com.tmax.sample/invocation

[MASTER]domain1.adminServer>cd [0]
Current path is changed to /lifecycleInvocation/com.tmax.sample/invocation/[0]

[MASTER]domain1.adminServer>ls
  invocationMethod          Not specified (complex type)
  invocationArgument        list of [string]
  invocationType            Not specified (enum[BOOT,
                           BEFORE_DEPLOY, AFTER_DEPLOY, READY,
                           BEFORE_UNDEPLOY, AFTER_UNDEPLOY])
```

```

[MASTER]domain1.adminServer>set-element-value invocationArgument arg0
The value arg0 added to the list in the specified location:
/lifecycleInvocation/com.tmax.sample/invocation/[0]/invocationArgument.
[MASTER]domain1.adminServer>cd invocationArgument
Current path is changed to
/lifecycleInvocation/com.tmax.sample/invocation/[0]/invocationArgument
[MASTER]domain1.adminServer>ls
    [0]                                arg0

Current list can contain the following type of elements:
[string]

[MASTER]domain1.adminServer>set-element-value . arg1
The value arg1 added to the list in the specified location:
/lifecycleInvocation/com.tmax.sample/invocation/[0]/invocationArgument.

[MASTER]domain1.adminServer>ls
    [0]                                arg0
    [1]                                arg1

Current list can contain the following type of elements:
[string]

```

4.2.17.8. show-element

Displays the information about the items located in a specified path. The information displayed includes name, value, and type. When a path is not specified, the path for the current location is displayed.

- Alias

ls

- Usage

```
show-element [<path>]
```

- Parameters

Parameter	Description
[<path>]	Specifies the path of the item to be retrieved.

- Example

- This is an example of displaying the information about a complex type. The item name, value (if there is one), and the type of the value are displayed.

```

[MASTER]domain1.adminServer>show-element

name                                adminServer
nodeName                            node1

```


listeners	complex type
logHome	Not specified (string)
group	Not specified (string)
jvmConfig	complex type
userInterceptor	Not specified (complex type)
userLogging	Not specified (complex type)
systemLogging	list of [systemLogging]
logStdoutToRawFormat	true
actionOnResourceLeak	WARNING (enum[NO_ACTION, WARNING, AUTO_CLOSE])
tmConfig	complex type
externalResource	list of [externalResource]
managedExecutorService	list of [string]
managedScheduledExecutorService	list of [string]
contextService	list of [string]
managedThreadFactory	list of [string]
scheduler	Not specified (complex type)
namingServer	complex type
jmxManager	Not specified (complex type)
systemThreadPool	complex type
dataSourceRemoteLookup	false
engineInitOnStartup	true
useWebEngine	true
useEjbEngine	true
useJmsEngine	true
webEngine	complex type
ejbEngine	complex type
jmsEngine	complex type
useMEJB	false
classFtp	true
enableInterop	Not specified (complex type)
lifecycleInvocation	list of [lifecycleInvocation]
resRef	complex type
jmsResource	complex type
dataSources	Not specified (complex type)
customResourceRefs	Not specified (complex type)
externalResourceRefs	Not specified (complex type)
autoGenerated	Not specified (boolean)

- This is an example of displaying the information about the list of the items that have complex type as an element. The name of each item is displayed as the value of the identifier. The identifier and the type of the value in the list are displayed.

```
[MASTER]domain1.adminServer>show-element /servers/server
  adminServer
  server1

Current list can contain the following type of elements:
  [server]
The name of the identifier element of [server] element is [name].
```

4.2.18. OSGi Commands

The following is a list of OSGi commands.

Command	Description
add-osgi-framework	Adds an OSGi framework configuration to the domain.
install-bundle	Installs bundles in a specified location to a specified OSGi framework.
list-osgi-frameworks	Displays a list of OSGi frameworks configured in the domain.
modify-osgi-framework	Modifies a OSGi framework configuration.
remove-osgi-framework	Deletes a OSGi framework configuration.
show-osgi-framework-info	Displays information of the OSGi frameworks running in a specified server.
start-bundle	Starts a specified bundle.
stop-bundle	Stops a specified bundle.
uninstall-bundle	Deletes a specified bundle.
update-bundle	Updates a specified bundle.

4.2.18.1. add-osgi-framework

Adds an OSGi framework configuration to the domain.

- Alias

addfwk

- Usage

```
add-osgi-framework -n,--name <framework-name>
                  [-en,--exportName <jndi-export-name>]
                  [-s,--servers <server-list>]
                  [-iib <true | false>]
                  [-ibd <path>]
                  [-dsl <start-level>]
                  [-foe <true | false>]
                  [-bid <path-list>]
                  [-f,--forceLock]
                  [-detail]
```

- Parameters

Parameter	Description
<code>-n,--name <framework-name></code>	Unique name of the OSGi framework.
<code>[-en,--exportName <jndi-export-name>]</code>	JNDI name of the OSGi framework.

Parameter	Description
<code>[-s,--servers <server-list>]</code>	A list of servers that uses the OSGi framework. To specify multiple servers, separate each server with a comma(,).
<code>[-iib <true false>]</code>	Determines whether to install bundles in the initial bundles directory. (true false)
<code>[-ibd <path>]</code>	Path of the initial bundles directory. If not specified, the default path is JEUS_HOME/lib/osgi/Framework_NAME.
<code>[-dsl <start-level>]</code>	Start-level default value for the bundles located in the initial bundles directory.
<code>[-foe <true false>]</code>	Determines whether to regard the failure to install initial bundles as an error. (true false)
<code>[-bid <path-list>]</code>	Path of bundle installation descriptor XML files. To specify multiple files, separate each file with a comma(,).
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>list-osgi-frameworks
No OSGi Frameworks exists.

[MASTER]domain1.adminServer>add-osgi-framework -name framework-0 -servers server1
Successfully performed the ADD operation for OSGi Framework framework-0, but all changes were
non-dynamic. They will be applied after restarting.
Check the results using "list-osgi-frameworks".

[MASTER]domain1.adminServer>list-osgi-frameworks
List of OSGi Frameworks
=====
+-----+-----+-----+
| Framework Name | JNDI Export Name | Target Servers |
+-----+-----+-----+
| framework-0    |                   | server1        |
+-----+-----+-----+
=====
[MASTER]domain1.adminServer>
```

4.2.18.2. install-bundle

Installs bundles in a specified location to a specified OSGi framework.

- Alias

installb

- Usage

```
install-bundle -l,--location <location>
               -f,--framework <framework-name>
               -s,--server <server-name>
```

- Parameters

Parameter	Description
-l,--location <location>	URL of the bundle to be installed.
-f,--framework <framework-name>	Name of the OSGi framework to which the bundle will be installed.
-s,--server <server-name>	Server to which the bundle will be installed.

- Example

```
[MASTER]domain1.adminServer>install-bundle -location
https://repo.maven.apache.org/maven2/org/ops4j/pax/url/pax-url-mvn/1.3.7/pax-url-mvn-1.3.7.jar
-f,--framework framework-0 -server server1
Installation completed successfully.
[MASTER]domain1.adminServer>
```

4.2.18.3. list-osgi-frameworks

Displays a list of OSGi frameworks configured in the domain.

- Alias

lsfwks

- Usage

```
list-osgi-frameworks [-f,--framework <framework-name>]
```

- Parameters

Parameter	Description
[-f,--framework <framework-name>]	Displays detailed configuration of a specified OSGi framework.

- Example

```
[MASTER]domain1.adminServer>list-osgi-frameworks
List of OSGi Frameworks
=====
```

```

+-----+-----+-----+
| Framework Name | JNDI Export Name | Target Servers |
+-----+-----+-----+
| framework-0    |                   | server1        |
+-----+-----+-----+
=====

[MASTER]domain1.adminServer>list-osi-frameworks -framework framework-0
OSGi Framework [framework-0]
=====
+-----+-----+-----+
| Attribute Name | Value |
+-----+-----+-----+
| Framework Name | framework-0 |
| JNDI Export Name | Not Specified |
| Target Servers | server1 |
| Install Initial Bundles | true |
| Initial Bundles Directory Location | Not Specified |
| Default Start Level | 30 |
| Fail On Error | true |
+-----+-----+-----+
=====

Framework Configuration Properties
=====
+-----+-----+-----+
| Key | Value |
+-----+-----+-----+
(No data available)
=====

Bundle Installation Descriptors
=====
+-----+-----+-----+
| Location |
+-----+-----+-----+
(No data available)
=====

```

4.2.18.4. modify-osi-framework

Modifies an OSGi framework configuration.

- Alias

modfwk

- Usage

```

modify-osi-framework -n,--name <framework-name>
                    [-en,--exportName <jndi-export-name>]
                    [-s,--servers <server-list>]
                    [-iib <true | false>]
                    [-ibd <path>]

```

```
[-dsl <start-level>]
[-foe <true | false>]
[-bid <path-list>]
[-f,--forceLock]
[-detail]
```

- Parameters

Parameter	Description
<code>-n,--name <framework-name></code>	Unique name of the OSGi framework.
<code>[-en,--exportName <jndi-export-name>]</code>	JNDI name of the OSGi framework.
<code>[-s,--servers <server-list>]</code>	A list of servers that uses the OSGi framework. To specify multiple servers, separate each server with a comma(,).
<code>[-iib <true false>]</code>	Determines whether to install bundles in the initial bundles directory. (true false)
<code>[-ibd <path>]</code>	Path of the initial bundles directory. If not specified, the default path is JEUS_HOME/lib/osgi/Framework_NAME.
<code>[-dsl <start-level>]</code>	Start-level default value for the bundles located in the initial bundles directory.
<code>[-foe <true false>]</code>	Determines whether to regard the failure to install initial bundles as an error. (true false)
<code>[-bid <path-list>]</code>	Path of bundle installation descriptor XML files. To specify multiple files, separate each file with a comma(,).
<code>[-f,--forceLock]</code>	Forcibly applies the configuration changes.
<code>[-detail]</code>	Displays detailed results of the dynamic changes.

- Example

```
[MASTER]domain1.adminServer>modify-osgi-framework -name framework-0 -dsl 45
Successfully performed the MODIFY operation for OSGi Framework framework-0, but some changes were
non-dynamic. They will be applied after restarting.
Check the results using "list-osgi-frameworks".
[MASTER]domain1.adminServer>
```

4.2.18.5. remove-osgi-framework

Deletes a OSGi framework configuration.

- Alias

rmfwk

- Usage

```
remove-osgi-framework -n,--name <framework-name>
```

- Parameters

Parameter	Description
-n,--name <framework-name>	Name of the OSGi framework to delete.

- Example

```
[MASTER]domain1.adminServer>remove-osgi-framework -name framework-0
Successfully performed the REMOVE operation for OSGi Framework framework-0.
Check the results using "list-osgi-frameworks".
[MASTER]domain1.adminServer>
```

4.2.18.6. show-osgi-framework-info

Displays information of the OSGi frameworks running in a specified server.

- Alias

osgiinfo, fwkinfo

- Usage

```
show-osgi-framework-info -s,--server <server-name>
                        [-f,--framework <framework-name>]
                        [-lb]
```

- Parameters

Parameter	Description
-s,--server <server-name>	Server name.
[-f,--framework <framework-name>]	Name of the OSGi framework to display the information.
[-lb]	Determines whether to display the information of the installed bundles. This parameter must be used with the -f option.

- Example

```
[MASTER]domain1.adminServer>show-osgi-framework-info -server server1 -framework framework-0 -lb
```

```

OSGi Framework [framework-0] Information in the server[framework-0]
Framework [framework-0] Overview
=====
+-----+-----+
|               System Bundle Name               | Version |
+-----+-----+
| org.apache.felix.framework                      | 5.4.0   |
+-----+-----+
=====

```

```

Installed Bundles in the framework [framework-0].
=====
+---+-----+-----+-----+-----+-----+
| Id | Symbolic Name | Version | Location | State | Start-level |
+---+-----+-----+-----+-----+-----+
| 0  | org.apache.felix.framework | 5.4.0 | System Bundle | ACTIVE | 0 |
+---+-----+-----+-----+-----+-----+
| 2  | org.ops4j.pax.url.mvn | 1.3.7 | https://repo.maven.apache.org/maven2/org/ops4j/pax/url/pax-url-mvn/1.3.7/pax-url-mvn-1.3.7.jar | ACTIVE | 30 |
+---+-----+-----+-----+-----+-----+
=====

```

```
[MASTER]domain1.adminServer>
```

4.2.18.7. start-bundle

Starts a specified bundle.

- Alias

startb

- Usage

```

start-bundle -name <bundle-symbolic-name>
              [-version <bundle-version>]
              -f,--framework <framework-name>
              -s,--server <server-name>

```

- Parameters

Parameter	Description
-name <bundle-symbolic-name>	Name of the bundle to start.
[-version <bundle-version>]	Version of the bundle to to start.

Parameter	Description
-f,--framework <framework-name>	Name of the OSGi framework.
-s,--server <server-name>	Server name.

- Example

```
[MASTER]domain1.adminServer>start-bundle -name org.ops4j.pax.url.mvn -framework framework-0
-server server1
The bundle has been started successfully.
[MASTER]domain1.adminServer>
```

4.2.18.8. stop-bundle

Stops a specified bundle.

- Alias

stopb

- Usage

```
stop-bundle -name <bundle-symbolic-name>
            [-version <bundle-version>]
            -f,--framework <framework-name>
            -s,--server <server-name>
```

- Parameters

Parameter	Description
-name <bundle-symbolic-name>	Name of the bundle to stop.
[-version <bundle-version>]	Version of the bundle to stop.
-f,--framework <framework-name>	Name of the OSGi framework.
-s,--server <server-name>	Server name.

- Example

```
[MASTER]domain1.adminServer>stop-bundle -name org.ops4j.pax.url.mvn -framework framework-0
-server server1
The bundle has been stopped successfully.
[MASTER]domain1.adminServer>
```

4.2.18.9. uninstall-bundle

Deletes a specified bundle.

- Alias

uninstallb

- Usage

```
uninstall-bundle -name <bundle-symbolic-name>
                  [-version <bundle-version>]
                  -f,--framework <framework-name>
                  -s,--server <server-name>
```

- Parameters

Parameter	Description
-name <bundle-symbolic-name>	Name of the bundle to delete.
[-version <bundle-version>]	Version of the bundle to delete.
-f,--framework <framework-name>	Name of the OSGi framework.
-s,--server <server-name>	Server name.

- Example

```
[MASTER]domain1.adminServer>uninstall-bundle -name org.ops4j.pax.url.mvn -framework framework-0
-server server1
The bundle has been uninstalled successfully.
[MASTER]domain1.adminServer>
```

4.2.18.10. update-bundle

Updates a specified bundle.

- Alias

updateb

- Usage

```
update-bundle -name <bundle-symbolic-name>
               [-version <bundle-version>]
               -f,--framework <framework-name>
```

```
-s,--server <server-name>  
[-l,--location <location>]
```

- Parameters

Parameter	Description
-name <bundle-symbolic-name>	Name of the bundle to update.
[-version <bundle-version>]	Version of the bundle to update.
-f,--framework <framework-name>	Name of the OSGi framework.
-s,--server <server-name>	Server name.
[-l,--location <location>]	URL of the bundle to use.

- Example

```
[MASTER]domain1.adminServer>update-bundle -name org.ops4j.pax.url.mvn -framework framework-0  
-server server1  
The bundle has been updated successfully.  
[MASTER]domain1.adminServer>
```

4.2.19. Executing Commands Using JSON

If a JSON message, which requests command execution, is sent as a HTTP POST request to a server, the server handles the request and then sends a JSON message, which contains the result, as the HTTP response.



For more information about JSON, refer to www.json.org.

4.2.19.1. Executing Regular Commands

The following is a command used as an example in this section.

```
serverinfo -server server1 -state
```

The following is the process of executing a command using JSON.

1. Create a JSON message that executes a command.

The following is a JSON message that executes the example command.

```
{
  "jeusadmin": {
    "command": "server-info",
    "options": [
      "-server server1",
      "-state"
    ],
    "argument": null
  }
}
```

Convention	Description
command	Name of the command to be executed.
options	Options and parameters of the command.
argument	Arguments of the command.

2. Send the JSON message to the server to request command execution. Set HTTP as the protocol and POST as the method.

The following is a URL that receives requests for executing JSON messages in JEUS.

```
http://${SERVER_HOST}:${SERVER_BASE_PORT}/jsonCommand/command.json
```



To execute a command on a JEUS server, user authentication is required. Use HTTP Basic Authentication for user authentication.

3. The server interprets and executes the JSON message. The JSON result message is then sent as a HTTP response. The execution result differs depending on the individual command.

The following is an example of a result that can be received as a server response. The result may change according to the JEUS domain configuration.

```
{
  "jeusadmin-result": {
    "message": "",
    "data": [
      {
        "title": "Information of Domain (domain1)",
        "header": null,
        "column-names": [
          "Server", "Status", "Node Name", "PID", "Cluster",
          "Latest StartTime/ShutdownTime", "Need to Restart",
          "Listen Ports", "Running Engines"
        ],
        "rows": [
          {
            "row-key": "0",
```

```

        "values": [
            "server1(*)", "RUNNING (284sec)", "N/A", "2151", "N/A",
            ... (Omitted)
        ]
    },
    "footer": null
},
[
    "post-message": ""
]
}

```

The following comprise a JSON result message.

- message

Message displayed at the top. If there are multiple messages, a list of messages is displayed. Depending on the command, a message may not exist.

- data

Object that contains the execution result. Depending on the command, an object may not exist. A table is a regular data structure and comprised of the following.

Convention	Description
title	Table title.
header	Table header.
column-names	Table column names.
rows	Table rows. A row is comprised of two elements. <ul style="list-style-type: none"> • row-key: Row name. • values: Row value.
footer	Table footer.

- post-message

Message displayed at the bottom. If there are multiple post-messages, a list is displayed. Depending on the command, a message may not exist.

4.2.19.2. Application deploy

This section describes how to install and distribute an application using JSON. Unlike other commands, to install or distribute an application, the application must be sent along with the JSON message.

The following describes the process of installing or distributing an application using JSON.

1. Create a JSON message that requests command execution. The following is the command used to distribute the Hello.war application to 'server1'.

```
{
  "jeusadmin": {
    "command": "deploy-application",
    "options": [
      "-servers server1",
      "-path Hello.war"
    ],
    "argument": null
  }
}
```

2. Send the written JSON message and files as a multi-part type to the server to request command execution. Multi-part consists of a command part, which contains the JSON command written in the step 1, and a file part, which sets the application archive to be distributed.

The following is a URL that receives application deployment requests using a JSON message in the JEUS server.

```
http://${SERVER_HOST}:${SERVER_BASE_PORT}/jsonCommand/install.json
```



To execute a command on a JEUS server, user authentication is required. Use HTTP Basic Authentication for user authentication.

3. The server interprets and executes the JSON message. The JSON result message is then sent as a HTTP response. This part is same as executing regular commands. For more information, refer to [Executing Regular Commands](#).



For more information about application installation and deployment, refer to [install-application](#), [deploy-application](#), and [distribute-application](#).

4.2.20. How to Use Script Mode and How to Write Scripts

This section describes how to use script mode and how to write scripts.

4.2.20.1. How to Use Script Mode

Run jeusadmin by using script mode.

- Example

The following is an example of jeusadmin script mode which runs the test.py script with the assumption that the JEUS user name is 'administrator' and the password is 'jeus'.

```
JEUS_HOME/bin$jeusadmin -u administrator -p jeus -script "test.py"
Attempting to connect to 127.0.0.1:9736.
The connection has been established to JEUS Master Server [adminServer] in the domain [domain1].
JEUS 9 Administration Tool
To view help, use the 'help' command.
```

When using the script mode, you can use an additional option that ignores JEUS command exceptions. The -i or -ignore option allows the script to continue running even if a JEUS command error occurs.

[-i, --ignore] option can be used only in the script mode.

```
JEUS_HOME/bin$jeusadmin -u administrator -p jeus -script "test.py" -i
```

```
JEUS_HOME/bin$jeusadmin -u administrator -p jeus -script "test.py" --ignore
```

Arguments can be given to a script as shown below.

```
JEUS_HOME/bin$jeusadmin -u administrator -p jeus -script "test.py arg1 arg2"
```

4.2.20.2. How to Write Scripts

jeusadmin provides the results data and methods for executing commands when it is executed in script mode.

- Executing a command

Commands can be executed for each script language as shown below.

- Python and Ruby

```
result = command("server-info")
```

- Ruby

```
result = command "server-info"
```

The verbose option can be executed with a JEUS command. By default, this option is

deactivated (set to 'false'). If the verbose option is enabled (set to 'true') with a JEUS command, the result of the command execution is displayed in detail.

- Python:

```
result = command("server-info", [True | False])
```

- Ruby:

```
result = command "server-info", [true | false]
```

- Results data

The JeusResult object is returned from executing a JEUS command. If the returned results include results in the table format, then the JeusTabularData object can be obtained from JeusResult.

- JeusResult

Method	Description
isComplete()	Returns whether a JEUS command has been successfully executed.
getMessage()	Returns a results message.
getData()	Returns the list of JeusTabularData which is the table data of results.

- JeusTabularData

Method	Description
getTitle()	Returns the title of a table.
getHeader()	Returns the header of a table.
getFooter()	Returns the footer of a table.
getColumnNames()	Returns only the title of each column in a table in list format.
getRows()	Returns the list of each column of table data.

- Example

- Searches and displays the servers in SHUTDOWN status.

```
result = command("server-info")
tables = result.getData();
table = tables[0];
rows = table.getRows();
shutdown_servers = []
for row in rows:
    if "SHUTDOWN" in row[1]:
        shutdown_servers.append(row[0])
```



```
print("Server : %s, Node : %s" % (row[0], row[2]))
```

- Use the script argument to receive the application path and the list of servers to be deployed, and then install and deploy applications.

```
import time
import sys
import os

path = sys.argv[0]
servers = sys.argv[1]
direc, app = os.path.split(path)
apptype = os.path.splitext(app)[1][1:].upper()

command("undeploy -f %s " % app)
command("uninstall-application %s" % app)
command("install-application %s -id %s" % (path, app))
command("deploy %s -servers %s -type %s" % (app, servers, apptype))
```



Currently, jeusadmin provides script mode only for two script languages, Python and Ruby, and they are separated with an extension. Only scripts with .py and .rb extensions are recognized and executed.

4.3. appcompiler

This section describes the application compiler that compiles EJB interface impl, skeleton, stub classes, and the servlet classes and web service endpoint classes created by compiling JSP.

This tool may be selectively used to compile EJB 2.1 interface impl, RMI stub, skeleton classes, and the JSP of a web module to create servlet classes in advance. EJB that only consists of EJB 3 interfaces, JAX-WS clients, and server applications do not need to use this tool.

This tool is useful in the following cases:

1. When there are many beans that conform to EJB 2.x standards, and the initial deployment period is long.
2. When JSP must be precompiled because JSP compilation time is a large portion of the service time.

For EJB 2.x modules, the fast-deploy configuration must be set or the [-fast] option must be added to the **deploy** command of the jeusadmin console tool when deploying applications. If the fast-deploy option is set to true, the appcompiler can be prevented from automatically executing when deploying modules at runtime. If the fast-deploy option is set, impl, skeleton, and stub classes are not compiled and pre-created classes are used to decrease the deployment time. In EJB 3.x modules, appcompiler is not executed. Therefore, it is not executed even when both EJB 2.x and EJB 3.x exist in a module.

The appcompiler tool consists of the 'Each' mode and the 'Batch' mode. The 'Each' mode creates a file and then compiles it separately, while the 'Batch' mode creates all files first and then compiles them all at once. In the 'Batch' mode, the processing speed is faster than in the 'Each' mode; however, in 'Batch' mode, if an error occurs during compilation, the debugging is much more difficult. 'Each' is the default mode. To use the 'Batch' mode, use the [-batch] option or set jeus.app.compiler.mode=batch. However, the 'Batch' mode only applies to EJB 2.x modules.



When executing appcompiler for WAR files on Windows, the temporary directory may not be deleted because java.net.URLClassLoader cannot explicitly close the WEB-INF/lib/*.jar files included in a WAR file. Starting from Java 7, a close method for java.net.URLClassLoader is provided, so later versions do not generate this error. Currently, the temporary directories must be deleted manually.

The following describes how to use the tool and parameters.

- Usage

```
appcompiler [-h]
            [-verbose]
            [-clp <class-path>]
            [-keep]
            [-jspmap]
            [-batch]
            [-q]
            [-client <clientview_filename>]
            [-noaddfile]
            [-deloldgen]
            [-ejbjar <ejb-jar.xml_path>]
            [-jeusejbdd <jeus-ejb-dd.xml_path>]
            [-D <property=value>]
            [-property <file-name>]
            [-target <application-path>]
            [-j concurrency-level]
            [-ejbonly]
            [-genjavaonly]
            [-webonly]
```

- Parameters

Parameter	Description
[-h]	Displays appcompiler help information.
[-verbose]	Sets the verbose mode, which displays detailed process information (Sets the log level to FINEST).
[-clp]	Registers libraries required for compilation as class paths. A file or directory can be specified. To specify multiple items, separate each item with a semicolon (;) in Windows or a colon (:) in UNIX.

Parameter	Description
[-keep]	Option to keep the source code created during compilation.
[-jspmap]	Option to create a servlet-mapping table (jeus_jspmap.xml). If this option is used, the name of the directory that contains JSP files cannot include Java reserved words. E.g., enum, class, etc.
[-batch]	Sets the batch mode, which creates all files and then compiles them all at once. If this option is not set, the 'each' mode is used, which creates a file and then compiles it. This option only applies to EJB 2.x modules.
[-q]	<p>When compiling an EAR application that contains multiple modules, if a web module fails to compile, the compilation process stops immediately and error messages are displayed.</p> <p>If this option is not set and a web module fails to compile, error messages are displayed but the compilation process proceeds with the remaining modules.</p>
[-client <clientview_filename>]	<p>Name of the clientview file that contains new stub and interface classes.</p> <ul style="list-style-type: none"> • <clientview_filename> supports only JAR files, an EJB archived file type. The clientview file is created in the same directory as the archived or exploded applications, which are to be compiled. This option applies to standalone EJB modules and EAR applications that contain EJB modules. • If <clientview_filename> is the same as <application_file_or_directory_name>, it is not supported. • If a file with the same name as <clientview_filename> exists, include the clientview interface classes and stub classes in the file. The clientview file is provided to the client to develop applications that use EJB installed on the server.
[-noaddfile]	<p>This option is only valid when used with the [-client] option. -noaddfile creates a clientview file, however, the target files are not compiled and the original files are maintained.</p> <p>For example, when appcompiler is used for calc.jar, the -client option is used to create the clientview file. The clientview file contains stubs and remote and home interface classes. Before creating the clientview file, compile the calc.jar file. The compiled file includes class files, such as impl, skeleton, and stub files created during the compilation. To create a clientview file without compiling calc.jar, the [-noaddfile] option can be used.</p>

Parameter	Description
<code>[-deloldgen]</code>	<p>When compiling an EJB module, the compilation is executed after the impl, skel, and stub files created by the previous version of JEUS are deleted.</p> <p>[Note]</p> <p>Setting the name of impl, skel, and stub classes in JEUS 4 and JEUS 5 is different from that in JEUS 8. If an EJB module, created in JEUS 4 or JEUS 5, is compiled using the JEUS 8 appcompiler, the impl, skel, and stub files created in JEUS 4 or JEUS 5 can cause EJB to run abnormally. This problem is prevented by using this parameter.</p>
<code>[-ejbjar <ejb-jar.xml_path>]</code>	ejb-jar.xml file to be used for compilation.
<code>[-jeusejbdd <jeus-ejb-dd.xml_path>]</code>	jeus-ejb-dd.xml file to be used for compilation.
<code>[-D <property=value>]</code>	Specifies a system property. This option can be used more than once.
<code>[-property <file-name>]</code>	File name that contains system properties to be set.
<code>[-target <application-path>]</code>	<p>File (archived ear, jar, war) or directory (exploded EAR, JAR, WAR) of the target application to be compiled.</p> <p>EAR, standalone JAR, and WAR are regarded as applications. impl, skel, and stub class files created during compilation are added to the target application files.</p>
<code>[-j concurrency-level]</code>	This option is used when compiling JSP files. If there is a large number of JSP files, set this option to perform compilation using multiple threads concurrently. (Default value: 1)
<code>[-ejbonly]</code>	Compile only EJB modules in EAR.
<code>[-genjavaonly]</code>	Used to create only Java files.
<code>[-webonly]</code>	Compile only Web modules in EAR.

- Example

appcompiler is a regular script file located in the JEUS_HOME/bin/ directory.

- The following command creates a home and remote interface, impl, skel, and stub classes of the "ejb.jar" module. The command also includes the files in the ejb.jar file.

```
JEUS_HOME/bin$ appcompiler ejb.jar
```

- The following command creates servlet classes from all JSP files of the web.war module and includes them in the war file.

```
JEUS_HOME/bin$ appcompiler web.war
```

- The following command compiles modules in batch mode.

```
JEUS_HOME/bin$ appcompiler -batch app.jar
```

- The following command creates a home and remote interface, impl, skel, and stub classes of the "ejb.jar" module. The command also includes the files in the ejb.jar file, and creates the clientview.jar file, which contains the home and remote interfaces and the created stub classes.

```
JEUS_HOME/bin$ appcompiler -client clientview.jar ejb.jar
```

4.4. ejbddinit

This section explains how to automatically create the JEUS EJB DD file (jeus-ejb-dd.xml), using the information in the ejb-jar.xml file and previously created property files.

The properties required to deploy EJB can be set as default values, so the JEUS EJB DD file is not required. Although the JEUS EJB DD file is not necessary to create a new EJB, it can be used to create an application or to easily create templates to migrate applications to JEUS.



The annotation-based method implemented in Java EE 6 is no longer supported since it can be configured within the source files.

The following describes how to use the tool and parameters.

- Usage

```
ejbddinit [-property property_file_path]  
          [-level log_level]  
          [-source application_file_or_directory_name]
```

- Parameters

Parameter	Description
[-property <i>property_file_path</i>]	<p>Path to the property files. This option is required to create the jeus-ejb-dd.xml file correctly. Values can be set by mapping properties to JEUS EJB DD tags. For more information about the list of configurable properties, refer to List of properties.</p> <ul style="list-style-type: none"> Example 1) <pre>export-port=40001</pre> <p>Creates the jeus-ejb-dd.xml file and sets export-port to 40001 for all EJBs.</p> <ul style="list-style-type: none"> Example 2) <pre>SampleBean.export-port=40004</pre> <p>Creates the jeus-ejb-dd.xml file and sets export-port to 40004 for the EJB with a name of SampleBean in the ejb.jar file. By placing a dot(.) separator before each property name, the property of a specific EJB can be set. If the same property exists in a EJB, the property that names a specified EJB has higher property.</p>
[-level <i>log_level</i>]	Log level displayed on the screen when executing ejbddinit.
[-source <i>application_file_or_directory_name</i>]	<p>Path to the EJB modules. The EJB module can be a directory or a compressed file with the .jar extension.</p> <p>If a JEUS EJB DD file is successfully created and the EJB module is a directory, the jeuc-ejb-dd.xml file is created under the META-INF folder. If the EJB module is a compressed file, a new compressed file with the ".new" extension, added to the original file name, is created. The jeus-ejb-dd.xml file is also created under the META-INF folder within the compressed file.</p>

- Example

- Display usage information.

```
$ ejbddinit
```

- Create the ejb.jar.new file based on the propertied defined in ejbddinit.properties for the ejb.jar file. The jeus-ejb-dd.xml file is under the META-INF folder in the ejb.jar.new file.

```
$ ejbddinit -property ejbddinit.properties -source ejb.jar
```

- Create the jeus-ejb-dd.xml file for the ejb_dir based on the properties defined in the ejbddinit.properties in the META-INF folder.

```
$ ejbddinit -property ejbddinit.properties -source ejb_dir
```

- Create the jeus-ejb-dd.xml file based on the properties defined in ejbddinit.properties. Since the source option value is not provided, the path to the EJB module must be set in ejbddinit.properties.

```
$ ejbddinit -property ejbddinit.properties
```

- Create the ejb.jar.new file based on the properties defined in ejbddinit.properties for the ejb.jar file. The jeus-ejb-dd.xml file is under the META-INF folder in the ejb.jar.new file. The FILE logging level outputs the logs onto the screen.

```
$ ejbddinit -property ejbddinit.properties -level FINE -source ejb.jar
```



ejbddinit supports Ant Task. The ejbddinit Ant Task is described in [ejbddinit](#).

List of properties

The following is a list of properties supported by ejbddinit. Refer to the descriptions of the corresponding jeus-ejb-dd.xml tags for property details.

Property	Type	Note
source	String	Path to EJB modules. This is not related to the jeus-ejb-dd.xml tags.
logging-level	String	Log level displayed when ejbddinit is executed. This is not related to jeus-ejb-dd.xml tags.
export-name	String	Corresponds to the <export-name> tag of jeus-ejb-dd.xml. This property is recommended only for specific EJBs. For more information, refer to Supported patterns for export-name property .
local-export-name	String	Corresponds to the <local-export-name> tag of jeus-ejb-dd.xml. This property is recommended only for specific EJBs.
export-port	int (not negative)	Corresponds to the <export-port> tag of jeus-ejb-dd.xml.
export-iiop	boolean	Corresponds to the <export-iiop> tag of jeus-ejb-dd.xml.

Property	Type	Note
thread-max	int (not negative)	Corresponds to the <thread-max> tag of jeus-ejb-dd.xml.
bean-pool-min	int (not negative)	Corresponds to the <bean-pool>/<pool-min> tag of jeus-ejb-dd.xml.
bean-pool-max	int (not negative)	Corresponds to the <bean-pool>/<pool-max> tag of jeus-ejb-dd.xml.
connect-pool-min	int (not negative)	Corresponds to the <connect-pool>/<pool-min> tag of jeus-ejb-dd.xml.
connect-pool-max	int (not negative)	Corresponds to the <connect-pool>/<pool-max> tag of jeus-ejb-dd.xml.
capacity	int (not negative)	Corresponds to the <capacity> tag of jeus-ejb-dd.xml.
passivation-timeout	long (not negative or -1 for disable)	Corresponds to the <passivation-timeout> tag of jeus-ejb-dd.xml.
disconnect-timeout	long (not negative or -1 for disable)	Corresponds to the <disconnect-timeout> tag of jeus-ejb-dd.xml.
engine-type	String (defined)	<p>Corresponds to the <engine-type> tag of jeus-ejb-dd.xml.</p> <p>Input options:</p> <ul style="list-style-type: none"> ◦ EXCLUSIVE_ACCESS ◦ SINGLE_OBJECT ◦ MULTIPLE_OBJECT
subengine-type	String (defined)	<p>Corresponds to the <subengine-type> tag of jeus-ejb-dd.xml.</p> <p>Input options:</p> <ul style="list-style-type: none"> ◦ ReadLocking ◦ WriteLocking ◦ WriteLockingFind
fetch-size	int (not negative)	Corresponds to the <fetch-size> tag of jeus-ejb-dd.xml.
init-caching	boolean	Corresponds to the <init-caching> tag of jeus-ejb-dd.xml.
table-name	String	Corresponds to the <table-name> tag of jeus-ejb-dd.xml.

Property	Type	Note
creating-table	String (defined)	Corresponds to the <creating-table> tag of jeus-ejb-dd.xml. Input options: <ul style="list-style-type: none"> ◦ none ◦ use-existing ◦ force-create
deleting-table	boolean	Corresponds to the <deleting-table> tag of jeus-ejb-dd.xml.
db-vendor	String	Corresponds to the <db-vendor> tag of jeus-ejb-dd.xml.
datasource-name	String	Corresponds to the <data-source-name> tag of jeus-ejb-dd.xml.
enable-instant-ql	boolean	Corresponds to the <enable-instant-ql> tag of jeus-ejb-dd.xml.

Supported patterns for the export-name property

In general, export-name is set to the EJB module name or set by using the values of the <ejb-name> and <ejb-class> tags of the EJB component defined in ejb-jar.xml. Patterns are provided for easier use of these values.

Pattern Name	Pattern Value
%{module-name}	EJB module name. For jar files, use the file name without the .jar extension.
%{ejb-name}	EJB component name. The tag value of <ejb-name> of the EJB component defined in ejb-jar.xml.
%{ejb-fqn}	Fully qualified name of the EJB class of the EJB component. The value of the <ejb-class> tag of the EJB component defined in ejb-jar.xml.
%{ejb-class}	Class name without the package name from the value of %{ejb-fqn}.

The following describes how to use patterns. The example assumes that an EJB class named 'sample-ejb' exists and the fully qualified EJB component class name is 'sample.SampleBean'. It is packaged within an EJB module named 'myejb'.

- Set export-name to 'myejb_sample-ejb'.

```
export-name=%{module-name}_{ejb-name}
```

- Set export-name to 'PREFIX_sample.SampleBean'.

```
export-name=PREFIX_%{ejb-fqn}
```

- Set export-name to 'SampleBean_POSTFIX'.

```
export-name=%{ejb-class}_POSTFIX
```

As shown in the previous example, when setting export-name, a combination of patterns can be used or the required (such as PREFIX or POSTFIX) character strings can be appended to a pattern. The pattern name is case insensitive.

Property File Example

The following is an example of creating the ejbddinit property file. It is recommended to modify the following example to suit each EJB in which JEUS EJB DD is created.

```
# PROPERTY FILE SAMPLE
# JEUS EJB DD Generation Option

# target file or directory path
source=/home/workspace/ejb.jar

# log-level for EJB DD init
logging-level=DEBUG

# JEUS EJB DD configuration tag and value pairs for all EJBs
db-vendor=mysql
datasource-name=jdbc/__default
creating-table=use-existing
deleting-table=false
engine-type=EXCLUSIVE_ACCESS
subengine-type=ReadLocking
fetch-size=1111
enable-instant-ql=true
export-port=9999
export-iiop=false
thread-max=100
bean-pool-min=10
bean-pool-max=100
capacity=10000
passivation-timeout=300000
disconnect-timeout=-1
connect-pool-min=10
connect-pool-max=100
init-caching=false

# JEUS EJB DD configuration tag and value pairs for BookBean EJB
BookBean.export-name=BookBeanFromProperty
BookBean.local-export-name=LocalBookBeanFromProperty
BookBean.export-port=55555
BookBean.thread-max=100
```

4.5. encryption

The encryption tool is used to encrypt and decrypt strings. It also encodes strings in Base64 format and provides the hash result.

For algorithms that require a secret key, such as AES, DES, DESEDE, BLOWFISH, and SEED, a security.key file must be created in advance. The security.key file is located in the JEUS_HOME/domains/<domain name>/config/security directory, and the path can be changed using the system property jeus.security.keypath property.

The encryption tool is invoked using the encryption script located in the following directory.

```
JEUS_HOME/bin/
```

The following describes how to use the tool and parameters.

- Usage

```
Usage: encryption <algorithm> <text> [-options ...]
Options:
  -algotlist           show available algorithms
  -algorithm <algorithm> Encryption algorithm
  -convert            convert old ciphertext format to new ciphertext format
  -decode             set to decode mode; used for base16/base64 only
  -domain <domain>    domain name
  -h                  help for Encryption
  -keypath <keypath>  security key path
  -protectkey         use protected secret key
  -s                  describe simple result only
  -text <text>        Text to be encrypted
Simple example : encryption AES 1234
```

- Parameters

Parameter	Description
-algorithm <algorithm>	Encryption algorithm. If not set, the first argument is regarded as the algorithm. (Required)
-algotlist	Displays available encryption algorithms.
-convert	Converts an entered cryptogram to a new cryptogram.
-decode	Decodes a cryptogram encoded with Base16 or Base64.
-domain <domain>	Uses the security.key file of the domain where a symmetric-key algorithm is entered. Only -domain or -keypath can be specified.
-h	Displays usage.
-keypath <keypath>	Uses the security.key file of the keypath where a symmetric-key algorithm is entered. Only -domain or -keypath can be specified.

Parameter	Description
-protectkey	Encrypts the security.key file by using the entered master password. To use encrypted security.key, the master password must be entered.
-s	Displays the encoded result.
-text <text>	Text to encode. If not set, the second argument is regarded as the text. (Required)

- Example

In the example it is assumed that the JEUS_HOME system environment variable is set and the JEUS_HOME/bin directory is set as the system path.

When invoked, the tool simply shows encoded or decoded strings. If no parameters are specified or if the call syntax is incorrect, a help screen is displayed.

```
$ encryption base64 mypassword
bXlwYXNzd29yZA==
```

The string, "bXlwYXNzd29yZA==", is the result of encoding "mypassword" in base64 format.

```
$ encryption DESede mypassword -domain domain_name
[DESEDE] : [mypassword] --> [encode:8JLoskMPHkwwLKi+TJeOgQZBD015PBQ=]
[DESEDE] : [8JLoskMPHkwwLKi+TJeOgQZBD015PBQ=] --> [decode:mypassword]
```

The string "8JLoskMPHkwwLKi+TJeOgQZBD015PBQ=" is an encrypted password for "mypassword" using the DESede cipher algorithm. The secret key generated to perform this encryption is stored in the security.key file in JEUS_HOME/domains/<domain name>/config/security (if it is not initial encryption, the existing key stored in the security.key file is used).

Use the -protectkey option to encrypt the secret.key file with a master password.

```
$ encryption -protectkey AES mypassword
Input the master password For key encryption>
Confirm the master password For key encryption>
[AES] : [mypassword] --> [encode:qsHQdjgh8aAr3fWPYWbU0/VkFbs9y1lZeRJaK5xSiuo=]
[AES] : [qsHQdjgh8aAr3fWPYWbU0/VkFbs9y1lZeRJaK5xSiuo=] --> [decode:mypassword]
```

This example is similar to the previous examples. However, in this example, a master password is required.

The password is used to encrypt the secret key with the DESede algorithm. To use the secret.key file, which was created using a master password, the master password must be entered. The following shows how to encrypt using the encrypted secret.key file.

```
$ encryption -protectkey AES mypassword
The encryption key file is encrypted. Enter the master password.
Password>
[AES] : [mypassword] --> [encode:qsHQdjgh8aAr3fWPYWbU0/VkFbs9y1lZeRJaK5xSiuo=]
[AES] : [qsHQdjgh8aAr3fWPYWbU0/VkFbs9y1lZeRJaK5xSiuo=] --> [decode:mypassword]
```

In JEUS 6 Fix#4, the encryption algorithm was enhanced for greater security. In JEUS 6 Fix#4, encryption syntax created in earlier versions cannot be used because the ciphertext format was updated. JEUS 6 Fix#5 and later versions provide a function that converts the ciphertext in the encryption tool. The function can be used with the -convert option.

```
$ encryption -convert AES i06wYRz3u60/Gqun2sKtXH1u=
Decryption was successful.
[before:i06wYRz3u60/Gqun2sKtXH1u=] --> [after:ET7c/P21Qx1Io8UI6Ss2NvZ0G=]
```

When the security.key file is encrypted, decrypt the file.

```
$ encryption -convert -protectkey AES i06wYRz3u60/Gqun2sKtXH1u=
The encryption key file is encrypted. Enter the master password.
Password>

Decryption succeed.
[before:i06wYRz3u60/Gqun2sKtXH1u=] --> [after:ET7c/P21Qx1Io8UI6Ss2NvZ0G=]
```

4.6. java2wsdl

The java2wsdl tool is for the JAX-RPC web service. It creates WSDL files and JAX-RPC mapping files from Java classes. java2wsdl creates resources, such as web service WSDL files and JAX-RPC mappings files, from the service endpoint interface Java classes or implementation classes.

The following describes how to use the tool and parameters.

- Usage

```
Usage: java2wsdl <options> <input file>

where <input file> include:
    configuration file          service configuration xml file (by default)

where <options> include:
    -classpath <path>          specify where to find input class files
    -cp <path>                 same as -classpath <path>
    -d <directory>            specify where to place generated output files
    -level <log-level>        specify a log level
    -verbose                   [optional] turn verbose mode on
```

- Parameters

Parameter	Description
-classpath <path>	Path to Java class files.
-cp <path>	Alias for -classpath <path>.
-d <directory>	Result files directory.
-level	Log level.
-verbose	Displays verbose messages.

- Example

java2wsdl is a general script file located in JEUS_HOME/bin/.

The following is an example of executing java2wsdl.

```
$ java2wsdl -classpath build/classes -d build/web/WEB-INF service-config.xml
```

The previous command created WSDL files and JAX-RPC mapping files in the "build/web/WEB-INF" directory using the service-config.xml configuration file and classes in the "build/classes" directory.

4.7. jeusddupgrade

The jeusddupgrade tool modifies JEUS DD files (jeus-ejb-dd.xml, jeus-web-dd.xml, and jeus-application-dd.xml) within the application entered by the user so that they are updated for the current JEUS version.

The following describes how to use the tool and parameters.

- Usage

```
usage: jeusddupgrade [OPTIONS] <APP_PATH>
Upgrade old version Jeus deployment descriptor in application.
It is internally equivalent to -upgrade option in deploy command.
-b,--backup    Backup original application.
-h,--help      Print this message.
```

- Parameters

Parameter	Description
-b,--backup	Backs up the original application.
	The name of a backup file or directory is appended with '.origin'.

Parameter	Description
-h,--help	Displays help.

- Example

- Display usage information.

```
$ jeusddupgrade -help
```

- Back up and upgrade the web.war file.

```
$ jeusddupgrade -b web.war
```

4.8. schemagen

The schemagen tool creates a schema file for each namespace in a Java class.

The following describes how to use the tool and parameters.

- Usage

```
Usage: schemagen [-options ...] <java files>
Options:
  -d <path>           : specify where to place processor and javac generated
                        class files
  -cp <path>           : specify where to find user specified files
  -classpath <path>    : specify where to find user specified files
  -encoding <encoding> : specify encoding to be used for apt/javac invocation
  -episode <file>      : generate episode file for separate compilation
  -version              : display version information
  -fullversion          : display full version information
  -help                : display this usage message
```

- Parameters

Parameter	Description
-d <path>	Path to the processors and class files.
-cp <path>	Alias for -classpath <path>.
-classpath <path>	Path to user-specified files.
-encoding <encoding>	Encoding used to call apt/javac.
-episode <file>	Creates episode files to be separately compiled.
-version	Displays version information.

Parameter	Description
-fullversion	Displays full version information.
-help	Displays help.

- Example

schemagen is a general script file located in JEUS_HOME/bin/.

The following is an example of executing schemagen.

```
$ schemagen -d build/classes src/java/cardfile/Address.java
```

The previous command creates the schema in the "build/classes" directory from the Address.java source file, which corresponds to a root element.

4.9. tcpmon

This section describes the tcpmon tool.

4.9.1. Execution

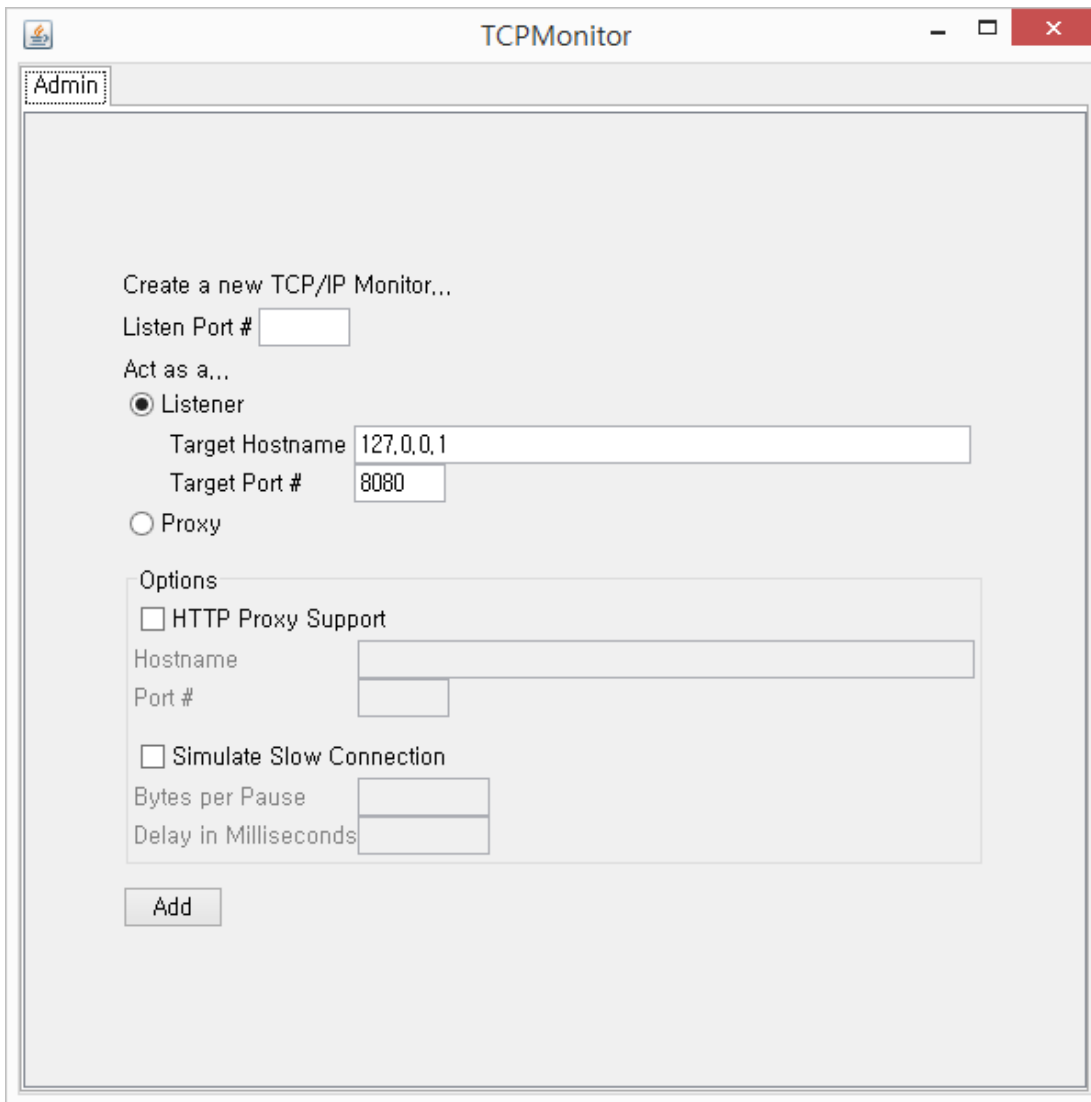
The tcpmon tool checks the TCP packets being exchanged. Use tcpmon when searching for HTTP SOAP messages.

The following describes the two modes that tcpmon runs in.

Mode	Description
Listener	Listener receives a request from the listener port and sends the request to the specified target host and target port. The listener then receives a response from the host and sends the response to the connections from which the request originated.
Proxy	Sets tcpmon to operate like an HTTP Proxy.

The following screen appears after tcpmon is executed.

```
$ tcpmon
```

tcpmon execution screen

4.9.2. Using the Listener Mode

The following should be assumed when using the listener mode.

- Server (A) receives a SOAP request from port 8000.
- The web service client of client (B) is trying to monitor SOAP messages.



Scenario in which server (A) receives a SOAP request from port 8000

In this scenario, the client web service program can use tcpmon to monitor SOAP messages.

Execute tcpmon in client (B), and execute the following.

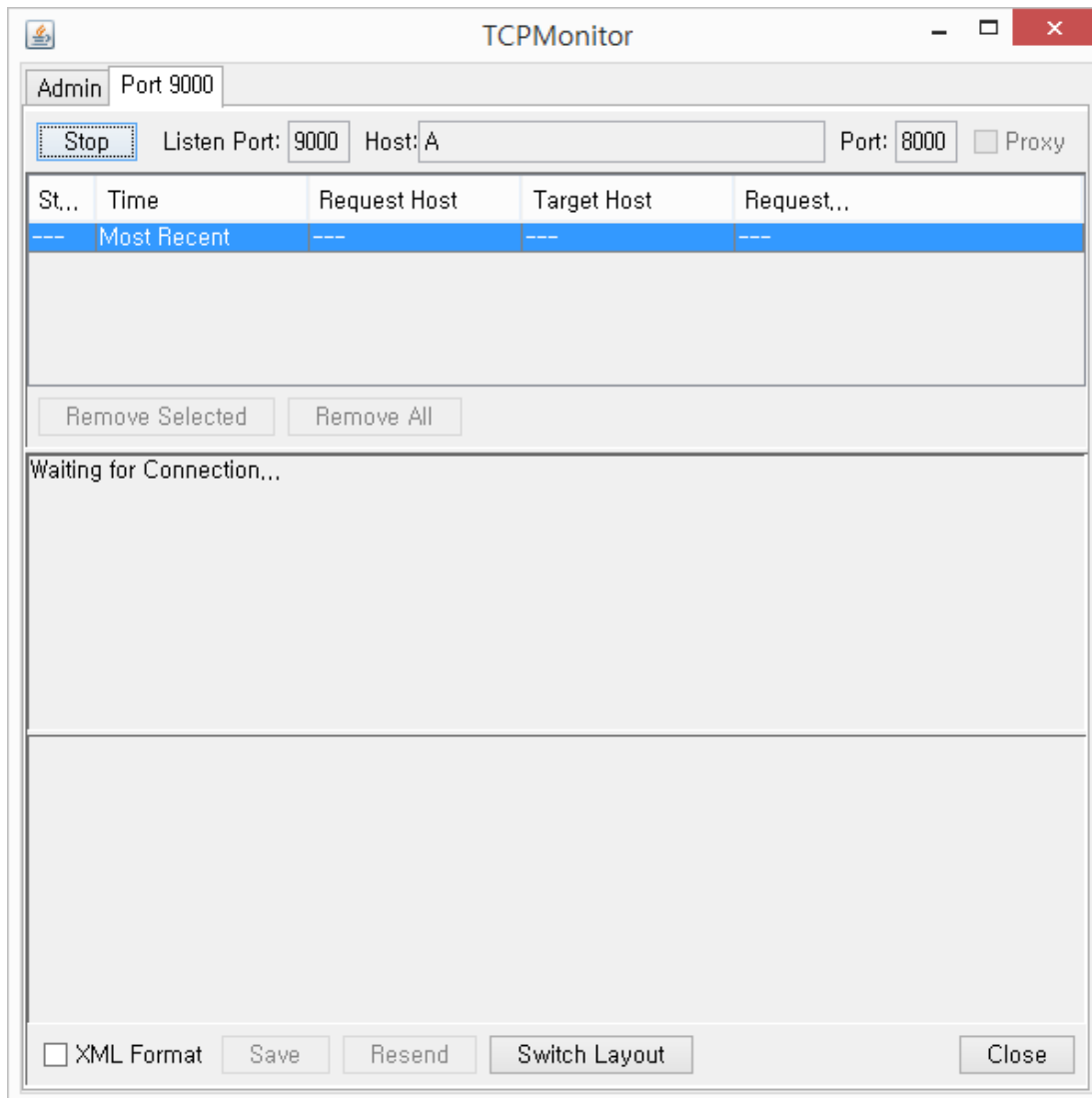
1. In the **[Admin]** tab, set '**Listen Port**' to '9000' and '**Act as a**' to 'Listener'. Under '**Listener**', set '**Target Hostname**' to 'A' and '**Target Port**' to '8000'. Click **[Add]**.

The screenshot shows a Windows-style application window titled "TCPMonitor". Inside, there is a tab labeled "Admin". The main content area is titled "Create a new TCP/IP Monitor...". It contains the following fields and controls:

- "Listen Port #" with a text box containing "9000".
- "Act as a..." with two radio buttons: "Listener" (selected) and "Proxy".
- Under "Listener":
 - "Target Hostname" with a text box containing "A".
 - "Target Port #" with a text box containing "8000".
- An "Options" section with a border containing:
 - "HTTP Proxy Support" with an unchecked checkbox.
 - "Hostname" with a text box.
 - "Port #" with a text box.
 - "Simulate Slow Connection" with an unchecked checkbox.
 - "Bytes per Pause" with a text box.
 - "Delay in Milliseconds" with a text box.
- An "Add" button at the bottom left.

Listener mode input screen

2. The **[Port 9000]** tab is created. If this tab is clicked, the following screen appears.

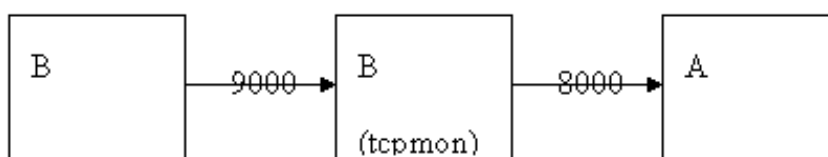


Monitoring screen

The following table describes the check box and the buttons on the screen.

Item	Description
XML Format	Arranges and outputs XML onto the tcpmon screen.
[Save]	Saves the current SOAP messages.
[Resend]	Resends the current SOAP message request.
[Switch Layout]	Changes the screen into the horizontal or vertical split mode.

- After completing the first two steps, connect the client program to port 9000 of client (B), not port 8000 of server (A), and execute the client program. tcpmon receives a request from port 9000 and transmits it to port 8000 of server (A). tcpmon returns the response to the connection used by the client to connect to tcpmon. The response messages are then outputted to tcpmon.



tcpmon receives a query through port 9000, and transmits it to port 8000 in A

Changing the End-Point Address of a Web Service

To use the tcpmon in the listener mode, the client or client program settings must be modified to change the end-point address of the web service.

- For the J2SE JAX-WS web service client

Modify the code to change the end-point address of the web service.

```
(jakarta.xml.ws.BindingProvider)port).getRequestContext().put(  
    jakarta.xml.ws.BindingProvider.ENDPOINT_ADDRESS_PROPERTY,  
    "http://localhost:9000/ws/AddNumbersService");
```

- port

JAX-WS BindingProvider object for service end-point interfaces.

- jakarta.xml.ws.BindingProvider.ENDPOINT_ADDRESS_PROPERTY

Standard properties defined in the JAX-WS specification for setting the end point address.

- For the J2SE JAX-RPC web service client

Modify the code to change the end-point address of the web service.

```
((javax.xml.rpc.Stub)port)._setProperty(  
    javax.xml.rpc.Stub.ENDPOINT_ADDRESS_PROPERTY,  
    "http://localhost:9000/ws/AddressBookService");
```

- port

JAX-RPC Stub object for service end-point interfaces.

- javax.xml.rpc.Stub.ENDPOINT_ADDRESS_PROPERTY

Standard properties defined in the JAX-RPC specification for setting the end-point address.

- For the J2EE web service client

The previous properties can be applied to the JEUS configuration file (jeus-web-dd.xml or jeus-ejb-dd.xml) by adding the <stub-property> block inside the <service-client> block, without modifying the code.

```
<service-client>  
  <port-info>  
    <stub-property>  
      <name>javax.xml.rpc.service.endpoint.address</name>  
      <value>  
        http://localhost:9000/ws/AddressBookService  
      </value>  
    </stub-property>
```

```
</port-info>
</service-client>
```

4.9.3. Using the Proxy Mode

The proxy mode sets tcpmon to operate like a regular HTTP Proxy. The proxy mode can be enabled in the **[Admin]** tab by first setting the '**Listen Port**' field, then selecting '**Act as a**' for Proxy, and finally clicking the **[Add]** button.

In proxy mode, tcpmon can be used by providing options when executing an application instead of modifying the application. The following describes the options available in proxy mode.

Option	Description
-Dhttp.proxyHost	IP address or hostname where TCPMON runs.
-Dhttp.proxyPort	TCPMON listener port.

If the client application is the com.acme.AddressBookClient class, execute Java with the following option.

```
java -Dhttp.proxyHost=B -Dhttp.proxyPort=9000 com.acme.AddressBookClient
```

4.9.4. Other Features

SOAP messages can be formatted, saved, and re-transmitted in each port tab.

4.10. webddgen

webddgen creates and updates jeus-web-dd.xml in the WEB-INF directory of a web application according to the user input values. This tool also creates the jeus-ejb-dd.xml file in the WEB-INF directory of a web module. If the file is compressed, jeus-web-dd.xml is included in the file.

The following describes how to use the tool and parameters.

- Usage

```
webddgen -file <war-file-path>
          [-ctx <context-path>]
          [-prop <context-level-property>]
          [-verbose]
```

- Parameters

Parameter	Description
-file <war-file-path>	Path to the web module.
[-ctx <context-path>]	context-path to be set in jeus-web-dd.xml.
[-prop <context-level-property>]	<p>Web module-specific property.</p> <p>For example, to use the JSP written in JEUS 4 without modifying the file, set the jeus.servlet.jsp.modern property of the web module that contains the JSP to false. The property format is name=value.</p> <p>(E.g., jeus.servlet.jsp.modern=false)</p>
[-verbose]	Option that ensures the directory used internally in webddgen is not deleted unless webddgen is re-executed. This option is useful when debugging a problem that occurred during operation.

- Example

- Display usage information.

```
$ webddgen -help
```

- Create jeus-web-dd.xml in the web.war file.

```
$ webddgen -file web.war
```

- Add context-path when creating jeus-web-dd.xml.

```
$ webddgen -file web.war -ctx /web1
```

- Set the jeus.servlet.jsp.modern property to false for the web module containing JSP written in JEUS 4.

```
$ webddgen -file oldjsps.war -prop jeus.servlet.jsp.modern=false
```

4.11. wsgen

The wsgen tool is for the JAX-WS web service. It creates a WSDL file and JAX-RPC mapping files from Java classes. wsgen can also create web service policy configuration files.

wsgen creates the following from the service endpoint interface classes and classes implemented in Java.

- Portable Artifacts

- WSDL file of web services (option)
- The web service policy `wsit-<endpoint classname>.xml` file (option)

The following describes how to use the tool and parameters.

- Usage

Usage: `wsgen [options] <SEI>`

where [options] include:

- classpath <path> specify where to find input class files
- cp <path> same as -classpath <path>
- d <directory> specify where to place generated output files
- extension allow vendor extensions - functionality not specified by the specification. Use of extensions may result in applications that are not portable or may not interoperate with other implementations
- help display help
- keep keep generated files
- r <directory> resource destination directory, specify where to place resource files such as WSDLs
- s <directory> specify where to place generated source files
- verbose output messages about what the compiler is doing
- version print version information
- wsdl[:protocol] generate a WSDL file. The protocol is optional. Valid protocols are [soap1.1, Xsoap1.2], the default is soap1.1. The non standard protocols [Xsoap1.2] can only be used in conjunction with the -extension option.
- inlineSchemas inline schemas in the generated wsdl. Must be used in conjunction with the -wsdl option.
- servicename <name> specify the Service name to use in the generated WSDL. Used in conjunction with the -wsdl option.
- portname <name> specify the Port name to use in the generated WSDL. Used in conjunction with the -wsdl option.

Examples:

```
wsgen -cp . example.Stock
wsgen -cp . example.Stock -wsdl -servicename {http://mynamespace}MyService
```

- Parameters

Parameter	Description
-classpath <path>	Path to Java class files.
-cp <path>	Alias for -classpath <path>.
-d <directory>	Result files directory.
-extension	Allows vendor extensions. This option may cause compatibility and portability issues.
-help	Displays help.

Parameter	Description
-keep	Keeps created files.
-r <directory>	WSDL file directory. Used with the genwsdl property.
-s <directory>	Source files directory.
-verbose	Displays verbose messages.
-version	Displays version information.
-wsdl[:protocol]	Normally, the wsgen tool does not create a WSDL file. This option allows developers to view the WSDL file before it is deployed. '[:protocol]' is optional, and the default value is soap1.1. To use Xsoap1.2, the -extension option must be specified.
-inlineSchemas	Enumerates the schema of the created WSDL. This option must be used along with the -wsdl option.
-servicename <name>	Name of a specific wsdl:service element of the created WSDL file. Used with the -wsdl property.
-portname <name>	Name of a specific wsdl:portname element of the created WSDL file. Used with the -wsdl property.

- Example

wsgen is a general script file located in JEUS_HOME/bin/.

The following is an example of executing wsgen.

```
$ wsgen -classpath build/classes -d build/classes -wsdl
fromjava.server.AddNumbersImpl
```

The previous command organizes the JAX-WS web service from fromjava.server.AddNumbersImpl, the service endpoint implementation class. The class path to fromjava.server.AddNumbersImpl is "build/classes", and Java Bean files are created in the "build/classes" directory with the WSDL file.

4.12. wsimport

The wsimport tool is for the JAX-WS web service. It creates client-side Java stub source files and server-side web service interface Java source files from the WSDL file. wsimport also creates web service policy configuration files.

wsimport creates the following from the WSDL file.

- SEI, service classes, and other JAXB related Java classes
- wsit-client.xml file and the WSDL file that includes the web service policy settings

The following describes how to use the tool and parameters.

- Usage

Usage: **wsimport** [options] <WSDL_URI>

where [options] include:

- b <path> specify jaxws/jaxb binding files or additional schemas (Each <path> must have its own -b)
- B <jaxbOption> Pass this option to JAXB schema compiler
- catalog <file> specify catalog file to resolve external entity references supports TR9401, XCatalog, and OASIS XML Catalog format
- d <directory> specify where to place generated output files
- extension allow vendor extensions - functionality not specified by the specification. Use of extensions may result in applications that are not portable or may not interoperate with other implementations
- help display help
- httpproxy:<host>:<port> specify a HTTP proxy server (port defaults to 8080)
- keep keep generated files
- p <pkg> specifies the target package
- quiet suppress wsimport output
- s <directory> specify where to place generated source files
- target <version> generate code as per the given JAXWS spec version Defaults to 2.2, Accepted values are 2.0, 2.1 and 2.2 e.g. 2.0 will generate compliant code for JAXWS 2.0 spec
- verbose output messages about what the compiler is doing
- version print version information
- wsdllocation <location> @WebServiceClient.wsdlLocation value
- clientjar <jarfile> Creates the jar file of the generated artifacts along with the WSDL metadata required for invoking the web service.
- generateJWS generate stubbed JWS implementation file
- implDestDir <directory> specify where to generate JWS implementation file
- implServiceName <name> local portion of service name for generated JWS implementation
- implPortName <name> local portion of port name for generated JWS implementation

Extensions:

- XadditionalHeaders map headers not bound to request or response message to Java method parameters
- Xauthfile file to carry authorization information in the format http://username:password@example.org/stock?wsdl
- Xdebug print debug information
- Xno-addressing-databinding enable binding of W3C EndpointReferenceType to Java
- Xnocompile do not compile generated Java files
- XdisableAuthenticator disable Authenticator used by JAX-WS RI, -Xauthfile option will be ignored if set
- XdisableSSLHostnameVerification disable the SSL Hostname verification while fetching wsdl's

Examples:

```
wsimport stock.wsdl -b stock.xml -b stock.xjb
wsimport -d generated http://example.org/stock?wsdl
```

- Parameters

Parameter	Description
-b <path>	External JAX-WS or JAXB binding files.
-B <jaxbOption>	Specifies to pass this option to the JAXB schema compiler.
-catalog <file>	Sets the external entity reference values such as the TR9401, XCatalog, and OASIS XML Catalog types. The ant xmllcatalog type can also be used.
-d <directory>	Result files directory.
-extension	Allows vendor extensions. This option may cause compatibility and portability issues.
-help	Displays help.
-httpproxy:<host>:<port>	HTTP proxy server. (Default value: 8080)
-keep	Keeps created files.
-p <pkg>	Java package names for all Namespace URIs defined in WSDL.
quiet	Prevents output messages from being displayed.
-s <directory>	Source files directory. If this property is set, the keep property is automatically set.
-target <version>	Creates code according to the specified version of JAX-WS specifications.
-verbose	Displays verbose messages. (Default value: false)
-version	Displays version information.
-wsdllocation <location>	If WSDL URI is set in this property, it applies to service end-point interfaces and @WebServiceClient.wsdlLocation and @WebService.wsdlLocation annotations of the service interfaces.
-clientjar <jarfile>	Generates a jar file of the artifact created along with a WSDL meta data that is required to call a web service.
-generateJWS	Generates a stubbed JWS implementation file.
-implDestDir <directory>	Location where a JWS implementation file will be generated.
-implServiceName <name>	Local part of the service name for generated JWS implementation.
-implPortName <name>	Local part of the port name for generated JWS implementation.

- Example

wsimport is a general script file located in JEUS_HOME/bin/.

The following is an example of executing wsimport.

```
$ wsimport -d build/classes -keep -p fromwsdl.server src/conf/AddNumbers.wsdl
```

The previous command created a portable artifact with a package name of fromwsdl.server from AddNumbers.wsdl. Java class source files created by the [-keep] option are not deleted.

4.13. wsdl2java

The wsdl2java tool is for the JAX-RPC web service. The following are the codes created by wsdl2java from a WSDL file.

- Web service Java source code stubs for clients
- Web service interface Java source code for servers

The following describes how to use the tool and parameters.

- Usage

Usage: **wsdl2java** mode [options] wsdlURI

where mode include:

-gen:client	generate all client artifacts
-gen:server	generate all server artifacts
-gen	same as -gen:client
-import:client	generate client JSR-109 portable artifacts only
-import:server	generate server JSR-109 portable artifacts only
-import	same as -import:client

where [options] include:

* destination directory

-d <directory>	specify where to put output files
-cd <directory>	specify where to put compiled class files If not specified, the compile class files will be put in where '-d' specifies

* WSDL and Java mapping

-inputmapping <filename>	specify the input JSR-109 JAX-RPC mapping file (used for generating Java artifacts)
-package <package_name>	specify the java package name to which all namespaceURI in the WSDL map
-ns2pkg NS=PKG	specify the namespaceURI and java package name mapping (NS : namespaceURI, PKG : java package name) This option can be used several times

* output file

-outputmapping <filename>	specify the output JSR-109 JAX-RPC mapping file for the input WSDL This option can not be used with '-inputmapping'
-compile	compile generated Java source files ('tools.jar' must be in the classpath)
-nokeepsrc	delete generated java source files

```

* artifact generation options
-nowrapped                disable wrapped mode detection for the WSDL
-datahandleronly          force jakarta.activation.DataHandler for MIME types
-nodatabinding            force jakarta.xml.soap.SOAPElement for all WSDL parts
-soapver <VER>            specify SOAP version used in stub/tie class.
                           VER : '11' for SOAP 1.1, '12' for SOAP 1.2
-resolvedir directory     specify directory where to be put local copies
                           of include/import schemas and import WSDL

* other options
-username                 username to access the WSDL-URI
-password                 password to access the WSDL-URI

* verbose options
-level <LEVEL>            specify log level.
                           LEVEL : SEVERE, WARNING, INFO, FINE, FINER, FINEST
-verbose                  same as -level FINE

```

- Parameters

Parameter	Description
-gen:client	Creates Java classes for clients.
-gen:server	Creates Java classes for servers.
-gen	Same as -gen:client.
-import:client	Creates Portable Artifact for clients.
-import:server	Creates a Portable Artifact for servers
-import	Same as -import:client.
-d <directory>	Result files directory.
-cd <directory>	Compiled class files directory.
-inputmapping <filename>	Input JAX-RPC mapping files used to create Java classes.
-package <package_name>	Java package name for all namespace URIs in WSDL.
-ns2pkg NS=PKG	Java package name for the namespace URI. <ul style="list-style-type: none"> • NS: Namespace URI • PKG: Java package name
-outputmapping <filename>	Output JAX-RPC mapping files for the WSDL input.
-compile	Compiles created Java files.
-nokeepsrc	Deletes created Java source files.
-nowrapped	Disables the wrapped mode detection function for WSDL.
-datahandleronly	Applies jakarta.activation.DataHandler to the MIME type.
-nodatabinding	Applies jakarta.xml.soap.SOAPElement to all WSDL message parts.

Parameter	Description
-soapver <VER>	SOAP version used in stub/tie classes. <ul style="list-style-type: none"> • 11: SOAP 1.1 • 12: SOAP 1.2
-resolvedir <directory>	Stores remote WSDL files, including schema files, in an accessible repository.
-username	Username to access WSDL-URI
-password	Password to access WSDL-URI
-level <LEVEL>	Log level.
-verbose	Displays verbose messages.

- Example

wsdl2java is a general script file located in JEUS_HOME/bin/.

The following is an example of executing wsdl2java.

```
$ wsdl2java -gen:client -d build/classes
-outputmapping build/classes/web/WEB-INF/jaxrpcmapping.xml
-compile http://localhost:8088/AddNumbers/addnumbers?wsdl
```

The previous command created service interfaces and stubs for web service clients using the remote "http://localhost:8088/AddNumbers/addnumbers?wsdl" WSDL file.

The stubs and service interfaces are created in the "build/classes" directory. The JAX-RPC mapping files are created in the "build/classes/web/WEB-INF" directory. The stub and interface files created using the "-compile" option are compiled.

4.14. wsdl2uddi

WSDL complements the UDDI standards by providing a binding protocol between abstract interfaces and network services. wsdl2uddi is provided by JEUS UDDI WSDL Publishing. The wsdl2uddi tool can publish web services to UDDI from the WSDL file.

The following describes how to use the tool and parameters.

- Usage

```
Usage: wsdl2uddi UDDIVersion WSDLURI [wsdl-options]
        -uddiInquiry <UDDIInquiryURI> -uddiPublish <UDDIPublish>
        -uddiUsername <UDDIUsername> -uddiPassword <UDDIPassword> [options]

* wsdl-options
```

-wsdlUsername	username to access the WSDL-URI
-wsdlPassword	password to access the WSDL-URI
* options	
-level <LEVEL>	specify log level. LEVEL : SEVERE, WARNING, INFO, FINE, FINER, FINEST
-verbose	same as -level FINE

- Parameters

Parameter	Description
UDDIVersion	UDDI version. Input options: v2 and v3.
WSDLURI	URI value of the location of the actual WSDL.
-uddiInquiry <UDDIInquiryURI>	Inquiry URI value of the actual UDDI.
-uddiPublish <UDDIPublish>	Publish URI value of the actual UDDI.
-uddiUsername <UDDIUsername>	Username required to access UDDI.
-uddiPassword <UDDIPassword>	Password required to access UDDI.
-wsdlUsername	Username required to access WSDL URL.
-wsdlPassword	Password required to access WSDL URL.
-level <LEVEL>	Log level.
-verbose	Displays verbose messages (same as the 'FINE' log level).

- Example

wsdl2uddi is a general script file located in JEUS_HOME/bin/.

The following is an example of executing wsdl2uddi.

```
$ wsdl2uddi v3 http://localhost:8088/AddNumbers/addnumbers?wsdl
-uddiInquiry http://localhost:8088/uddi/inquiry
-uddiPublish http://localhost:8088/uddi/publish
-uddiUsername jeus
-uddiPassword jeus
-verbose
```

The previous command publishes web services to UDDI using the remote "http://localhost:8088/AddNumbers/addnumbers?wsdl" WSDL file. The UDDI Inquiry, the Publish URI, username, and password can be specified.

4.15. xjc

The 'xjc' tool converts XML schema files to JAXB content classes in the Java programming language.

The following describes how to use the tool and parameters.

- Usage

```
Usage: xjc [-options ...] <schema file/URL/dir/jar> ... [-b <bindinfo>] ...
If dir is specified, all schema files in it will be compiled.
If jar is specified, /META-INF/sun-jaxb.episode binding file will be compiled.
Options:
  -nv                : do not perform strict validation of the input schema(s)
  -extension         : allow vendor extensions
                     - do not strictly follow the Compatibility Rules and App E.2 from the
JAXB Spec
  -b <file/dir>      : specify external bindings files each <file> must have its own -b).
                     If a directory is given, **/*.xjb is searched
  -d <dir>           : generated files will go into this directory
  -p <pkg>           : specify the target package
  -httpproxy <proxy> : set HTTP/HTTPS proxy. Format is [user[:password]@]proxyHost:proxyPort
  -httpproxyfile <f> : Works like -httpproxy but takes the argument in a file to protect
password
  -classpath <arg>   : specify where to find user class files
  -catalog <file>    : specify catalog files to resolve external entity references
                     support TR9401, XCatalog, and OASIS XML Catalog format.
  -readOnly          : generated files will be in read-only mode
  -npa               : suppress generation of package level annotations (**/package-info.java)
  -no-header         : suppress generation of a file header with timestamp
  -target (2.0|2.1)  : behave like XJC 2.0 and generate code that doesnt use any 2.1 features.
  -encoding <encoding> : specify character encoding for generated source files
  -enableIntrospection : enable the correct generation of Boolean getters and setters to enable
Bean Introspection APIs.
  contentForWildcard : disable XML security features when parsing XML documents.
  -xmlschema         : treat input as W3C XML Schema (default)
  -relaxng           : treat input as RELAX NG (experimental,unsupported)
  -relaxng-compact   : treat input as RELAX NG compact syntax experimental,unsupported)
  -dtd               : treat input as XML DTD (experimental,unsupported)
  -wsdl              : treat input as WSDL and compile schemas inside it
(experimental,unsupported)
  -verbose           : be extra verbose
  -quiet             : suppress compiler output
  -help              : display this help message
  -version           : display version information
  -fullversion       : display full version information

Extensions:
  -Xlocator          : enable source location support for generated code
  -Xsync-methods     : generate accessor methods with the 'synchronized' keyword
  -mark-generated    : mark the generated code as @javax.annotation.Generated
  -episode <FILE>    : generate the episode file for separate compilation
  -Xpropertyaccessors : Use XmlAccessType PROPERTY instead of FIELD for generated classes
```

- Parameters

Parameter	Description
-nv	Option to check schema validation. (true false)
-extension	Option to execute the XJC binding compiler in extension mode. (true false, default value: false)
-b <file/dir>	Sets at least one external binding file.
-d <dir>	By default, the XJC binding compiler creates Java content classes in the current directory. This option specifies a different directory.
-p <pkg>	Specified target package name that overwrites any other customization.
-httpproxy <proxy>	HTTP/HTTPS proxy.
-httpproxyfile <f>	Similar to the -httpproxy parameter but uses arguments in the file to protect the password.
-classpath <arg>	Path to client application classes registered with the <jxb:javaType> and <xjc:superClass> customizations.
-catalog <file>	External catalog files for TR9401, XCatalog, and OASIS XML catalog formats.
-readOnly	Sets Java source files to 'read only' mode. (Default value: false)
-npa	Summarizes the package level annotations in package-info.java.
-no-header	Creates file headers without timestamps.
-target (2.0 2.1)	Behaves like XJC 2.0 or 2.1, and creates code that is fully 2.0 or 2.1 compatible (2.2 functions are not used).
-xmlschema	Treats input as a W3C XML schema. Input options: <ul style="list-style-type: none"> ◦ relaxing ◦ relaxng-compact ◦ dtd ◦ wsdl ◦ xmlschema (Default)
-relaxng	Treats input as RELAX NG.
-relaxng-compact	Treats input as simple RELAX NG.
-dtd	XML DTD file is used as the input schema of the compiler.
-wsdl	Specifies a WSDL file and compiles the schema files in the WSDL file.
-verbose	Displays verbose messages.
-quiet	Prevents compiler output messages from being displayed, such as progression information or warning messages.
-help	Displays help.

Parameter	Description
-version	Displays the compiler version.

- Example

xjc is a general script file located in JEUS_HOME/bin/.

The following is an example of executing xjc.

```
$ xjc -d build/classes -p com.tmaxsoft src/conf/ts.xsd
```

The previous command creates compiled Java class files with a package name of "com.tmaxsoft" in the "build/classes" folder, from the ts.xsd schema file.

Part III. Ant Tasks

5. Ant Task

This chapter describes Ant tasks.

5.1. Overview

JEUS provides the following Ant tasks to automatize jobs for application development. The user must create buildfiles, which describe the tasks performed by Ant.

This section describes the contents of the buildfiles of each function and how to execute each Ant task using buildfiles. For more information about Ant configuration and its usage, refer to [Apache Ant Official Documentation](#).

Buildfile: build.xml

build.xml is an XML type Ant buildfile that describes Ant tasks. Important parts of the buildfile are included inside the `<project>` element, and multiple `<target>` elements generally exist in a project. The `<target>` element defines an Ant task to be executed.

In order to use an Ant task provided by JEUS, add the following task definition to the build.xml file.

```
<taskdef resource="jeus/util/ant/jeusant.properties">
  <classpath>
    <path refid="jeus.libraries"/>
  </classpath>
</taskdef>
```

Project properties are defined in the `<project>` element, and attribute values can be used through expressions like `${property-name}`.



When using the Ant task provided by JEUS, specifying "jeus.home" in the project of a buildfile is recommended. This is because a target running in a project may require the JEUS_HOME directory information.

JEUS_HOME is a static final variable that fixes its value to the initial value specified in a single JVM. However, if a target that does not require JEUS_HOME information is executed first, JEUS_HOME is set to null. A target that requires JEUS_HOME information uses the value specified by the previously executed target, which can cause the program to run incorrectly.

5.2. Setup Ant Task

This section describes the Ant tasks used to organize the JEUS environment.

5.2.1. create-domain

The create-domain Ant task can create a new domain environment.

The task is defined in the build.xml file in the JEUS_HOME/setup directory. The following file contains the basic configuration.

```
JEUS_HOME/setup/domain-config-template.properties
```

The following describes the create-domain task properties.

Property	Description
domain	Domain name. (Default value: jeus_domain)
servername	JEUS Master Server name. (Default value: adminServer)
nodename	Node name used by JEUS Master Server. (Default value: node1)
jeus.address	JEUS Master Server address. (Default value: 0.0.0.0)
jeus.port	JEUS Master Server port. (Default value: 9736)
jms.port	JEUS Master Server JMS port. (Default value: 9741)
http.port	JEUS Master Server HTTP port. (Default value: 8808)
jvm.config	JEUS Master Server JVM configuration. (Default value: -Xmx1024m -XX:MaxPermSize=128m)
jeus.username	Domain administrator account. It is strongly recommended to change to a domain administrator account name. (Default value: administrator)
jeus.password	Domain administrator account password. Base64 encoded value of jeus. It is strongly recommended to change the value through the Ant configuration or the set-password command of jeusadmin. (Default value: {base64}amV1cw==)
usevirtualmulticast	When using System Clustering Framework (SCF), this property determines whether to use the virtual multicast, which uses TCP communication. (true false, default value: false)
heartbeataddress	The heartbeat address used in SCF. Not applicable if usevirtualmulticast is set to true. (Default value: 230.30.1.1)
heartbeatport	The heartbeat port used in SCF. Not applicable if usevirtualmulticast is set to true. (Default value: 3030)

Example

The following is an example of creating a domain using the Ant task.

In the example, the domain name is set to domain1, the JEUS Master Server name is set to 'adminServer', and JEUS Master Server JVM is set to '-Xmx512m -XX:MaxPermSize=256m'. Although

each property already has a default value, this example provides values to show how to set them.

```
JEUS_HOME/setup$ ant create-domain -Ddomain=domain1 -Dservername=adminServer
-Djvm.config="-Xmx512m -XX:MaxPermSize=256m" -Dheartbeataddress=230.30.1.1
-Dheartbeatport=3030
Buildfile: JEUS_HOME/setup/build.xml

create-domain:
[echo] Creating a domain configuration: domaindir="JEUS_HOME/domains/domain1
domain = domain1, server-name = adminServer, admin password={base64}amV1cw==,
server base port=9736, server base listen address=${jeus.address}
[mkdir] Created dir: JEUS_HOME/domains/domain1
[mkdir] Created dir: JEUS_HOME/domains/domain1/.applications
[mkdir] Created dir: JEUS_HOME/domains/domain1/.deploymentplans
[mkdir] Created dir: JEUS_HOME/domains/domain1/bin
[mkdir] Created dir: JEUS_HOME/domains/domain1/config
[mkdir] Created dir: JEUS_HOME/domains/domain1/lib
[mkdir] Created dir: JEUS_HOME/domains/domain1/lib/application
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers
[mkdir] Created dir: JEUS_HOME/domains/domain1/config/servlet
[mkdir] Created dir: JEUS_HOME/domains/domain1/config/security
[copy] Copying 2 files to JEUS_HOME/domains/domain1/config
[copy] Copying 1 file to JEUS_HOME/domains/domain1/config/servlet
[copy] Copying 1 file to JEUS_HOME/domains/domain1/config/security
[copy] Copied 1 empty directory to 1 empty directory under JEUS_HOME/domains/domain1/config/security
[copy] Copying 3 files to JEUS_HOME/domains/domain1/config/security
[echo] productionmode = true
[java] JVM args ignored when same JVM is used.
[copy] Copying 3 files to JEUS_HOME/domains/domain1/bin
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer/bin
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer/.workspace
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer/.workspace/deployed
[mkdir] Created dir:
JEUS_HOME/domains/domain1/servers/adminServer/.workspace/deployed/deploymentplans
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer/logs
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer/lib
[mkdir] Created dir: JEUS_HOME/domains/domain1/servers/adminServer/lib/application

BUILD SUCCESSFUL
Total time: 2 seconds
JEUS_HOME/setup$
```

5.3. EJB Ant Task

Several Ant tasks are provided for developing EJB components based on JEUS.

5.3.1. appcompiler

The appcompiler Ant task is used to create a RMI stub and skeleton classes required by the EJB module and individual EJB beans after the pre-deployment process. The Ant task can create EJB client JAR files, which are required for clients to communicate with beans deployed to a remote host.

The following describes appcompiler task properties.

Property	Description
jeusHome	Sets JEUS_HOME. (String type)
client	Client view file that contains the stub classes to be created. (String type)
keep	Option to save the source files created during the compilation process. (Default value: false)
jspmap	Option to create the servlet-mapping table in the jeus_jspmap.xml file. (Default value: false)
ejbJar	ejb-jar.xml file used for compilation. (String type)
jeusEjbDd	jeus-ejb-dd.xml file used for compilation. (String type)
name	Deployment name. (String type)
target	Application and stand-alone module files to be compiled. (Required option, String type)

Example

This following is an example of a build.xml file that executes the appcompiler.

• build.xml example

appcompiler Ant Task Build File Example: <build.xml>

```
<?xml version="1.0"?>

<project name="example" default="appcompiler" basedir=".">
  <property environment="env"/>
  <!-- jeus.home project property is required
       when you run the various tasks in an ant jvm and
       one of the various tasks requirs JEUS_HOME information -->
  <property name="jeus.home" value="${env.JEUS_HOME}"/>

  <!-- set properties to be needed for appcompiler task -->
  <property name="client" value="client_view.jar"/>
  <property name="keep" value="false"/>
  <property name="jspmap" value="false"/>
  <property name="ejbJar" value="ejb-jar.xml"/>
  <property name="jeusejbdd" value="jeus-ejb-dd.xml"/>
  <property name="targetfile" value="ejb"/>

  <!-- set the library-classpath or to run the task class -->
  <path id="jeus.libraries">
    <fileset dir="${jeus.home}/lib/system" includes="*.jar"/>
  </path>

  <!-- include the task definition resource file -->
  <taskdef resource="jeus/util/ant/jeusant.properties">
    <classpath>
      <path refid="jeus.libraries"/>
    </classpath>
  </taskdef>
</project>
```

```

        </classpath>
    </taskdef>

    <target name="init">
    </target>

    <!-- appcompiler task -->
    <target name="appcompiler" depends="init">
        <appcompiler jeusHome="${jeus.home}"
                    client="${client}"
                    keep="${keep}"
                    jspmap="${jspmap}"
                    ejbJar="${ejbjar}"
                    jeusEjbDd="${jeusejbdd}"
                    target="${targetfile}"/>

    </target>

</project>

```

• Execution example

```

$ ant appcompiler
Buildfile: build.xml

init:

appcompiler:

BUILD SUCCESSFUL
Total time: 3 minutes 7 seconds

```

5.3.2. ejbddinit

The ejbddinit Ant Task is used to create the JEUS EJB Deployment Descriptor (DD) for EJB applications. For more information about ejbddinit, refer to [ejbddinit](#).

The following describes the ejbddinit Ant task properties.

Property	Description
propertyFile	Property files referred to when executing ejbddinit. (String type)
logginglevel	Log level displayed on a screen when executing ejbddinit. This level matches the J2SE logging API level. (Default value: INFO)
target	Path to the EJB module executed by ejbddinit. The EJB module can be a JAR archive or directory. (Required option. This property can be omitted when the property file contains the target information.)

The ejbddinit property files can be set in the ejbddinit Ant script.

The properties of the ejbddinit property files must be set according to the following rules of the ejbddinit Ant script. For more information about ejbddinit properties, refer to [Properties List](#).

ejbddinit Property File	ejbddinit Ant Script
export-name=%{ejb-class}	<property name="export-name" value="%{ejb-class}"/>
thread-max=100	<property name="thread-max" value="100"/>
HelloBean.export-port=55555	ejbddinit properties cannot be set for a specific EJB component, such as HelloBean, in build.xml.

Like the ejbddinit property file, the '%{ejb-class}' expression can be used to set the export-name property of an Ant script. For more information about the expression for setting export-name, refer to [Supported patterns for the export-name property](#).

An Ant script cannot set ejbddinit properties for a specific EJB component. To set ejbddinit properties for a specific EJB component, write a separate ejbddinit property file. A configuration for a specific EJB component has a higher priority than common configurations in ejbddinit property files and Ant scripts. If ejbddinit property files and ejbddinit Ant scripts have the same configurations, the configuration in the Ant scripts is given higher priority.

Example

The following is an example of writing and executing an ejbddinit Ant script.

- **ejbddinit Ant script example**

ejbddinit Ant Script Example

```
<?xml version="1.0"?>
<project name="example" default="ejbddinit" basedir=". ">
  <property environment="env"/>
  <!-- jeus.home project property is required
        when you run the various tasks in an ant jvm and
        one of the various tasks requirs JEUS_HOME information -->
  <property name="jeus.home" value="${env.JEUS_HOME}"/>

  <!-- set properties to be needed for ejbddinit task -->
  <property name="targetfile" value="ejb.jar"/>
  <property name="logginglevel" value="FINE"/>
  <property name="propertyfile" value="ejbddinit.properties"/>

  <!-- set properties to be needed for ejbddinit properties -->
  <property name="export-name" value="%{ejb-class}"/>
  <property name="thread-max" value="100"/>

  <!-- set the library-classpath or to run the task class -->
  <path id="jeus.libraries">
    <fileset dir="${jeus.home}/lib/system" includes="*.jar"/>
  </path>

  <!-- include the task definition resource file -->
```



```

<taskdef resource="jeus/util/ant/jeusant.properties">
  <classpath>
    <path refid="jeus.libraries"/>
  </classpath>
</taskdef>

<target name="init">
</target>

<!-- ejbddinit task -->
<target name="ejbddinit" depends="init">
  <ejbddinit loggingLevel="${logginglevel}"
    property="${propertyfile}"
    target="${targetfile}"
    exportName="${export-name}"
    threadMax="${thread-max}">
  </ejbddinit>
</target>
</project>

```

- **ejbddinit Ant Task execution**

```

$ ant ejbddinit
Buildfile: build.xml

init:

ejbddinit:
[ejbddinit] LoadFile: /jeus/sample/ejbddinit.properties
[ejbddinit] Source=/jeus/sample/ejbddinit/ejb.jar
[ejbddinit] Successfully configured the parameters.
[ejbddinit] Deployment descriptor initialization started.
[ejbddinit] Creating JEUS descriptors.
[ejbddinit] Deployment descriptor initialization finished.

BUILD SUCCESSFUL
Total time: 2 seconds

```

5.4. Web Service Ant Task

This section describes the Ant tasks provided by JEUS for creating Web services and for web service clients.

5.4.1. java2wsdl

The java2wsdl task creates the following from service endpoint interface classes (and classes implemented as Java).

- WSDL file for web services
- JAX-RPC mapping file



The class that defines the java2wsdl Ant task is `jeus.util.ant.webservices.Java2WsdITask`.

The following describes the java2wsdl properties.

Property	Description
configfilepath	Path to the web service configuration file. (Required input, String type)
classpath	Path to Java web services classes. (Required input, String type)
destDir	Absolute path to the directory in which WSDL files are created. (String type)
level	Logging level. (String type)
verbose	Displays verbose messages. (Default value: false)

Nested Element

`<java2wsdl>` contains the `<classpath>` element of Ant.

Example

The following is an example of a build.xml that executes java2wsdl.

- **build.xml example**

java2wsdl Ant Task Build File Example: `<build.xml>`

```
<?xml version="1.0" encoding="UTF-8"?>
<project name="java2wsdl" default="build" basedir=".>
  <property name="is.app-client.module" value="true" />
  <import file="../../common/common-build.xml" />
  <taskdef name="java2wsdl"
    classname="jeus.util.ant.webservices.Java2WsdITask">
    <classpath refid="jeus.libraries.classpath" />
  </taskdef>
  <target name="-post-compile">
    <java2wsdl destDir="${build.classes.dir}"
      verbose="true"
      configfilepath="${src.conf}/service-config.xml">
      <classpath refid="classpath" />
    </java2wsdl>
  </target>
</project>
```

- **Execution example**

```
$ jant
```

...

```
[java2wsdl] Building Web Services : DocLitEchoService
[java2wsdl] Generating WSDL File - jeus/build/classes/DocLitEchoService.wsdl
[java2wsdl] Generating JAX-RPC Mapping File - jeus/build/classes/DocLitEchoService-mapping.xml
```

...

```
BUILD SUCCESSFUL
Total time: 11 seconds
```

5.4.2. wsdl2java

The wsdl2java task creates one of the following WSDL of a web service.

- Java program stubs for web service clients
- Java program interfaces for web service servers



The class that defines the wsdl2java Ant task is `jeus.util.ant.webservices.Wsdl2JavaTask`.

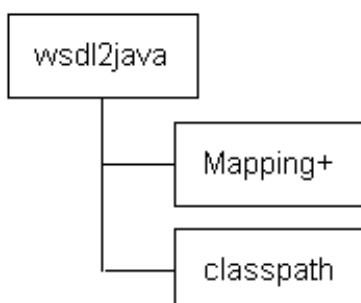
The following describes the wsdl2java properties.

Property	Description
wsdl	Absolute path or URL to the WSDL file used to create Java source files. (Required option, String type)
mode	Mode used to create Java source files. (Required option, String type) Input options: <ul style="list-style-type: none">◦ gen:client◦ gen:server◦ gen◦ import:client◦ import:server◦ import
destDir	Absolute path to the directory in which Java files are created. (Required input, String type)
classDestDir	Directory in which compiled class files are created. (String type)
inputMapping	Input JAX-RPC mapping file used to create Java classes. (String type)
package	Java package name for all namespace URIs in WSDL. (String type)
outputMapping	Output JAX-RPC mapping file for input WSDL. (String type)

Property	Description
doCompile	Option to compile the created Java source files. (Default value: true)
username	Username required to access the URL of WSDL. (String type)
password	Password required to access the URL of WSDL. (String type)
keepSrc	Saves created Java source files. (Default value: true)
nowraped	Option to disable the wrapped mode detection for WSDL. (Default value: false)
dataHandlerOnly	Option to apply jakarta.activation.DataHandler to the MIME type. (Default value: false)
nodatabinding	Option to apply jakarta.xml.soap.SOAPElement to all WSDL message parts. (Default value: false)
soapver	SOAP version used in stub/tie classes. <ul style="list-style-type: none"> ◦ 11: SOAP 1.1 (Default) ◦ 12 : SOAP 1.2
resolveDir	Local storage for remote WSDL files. (String type)
DDGen	Option to create a basic deployment descriptor for JEUS (webservices.xml file, web.xml when MODE is web, and ejb-jar.xml file when MODE is ejb). (String type)
level	Logging level. (String type)
verbose	Displays verbose messages. (Default value: false)

Nested Element

<wsdl2java> has nested Ant <classpath> and <mapping> elements. The structure of a <wsdl2java> Ant Task is as follows (+ means it can have more than one element):



wsdl2java Task Structure

<mapping>

Mapping is performed between a Java package and a WSDL namespace. If the `<mapping>` element is omitted, all namespace URIs are mapped to the package specified by the package property of the `<wsdl2java>` element.

The following describes the `<mapping>` properties.

Property	Description
package	Java package name. (Required option, String type)
namespace	Namespace URI of WSDL. (Required option, String type)



If the package property is specified in the `<wsdl2java>` element, this value has a higher priority than the `<mapping>` element value.

Example

The following is an example of a `build.xml` that executes `wsdl2java`.

• build.xml example

`wsdl2java` Ant Task Build File Example: `<build.xml>`

```
<?xml version="1.0" encoding="UTF-8"?>
<project name="wsdl2java" default="build" basedir=".">
  <property name="is.app-client.module" value="true" />
  <import file="../../common/common-build.xml" />
  <taskdef name="wsdl2java"
    classname="jeus.util.ant.webservices.Wsdl2JavaTask">
    <classpath refid="jeus.libraries.classpath" />
  </taskdef>
  <target name="-pre-compile">
    <mkdir dir="${build.classes.dir}" />
    <wsdl2java destDir="${build.classes.dir}"
      verbose="true"
      mode="import:server"
      doCompile="true"
      noDataBinding="true"
      package="sample.nodatabinding.service"
      outputmapping="${build.classes.dir}/BookQuoteService-mapping.xml"
      wsdl="${src.conf}/BookQuoteService.wsdl">
      <classpath refid="classpath" />
    </wsdl2java>
  </target>
</project>
```

• Execution example

```
$ jant
Buildfile: build.xml
...
[wsdl2java] Compiling generated sources(1)...
```

...
BUILD SUCCESSFUL
Total time: 6 seconds

5.4.3. wsgen

The wsgen task creates the following from service endpoint interface classes and classes implemented in Java.

- Portable Artifacts
- Web service WSDL file (option)



The class that defines the wsgen Ant task is `jeus.webservices.jaxws.tools.WsGen2`.

The following describes the wsgen properties.

Property	Description
sei	Name of the service endpoint interface class. (Required input, String type)
destdir	Absolute path to the directory in which class files are created. (Required input, String type)
classpath	Directory of input class files. (String type)
cp	Alias for the classpath property. (String type)
resourcedestdir	Used with the genwsdl property. This property configures the location in which WSDL files are created. (String type)
sourcedestdir	Directory in which source files are created. (String type)
keep	Saves created files. (Default value: false)
verbose	Displays verbose messages. (Default value: false)
genwsdl	Option to create WSDL files. (Default value: false)
protocol	Used with the genwsdl property. Protocol to be used in the wsdl:binding element. The default value is soap1.1. Xsoap1.2 values can be used with the property extension. (String type)
servicename	Used with the genwsdl property. Name of a specific wsdl:service element of the created WSDL file. (String type)
portname	Used with the genwsdl property. Name of a specific wsdl:portname element of the created WSDL file. (String type)

Property	Description
extension	Allows vendor extensions. This option may cause compatibility and portability issues. (Boolean type)
policy	Reads the web service policy configuration file. (String type)

Example

The following is an example of a build.xml that executes wsgen.

- **build.xml example**

wsgen Ant Task Build File Example: <build.xml>

```
<?xml version="1.0" encoding="UTF-8"?>
<project name="wsgen" default="build" basedir=".">
  <property name="is.app-client.module" value="true" />
  <import file="../../common/common-build.xml" />
  <taskdef name="wsgen" classname="com.sun.tools.ws.ant.WsGen">
    <classpath refid="jeus.libraries.classpath" />
  </taskdef>
  <target name="-post-compile">
    <wsgen sei="fromjava.server.AddNumbersImpl"
      destdir="${build.classes.dir}"
      classpath="${build.classes.dir}"
      resourcedestdir="${build.classes.dir}"
      sourcedestdir="${build.classes.dir}"
      genwsdl="true" />
  </target>
</project>
```

- **Execution example**

```
$ jant
Buildfile: build.xml
...

    [echo] Compiling wsgen...
...

BUILD SUCCESSFUL
Total time: 6 seconds
```

5.4.4. wsimport

The wsimport task creates one of the following from the web service WSDL.

- Java program stubs for web service clients
- Java program interfaces for web service servers



The class that defines the wsimport Ant task is `jeus.webservices.jaxws.tools.WsImport2`.

The following describes the wsimport properties.

Property	Description
wsdl	Absolute path or URL to the WSDL file used to create Java source files. (Required option, String type)
destDir	Absolute path to the directory in which Java files are created. (String type)
sourcedestdir	Directory in which source files are created. If this property is set, the keep property is automatically set. (String type)
keep	Saves created files. (Default value: false)
verbose	Displays verbose messages. (Default value: false)
binding	External JAS-WS or JAXB binding files. (String type)
extension	Allows vendor extensions. This option may cause compatibility and portability issues. (Boolean type)
wsdlLocation	If WSDL URI is specified, the URI value is set to the service endpoint interface and the <code>@WebService.wsdlLocation</code> Annotation and <code>@WebServiceClient.wsdlLocation</code> annotations of the service interface. (String type)
catalog	External entity reference values like those in TR9401, XCatalog, and OASIS XML Catalog. The Ant <code>xmlcatalog</code> type can also be used. (String type)
package	Java package name for all namespace URIs in WSDL. (String type)
target	Creates code according to the specified version of JAX-WS specifications. (String type)
quiet	Hides output messages. (Default value: false)
policy	Reads the web service policy configuration file. (String type)

Example

The following is an example of a build.xml that executes wsimport.

• build.xml example

wsimport Ant Task Build File Example: <build.xml>

```
<?xml version="1.0" encoding="UTF-8"?>
<project name="wsimport" default="build" basedir=".">
  <property name="is.app-client.module" value="true" />
  <import file="../../common/common-build.xml" />
  <taskdef name="wsimport" classname="com.sun.tools.ws.ant.WsImport">
    <classpath refid="jeus.libraries.classpath" />
  </taskdef>
```



```

<target name="-pre-compile">
  <mkdir dir="${build.classes.dir}" />
  <wsimport wsdl="${src.conf}/AddNumbers.wsdl"
    destDir="${build.classes.dir}"
    sourcedestdir="${build.classes.dir}"
    package="fromwsdl.server" />
</target>
</project>

```

• Execution example

```

$ jant
Buildfile: build.xml
...

[wsimport] Consider using <depends>/<produces> so that wsimport won't do
unnecessary compilation
[wsimport] parsing WSDL...
[wsimport]
[wsimport]
[wsimport] generating code...
...

BUILD SUCCESSFUL
Total time: 6 seconds

```

5.4.5. xjc

The xjc task converts XML schema files to JAXB content classes in Java language.

The following describes the xjc properties.

Property	Description
wsdl	Schema files to be compiled. (Required option, String type)
binding	Externally added binding files to be applied to the schema files. (String type)
package	Java package below which source code is created. This option has the same effect as the -p option for a command line. (String type)
destdir	Directory in which source code is created. (Required option, String type)
readonly	Option to set Java source files to readonly mode. (Default value: false)
extension	Option to execute the XJC binding compiler in extension mode. (Default value: false)
catalog	External entity reference values like those in TR9401, XCatalog, and OASIS XML Catalog. (String type)
removeOldOutput	Option to delete all files specified by the produces element before the XJC binding compiler recompiles the source files. (String type, "yes"/"no")
source	Schema version of the compiler to be used. (String type, 1.0/2.0)

Example

The following is an example of a build.xml that executes xjc.

- **build.xml example**

xjc Ant Task Build File Example: <build.xml>

```
<?xml version="1.0" encoding="UTF-8"?>
<project name="xjc" default="build" basedir=".">
  <property name="is.app-client.module" value="true" />
  <import file="../../common/common-build.xml" />
  <taskdef name="xjc" classname="com.sun.tools.xjc.XJCTask">
    <classpath refid="jeus.libraries.classpath" />
  </taskdef>
  <target name="-pre-compile">
    <mkdir dir="${build.classes.dir}" />
    <xjc schema="${src.conf}/ts.xsd"
        package="com.tmaxsoft"
        destdir="${build.classes.dir}">
      <produces dir="${build.classes.dir}/com/tmaxsoft"
        includes="**/*.java" />
      <classpath refid="jeus.libraries.classpath" />
      <classpath refid="classpath" />
    </xjc>
  </target>
</project>
```

- **Execution example**

```
$ jant
Buildfile: build.xml

...

[xjc] jeus/build/classes/com/tmaxsoft is not found and thus excluded from
the dependency check
[xjc] Compiling file:/jeus/src/conf/ts.xsd
[xjc] Writing output to jeus/build/classes

...

BUILD SUCCESSFUL
Total time: 4 seconds
```

5.4.6. schemagen

The schemagen task creates a single schema file for each individual namespace of a Java class.

The following describes the schemagen properties.

Property	Description
destdir	Directory in which schema files are created. (String type)
classpath	Classpath. (String type)

Example

The following is an example of a build.xml that executes schemagen.

- **build.xml example**

schemagen Ant Task Build File Example: <build.xml>

```
<?xml version="1.0" encoding="UTF-8"?>
<project name="schemagen" default="build" basedir=". ">
  <property name="is.app-client.module" value="true" />
  <import file="../../common/common-build.xml" />
  <taskdef name="schemagen" classname="com.sun.tools.jxc.SchemaGenTask">
    <classpath refid="jeus.libraries.classpath" />
  </taskdef>
  <target name="-pre-compile">
    <mkdir dir="${build.classes.dir}" />
    <schemagen destdir="${build.classes.dir}">
      <src path="${src.dir}" />
      <classpath refid="jeus.libraries.classpath" />
      <classpath refid="classpath" />
    </schemagen>
  </target>
</project>
```

- **Execution example**

```
$ jant
Buildfile: build.xml

...

[schemagen] Generating schema from 2 source files
[schemagen] Note: Writing jeus/schema1.xsd

...

BUILD SUCCESSFUL
Total time: 5 seconds
```

5.5. Web Service Maven Plugin

This section describes the Maven plugin, which is provided for web service clients, and how to create JAX-WS based web services.

5.5.1. wsgen

The wsgen plugin creates the following from the service endpoint interface classes and Java classes.

- Portable Artifacts
- Web service WSDL file (option)

The wsgen plugin is in the JEUS_HOME/lib/client/jeus-ws-maven-plugin.jar file.

Before using the wsgen plugin, the following must be performed.

1. Install the jeus-ws-maven-plugin.jar file on a local repository.
2. Add the following to the Maven option in a JDK 7 environment.

```
-Djava.endorsed.dirs=JEUS_HOME/lib/endorsed
```

The following describes the wsgen plugin properties.

Property	Description
sei	SEI class name. (Required option, String type)
destDir	Absolute path to the directory in which class files are created. (Default value: \${project.build.outputDirectory})
resourceDestDir	Used with the genwsdl property. This property configures the location in which WSDL files are created. (Default value: \${project.build.directory}/generated-sources/wsdl)
sourceDestDir	Directory in which source files are created. (Default value: \${project.build.directory}/generated-sources/wsgen)
keep	Saves created files. (Default value: true)
verbose	Displays verbose messages. (Default value: false)
genWsdl	Option to create the WSDL file. (Default value: false)
protocol	Used with the genwsdl property. Protocol to be used in the wsdl:binding element. The default value is soap1.1. Xsoap1.2 values can be used with the property extension. (String type)
servicename	Used with the genwsdl property. Name of a specific wsdl:service element of the created WSDL file. (String type)
portname	Used with the genwsdl property. Name of a specific wsdl:portname element of the created WSDL file. (String type)
extension	Allows vendor extensions. This option may cause compatibility and portability issues. (Default value: false)

Example

The following is an example of a pom.xml that executes the wsgen plugin.

- **pom.xml example**

wsgen plugin pom File Example: <pom.xml>

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-
4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>jeus.webservices.maven.sample</groupId>
  <artifactId>wsgen_sample</artifactId>
  <version>0.0.1</version>
  <packaging>war</packaging>

  <name>${project.artifactId}</name>

  <build>
    <plugins>
      <plugin>
        <groupId>jeus.ws</groupId>
        <artifactId>jeus-ws-maven-plugin</artifactId>
        <version>0.0.1</version>
        <executions>
          <execution>
            <id>wsgen_test</id>
            <goals>
              <goal>wsgen</goal>
            </goals>
            <configuration>
              <sei>jeus.webservices.sample.EchoService</sei>
              <extension>true</extension>
              <genWsdL>true</genWsdL>
              <keep>true</keep>
              <inlineSchemas>true</inlineSchemas>
            </configuration>
          </execution>
        </executions>
      </plugin>
    </plugins>

    <dependencies>
      <dependency>
        <groupId>com.sun</groupId>
        <artifactId>tools</artifactId>
        <version>1.6</version>
        <scope>system</scope>
        <systemPath>${java.home}/../lib/tools.jar</systemPath>
      </dependency>
      <dependency>
        <groupId>com.sun.xml.ws</groupId>
        <artifactId>jaxws-tools</artifactId>
        <version>2.2</version>
        <scope>system</scope>
        <systemPath>${jeus.home}/lib/system/jaxws-tools.jar</systemPath>
      </dependency>
    </dependencies>
  </build>
</project>
```

```

        </plugin>

        <plugin>
            <groupId>org.apache.maven.plugins</groupId>
            <artifactId>maven-compiler-plugin</artifactId>
            <version>2.3.2</version>
            <configuration>
                <source>1.6</source>
                <target>1.6</target>
                <encoding>UTF-8</encoding>
                <compilerArguments>
                    <endorseddirs>${jeus.home}/lib/endorsed</endorseddirs>
                </compilerArguments>
            </configuration>
        </plugin>
    </plugins>
</build>

</project>

```

• Execution example

```

$ mvn -Djeus.home=${JEUS_HOME} process-classes
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building wsgen_sample 0.0.1
[INFO] -----
[INFO]
[INFO] --- maven-resources-plugin:2.5:resources (default-resources) @ wsgen_sample ---
[INFO] skip non existing resourceDirectory /jeus/wsgen/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:2.3.2:compile (default-compile) @ wsgen_sample ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- jeus-ws-maven-plugin:0.0.1:wsgen (wsgen_test) @ wsgen_sample ---
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.773s
[INFO] -----

```

5.5.2. wsimport

The wsimport plugin creates one of the following from web service WSDL files.

- Java program stubs for web service clients
- Java program interfaces for web service servers

The wsgen plugin is in the JEUS_HOME/lib/client/jeus-ws-maven-plugin.jar file. Before using the wsgen plugin, the following must be performed.

1. Install the jeus-ws-maven-plugin.jar file on a local repository.

2. Add the following to the Maven option in a JDK 7 environment.

```
-Djava.endorsed.dirs=JEUS_HOME/lib/endorsed
```

The following describes the wsimport plugin properties.

Property	Description
wsdlDirectory	Path to WSDL files, which are required to create Java source files. (Default value: \${basedir}/src/wsdl)
wsdlFiles	List of local WSDL files. (String type)
wsdlUrls	List of External WSDL URLs. (String type)
destDir	Absolute path to the directory in which Java files are created. (Default value: \${project.build.outputDirectory})
sourceDestDir	Directory in which source files are created. If this property is set, the keep property is automatically set. (Default value: \${project.build.directory}/generated-sources/wsimport)
keep	Saves created files. (Default value: true)
verbose	Displays verbose messages. (Default value: false)
bindingDirectory	Path to JAX-WS or JAXB binding files. (Default value: \${basedir}/src/jaxws)
bindingFiles	List of JAX-WS or JAXB binding files. (String type)
extension	Allows vendor extensions. This option may cause compatibility and portability issues. (Default value: false)
wsdlLocation	If WSDL URI is set in this property, it applies to service end-point interfaces and the @WebServiceClient.wsdlLocation and @WebService.wsdlLocation annotations of the service interfaces.
catalog	External entity reference values like those in TR9401, XCatalog, and OASIS XML Catalog. (String type)
packageName	Java package name for all namespace URIs in WSDL. (String type)
target	Creates code according to the specified version of JAX-WS specifications. (String type)
quiet	Does not display output messages. (Default value: false)

Example

The following is an example of a pom.xml that executes the wsimport plugin.

- **pom.xml example**

wsimport plugin pom File Example: <pom.xml>

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-
4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>jeus.webservices.maven.sample</groupId>
  <artifactId>wsimport_sample</artifactId>
  <version>0.0.1</version>
  <packaging>war</packaging>

  <name>${project.artifactId}</name>

  <build>
    <plugins>
      <plugin>
        <groupId>jeus.ws</groupId>
        <artifactId>jeus-ws-maven-plugin</artifactId>
        <version>0.0.1</version>
        <executions>
          <execution>
            <id>wsimport_test</id>
            <goals>
              <goal>wsimport</goal>
            </goals>
            <configuration>
              <packageName>jeus.webservices.sample.test</packageName>
              <wsdlDirectory>${basedir}/src/wsdl</wsdlDirectory>
              <wsdlFiles>
                <wsdlFile>EchoService.wsdl</wsdlFile>
              </wsdlFiles>
            </configuration>
          </execution>
        </executions>

        <dependencies>
          <dependency>
            <groupId>com.sun</groupId>
            <artifactId>tools</artifactId>
            <version>1.6</version>
            <scope>system</scope>
            <systemPath>${java.home}/../lib/tools.jar</systemPath>
          </dependency>
          <dependency>
            <groupId>com.sun.xml.ws</groupId>
            <artifactId>jaxws-tools</artifactId>
            <version>2.2</version>
            <scope>system</scope>
            <systemPath>${jeus.home}/lib/system/jaxws-tools.jar</systemPath>
          </dependency>
        </dependencies>
      </plugin>

      <plugin>
        <groupId>org.apache.maven.plugins</groupId>
        <artifactId>maven-compiler-plugin</artifactId>
        <version>2.3.2</version>
```



```

        <configuration>
            <source>1.6</source>
            <target>1.6</target>
            <encoding>UTF-8</encoding>
            <compilerArguments>
                <endorseddirs>${jeus.home}/lib/endorsed</endorseddirs>
            </compilerArguments>
        </configuration>
    </plugin>
</plugins>
</build>

</project>

```

• Execution example

```

$ mvn -Djeus.home=${JEUS_HOME} generate-sources
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building wsimport_sample 0.0.1
[INFO] -----
[INFO]
[INFO] --- jeus-ws-maven-plugin:0.0.1:wsimport (wsimport_test) @ wsimport_sample ---
[INFO] Processing: file:/jeus/wsimport/src/wsd/EchoService.wsdl
[INFO] jaxws:wsimport args: [-keep, -s, /jeus/wsimport/target/generated-sources/wsimport,
-Xnocompile, -p, jeus.webservices.sample.test, file:/jeus/wsimport/src/wsd/EchoService.wsdl]
[INFO] parsing WSDL...

Generating code...

[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 2.052s
[INFO] -----

```

5.6. Executing jeusadmin Commands

This section describes how to edit an Ant build file (usually build.xml) to execute jeusadmin commands. This section also uses examples to describe how to create Ant targets.

Example

The following example shows how to execute the server-info command using Ant.

```

<project name="check-server-state-example" default="check-server-state">
    <property environment="env"/>
    <property name="jeus.home" value="${env.JEUS_HOME}"/>
    <property name="jeus.home.bin" value="${jeus.home}/bin"/>

```

```

<property name="unix.jeusadmin" value="${jeus.home.bin}/jeusadmin"/>
<property name="windows.jeusadmin" value="${jeus.home.bin}/jeusadmin.cmd"/>
<property name="jeusadmin.args" value="-u administrator -p jeus -host host1 -port 9736
-verbose"/>
<property name="server.name" value="adminServer"/>
<property name="cmd.target" value="server-info -server ${server.name} -state"/>

<condition property="isWindows">
  <os family="windows"/>
</condition>
<condition property="isUnix">
  <os family="unix"/>
</condition>

<target name="check-server-state">
  <antcall target="check-server-state-unix"/>
  <antcall target="check-server-state-windows"/>
</target>

<target name="check-server-state-windows" if="isWindows">
  <echo>${windows.jeusadmin} ${jeusadmin.args} ${cmd.target}</echo>
  <exec executable="${windows.jeusadmin}" osfamily="windows" spawn="false"
    failonerror="true">
    <arg line="${jeusadmin.args}"/>
    <arg value="${cmd.target}"/>
  </exec>
</target>

<target name="check-server-state-unix" if="isUnix">
  <echo>${unix.jeusadmin} ${jeusadmin.args} ${cmd.target}</echo>
  <exec executable="${unix.jeusadmin}" osfamily="unix" spawn="false"
    failonerror="true">
    <arg line="${jeusadmin.args}"/>
    <arg value="${cmd.target}"/>
  </exec>
</target>
</project>

```

- jeus.home is the JEUS installation location. The previous example assumes that the path to jeus.home is saved in the system environment variable JEUS_HOME.



When executing Ant using the jant script provided by JEUS, JEUS_HOME does not need to be set separately.

- unix.jeusadmin and windows.jeusadmin set the location of the scripts used to execute the jeusadmin tool. In general, the jeusadmin script is located under JEUS_HOME/bin. The script names in UNIX and Windows differ, so two properties are used.
- jeusadmin.args is a list of argument values used to execute the jeusadmin tool. Set required options such as user name, password, host address, port number, and verbose output. For more information about the options, refer to [jeusadmin](#).
- cmd.target sets the command to be executed. This example checks the server status using the server-info command, so it is set to 'server-info -server \${server.name} -state'. For more

information about available commands in jeusadmin, refer to Part II. "Console Commands and Tools".

- check-server-state-windows and check-server-state-unix target use the exec task to execute jeusadmin. The osfamily property can be used to execute the OS-specific script. In the <exec> tag, the spawn property must be set to "false" to check the result using Ant. To fail an Ant build if a command failed to run, set the failonerror property to "true".

The following is the result on UNIX.

```
JEUS_HOME/bin$jant check-server-state
Buildfile: JEUS_HOME/bin/build.xml

check-server-state:

check-server-state-unix:
    [echo] JEUS_HOME/bin/jeusadmin -u administrator -p jeus -host host1 -port 9736 -verbose server-
info -server adminServer -state
    [exec] Verbose output is enabled.
    [exec] Attempting to connect to localhost:9736.
    [exec] The connection has been established to Domain Administration Server adminServer in the
domain domain1.
    [exec] RUNNING
    [exec]

check-server-state-windows:

BUILD SUCCESSFUL
Total time: 1 second
JEUS_HOME/bin$
```

5.7. Maven Plugin

This section describes the JEUS Maven plugin. If the JEUS Maven plugin is used, Apache Maven can be used to start JEUS servers or to distribute applications.



This section does not describe Apache Maven in detail. User knowledge of Apache Maven and correct installation are assumed. For more information about Apache Maven, refer to <http://maven.apache.org>.

5.7.1. Installation

Before using the JEUS Maven plugin, the plugin must be installed first.

The following is the JEUS Maven plugin installation file directory.

```
JEUS_HOME/lib/systemapps/jeus-maven-plugin.jar
```

The following is the Maven plugin installation process.

1. Copy jeus-maven-plugin.jar to a directory. Any directory name can be set.

```
mkdir /home/user1/jeus-maven-plugin
cd /home/user1/jeus-maven-plugin
cp JEUS_HOME/lib/systemapps/jeus-maven-plugin.jar /home1/user/jeus-maven-plugin
```

2. Go to the directory and extract pom.xml from the jeus-maven-plugin.jar file.

```
jar xvf /home/user1/jeus-maven-plugin/jeus-maven-plugin META-INF/maven/com.tmax.jeus/jeus-maven-plugin/pom.xml
```

3. Use the following command to install the JEUS Maven plugin in the user's maven local repository.

```
mvn install:install-file -Dfile=/home/user1/jeus-maven-plugin/jeus-maven-plugin.jar
-DpomFile=META-INF/maven/com.tmax.jeus/jeus-maven-plugin/pom.xml
```

5.7.2. Maven Plugin Goals

The following are the goals provided by the JEUS Maven plugin.

5.7.2.1. start-master-xml

Starts the Master Server. Internally, this executes the scripts under the JEUS_HOME/bin directory.

- Usage

```
com.tmax.jeus:jeus-maven-plugin:start-master-xml
```

- Parameters

The user, password, and filename parameters are optional. However, either the user/password or filename is required.

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Host address of the Master Server. (Required)

Parameter	Property	Type	Description
port	jeus.server.port	java.lang.Integer	Port number of the Master Server. (Required)
user	jeus.user.name	java.lang.String	JEUS user name.
password	jeus.user.password	java.lang.String	JEUS user password.
domain	jeus.domain.name	java.lang.String	Domain name to which the Master Server belongs. (Required)
server	jeus.server.name	java.lang.String	Master Server name. (Required)
filename	jeus.auth.file	java.lang.String	Account information file used for JEUS authentication. Same as the f option provided by the startMasterServer script.
waitingTime	jeus.boot.timeout	java.lang.Integer	After starting JEUS, the plugin waits for a specified period of time to check if the server started normally, which determines whether the goal executed successfully. This parameter specifies the wait time. (Unit: sec, Default value: 10 sec)
cachelogin	jeus.server.start.cachelogin	boolean	Option to save the authentication information used to start JEUS. (Default: false)
force	jeus.server.start.forced	boolean	Forces the server to boot even if all configured applications are not in the RUNNING state. (Default: false)
verbose	jeus.server.start.verbose	boolean	Option to use the verbose function. (Default value: false)
standby	jeus.server.start.standby	boolean	Option to use Standby booting. (Default value: false)

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - start-master-xml -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
```

```

<configuration>
  <jeusHome>/home/user1/jeus</jeusHome>
<host>host1</host>
<port>9736</port>
<user>administrator</user>
<password>jeus</password>
<domain>domain1</domain>
<server>adminServer</server>
</configuration>
</plugin>

```

The following is the result of executing the goal.

```

$ mvn com.tmax.jeus:jeus-maven-plugin:start-master-xml
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:start-master-xml (default-cli) @ jeus-maven-plugin ---
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  17.937 s
[INFO] Finished at: 2024-08-20T14:53:46+09:00
[INFO] -----

```

5.7.2.2. start-ms-xml

Starts MS. Internally, this executes the script under the JEUS_HOME/bin directory.

- Usage

```
com.tmax.jeus:jeus-maven-plugin:start-ms-xml
```

- Parameters

The user, password, and filename parameters are optional. However, either the user/password or filename is required.

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Host address of the Master Server. (Required)

Parameter	Property	Type	Description
port	jeus.server.port	java.lang.Integer	Port number of the Master Server. (Required)
user	jeus.user.name	java.lang.String	JEUS user name.
password	jeus.user.password	java.lang.String	JEUS user password.
domain	jeus.domain.name	java.lang.String	Domain name to which the Master Server belongs. (Required)
server	jeus.server.name	java.lang.String	Master Server name. (Required)
filename	jeus.auth.file	java.lang.String	Account information file used for JEUS authentication. Same as the f option provided by the startManagedServer script.
waitingTime	jeus.boot.timeout	java.lang.Integer	After starting JEUS, the plugin waits for a specified period of time to check if the server started normally, which determines whether the goal executed successfully. This parameter specifies the wait time. (Unit: sec, Default value: 10 sec)
cachelogin	jeus.server.start.cachedlogin	boolean	Option to save the authentication information used to start JEUS. (Default: false)
force	jeus.server.start.forced	boolean	Forces the server to boot even if all configured applications are not in the RUNNING state. (Default: false)
verbose	jeus.server.start.verbose	boolean	Option to use the verbose function. (Default: false)
standby	jeus.server.start.standby	boolean	Option to use Standby booting. (Default value: false)
masterURL	jeus.server.start.masterurl	java.lang.String	DAS URL, which manages the domain to which the MS belongs. (Required)

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - start-ms -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
```

```

<artifactId>jeus-maven-plugin</artifactId>
<version>9.0.0.0</version>
<configuration>
  <jeusHome>/home/user1/jeus</jeusHome>
  <host>host1</host>
  <port>9736</port>
  <user>administrator</user>
  <password>jeus</password>
  <domain>domain1</domain>
  <server>server1</server>
  <masterURL>host1:9736</masterURL>
</configuration>
</plugin>

```

The following is the result of executing the goal.

```

$ mvn jeus.tool:jeus-maven-plugin:start-ms
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO] -----[ maven-plugin ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:start-ms-xml (default-cli) @ jeus-maven-plugin ---
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 6.174 s
[INFO] Finished at: 2022-08-30T08:13:58+09:00
[INFO] -----

```

5.7.2.3. stop-jeus

Terminates a connected server. Internally, this goal executes the **local-shutdown** command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:stop-jeus
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)

Parameter	Property	Type	Description
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - stop-jeus -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
  </configuration>
</plugin>
```

The following is the general result of executing the goal.

```
$ mvn jeus.tool:jeus-maven-plugin:stop-jeus
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO] -----[ maven-plugin ]-----
[INFO]
```

```

[INFO] --- jeus-maven-plugin:9.0.0.0:stop-jeus (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [local-shutdown]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] The server [adminServer] has been shut down successfully.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 4.381 s
[INFO] Finished at: 2022-08-30T08:18:08+09:00
[INFO] -----

```

5.7.2.4. deploy

Deploys the application. Internally, this goal executes the **deploy-application** command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:deploy
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.

Parameter	Property	Type	Description
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - deploy -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
    <args>
      <param>myWeb</param>
      <param>-servers adminServer</param>
    </args>
  </configuration>
</plugin>
```

The following is the general result of executing the goal.

```
$ mvn jeus.tool:jeus-maven-plugin:deploy
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:deploy (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [deploy-application myWeb -servers adminServer ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] deploy the application for the application [myWeb] succeeded.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.356 s
[INFO] Finished at: 2024-08-20T15:09:26+09:00
```

5.7.2.5. undeploy

Undeploys a deployed application. Internally, this goal executes the **undeploy-application** command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:undeploy
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - undeploy -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
    <args>
      <param>myWeb</param>
    </args>
  </configuration>
</plugin>
```

The following is the general result of executing the goal.

```
$ mvn com.tmax.jeus:jeus-maven-plugin:undeploy
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:undeploy (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [undeploy-application myWeb ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] Undeploying [myWeb] (This may take time due to graceful undeployment) .....
[INFO] undeploy the application for the application [myWeb] succeeded.
[INFO] successfully undeployed (elapsed = 160ms)
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.256 s
[INFO] Finished at: 2024-08-20T15:12:41+09:00
[INFO] -----
```

5.7.2.6. start-app

Starts the service of the deployed application. Internally, this goal executes the **start-application** command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:start-app
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - start-app -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
    <args>
      <param>myWeb</param>
    </args>
  </configuration>
</plugin>
```

The following is the general result of executing the goal.

```
$ mvn com.tmax.jeus:jeus-maven-plugin:start-app
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:start-app (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [start-application myWeb ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] start the application for the application [myWeb] succeeded.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.089 s
[INFO] Finished at: 2024-08-20T15:11:27+09:00
[INFO] -----
```

5.7.2.7. stop-app

Suspends the service of the running application. Internally, this goal executes the **stop-application** command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:stop-app
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)

Parameter	Property	Type	Description
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - stop-app -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
    <args>
      <param>myWeb</param>
    </args>
  </configuration>
</plugin>
```

The following is the general result of executing the goal.

```
$ mvn com.tmax.jeus:jeus-maven-plugin:stop-app
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:stop-app (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
```



```

[INFO] jeusadmin.one-step-execution-command = [stop-application myWeb ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] stop the application for the application [myWeb] succeeded.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 1.059 s
[INFO] Finished at: 2024-08-20T15:10:32+09:00
[INFO] -----

```

5.7.2.8. install-app

Installs an application on DAS. Internally, this goal executes the **install-application** command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:install-app
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - install-app -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>9.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
    <args>
      <param>/home/user/myWeb.war</param>
      <param>-id myWeb</param>
    </args>
  </configuration>
</plugin>
```

The following is the general result of executing the goal.

```
$ mvn com.tmax.jeus:jeus-maven-plugin:install-app
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:install-app (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [install-application /home/user1/myWeb.war -id
myWeb ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] Successfully installed the application [myWeb].
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.444 s
[INFO] Finished at: 2024-08-20T15:01:07+09:00
[INFO] -----
```

5.7.2.9. uninstall-app

Removes an application installed in DAS. Internally, this goal executes the **uninstall-application**

command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:uninstall-app
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml.

```
<!-- JEUS Maven Plugin - uninstall-app -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>8.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
```

```

<user>administrator</user>
<password>jeus</password>
<args>
  <param>myWeb</param>
</args>
</configuration>
</plugin>

```

The following is the general result of executing the goal.

```

$ mvn com.tmax.jeus:jeus-maven-plugin:uninstall-app
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:uninstall-app (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [uninstall-application myWeb ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] uninstall the application for the application [myWeb] succeeded. : Successfully deleted
[myWeb].
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.397 s
[INFO] Finished at: 2024-08-20T15:07:09+09:00
[INFO] -----

```

5.7.2.10. jeusadmin

Executes the specified jeusadmin command. Internally, this goal executes the command by using the one-step execution function provided by the console tool (jeusadmin).

- Usage

```
com.tmax.jeus:jeus-maven-plugin:jeusadmin
```

- Parameters

Parameter	Property	Type	Description
jeusHome	jeus.home	java.lang.String	JEUS installation directory. (Required)

Parameter	Property	Type	Description
host	jeus.server.host	java.lang.String	Server address to access jeusadmin. (Required)
port	jeus.server.port	java.lang.Integer	Server port number to access jeusadmin. (Default: 9736) (Required)
user	jeus.user.name	java.lang.String	JEUS user name. (Required)
password	jeus.user.password	java.lang.String	JEUS user password. (Required)
args	None	java.util.List	Argument values passed when executing the command. If both arg and args are used, arg has higher priority. This parameter is recommended for use in the pom.xml file.
arg	jeus.jeusadmin.command.arguments	java.lang.String	Argument value passed when executing the command. If both arg and args are used, arg has higher priority.
command	jeus.jeusadmin.command	java.lang.String	Name of the jeusadmin command to be executed. (Required)

- Example

Parameters can be set in pom.xml or specified on a command line for execution.

The following is an example of the plugin configuration in pom.xml and the command is **server-info -server adminServer -state**.

```
<!-- JEUS Maven Plugin - jeusadmin -->
<plugin>
  <groupId>com.tmax.jeus</groupId>
  <artifactId>jeus-maven-plugin</artifactId>
  <version>8.0.0.0</version>
  <configuration>
    <jeusHome>/home/user1/jeus</jeusHome>
    <host>host1</host>
    <port>9736</port>
    <user>administrator</user>
    <password>jeus</password>
    <command>server-info</command>
    <args>
      <param>-server adminServer</param>
      <param>-state</param>
    </args>
  </configuration>
```

</plugin>

The following is the result of executing the goal.

```
mvn com.tmax.jeus:jeus-maven-plugin:jeusadmin
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.tmax.jeus:jeus-maven-plugin >-----
[INFO] Building JEUS Maven Plugin 9.0.0.0
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- jeus-maven-plugin:9.0.0.0:jeusadmin (default-cli) @ jeus-maven-plugin ---
[INFO] jeus.home = /home/user1/jeus
[INFO] jeusadmin.path = /home/user1/jeus/bin/jeusadmin
[INFO] jeusadmin.one-step-execution-command = [server-info -server adminServer -state ]
[INFO] Attempting to connect to host1:9736.
[INFO] The connection has been established to JEUS Master Server [adminServer] in the domain
[domain1].
[INFO] RUNNING
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.093 s
[INFO] Finished at: 2024-08-20T15:15:08+09:00
[INFO] -----
```