

# C. Standard Plug-ins and Tasks

These pages provide an overview of the functionality available in the standard Ogrescript plug-ins.

Each task description includes its purpose, its attributes, elements and default return value names (if any), plus simple examples of usage.

## TASK INDEX

TASK TAG	PLUG-IN	DESCRIPTION
<add>	ncsa.tools.ogrescript	calls add[Property] method on bean with given value
<add-all>	ncsa.tools.ogrescript	adds all elements of a collection to another collection
<add-leading-zeros>	ncsa.tools.ogrescript	prepends zeros onto a number string
<add-to-collection>	ncsa.tools.ogrescript	adds object to a collection
<array-to-list>	ncsa.tools.ogrescript	converts an array to a Java ArrayList
<assign>	ncsa.tools.ogrescript	assigns value to a variable in the environment
<assign-to-index>	ncsa.tools.ogrescript	assigns object to position in list or array
<broker-cleanup>	ncsa.tools.ogrescript.broker.admin	calls cleanup port on broker service
<cache>	ncsa.tools.ogrescript.trebuchet	retrieves cache from the Trebuchet operation
<cache-entry>	ncsa.tools.ogrescript.trebuchet	accesses a Trebuchet cache entry
<cache-header>	ncsa.tools.ogrescript.trebuchet	accesses a Trebuchet cache header
<call>	ncsa.tools.ogrescript	calls a scripted procedure
<chmod>	ncsa.tools.ogrescript	changes permissions on files (UNIX)
<clear-collection>	ncsa.tools.ogrescript	clears a collection referenced from the environment
<close>	ncsa.tools.ogrescript	closes an I/O object
<close-cache>	ncsa.tools.ogrescript.trebuchet	closes Trebuchet cache
<collection-to-array>	ncsa.tools.ogrescript	converts a Java Collection to an array of objects
<concat>	ncsa.tools.ogrescript	concatenates strings into a string
<convert-cache>	ncsa.tools.ogrescript.trebuchet	converts list to copy cache
<copy>	ncsa.tools.ogrescript.trebuchet	copies files
<date-format>	ncsa.tools.ogrescript	produces a formatted date
<date-math>	ncsa.tools.ogrescript	adds or subtracts value from a date field
<declare>	ncsa.tools.ogrescript	declares variable in the environment
<define>	ncsa.tools.ogrescript	defines a procedure
<delete>	ncsa.tools.ogrescript.trebuchet	deletes files
<delete-cache>	ncsa.tools.ogrescript.trebuchet	deletes a Trebuchet cache
<deserialize>	ncsa.tools.ogrescript.file	deserializes bean from XML file
<echo>	ncsa.tools.ogrescript	prints message to logger or standard stream
<env>	ncsa.tools.ogrescript	reads in the shell environment into Ogrescript
<file-monitor-process>	ncsa.tools.ogrescript.process.trebuchet	executes a process in conjunction with a file monitor
<for>	ncsa.tools.ogrescript	iterates using counter variable
<for-each>	ncsa.tools.ogrescript	iterates over a list
<format-number>	ncsa.tools.ogrescript	exposes Java's number formatting functionality
<ftp-chmod>	ncsa.tools.ogrescript.trebuchet.gridftp	calls chmod using the ftp pass-through
<future-time>	ncsa.tools.ogrescript.wrf	computes timestamps for data files
<get>	ncsa.tools.ogrescript	calls get[Property] method on bean and assigns value to environment
<get-configuration>	ncsa.tools.ogrescript.tspace	accesses the Configuration Entry to extract the Configuration payload

<get-resource-partitions>	ncsa.tools.ogrescript.tspace	accesses the Configuration Entry <code>ranOn</code> map to create a list of lists of resources
<if>	ncsa.tools.ogrescript	executes if-statement
<increment>	ncsa.tools.ogrescript	increments a numeric variable
<index-of>	ncsa.tools.ogrescript	returns index of the substring
<invoke>	ncsa.tools.ogrescript	invokes a method on an object in the environment
<join>	ncsa.tools.ogrescript	joins on a thread
<last-index-of>	ncsa.tools.ogrescript	returns last index of a substring
<line-count>	ncsa.tools.ogrescript.file	returns number of lines in file
<list-paths>	ncsa.tools.ogrescript.trebuchet	iterates through the list cache to return a list of paths or uris
<list-serialization>	ncsa.tools.ogrescript	serializes an object into a simple string representation
<list-deserialization>	ncsa.tools.ogrescript	deserializes a string which may contain simple list and/or map representation of string or primitive values
<list-serialization>	ncsa.tools.ogrescript	serializes an object into a simple string representation
<ls>	ncsa.tools.ogrescript.trebuchet	Trebuchet list
<merge-entries>	ncsa.tools.ogrescript	creates a collection from entries in the environment with a common prefix
<message-format>	ncsa.tools.ogrescript	exposes Java's message formatting functionality
<mkdir>	ncsa.tools.ogrescript.trebuchet	Trebuchet mkdir
<modify-namelist>	ncsa.tools.ogrescript	allows for additions, deletes and substitutions on a Fortran namelist file
<next-event>	ncsa.tools.ogrescript.events	gets the next event from a listener queue
<notify>	ncsa.tools.ogrescript	calls <code>notify</code> or <code>notifyAll</code> on an object in the environment
<open-cache>	ncsa.tools.ogrescript.trebuchet	opens a Trebuchet cache
<parallel>	ncsa.tools.ogrescript	executes each task in a separate thread
<parallel-block>	ncsa.tools.ogrescript	executes N copies of the sequence of tasks
<parallel-for-each>	ncsa.tools.ogrescript	unrolls a for-each loop into N parallel blocks at a time
<parse-date>	ncsa.tools.ogrescript	splits date up into constituent calendar/time parts
<print-cache>	ncsa.tools.ogrescript.trebuchet	prints out the contents of a Trebuchet cache
<print-env>	ncsa.tools.ogrescript	prints out the environment in the current context
<properties>	ncsa.tools.ogrescript	reads in either system properties or properties files from URLs
<put>	ncsa.tools.ogrescript	puts entry into map
<put-all>	ncsa.tools.ogrescript	puts all entries of a map into a second map
<pwe-submit>	ncsa.tools.ogrescript.pwe	submits a workflow to the Parametric Workflow Engine
<quote>	ncsa.tools.ogrescript.trebuchet. gridftp	ftp pass-through command
<read>	ncsa.tools.ogrescript.file	reads bytes from a file starting at a given offset
<read-binary>	ncsa.tools.ogrescript.file	reads binary for primitive values from a file starting at a given offset
<read-from-stream>	ncsa.tools.ogrescript	reads from a stream placed in the environment
<read-in-namelist>	ncsa.tools.ogrescript	reads namelist file values into Ogrescript environment
<read-lines>	ncsa.tools.ogrescript.file	reads lines from a file
<read-next-line>	ncsa.tools.ogrescript	reads next line using reader in the environment
<receive>	ncsa.tools.ogrescript.events	receives a single event from the channel
<remove>	ncsa.tools.ogrescript	removes a variable entry from the environment
<remove-from>	ncsa.tools.ogrescript	removes an entry from a Collection or Map
<replace>	ncsa.tools.ogrescript	replaces string with another string
<reset-cache>	ncsa.tools.ogrescript.trebuchet	resets Trebuchet cache cursor
<restart-operation>	ncsa.tools.ogrescript.trebuchet	restarts a Trebuchet copy operation
<send>	ncsa.tools.ogrescript.events	publishes an event
<send-mail>	ncsa.tools.ogrescript.mail	sends email

<serialize>	ncsa.tools.ogrescript.file	serializes bean as XML file
<set>	ncsa.tools.ogrescript	calls set[Property] method on bean with given value
<set-system-property>	ncsa.tools.ogrescript	sets property on Ogrescript's JVM
<simple-process>	ncsa.tools.ogrescript.process	execute a process without monitoring
<sleep>	ncsa.tools.ogrescript	sleeps the indicated number of milliseconds
<ssh-exec>	ncsa.tools.ogrescript.ssh	executes remote commands via SSH
<start>	ncsa.tools.ogrescript	calls run on a runnable object either in a new thread or not
<stop>	ncsa.tools.ogrescript	calls halt on a stoppable object
<stream-monitor-process>	ncsa.tools.ogrescript.process	executes a process in conjunction with out/error stream monitors
<string-cut>	ncsa.tools.ogrescript	slices up a string by index numbers and assigns parts to environment
<subscribe>	ncsa.tools.ogrescript.events	subscribes a listener to the event bus
<substring>	ncsa.tools.ogrescript	returns substring
<switch>	ncsa.tools.ogrescript	executes switch statement
<symlink>	ncsa.tools.ogrescript	creates a symlink on UNIX systems
<synchronized>	ncsa.tools.ogrescript	encloses execution in a synchronized block
<tail-f>	ncsa.tools.ogrescript.process.events	sends updates on an open file as events
<tar>	ncsa.tools.ogrescript	creates tape archive (UNIX)
<throw>	ncsa.tools.ogrescript	throws ScriptExecutionException with a given message
<tokenize>	ncsa.tools.ogrescript	returns tokens from string tokenization
<touch>	ncsa.tools.ogrescript.trebuchet	Trebuchet touch (UNIX only)
<tspace-read>	ncsa.tools.ogrescript.tspace	read entries from tuple-space service
<tspace-take>	ncsa.tools.ogrescript.tspace	take entries from tuple-space service
<tspace-write>	ncsa.tools.ogrescript.tspace	write entries to tuple-space service
<try>	ncsa.tools.ogrescript	encloses execution in a try/catch block
<uname>	ncsa.tools.ogrescript	returns host, IP, architecture and os information
<unique-id>	ncsa.tools.ogrescript	generates a randomized id
<unsubscribe>	ncsa.tools.ogrescript.events	unsubscribes a listener from the event bus
<untar>	ncsa.tools.ogrescript	unpacks tape archive (UNIX)
<verify>	ncsa.tools.ogrescript.trebuchet	Trebuchet existence/type check on file or directory
<wait>	ncsa.tools.ogrescript	calls wait on an object in the environment
<while>	ncsa.tools.ogrescript	executes while-loop
<wrap-resource>	ncsa.tools.ogrescript	wraps a resource or file in a stream, reader or writer
<write>	ncsa.tools.ogrescript.file	writes bytes to a file
<write-binary>	ncsa.tools.ogrescript.file	writes binary for primitive values to a file
<write-lines>	ncsa.tools.ogrescript.file	writes lines to a file
<write-namelist>	ncsa.tools.ogrescript	writes out namelist from internal/XML representation
<write-segments>	ncsa.tools.ogrescript.file	writes to a file using the ncsa.tools.ogrescript.file.types.WriteSegment descriptor