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GreenVulcano ESB Core

Reference manual

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GreenVulcano ESB Core - Reference manual

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Introduction

Introduction

The document describes all configuration parameters of **GreenVulcano ESB Core**.

The configuration parameters are splitted in chapters:

- **GreenVulcano ESB Core**

Chapter 2

GreenVulcano ESB Core - Configuration

Chapter contents:

Document type

Elements

Document type

To be correclty handled by the configuration tool (VulCon and/or GVConsole), the **GreenVulcano ESB Core** configuration file must have the following DOCTYPE:

- Root element: **GVCore**
- System id: **http://www.greenvulcano.com/gvesb/dtds/GVCore.dtd**
- Public id:

```
<!DOCTYPE GVCore SYSTEM "http://www.greenvulcano.com/gvesb/dtds/
GVCore.dtd">
```

Elements

The following paragraphs, one for Element, describes the elements and their attributes.

ACL
```
((RoleRef | AddressSetRef)+)
```
Defines a resource ACL.

The **ACL** Element is used by: *DefaultRes*, *IdentityCondition*, *ServiceRes*.

ACLGreenVulcano
```
(Description?, DefaultRes, ServiceRes*)
```

An ACL Manager default implementation.

The **ACLGreenVulcano** Element is used by: *GVPolicy*.

The following table show the element's attributes **ACLGreenVulcano**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **acl-manager**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.policy.impl.ACLGreenVulcano**.

Address
(Description?)

Defines an enabled address.

The **Address** Element is used by: *AddressSet*.

The following table show the element's attributes **Address**:

Attribute	Tyte	Description
address	required	An enabled address. The attribute's value can't be null.

Addresses
(AddressSet*)

Defines the address set to be used in ACL configuration.

The **Addresses** Element is used by: *GVPolicy*.

AddressSet
(Description?, Address+)

Defines a policy address set.

#Icon: GVRole.png

The **AddressSet** Element is used by: *Addresses*.

The following table show the element's attributes **AddressSet**:

Attribute	Tyte	Description
name	required	Address set name.
		The attribute's value can't be null.

AddressSetRef

`(Description?)`

Defines an ACL address set reference.

#Icon: GVRole.png

The **AddressSetRef** Element is used by: *ACL*.

The following table show the element's attributes **AddressSetRef**:

Attribute	Tyte	Description
name	required	Address set name.
		The attribute's value can't be null.

AddTagTransformation

`(Description?, TransformationAlias*)`

Defines a text to XML trasformation.

#Icon: GVAddTagTransformation.png

The **AddTagTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **AddTagTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2xml.AddTagTransforme**
name	required	Transformation name. The attribute's value can't be null.
TagName	required	Root element name. The attribute's value can't be null.
Encoding	optional	Input encoding.

		Default to "ISO-8859-1".
		The attribute's value can't be null.
UseCDATA	required	Defines if the input must be enclosed in a CDATA section.
		The attribute's admitted values are:
		• **True**
		• **False**
		The attribute's value can't be null.

Advanced

`(Description?)`

The **Advanced** Element is used by: *JNDIHelper*, *LDAPContext*.

The following table show the element's attributes **Advanced**:

Attribute	Tyte	Description
object-factories	optional	The attribute's value can't be null.
state-factories	optional	The attribute's value can't be null.
url-pkg-prefixes	optional	The attribute's value can't be null.
dns-url	optional	The attribute's value can't be null.
authoritative	optional	The attribute's value can't be null.
batchsize	optional	The attribute's value can't be null.
referral	optional	The attribute's value can't be null.
security-protocol	optional	The attribute's value can't be null.
security-authentication	optional	The attribute's value can't be null.
language	optional	The attribute's value can't be null.

Alias

`(Description?)`

GreenVulcanoESB service's alias.

The **Alias** Element is used by: *AliasList*.

The following table show the element's attributes **Alias**:

Attribute	Tyte	Description
alias	required	Alias name.
		The attribute's value can't be null.

AliasList

(Description?, Alias+)

Alias list for a given GreenVulcanoESB service.

#SortChild

The **AliasList** Element is used by: *Service*.

AliasMapping

(Description?)

#Icon: default.png

The **AliasMapping** Element is used by: *ServiceAlias*.

The following table show the element's attributes **AliasMapping**:

Attribute	Tyte	Description
real-name	required	The attribute's value can't be null.
alias	required	The attribute's value can't be null.

AnnualCalendarBuilder

(Description?, ExcludedDay*)

This implementation of the Calendar excludes a set of days of the year.

#Icon: GVAnnualCalendarBuilder.png

The **AnnualCalendarBuilder** Element is used by: *Calendars*.

The following table show the element's attributes **AnnualCalendarBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-calendar**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.calendar.AnnualCalendarBuilde**
name	required	Calendar name. Used in associations with Triggers and other Calendars. The attribute's value can't be null.
timeZone	optional	Calendar TimeZone. If not defined is used the TimeZone defined for DateUtils.

		The attribute's value can't be null.
baseCalendarName	optional	Set a new base calendar. The configured Calendars are instantiated in configuration order, so the Calendars whith baseCalendarName set MUST be defined AFTER the referenced Calendar. The attribute's value can't be null.

attachments

`(file-attachment*, gvBuffer?, Description?)`

Defines the list of attachments of the email.
Is overwritten by the value of the GVBuffer property GV_SMTP_ATTACHMENTS.

The **attachments** Element is used by: *mail-message*.

AxisWebServiceInvoker

`(Description?, XPathNamespace*, WSDLInfo, EngageModule*)`

The **AxisWebServiceInvoker** Element is used by: *ws-call*.

The following table show the element's attributes **AxisWebServiceInvoker**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **invoker**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.ws.GVWebServiceInvoker**.
service	optional	Service name.
serviceNS	optional	Service NameSpace.
operation	required	Operation name. The attribute's value can't be null.
portName	optional	Port Name
timeout	optional	Timeout in seconds.
ref-dp	optional	Name of Data Provider to use to prepare the request.
throwsFault	optional	If true throws Exception "Error invoking operation". If false returns the Fault response. Default to false. The attribute's admitted values are: • **true**

		• **false**
use-saaj	optional	Defines whether to use SAAJ to invoke the WebService mode instead of the default Axis2 mode.
		NOTE: If you choose to use SAAJ as a way of calling the WebService, Axis2 modules are not enabled.
		The attribute's admitted values are: • **true** • **false**
returnType	optional	Defines how to set the response data in the object field of output GVBuffer: - context : the MessageContext - envelope : the envelope as XML serialized as string - body : the body as XML serialized as string - body-element : the first child of body as XML serialized as string - header : the header as XML serialized as string - envelope-om : the envelope as OMMessage - body-om : the body as OMMessage - body-element-om : the first child of body as OMMessage - header-om : the header as OMMessage
		Default: context
		The attribute's admitted values are: • **context** • **envelope** • **body** • **body-element** • **header** • **envelope-om** • **body-om** • **body-element-om** • **header-om**
		The attribute's value can't be null.

Base64Transformation

(Description?, TransformationAlias*)

Defines a Base64 trasformation.

#Icon: GVBase64Transformation.png

The **Base64Transformation** Element is used by: *Transformations*.

The following table show the element's attributes **Base64Transformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2bin.Base64Transformer**
name	required	Transformation name.
		The attribute's value can't be null.
Operation	required	Defines the transformation to perform.
		The attribute's admitted values are: • **Encode** • **Decode**
		The attribute's value can't be null.

bcc

(mail-address+, Description?)

Contains the list of recipients in hidden knowledge of the mail.

Is overwritten by the value of the GVBuffer property GV_SMTP_BCC.

The **bcc** Element is used by: *destinations*.

Bin2XMLTransformation

(Description?, TransformationAlias*)

Defines a Binary to XML trasformation.

#Icon: GVBin2XmlTransformation.png

The **Bin2XMLTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **Bin2XMLTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2xml.BinaryToXMLTran**
name	required	Transformation name.
		The attribute's value can't be null.
ConversionMapName	required	Conversion map name.
		The attribute's value can't be null.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema.

The attribute's value can't be null.

birt-report-call

`(Description?)`

Defines the information needed to generate BIRT reports.

#Icon: GVBirtReportCall.png #Category: Utils

The **birt-report-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **birt-report-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.birt.report.BIRTReportCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
groupName	required	Reference to group name. The attribute's value can't be null.
reportName	required	Reference to report name. The attribute's value can't be null.
reportType	optional	Report format, default to 'pdf'. The attribute's admitted values are: • **pdf** • **excel** • **html** The attribute's value can't be null.

BpelEngineConfiguration

`(Description?, EngineProperties+)`

The **BpelEngineConfiguration** Element is used by: *GVServices*.

The following table show the element's attributes **BpelEngineConfiguration**:

Attribute	Tyte	Description
deployMentUnitProcess	required	Defines paramter configuration for Bple process. #Icon: default.png
startServer	required	Start Engine Bpel. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
transactionTimeout	required	Timeout Transaction. The attribute's value can't be null.

BpelFlow

`(Description?)`

The **BpelFlow** Element is used by: *BpelOperation*.

The following table show the element's attributes **BpelFlow**:

Attribute	Tyte	Description
namespace	required	
processname	required	

BpelOperation

`(Description?, BpelFlow)`

Defines an operational workflow of GreenVulcanoESB.
Each workflow is identified by a couple <service,operation> and is made instantiating a 'Flow', with Bpel operations

The operations you can configure are:

- Forward
- GetReply
- GetRequest
- Request
- RequestReply
- SendReply

And correspond (apart from the Forward) to the communication primitives of GreenVulcanoESB.
The Forward workflows are driven by the internal mechanisms of GreenVulcanoESB to complete transactions that do not require assistance from external systems

You can enable some consistency check on the data passed on GreenVulcanoESB.

Using the sub-element 'Conditions' can be (re)defined the conditions for possible use in the workflow routing.

#SortChild

#Icon: operation.png

The **BpelOperation** Element is used by: *Service*.

The following table show the element's attributes **BpelOperation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **operation**.
name	required	BpelOperation's name. Corresponds to a GreenVulcanoESB communication primitive or a forward. In the case of a forward, then you must also specify the parameter 'forward-name'. The attribute's admitted values are: • **RequestReply** • **Request** • **GetReply** • **GetRequest** • **SendReply** • **Forward** The attribute's value can't be null.
forward-name	optional	Forward's name. Must be specified only if you are setting up a workflow for a forward. Must not be specified for the GreenVulcanoESB communication primitive. The attribute's value can't be null.

out-check-type	required	Enable a consistency check of GVBuffer.
		
		It can take three values:
		
		• **none**: does not make any check.
		• **sys-svc**: fields 'system' and 'service' the result should take the
		   taking the same values in the input buffer.
		• **sys-svc-id**: fields 'system', 'service' and 'id' of the result must
		   assume the same values that assumed in the input buffer.
		   This setting should not be used in transactions with semantics 'GetRequest'.
		
		The attribute's admitted values are:

		• **none**
		• **sys-svc**
		• **sys-svc-id**
operation-activation	optional	Activation status of the current service operation.
		The state can take two values:
		• **on**: the operation is active.
		• **off**: the operation is not active.
		The attribute's default value is: **on**.
		The attribute's admitted values are:
		• **on**
		• **off**

Calendars

```
((DailyCalendarBuilder | WeeklyCalendarBuilder | MonthlyCalendarBuilder |
AnnualCalendarBuilder | CronCalendarBuilder)*)
```

Calendars do not define actual fire times, but rather are used to limit a Trigger from firing on its normal schedule if necessary. Most Calendars include all times by default and allow the user to specify times to exclude.

The **Calendars** Element is used by: *GVSchedulerBuilder*.

CallDescriptor

```
(Description?, statement, SPOutputParameters?)
```

The **CallDescriptor** Element is used by: *DBOCallSP*.

The following table show the element's attributes **CallDescriptor**:

Attribute	Tyte	Description
id	optional	The attribute's value can't be null.
named-parameter-mode	optional	Default is false.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.

call-parameter

```
(Description?)
```

Parameter for the items 'generic-call'.

The **call-parameter** Element is used by: *generic-call*.

The following table show the element's attributes **call-parameter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **param**.
name	required	Parameter name. The attribute's value can't be null.
value	required	Parameter value.

CallSPFormatter

`(Description?, SPOutputParams?, GVBufferMapping?)`

This element is the Formatter for calling a store procedure.

The **CallSPFormatter** Element is used by: *ResultSet*.

The following table show the element's attributes **CallSPFormatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **formatter**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.formatter.CallSPFormatter**.
success	optional	The attribute defines the return value from SQL query if the execution ended with success. The attribute's value can't be null.

CallSPSimpleBaseFormatter

`(Description?)`

This formatter reads the value of the output parameter from a call to store procedures.

The **CallSPSimpleBaseFormatter** Element is used by: *GVBufferFieldOutput*.

The following table show the element's attributes **CallSPSimpleBaseFormatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **base_formatter**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.formatter.base.CallSPSimpleBaseFormatter**
stylesheet	optional	
structure	optional	This element defines the structure of the XML document that wraps the query result. • ONLY_DATA Inserts the XML document only the output of the query. • METADATA_AND_DATA Inserts the XML document the query output, plus some information about DB objects (table, fields) The attribute's default value is: **METADATA_AND_DATA**. The attribute's admitted values are: • **ONLY_DATA** • **METADATA_AND_DATA**
outputParamIndex	required	This attribute defines the position parameter has in the statement. The attribute's value can't be null.

cc
(mail-address+, Description?)

Contains the list of recipients in knowledge of the mail.

Is overwritten by the value of the GVBuffer property GV_SMTP_CC.

The **cc** Element is used by: *destinations*.

ChangeCharTransformation
(Description?, TransformationAlias*, CharConversion*)

Defines a change char trasformation.

#Icon: GVCharTransformation.png

The **ChangeCharTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **ChangeCharTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2xml.ChangeCharTransf**
name	required	Transformation name. The attribute's value can't be null.
InputChar	required	The hex code of char to be replaced. The attribute's value can't be null.
OutputChar	required	The hex code of replaced char. The attribute's value can't be null.

ChangeGVBuffer

`(Description?, (SimpleGVBufferBodyBuilder)?, Script?, OGNLScript?, PropertyDef*)`

This element specifies a modification of a data buffer.

A change to a data buffer is to set one or more fields of the buffer with configurable values, or perform some transformation on the body.

You can also completely remove the body field. This option is useful to return an acknowledgment to the client without overhead to transfer the response data.

#Icon: default.png

The **ChangeGVBuffer** Element is used by: *ChangeGVBufferNode*, *GVEndNode*, *ServiceCallerTask*, *test-service-call*.

The following table show the element's attributes **ChangeGVBuffer**:

Attribute	Tyte	Description
clear-data	required	This attribute can be set to: • **true**: reset the body field of the buffer • **false**: do not alter the body field of the buffer This option is useful to return an acknowledgment to the client without overhead to transfer the response data. The attribute's admitted values are: • **false** • **true**
system	optional	This attribute sets the value of system field of the buffer. The attribute's value can't be null.
service	optional	This attribute sets the value of service field of the buffer. The attribute's value can't be null.

ret-code	optional	This attribute sets the value of return code field of the buffer. The attribute's value can't be null.
crypto-op	optional	This attribute defines whether or not to use encryption and if you encrypt or decrypt the body field. Can not be defined with 'compress-op', 'scope-name', 'base64-op' and 'clear-data'. The attribute's admitted values are: • **none** • **encrypt** • **decrypt** The attribute's value can't be null.
key-id	optional	This attribute sets the key to use for the encryption/ decryption. The attribute's value can't be null.
compress-op	optional	This attribute defines whether to use compression and if you compress or decompress the body field. Can not be defined with 'crypto-op', 'scope-name', 'base64-op' and 'clear-data'. The attribute's admitted values are: • **none** • **compress** • **uncompress** The attribute's value can't be null.
compress-level	optional	This attribute sets the compression ratio to use. The attribute's admitted values are: • **best-compression** • **best-speed** • **default-compression** • **no-compression** The attribute's value can't be null.
base64-op	optional	This attribute defines whether to use Base64 encoding and if you encode or decode the body field. Can not be defined with 'compress-op', 'crypto-op', 'scope-name' and 'clear-data'. The attribute's admitted values are: • **none** • **encode** • **decode** The attribute's value can't be null.
scope-name	optional	This attribute defines whether to use a JavaScript. If it is defined, represent the 'scope' to be used for script execution.

The execution environment map is added to the scope as 'environment', the current input object is added to the scope as 'data'.
Can not be defined with 'compress-op', 'crypto-op', 'base64-op' and 'clear-data'.

The attribute's value can't be null.

script-file	optional	This attribute is the name of the file containing the script to run. The attribute's value can't be null.

ChangeGVBufferNode
(Description?, ChangeGVBuffer?, OutputServices?)

Allows you to define a node in a workflow where you can make a change to the data buffer.

#ErrorIcon: change_error.png

The **ChangeGVBufferNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **ChangeGVBufferNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **change GVBuffer**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.ChangeGVBufferNode**.
id	required	ID of the node. Unique within the 'Flow'. The attribute's value can't be null.
input	required	Specifies the input (from the execution environment) for the operation. If the input is an exception, the operation is not performed, and the output is set equal input exception. The attribute's value can't be null.
output	optional	The operation's output (GVBuffer or Exception) is inserted into the execution environment with this exact name. Default to "input" value. The attribute's value can't be null.

next-node-id	required	Indicates the next node in the workflow to execute when the operation ends.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false.
		The attribute's admitted values are: **true** **false**
		The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false.
		The attribute's admitted values are: **true** **false**
		The attribute's value can't be null.

Channel

```
(Description?, (j2ee-ejb-call | j2ee-jca-call | jmx-call | smtp-call | pop-call
| ws-call | http-call | hl7-call | jbpm-call | jbpm-task-call | openspcoop-call
| db-call | dh-call | ldap-search-call | ldap-update-call | extract-data-call |
routed-call | excel-call | excelreader-call | birt-report-call | rules-call | test-
service-call | generic-call | shell-call | filereader-call | filewriter-call |
filemanager-call | fsmonitor-call | remotemanager-call | rsh-call | rsh-filereader-
call | rsh-filewriter-call | mm7-decode-call | mm7-submit-call | jms-dequeue |
routed-dequeue | jms-enqueue | routed-enqueue)*)
```

A channel (Channel) brings together a set of interfaces to a system.

In general for any system there will be a single channel that collects all the operations necessary for communication to the system.
But there may be situations where it is preferable to use multiple channels.

#Icon: channel.png

#SortChild

The **Channel** Element is used by: *System*.

The following table show the element's attributes **Channel**:

Attribute	Tyte	Description
id-channel	required	ID of the channel.

This identifier must be unique within the System.

The attribute's value can't be null.

CharConversion

`(Description?)`

The **CharConversion** Element is used by: *ChangeCharTransformation*.

The following table show the element's attributes **CharConversion**:

Attribute	Tyte	Description
InputChar	required	The hex code of char to be replaced.
		The attribute's value can't be null.
OutputChar	required	The hex code of replaced char.
		The attribute's value can't be null.

ClientDump

`(Description?)`

Per service's client dump configuration.

The **ClientDump** Element is used by: *ServiceDump*.

The following table show the element's attributes **ClientDump**:

Attribute	Tyte	Description
id-system	required	Client name.
		The attribute's value can't be null.
log-dump-size	optional	Max dump size, in bytes. If not set noting is dump, if -1 then all buffer is dump.

cmd

`(#PCDATA)`

Command to run.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return

the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The element value can't be null.

The **cmd** Element is used by: *rsh-call*, *RSHTask*, *shell-call*, *ShellTask*.

cmd-array-elem

`(#PCDATA)`

List of parameters that make up the command to run.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The element value can't be null.

The **cmd-array-elem** Element is used by: *rsh-call*, *RSHTask*, *shell-call*, *ShellTask*.

ConcurrentService

`(Description?)`

#CompositeLabel: || @system | :: | @service

The **ConcurrentService** Element is used by: *SubSystem*.

The following table show the element's attributes **ConcurrentService**:

Attribute	Tyte	Description
service	required	Service name.
		The attribute's value can't be null.
system	optional	Service's client name.
		The attribute's value can't be null.
max-concurrency	required	Max concurrency.
		The attribute's value can't be null.

Conditions

`(Description?, (GVBufferCondition | ExceptionCondition | JavaScriptCondition | IdentityCondition)*)`

The element 'Conditions' defines the conditions that allow to activate the mechanisms for routing GreenVulcano workflows.

The conditions are used in items 'GVRouting' of 'GVNodeCheck'.

The conditions can be defined depending on the contents of GVBuffer field or according to the exceptions that may occur during the execution of workflows.

The element 'Conditions' is used in different parts of the configuration.
The following list shows all the elements that can have a sub-element 'Conditions': - Service The element 'Conditions' of 'Service' defines all the conditions that apply to routing of all workflows instantiated in the service, for all clients of the service.
- Client The element 'Conditions' of 'Client' defines all the conditions that apply to routing of all workflows instantiated in the service's client - Flow The element 'Conditions' of 'Flow' defines all the conditions that apply to routing of the single workflow defined in the 'Flow' element.

The above list is sorted according to a growing priority assessment: the same condition can be defined in several different places.
In case of multiple definitions, the definition with the highest priority is used.

The **Conditions** Element is used by: *Flow*, *Operation*, *Service*, *SubFlow*.

constructor-args

`(Description?, constructor-param+)`

You can specify constructor arguments here, if your protocol socket factory class does not have a default constructor.

The **constructor-args** Element is used by: *CustomProtocol*.

constructor-param

(Description?)

A constructor parameter.

The **constructor-param** Element is used by: *constructor-args*.

The following table show the element's attributes **constructor-param**:

Attribute	Tyte	Description
type	required	Parameter type. Only simple java types are supported. The attribute's admitted values are: • **byte** • **boolean** • **char** • **double** • **float** • **int** • **long** • **short** • **String**
value	optional	Parameter value. Do not specify the value of this parameter if null should be passed. #Encrypted The attribute's admitted values are: • **true** • **false**

Contact

(Description?)

Identify a contact for an external system.

The information contained in this element are optional and have no impact on the functioning of GreenVulcanoESB.
Such information may be used to produce reports.

The **Contact** Element is used by: *System*.

The following table show the element's attributes **Contact**:

Attribute	Tyte	Description
first-name	required	The attribute's value can't be null.
last-name	required	The attribute's value can't be null.

role	optional	The attribute's value can't be null.	
mobile	optional	The attribute's value can't be null.	
telephone	optional	The attribute's value can't be null.	
e-mail	optional	The attribute's value can't be null.	

CoreCall

`EMPTY`

Defines the parameters to invoke a GreenVulcanoESB service.

Dynamic fields can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#CompositeLabel: || @id-service | :: | @id-system | :: | @operation #Icon: corecall_iterator.png

The **CoreCall** Element is used by: *GVIteratorOperationNode*.

The following table show the element's attributes **CoreCall**:

Attribute	Tyte	Description
dynamic	optional	If 'true' then id-system, id-service and operation attributes can contains metadata to be resolved at runtime. The default is 'false'. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
id-service	required	Name of service to call. The attribute's value can't be null.
id-system	optional	Name of service'client. The attribute's value can't be null.
operation	required	Operation to invoke on the service. Corresponds to a GreenVulcanoESB communication operation or to a forward.

		The attribute's value can't be null.
ref-dp	optional	Name of Data Provider to use to modify the GVBuffer content at each iteration.

change-log-context	optional	If true change the log context fields according to the new System/Service/Operation values.
		Default false.
		
		The attribute's admitted values are:
		   • **true**
		   • **false**
		
		The attribute's value can't be null.

CronCalendarBuilder

(Description?)

This implementation of the Calendar excludes the set of times expressed by a given CronExpression.
For example, you could use this calendar to exclude all but business hours (8AM - 5PM) every day using the expression "* * 0-7,18-23 ? * *".

#Icon: GVCronCalendarBuilder.png

The **CronCalendarBuilder** Element is used by: *Calendars*.

The following table show the element's attributes **CronCalendarBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-calendar**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.calendar.CronCalendarBuilder**.
name	required	Calendar name. Used in associations with Triggers and other Calendars. The attribute's value can't be null.
excludeCronExpression	required	Define a cron expression. Reference: http://www.quartz-scheduler.org/documentation/quartz-1.x/tutorials/crontrigger The attribute's value can't be null.
timeZone	optional	Calendar TimeZone. If not defined is used the TimeZone defined for DateUtils. The attribute's value can't be null.
baseCalendarName	optional	Set a new base calendar.

The configured Calendars are instantiated in configuration order, so the Calendars whith baseCalendarName set MUST be defined AFTER the referenced Calendar.

The attribute's value can't be null.

CronTriggerBuilder

`(Description?, TgProperties?)`

A Trigger that is used to fire a Task at given moments in time, defined with Unix 'cron-like' definitions.

#Icon: GVCronTriggerBuilder.png

The **CronTriggerBuilder** Element is used by: *Triggers*.

The following table show the element's attributes **CronTriggerBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-trigger**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.trigger.CronTriggerBuilder**.
name	required	Trigger name. The attribute's value can't be null.
cronExpression	required	Define a cron expression. Reference: http://www.quartz-scheduler.org/documentation/ quartz-1.x/tutorials/crontrigger The attribute's value can't be null.
startTime	optional	Trigger starting time in ISO format: yyyy-MM-dd HH:mm:ss If not defined is the server starting time rounded to the nex minute. The attribute's value can't be null.
endTime	optional	Trigger ending time in ISO format: yyyy-MM-dd HH:mm:ss The attribute's value can't be null.
timeZone	optional	Trigger TimeZone. If not defined is used the TimeZone defined for DateUtils. The attribute's value can't be null.
calendarName	optional	Associate the Calendar with the given name with this Trigger. The attribute's value can't be null.

CryptoTransformation

`(Description?, TransformationAlias*)`

Defines a crypto trasformation.

#Icon: GVCryptoTransformation.png

The **CryptoTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **CryptoTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2bin.CryptoTransformer**
name	required	Transformation name. The attribute's value can't be null.
Operation	required	Defines the transformation to perform. The attribute's admitted values are: • **Encrypt** • **Decrypt** The attribute's value can't be null.
KeyID	optional	Identifies the key to use. Default to KeyID = 'XMLConfig'. The attribute's value can't be null.

CSV2XMLTransformation

`(Description?, TransformationAlias*)`

Defines a CSV to XML trasformation.
Can handle record grouping.

Example: CSV: field1.1,field1.2,field1.3,field1.4 field1.1,field2.2,field1.3,field2.4 field3.1,field3.2,field3.3,field3.4 No Grouping XML: <RowSet> <row> <col>field1.1</col> <col>field1.2</col> <col>field1.3</col> <col>field1.4</col> </row> <row> <col>field2.1</col> <col>field2.2</col> <col>field1.3</col> <col>field2.4</col> </row> <row> <col>field3.1</col> <col>field3.2</col> <col>field3.3</col> <col>field3.4</col> </row> </RowSet>

Grouping: 1,3 XML: <RowSet> <data key_1="field1.1" key_3="field1.3"> <row> <col>field1.2</col> <col>field1.4</col> </row> <row> <col>field2.2</col> <col>field2.4</col> </row> </data> <data key_1="field3.1" key_3="field3.3"> <row> <col>field3.2</col> <col>field3.4</col> </row> </data> </RowSet>

#Icon: GVCsv2XmlTransformation.png

The **CSV2XMLTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **CSV2XMLTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2xml.CSVToXMLTransf**
name	required	Transformation name. The attribute's value can't be null.
FieldsSeparator	required	CSV field separator. Default ','. The attribute's value can't be null.
FieldDelimiter	optional	CSV field value delimiter, to be removed. Default ''. The attribute's value can't be null.
UseCDATA	required	Defines if the fileds values must be enclosed in a CDATA section. The attribute's admitted values are: • **True** • **False** The attribute's value can't be null.
ExcludeFirstRow	optional	Defines if the first CSV row, tipically the fields names, must be excluded. Default to false. The attribute's admitted values are: • **True** • **False** The attribute's value can't be null.
GroupBy	optional	Comma separated CSV field index (1 based) to be used as grouping rule. The attribute's value can't be null.

CustomProtocol

`(Description?, constructor-args?)`

The custom protocol handler configuration.
Referes to HttpClient documentation for further info: http://hc.apache.org/httpclient-3.x/sslguide.html

The **CustomProtocol** Element is used by: *endpoint*.

The following table show the element's attributes **CustomProtocol**:

Attribute	Tyte	Description
name	required	Name identifier for this protocol. The attribute's value can't be null.
protocol-scheme	required	The URI protocol scheme (http, https, etc.). The attribute's value can't be null.
protocol-socket-factory	required	The custom socket factory class, implementation of class 'org.apache.commons.httpclient.protocol.ProtocolSocketFactory'. If this class do not have a default constructor, you can specify constructor arguments using 'constructor-args' element. The attribute's value can't be null.
protocol-default-port	required	The default port number for this custom protocol. The attribute's value can't be null.
protocol-virtual-scheme	optional	You can specify this parameter to use your own custom protocol designator as well as the default protocol implementation, specified by 'protocol-scheme' attribute. The attribute's value can't be null.

DailyCalendarBuilder

`(Description?)`

This implementation of the Calendar excludes (or includes) a specified time range each day.
Each DailyCalendar only allows a single time range to be specified, and that time range may not cross daily boundaries (i.e. you cannot specify a time range from 8PM - 5AM).
If the property invertTimeRange is false (default), the time range defines a range of times in which triggers are not allowed to fire.
If invertTimeRange is true, the time range is inverted – that is, all times outside the defined time range are excluded.

#Icon: GVDailyCalendarBuilder.png

The **DailyCalendarBuilder** Element is used by: *Calendars*.

The following table show the element's attributes **DailyCalendarBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-calendar**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.calendar.DailyCalendarBuilder**
name	required	Calendar name. Used in associations with Triggers and other Calendars. The attribute's value can't be null.
rangeStartingTime	required	Range starting time in the format: HH:mm[:ss[:SSS]] The attribute's value can't be null.
rangeEndingTime	required	Range ending time in the format: HH:mm[:ss[:SSS]] The attribute's value can't be null.
invertTimeRange	optional	If the property invertTimeRange is false (default), the time range defines a range of times in which triggers are not allowed to fire. If invertTimeRange is true, the time range is inverted – that is, all times outside the defined time range are excluded. The attribute's value can't be null.
timeZone	optional	Calendar TimeZone. If not defined is used the TimeZone defined for DateUtils. The attribute's value can't be null.
baseCalendarName	optional	Set a new base calendar. The configured Calendars are instantiated in configuration order, so the Calendars whith baseCalendarName set MUST be defined AFTER the referenced Calendar. The attribute's value can't be null.

DataRetriever

`(#PCDATA)`

Defines a helper function.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2]

[cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.

The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script

The **DataRetriever** Element is used by: *GenericRetriever*, *JavaScriptRetriever*, *TableRetriever*.

The following table show the element's attributes **DataRetriever**:

Attribute	Tyte	Description
method	required	Helper function name.
		The attribute's value can't be null.
signature	optional	Comma-separated list of parameters name to be substituted in the function.
		The attribute's value can't be null.
cacheable	optional	If true the calculated function value, for the given parameters set, is cached for future access during the service processing.
		The cache is canceled at service end.
		Default false.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.

DataSourceConnection

(Description?, JNDIHelper?)

This element retrieve a DataSource connection.

#Icon: default.png

The **DataSourceConnection** Element is used by: *DBOperations*.

The following table show the element's attributes **DataSourceConnection**:

Attribute	Tyte	Description
type	fixed	Unmodifiable.
		Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **db-connection**.
class	fixed	Unmodifiable.
		Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.connections.DataSourceConnection**.
jndi-name	required	This attribute defines the DataSource JNDI name.
		The attribute's value can't be null.

DataSourceSet

`(Description?, (LocalFSDataSource)+)`

Defines the sources of configuration data.

#SortChild

The **DataSourceSet** Element is used by: *DataSourceSets*.

The following table show the element's attributes **DataSourceSet**:

Attribute	Tyte	Description
name	required	DataSourceSet name.
		Must be presenta a DataSourceSet with name = "Default"
		The attribute's value can't be null.

DataSourceSets

`(Description?, DataSourceSet+)`

#SortChild

The **DataSourceSets** Element is used by: *GVDataTransformation*.

DateIntervalTriggerBuilder

`(Description?, TgProperties?)`

A Trigger that is used to fire a Task based upon repeating calendar time intervals.

#Icon: GVDateIntervalTriggerBuilder.png

The **DateIntervalTriggerBuilder** Element is used by: *Triggers*.

The following table show the element's attributes **DateIntervalTriggerBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable.
		Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **cron-trigger**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.trigger.DateIntervalTriggerBuil**
name	required	Trigger name.
		The attribute's value can't be null.
startTime	optional	Trigger starting time in ISO format: yyyy-MM-dd HH:mm:ss If not defined is the server starting time rounded to the nex minute.
		The attribute's value can't be null.
endTime	optional	Trigger ending time in ISO format: yyyy-MM-dd HH:mm:ss
		The attribute's value can't be null.
repeatIntervalUnit	required	The period of repetition of the trigger, in time unit.
		The attribute's admitted values are: • **SECOND** • **MINUTE** • **HOUR** • **DAY** • **WEEK** • **MONTH** • **YEAR**
		The attribute's value can't be null.
repeatInterval	optional	The number of repeatIntervalUnit for repetitions of the trigger. If not defined the default is 1.
		The attribute's value can't be null.
timeZone	optional	Trigger TimeZone. If not defined is used the TimeZone defined for DateUtils.
		The attribute's value can't be null.
calendarName	optional	Associate the Calendar with the given name with this Trigger.
		The attribute's value can't be null.

db-call

`(Description?, DBOperations)`

Defines the parameters to perform an operation on DB.

#Icon: GVDBCall.png #Category: DataBase

The **db-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **db-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.db.DBCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

DBOBuilder

```
(Description?, DHAliasList?, DHVariables?, (DBOSelect | DBOThreadSelect | DBOUpdate
 | DBOInsert | DBOInsertOrUpdate | DBOUpdateOrInsert | DBOCallSP | DBOFlatSelect |
DBOMultiFlatSelect)+)
```

DataHandler service.

#Icon: GVDataHandler_DBOBuilder.png

The **DBOBuilder** Element is used by: *dh-call*.

The following table show the element's attributes **DBOBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbobuilder**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbobuilder.DBOBuilder**.
name	required	Service name. The attribute's value can't be null.
jdbc-connection-name	required	DataSource JNDI name. The attribute's value can't be null.
transacted	optional	Defines if the services must be executed in transaction. Default true. The attribute's admitted values are: • **false**

		• **true**
		The attribute's value can't be null.
isXA	optional	If the service is transacted, this attributes indicates if partecipate in a distributed transaction or not. If 'false' the DataHandler handle a local transaction. Default false.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
output-data	optional	The default is the value of @output-data of the last DBOxxx.
		The attribute's value can't be null.
make-dump	optional	If set to 'none' not perform the input/output data dump. If set to 'text' or 'hex' then the dump is performed as text or hexadecimal string. Defaut to 'text'.
		The attribute's admitted values are: • **none** • **text** • **hex**
		The attribute's value can't be null.

DBOCallSP

`(Description?, DHVariables?, CallDescriptor*)`

DBO optimized for operations on store procedures.

#Icon: GVDBOCallSP.png

The **DBOCallSP** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOCallSP**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOCallSP**.
name	required	The attribute's value can't be null.
transformation	optional	

force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller call - call procedure mode The attribute's admitted values are: • **caller** • **call** The attribute's value can't be null.
execute-query	optional	This parameter specifies is the callable statements must be executed with API CallableStatement#executeQuery(). Default is false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
input-data	optional	The default is the value of @name-Input. Can be set as the @output-data of a preceeding DBO to use its output as input. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOFlatSelect

`(Description?, DHVariables?, FieldFormatters?, statement)`

DBO optimized for select operations and conversion in CSV rows.

The **DBOFlatSelect** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOFlatSelect**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.

class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOFlatSelect**.
name	required	The attribute's value can't be null.
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller db2xml - data extraction mode The attribute's admitted values are: • **caller** • **db2xml** The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOInsert

(Description?, DHVariables?, statement+)

DBO optimized for insert operations.

#Icon: GVDBOInsert.png

The **DBOInsert** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOInsert**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOInsert**.

name	required	The attribute's value can't be null.
transformation	optional	
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller xml2db - data entry mode The attribute's admitted values are: • **caller** • **xml2db** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
input-data	optional	The default is the value of @name-Input. Can be set as the @output-data of a preceeding DBO to use its output as input. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOInsertOrUpdate

`(Description?, DHVariables?, statement+)`

DBO running the insert, and in case of collision, the corresponding update.

#Icon: GVDBOInsertUpdate.png

The **DBOInsertOrUpdate** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOInsertOrUpdate**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOInsertOrUpdate**.
name	required	The attribute's value can't be null.
transformation	optional	
duplicate-insert-code	optional	Specifies the error code when inserting with duplicate key. The attribute's value can't be null.
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller xml2db - data entry mode The attribute's admitted values are: **caller** **xml2db** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: **true** **false** The attribute's value can't be null.
input-data	optional	The default is the value of @name-Input. Can be set as the @output-data of a preceeding DBO to use its output as input. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOMultiFlatSelect

`(Description?, DHVariables?, FieldFormatters?, statement+)`

DBO optimized for select operations and conversion in CSV rows.

The **DBOMultiFlatSelect** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOMultiFlatSelect**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.

class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOMultiFlatSelect**.
name	required	The attribute's value can't be null.
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller db2xml - data extraction mode The attribute's admitted values are: • **caller** • **db2xml** The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOperations

(Description?, (DataSourceConnection | JdbcConnection), Statement, ResultSet)

This element configures an interaction with a database.

#Icon: default.png

The **DBOperations** Element is used by: *db-call*.

DBOSelect

(Description?, DHVariables?, FieldFormatters?, statement+)

DBO optimized for select operations.

#Icon: GVDBOSelect.png

The **DBOSelect** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOSelect**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOSelect**.
name	required	The attribute's value can't be null.
transformation	optional	
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller db2xml - data extraction mode The attribute's admitted values are: • **caller** • **db2xml** The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOThreadSelect
(Description?, DHVariables?, FieldFormatters?, statement+)

DBO optimized for select operations.
Every statement is execute in a separate thread, then the results are merged before making the transformation.

#Icon: GVDBOThreadSelect.png

The **DBOThreadSelect** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOThreadSelect**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOThreadSelect**.
name	required	The attribute's value can't be null.
transformation	optional	
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller db2xml - data extraction mode The attribute's admitted values are: • **caller** • **db2xml** The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOUpdate

(Description?, DHVariables?, statement+)

DBO optimized for update operations.

#Icon: GVDBOUpdate.png

The **DBOUpdate** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOUpdate**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOUpdate**.
name	required	The attribute's value can't be null.
transformation	optional	
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller xml2db - data entry mode The attribute's admitted values are: • **caller** • **xml2db** The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder. The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
input-data	optional	The default is the value of @name-Input. Can be set as the @output-data of a preceeding DBO to use its output as input. The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output. The attribute's value can't be null.

DBOUpdateOrInsert

(Description?, DHVariables?, statement+)

DBO running the update, and if no record updated, the corresponding insert.

#Icon: GVDBOUpdateInsert.png

The **DBOUpdateOrInsert** Element is used by: *DBOBuilder*.

The following table show the element's attributes **DBOUpdateOrInsert**:

Attribute	Tyte	Description
type	fixed	Unmodifiable.

		Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **dbo**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.dbo.DBOUpdateOrInsert**.
name	required	The attribute's value can't be null.
transformation	optional	
force-mode	optional	Force mode of the DBO, can be used in DBOBuilder whit more heterogeneous DBO. Mode: caller - inherit the mode of the caller xml2db - data entry mode
		The attribute's admitted values are: • **caller** • **xml2db**
		The attribute's value can't be null.
jdbc-connection-name	optional	DataSource JNDI name. Override connection defined in DBOBuilder.
		The attribute's value can't be null.
ignore-input	optional	Tell the engine do not use the input data.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
input-data	optional	The default is the value of @name-Input. Can be set as the @output-data of a preceeding DBO to use its output as input.
		The attribute's value can't be null.
output-data	optional	The default is the value of @name-Output.
		The attribute's value can't be null.

DefaultRes

(Description?, ACL?)

A default ACL definition.

#Icon: GVDefaultRes.png

The **DefaultRes** Element is used by: *ACLGreenVulcano*.

The following table show the element's attributes **DefaultRes**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **resource**.

DequeueFilter

```
(Description?, (IDFilter | RetCodeFilter | SystemFilter | ServiceFilter |
PropertyFilter)*)
```

Used in 'GVOperationNode' with 'op-type' set to 'dequeue', allows you to define the criteria for receiving messages.
Will be received only messages that meet the criteria.

May have one or more subelements of the following types:

- IDFilter
  would set the criteria of the received message ID.
- RetCodeFilter
  would set the criteria on the return code of the received message.
- SystemFilter
  would set the criteria field system of the received message.
- ServiceFilter
  would set the criteria in the field service of the received message.
- PropertyFilter
  would set the criteria on the properties of the received message

If multiple policies are specified, then the message to receive must meet them all.

The **DequeueFilter** Element is used by: *GVOperationNode*.

Description

```
(#PCDATA)
```

Each element of the configuration provides a field 'Description' optional that can contain free text available to the user.
This field can be used for notes and information that help users in configuration management.

This information can be used by the application GVConsole to enrich the reports relating to the configuration.

The description is always optional, but if used can not be empty.

#Icon: description.png

The element value can't be null.

The **Description** Element is used by: *ACLGreenVulcano*, *Address*, *AddressSet*, *AddressSetRef*, *AddTagTransformation*, *Advanced*, *Alias*, *AliasList*, *AliasMapping*, *AnnualCalendarBuilder*, *attachments*, *AxisWebServiceInvoker*, *Base64Transformation*, *bcc*, *Bin2XMLTransformation*, *birt-report-call*, *BpelEngineConfiguration*, *BpelFlow*, *BpelOperation*, *CallDescriptor*, *call-*

parameter, CallSPFormatter, CallSPSimpleBaseFormatter, cc, ChangeCharTransformation, ChangeGVBuffer, ChangeGVBufferNode, Channel, CharConversion, ClientDump, ConcurrentService, Conditions, constructor-args, constructor-param, Contact, CronCalendarBuilder, CronTriggerBuilder, CryptoTransformation, CSV2XMLTransformation, CustomProtocol, DailyCalendarBuilder, DataSourceConnection, DataSourceSet, DataSourceSets, DateIntervalTriggerBuilder, db-call, DBOBuilder, DBOCallSP, DBOFlatSelect, DBOInsert, DBOInsertOrUpdate, DBOMultiFlatSelect, DBOperations, DBOSelect, DBOThreadSelect, DBOUpdate, DBOUpdateOrInsert, DefaultRes, DequeueFilter, destinations, DHAlias, DHAliasList, dh-call, DHExternalRetrieverHelper, DHVariable, DisableAction, DMLWriteFormatter, EnableAction, endpoint, EngageModule, EngineProperties, env-property, ErrorHandler, excel-call, excelreader-call, ExceptionCondition, ExceptionDef, exception-event, ExceptionParam, ExcludedDay, exit-loop-condition, Extended, extract-data, extract-data-call, FailureAction, FieldFormatter, FieldFormatters, file-attachment, FileCopyCommand, FileDeleteCommand, FileFilter, filemanager-call, FileMonitorStatus, FileMoveCommand, filereader-call, FileSearchCommand, FileUnZipCommand, filewriter-call, FileZipCommand, Flow, ForwardConfiguration, ForwardDeployment, fsmonitor-call, FTPManager, generic-call, GenericRetriever, GreenVulcanoPool, Group, Groups, gvBuffer, GVBufferCondition, GVBufferDump, GVBufferFieldOutput, GVBufferMapping, GVBufferParam, GVBufferParamResolver, GVConcurrencyHandler, GVCoreCallNode, GVCryptoHelper, GVDataTransformation, gvdte-context-call, gvdte-extra-param, gvdte-service, GVEndNode, GVExcelReport, GVForwards, GVIteratorOperationNode, GVNodeCheck, GVNotificationNode, GVOperationNode, GVPolicy, GVPoolManager, GVRouting, GVSavePointNode, GVSchedulerBuilder, GVServices, GVSubFlowCallNode, GVSystems, GVTaskManagerConfiguration, GVThrowException, GVWaitNode, GVXPath, HL72XMLTransformation, hl7-call, http-call, IdentityCondition, IDFilter, InMemoryMonitorStatus, InputServices, invoke-parameter, j2ee-ejb-call, j2ee-jca-call, JavaScriptCondition, JavaScriptRetriever, jbpm-call, jbpm-task-call, JbProperties, jca-connection-spec, jca-interaction-spec, JdbcConnection, JdbcStore, jms-dequeue, jms-enqueue, jmx-call, JMXDefaultNotification, JMXExcNotification, JMXGVBufferNotification, JMXNotification, JNDIHelper, KeyID, KeyStoreID, LDAPContext, ldap-search-call, ldap-update-call, LocalFileSystemMonitor, LocalFSDataSource, Log4JNotification, mail-address, mail-message, Management, map-name-param, message-body, mm7-decode-call, mm7-submit-call, ModuleProperty, MonthlyCalendarBuilder, NextAction, NMDCEntry, ognl-script-call, ognl-script-service, openspcoop-call, Operation, OperationManagement, OutputData, OutputServices, OverWriteBytesTransformation, Param, parameter, param-gvbuffer, ParamJbpm, ParamResolver, ParamsJbpm, ParamsTask, Participant, Persistence, pop-call, Preload, property, Property, PropertyCompare, PropertyDef, PropertyFilter, Proxy, proxy-call, proxy-enqueue, QueryFormatter, QueryXMLBaseFormatter, RamStore, RangeDef, RemoteDeleteCommand, RemoteDownloadCommand, RemoteFileSystemMonitor, remotemanager-call, RemoteMoveCommand, RemoteSearchCommand, RemoteUploadCommand, ResultSet, RetCodeField, RetCodeFilter, RetrieverConfig, Role, RoleRef, routed-call, routed-dequeue, routed-enqueue, rsh-call, rsh-filereader-call, rsh-filewriter-call, RSHTask, rules-call, SequenceElement, SequenceTransformation, Service, ServiceAlias, ServiceCallerTask, ServiceDump, ServiceFilter, ServiceRes, Services, SFTPManager, Sheet, shell-call, ShellTask, Simpleformatter, SimpleTriggerBuilder, smtp-call, spec-constructor, spec-property, SPOutputParam, SPOutputParams, SpProperties, Startup, string-to-xml, SubFlow, SubSystem, System, SystemFilter, Systems, TableRetriever, TaskGroup, test-service-call, TestTask, TgProperties, to, ToPreload, TransformationAlias, Transformations, Triggers, VCLRouting, WeeklyCalendarBuilder, WLSSubjectBuilder, ws-

call, *WSDLInfo*, *XAHelper*, *XML2BinTransformation*, *XML2HL7Transformation*, *xml-data*, *xml-processor*, *xml-validation-call*, *xml-validation-service*, *XPath*, *XPathExtension*, *XPathNamespace*, *XPathParamResolver*, *XQTransformation*, *XSLFOPTransformation*, *XSLTransformation*.

destinations

`(to?, cc?, bcc?, Description?)`

It contains the list of mail recipients.

#Icon: default.png

The **destinations** Element is used by: *mail-message*.

DHAlias

`(Description?)`

Alias for a DataHandler service.

The **DHAlias** Element is used by: *DHAliasList*.

The following table show the element's attributes **DHAlias**:

Attribute	Tyte	Description
alias	required	Nome univoco dell'alias.
		The attribute's value can't be null.

DHAliasList

`(Description?, DHAlias+)`

List of aliases for a given DataHandler service.

#SortChild

The **DHAliasList** Element is used by: *DBOBuilder*.

dh-call

`(Description?, RetrieverConfig?, DBOBuilder+)`

Defines the parameters to make a call to DataHanlder.

#Icon: GVDHCall.png #Category: DataBase #SortChild

The **dh-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **dh-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.datahandler.DataHandlerCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

DHExternalRetrieverHelper

`(Description?)`

Trasformer Helper useful to invoke DataHandler Retriever in stand-alone XSL Transformations.

The **DHExternalRetrieverHelper** Element is used by: *HL72XMLTransformation*, *XML2HL7Transformation*, *XQTransformation*, *XSLFOPTransformation*, *XSLTransformation*.

The following table show the element's attributes **DHExternalRetrieverHelper**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformer-helper**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.utils.dte.DHExternalRetrieverHelper**.
dh-call-name	required	DataHandler call providing the retrievers.
jdbc-connection-name	required	DataBase connection name. The attribute's value can't be null.

DHVariable

`(Description?)`

Default value for DataHandler service's variable.

The **DHVariable** Element is used by: *DHVariables*.

The following table show the element's attributes **DHVariable**:

Attribute	Tyte	Description
name	required	Variable name.
		The attribute's value can't be null.
value	required	Variable value. Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 11 - sqllist{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a comma separated list. The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML. The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script
		The attribute's value can't be null.

DHVariables

`(DHVariable*)`

List of default values for DataHandler service's variables.

#SortChild

The **DHVariables** Element is used by: *DBOBuilder*, *DBOCallSP*, *DBOFlatSelect*, *DBOInsert*, *DBOInsertOrUpdate*, *DBOMultiFlatSelect*, *DBOSelect*, *DBOThreadSelect*, *DBOUpdate*, *DBOUpdateOrInsert*.

DisableAction

`(Description?)`

Useful to disable a component (ejb, mdb) against the disabling of the operation or service.

The **DisableAction** Element is used by: *OperationManagement*.

The following table show the element's attributes **DisableAction**:

Attribute	Tyte	Description
component	required	Specifies the name of the component to disable. The attribute's value can't be null.

DMLWriteFormatter

`(Description?)`

This element represents the Formatter to use if statements required is an update, an insert or delete.

The **DMLWriteFormatter** Element is used by: *ResultSet*.

The following table show the element's attributes **DMLWriteFormatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **formatter**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.formatter.DMLWriteFormatter**.
success	required	This attribute defines the return value from SQL query execution if successfully completed. The attribute's value can't be null.

EnableAction

`(Description?)`

Useful to enable a component (ejb, mdb) against the enabling of the operation or service.

The **EnableAction** Element is used by: *OperationManagement*.

The following table show the element's attributes **EnableAction**:

Attribute	Tyte	Description
component	required	Specifies the name of the component to enable.

The attribute's value can't be null.

endpoint

`(Description?, CustomProtocol?, Proxy?)`

Endpoint configuration to connect to the server.

The **endpoint** Element is used by: *http-call*.

The following table show the element's attributes **endpoint**:

Attribute	Tyte	Description
host	required	Host to connect to. The attribute's value can't be null.
port	optional	Port where the service is exposed. Default port is '80'. The attribute's value can't be null.
secure	optional	Defines if the endpoint connection is secure or not. If secure is 'true', the default connection protocol will be 'http'; otherwise, the default connection protocol will be 'https'. The default value is 'false'. The attribute's admitted values are: • **false** • **true**
custom-protocol	optional	Can be one of those defined locally for this 'http-call', or globally in GreenVulcanoESB on GVSupport configuration.

EngageModule

`(Description?, PolicyData?, ModuleProperty*)`

The **EngageModule** Element is used by: *AxisWebServiceInvoker*.

The following table show the element's attributes **EngageModule**:

Attribute	Tyte	Description
name	required	Defines the name of a module to hire to handle WS-*. If set, takes precedence over the attribute 'specifications'. The attribute's admitted values are: • **rampart** • **sandesha2** The attribute's value can't be null.
type	optional	Defines the class that implements the hander for the module to engage.

The attribute's default value is:
it.greenvulcano.gvesb.virtual.ws.module.DefaultModuleHandler.

The attribute's admitted values are:
- **it.greenvulcano.gvesb.virtual.ws.module.rampart.RampartModuleH**
- **it.greenvulcano.gvesb.virtual.ws.module.sandesha2.Sandesha2Modu**

The attribute's value can't be null.

specification	optional	The specification to implement, mandatory and other than 'NO-SPEC' if the name attribute is not declared.
		The attribute's default value is: **NO-SPEC**.
		The attribute's admitted values are: • **NO-SPEC** • **WS-Security** • **WS-ReliableMessaging**

EngineProperties

`(Description?)`

Bpel Engine properties.

The **EngineProperties** Element is used by: *BpelEngineConfiguration*.

The following table show the element's attributes **EngineProperties**:

Attribute	Tyte	Description
name	required	Property name.
		The attribute's value can't be null.
value	required	Property value.

env-property

`(Description?)`

Defines the property for the environment, in the form of name-value pairs, to set before running the command.

Can contains the following placeholders: 1 - fixed : a text string; 2 - $\{\{propname\}\}$: a System property name; 3 - sp\{\{propname\}\} : a System property name; 4 - @\{\{propname\}\} : a inProperties property name; 5 - timestamp\{\{pattern\}\} : return the current timestamp formatted as 'pattern' 6 - dateformat\{\{date::source-pattern::dest-pattern\}\} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode\{\{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default\}\} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL\{\{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default\}\} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js\{\{scope::script\}\} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql\{\{conn::statement\}\} : execute a select sql statement sql and return the value of the first field of the first selected record.

The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **env-property** Element is used by: *rsh-call*, *RSHTask*, *shell-call*, *ShellTask*.

The following table show the element's attributes **env-property**:

Attribute	Tyte	Description
name	required	Environment property name.
		The attribute's value can't be null.
value	required	Environment property value. Can contains placeholders.
		The attribute's value can't be null.

ErrorHandler

(Description?, ExceptionCondition?)

Handle the invocation of an error service, if configured.
The ErrorHandler are checked in the same sequence as they are configured.
If the ExceptionCondition element ISN'T configured the handler is active by default, and if it's the first of the list then the others are never checked.
The ExceptionCondition element must be configured to handle only GVPublicException.

The **ErrorHandler** Element is used by: *ForwardConfiguration*.

The following table show the element's attributes **ErrorHandler**:

Attribute	Tyte	Description
name	required	Instance name, used in log messages.
		The attribute's value can't be null.
error-id_service	required	Service to be used in errore service invocation.
		The attribute's value can't be null.
error-id_system	optional	System to be used in errore service invocation.
		The attribute's value can't be null.
error-operation	required	Operation to be used in errore service invocation.
		The attribute's value can't be null.
original-system-field	required	Name of the property to be used to contain the original System.

		The attribute's value can't be null.
original-service-field	required	Name of the property to be used to contain the original Service.
		The attribute's value can't be null.

excel-call

`(Description?, GVExcelReport?)`

Defines the information needed to generate Excel reports from a select on the DB.

#Icon: GVExcelCall.png #Category: Utils

The **excel-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **excel-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.excel.GVExcelCallOperation**.
name	optional	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
group	optional	Reports group name. The attribute's value can't be null.
report	optional	Report name. The attribute's value can't be null.

excelreader-call

`(Description?)`

Defines the information needed to convert a Excel file, in GVBuffer.object field, in a XML document.

#Icon: GVExcelReaderCall.png #Category: Utils

The **excelreader-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **excelreader-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.excel.reader.GVExcelReaderCallOperation**.
name	optional	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
onlyData	optional	If true, insert in the XML document also the cell formatting informations. Default to true. The attribute's admitted values are: • **false** • **true** The attribute's value can't be null.

ExceptionCondition

`(Description?, ExceptionDef+)`

Defines a checker for Exceptions.
Can match an Exception versus more definitions.

#SortChild

The **ExceptionCondition** Element is used by: *Conditions*, *ErrorHandler*, *NextAction*.

The following table show the element's attributes **ExceptionCondition**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **condition**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.internal.condition.ExceptionCondition**.
condition	required	This attribute defines the name of the condition. Unique inside the 'Conditions' element. The attribute's value can't be null.

throw-exception	optional	If true an error during execution cause an Exception to be thrown. If false an error during execution cause the condition to return "false". Default to "false". The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

ExceptionDef

`(Description)?`

Perform a test on Exceptions.

The **ExceptionDef** Element is used by: *ExceptionCondition*.

The following table show the element's attributes **ExceptionDef**:

Attribute	Tyte	Description
exception-class	optional	Defines the Exception class. The attribute's value can't be null.
strict-class-check	optional	Defines if the Exception to check must be of the given class or a subclass. Is used only if 'exception-class' is defined. The attribute's admitted values are: • **no** • **yes** The attribute's value can't be null.
follow-exc-chain	optional	Defines if follow the exception chain and perform the check on every element. The attribute's admitted values are: • **no** • **yes** The attribute's value can't be null.
min-code	optional	Defines a lower bound for Exception code check. Used only if the exception class is of type it.greenvulcano.gvesb.buffer.GVException. The attribute's value can't be null.
max-code	optional	Defines an upper bound for Exception code check. Used only if the exception class is of type it.greenvulcano.gvesb.buffer.GVException. The attribute's value can't be null.
message-filter	optional	Defines a filter to apply on exception message.

		The attribute's value can't be null.
filter-type	optional	Set the filter as text pattern or regular expression.
		The attribute's admitted values are:
		• **text**
		• **reg-exp**
		The attribute's value can't be null.

exception-event

`(Description?)`

Defines the type of exception that, if launched at an iteration, causing the interruption of the loop calls.

The **exception-event** Element is used by: *exit-loop-condition*.

The following table show the element's attributes **exception-event**:

Attribute	Tyte	Description
value	optional	The type of exception. If the execution of a call sequence throws an exception of this type (or its subtype), the loop stops. The default is 'java.lang.Exception'.
		The attribute's default value is: **java.lang.Exception**.
		The attribute's value can't be null.
rethrow	optional	Through this attribute you can specify whether the exception that it stopped the loop iterations must be propagated (causing the total failure of the call to GVIteratorOperationNode plug-in) or be retained. The default value is 'true'.
		The attribute's admitted values are:
		• **true**
		• **false**

ExceptionMessage

`(#PCDATA)`

This element is the structure of a dynamic message for notifications of GreenVulcanoESB error.

ExceptionMessage An exception message type provides the parameters to be valued at runtime.
The parameters are always written in ${param} format.
The possible parameters for an Exception object are: - ${message} - ${cause} - ${errorCode} (only for exception of type GVException) - ${stackTrace}

All metadata are written in accordance with the above format.
If an error occurs the metadata will not be replaced.

The **ExceptionMessage** Element is used by: *JMXExcNotification*, *Log4JNotification*.

ExceptionParam

(Description)?

Specifies parameters to pass to the exception message.

The **ExceptionParam** Element is used by: *GVThrowException*.

The following table show the element's attributes **ExceptionParam**:

Attribute	Tyte	Description
name	required	Parameter name.
		The attribute's value can't be null.
value	required	Parameter value.

ExcludedDay

(Description?)

Defines an excluded day.

The **ExcludedDay** Element is used by: *AnnualCalendarBuilder*.

The following table show the element's attributes **ExcludedDay**:

Attribute	Tyte	Description
day	required	Excluded year day. The format is dd/MM.
		The attribute's value can't be null.

exit-loop-condition

(Description?, (exception-event))

Defines a condition that occur during an iteration, causing the interruption of the loop calls.

The **exit-loop-condition** Element is used by: *GVIteratorOperationNode*.

Extended

(Description?)

The **Extended** Element is used by: *JNDIHelper*, *LDAPContext*.

The following table show the element's attributes **Extended**:

Attribute	Tyte	Description
name	required	The attribute's value can't be null.
value	required	The attribute's value can't be null.

extract-data

`(Description?)`

#Icon: default.png

The **extract-data** Element is used by: *extract-data-call*.

The following table show the element's attributes **extract-data**:

Attribute	Tyte	Description
field	required	Name of property that will contain the data extracted. The attribute's value can't be null.
expression	required	XPath or regular expression used to extract the data to be included in the property. The expression is interpreted according to the type of message (ASCII or XML). The attribute's value can't be null.
matching-group	optional	Matching group to be extracted. Valid only if the type of message is ASCII.

extract-data-call

`(Description?, extract-data*, ServiceAlias?)`

The operation extract-data-call allows you to extract data from the message body and write them into GVBuffer property.

The data can be extracted from XML messages and ASCII messages.
To extract data from XML message using XPath expressions, and to extract data from-ASCII messages using regular expressions.

You can also define a portion of the buffer to be interpreted as XML or ASCII.

#Icon: GVextractData.png #Category: Utils

The **extract-data-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **extract-data-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.ExtractMessageData**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.
		The attribute's value can't be null.
message-type	required	Indicates if the message is ASCII or XML.
		The attribute's admitted values are: • **XML** • **ASCII**
encoding	optional	Encoding for the interpretation of ASCII messages.
		The attribute's value can't be null.
begin-index	optional	Initial index in data buffer. If not specified index starts at byte 0.
length	optional	Length of data. If not specified reaches the end of the buffer data.

FailureAction

`(Description?)`

Useful to disable a component (ejb, mdb) against a configurable rate of errors.

The **FailureAction** Element is used by: *OperationManagement*.

The following table show the element's attributes **FailureAction**:

Attribute	Tyte	Description
component	required	Specifies the name of the component to disable.
		The attribute's value can't be null.
max-failure-rate	required	Specifies the number of bankruptcies in the second for the given operation before disabling the component. The errors relate to a single server, and then consider that there are N servers in the cluster.
		The attribute's value can't be null.

FieldFormatter

`(Description?)`

Used to force DB table field formatting.

#CompositeLabel: || @field-id | / | @field-name

The **FieldFormatter** Element is used by: *FieldFormatters*.

The following table show the element's attributes **FieldFormatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **field-formatter**.
field-id	optional	Comma-separated list of 0-based positions of fields on wich apply the formatter. The attribute's value can't be null.
field-name	optional	Comma-separated list of names of fields on wich apply the formatter. The attribute's value can't be null.
number-format	optional	Default to "#,##0.###" The attribute's value can't be null.
decimal-separator	optional	Default to "," The attribute's value can't be null.
grouping-separator	optional	Default to "." The attribute's value can't be null.
date-format	optional	Default to "yyyyMMdd HH:mm:ss" The attribute's value can't be null.
field-length	optional	Default to "64" The attribute's value can't be null.
filler-char	optional	Default to " " The attribute's value can't be null.
terminator-char	optional	Default to "" The attribute's value can't be null.
trim	optional	Default to "none" The attribute's admitted values are: • **none** • **both** • **right** • **left** The attribute's value can't be null.
padding	optional	Default to "none" The attribute's admitted values are: • **none** • **right**

- **left**

The attribute's value can't be null.

FieldFormatters

`(Description?, FieldFormatter*)`

The **FieldFormatters** Element is used by: *DBOFlatSelect*, *DBOMultiFlatSelect*, *DBOSelect*, *DBOThreadSelect*.

The following table show the element's attributes **FieldFormatters**:

Attribute	Tyte	Description
id	required	Must match the @id of the statement on wich output apply the formatters.
		The attribute's value can't be null.

file-attachment

`(Description?)`

Defines the file to attach to the email.

The **file-attachment** Element is used by: *attachments*.

The following table show the element's attributes **file-attachment**:

Attribute	Tyte	Description
path	required	Defines the path of the file to attach.
		The attribute's value can't be null.

FileCommands

`(FileSearchCommand | FileMoveCommand | FileDeleteCommand | FileCopyCommand | FileZipCommand | FileUnZipCommand)+`

The sequence of file operations to be performed.
The operations are carried out in the order they are configured.
An error in one of the critical operations will terminate the execution of the entire sequence of operations.

The **FileCommands** Element is used by: *filemanager-call*.

FileCopyCommand

`(Description?)`

Copy a file/directory.
The file name, the source and destination directory names can be static or contain placeholders that are replaced at runtime.

After the replacement of the placeholder, the value of the 'filename' may contain a regular expression, in which case, all files of the source directory, whose name is in accordance with the corresponding pattern will be copied to the destination directory.
If the destination directory already contains files with the same name, they will be overwritten.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **FileCopyCommand** Element is used by: *FileCommands*.

The following table show the element's attributes **FileCopyCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **file-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.command.GVCopy**.
sourcePath	required	Absolute path of the file/directory to copy. The attribute's value can't be null.
targetPath	required	Absolute path of the destination file/directory. The attribute's value can't be null.
filePattern	optional	File name to copy. Can be a regular espression.

		Is used only if sourcePath is a directory, and if empty the filter is ignored.

isCritical	optional	If true an internal error interrupt the command sequence. Default true.
		
		The attribute's admitted values are:
		  • **true**
		  • **false**
		
		The attribute's value can't be null.

FileDeleteCommand

(Description?)

Deleting a file/directory.
Both the file name and the directory can be static or contain placeholders that are replaced at runtime.

After the replacement of the placeholder, the value of the 'filename' may contain a regular expression, in which case, will erase all files in the specified directory whose name is consistent with the corresponding pattern.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **FileDeleteCommand** Element is used by: *FileCommands*.

The following table show the element's attributes **FileDeleteCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **file-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.command.GVDelete**.
targetPath	required	Absolute path of the file/directory to remove. The attribute's value can't be null.
filePattern	optional	File name to remove. Can be a regular espression. Is used only if targetPath is a directory, and if empty the filter is ignored.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

FileFilter

`(Description?)`

Define a file filter configuration.

The **FileFilter** Element is used by: *LocalFileSystemMonitor*, *RemoteFileSystemMonitor*.

The following table show the element's attributes **FileFilter**:

Attribute	Tyte	Description
file-mask	optional	Regular expression for file name matching. Default to all files. The attribute's value can't be null.
file-type	optional	Filter for file type. Default to 'files-only'. The attribute's admitted values are: • **files-only** • **directories-only** • **all**

filemanager-call

`(Description?, FileCommands)`

This plug-in allows you to perform a sequence of file operations on the local filesystem.
The operations allowed are: - Deletion of one or more file whose name corresponds to a regular expression; - Rename a file; - Moving of one or more files, whose name corresponds to a regular expression, from a directory source to a destination directory; - Copy of one or more files, whose

name corresponds to a regular expression, from source directory to a destination directory; - ZIP compress of one or more files, whose name corresponds to a regular expression, from a source directory to a ZIP file in a destination directory; - Decompression of ZIP file from a directory source to a target directory; - Check existence of one or more files whose name corresponds to a given regular expression;

#Icon: GVFileManager.png #Category: File

The **filemanager-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **filemanager-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.FileManagerCall**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

FileMonitorStatus

(Description?)

Configure a FileMonitorStatus to be used to hold a FileSystemMonitor status in a local file.

The **FileMonitorStatus** Element is used by: *LocalFileSystemMonitor*, *RemoteFileSystemMonitor*.

The following table show the element's attributes **FileMonitorStatus**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **fs-monitor-status**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.util.file.monitor.status.FileMonitorStatus**.
statusFilePath	required	The absolute path of the monitor status file. Can contains placeholder to be replaced at runtime. The attribute's value can't be null.

errorOnInvalidFile	optional	If 'true' (default) an error is raised for invalid status file.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.

FileMoveCommand

(Description?)

Move/rename a file/directory.
The file name, the source and destination directory names can be static or contain placeholders that are replaced at runtime.

After the replacement of the placeholder, the value of the 'filename' may contain a regular expression, in which case, all files of the source directory, whose name is in accordance with the corresponding pattern will be moved to the destination directory.
If the destination directory already contains files with the same name, they will be overwritten.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **FileMoveCommand** Element is used by: *FileCommands*.

The following table show the element's attributes **FileMoveCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable.
		Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **file-command**.
class	fixed	Unmodifiable.

		Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.command.GVMove**.
sourcePath	required	Absolute path of the file/directory to move.
		The attribute's value can't be null.
targetPath	required	Absolute path of the destination file/directory.
		The attribute's value can't be null.
filePattern	optional	File name to move. Can be a regular espression. Is used only if sourcePath is a directory, and if empty the filter is ignored.
isCritical	optional	If true an internal error interrupt the command sequence. Default true.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.

filereader-call

`(Description?, xml-processor?)`

This plug-in reads the local filesystem file's content, and saves it in output GVBuffer 'object' field.

Complete file path is the concatenation of 'srcPath' attribute, with the 'fileName' attribute.

Both of them can contain placeholders, that are expanded at plugin call time.

Attributes 'srcPath' and 'fileName' are subject to these constraints: - attribute 'srcPath' is overridden by 'GVFR_DIRECTORY' property, if present in current GVBuffer. If property is not defined in GVBuffer, the 'srcPath' attribute in the configuration is used.

In both cases, the value of this attribute can be a placeholder, resolved at plugin call time, and the result of the expansion, must result in an absolute pathname, otherwise an exception is thrown. An exception is also thrown if neither the property nor the attribute in configuration are set.

- attribute 'fileName' is overridden by 'GVFR_FILE_NAME' property, if present in current GVBuffer. If property is not defined in GVBuffer, the 'fileName' attribute in the configuration is used.

In both cases, the value of this attribute can be a placeholder, resolved at plugin call time, and the result of the expansion, combined with the previous attribute, must result in an existent resource in the local filesystem, otherwise an exception is thrown. An exception is also thrown if neither the property nor the attribute in configuration are set.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2]

[cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVFileReader.png #Category: File

The **filereader-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **filereader-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.reader.FileReader**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
srcPath	required	This value can be static or dynamic, containing placeholders that could be replaced at plugin call time. This is a default value, and is used if the property 'GVFR_DIRECTORY' is not defined in the current GVBuffer. The attribute's value can't be null.
fileName	required	This value can be static or dynamic, containing placeholders that could be replaced at plugin call time. This is a default value, and is used if the property 'GVFR_FILE_NAME' is not defined in the current GVBuffer. The attribute's value can't be null.

FileSearchCommand

(Description?)

Check if one or more files, whose name conforms to a given regular expression, exists within the specified directory.
On completion of and in the absence of errors are set the following properties of output GVBuffer:

1) GVFM_FOUND_FILES_NUM Number of files found (>= 0)

2) GVFM_FOUND_FILES_LIST List of names of found files, separated by ';'.
Set only if the value of field 'GVFM_FOUND_FILES_NUM' is greater than 0.

Both the pattern of the file and that the directory can be static or contain placeholders that are replaced at runtime.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **FileSearchCommand** Element is used by: *FileCommands*.

The following table show the element's attributes **FileSearchCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **file-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.command.GVSearch**.
sourcePath	required	Absolute path of the directory to search in. The attribute's value can't be null.
filePattern	required	File name to search for. Can be a regular espression.

The attribute's value can't be null.

returnFullPath	optional	If true the found files are inserted in list with full path. Default false.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.
isCritical	optional	If true an internal error interrupt the command sequence. Default true.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.

FileUnZipCommand

`(Description?)`

Unpacking the contents of a Zip file in a directory source to a target directory.
The file name, the source and destination directory names can be static or contain placeholders that are replaced at runtime.

The **FileUnZipCommand** Element is used by: *FileCommands*.

The following table show the element's attributes **FileUnZipCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **file-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.command.GVUnZip**.
sourcePath	required	Absolute path of the source directory. The attribute's value can't be null.
zipFileName	required	Name of the zip file. The attribute's value can't be null.
targetPath	required	Absolute path of the destination directory. The attribute's value can't be null.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are:

- **true**
- **false**

The attribute's value can't be null.

---

filewriter-call

`(Description?)`

This plug-in writes the content in the GVBuffer 'object' field into the local filesystem file, overwriting the target file if already present.
Complete file path is the concatenation of 'targetPath' attribute, with the 'fileName' attribute. Both of them can contain placeholders, that are expanded at plugin call time.
Attributes 'targetPath' and 'fileName' are subject to these constraints: - attribute 'targetPath' is overridden by 'GVFW_DIRECTORY' property, if present in current GVBuffer. If property is not defined in GVBuffer, the 'targetPath' attribute in the configuration is used.
In both cases, the value of this attribute can be a placeholder, resolved at plugin call time, and the result of the expansion, must result in an absolute pathname, otherwise an exception is thrown. An exception is also thrown if neither the property nor the attribute in configuration are set.
- attribute 'fileName' is overridden by 'GVFW_FILE_NAME' property, if present in current GVBuffer. If property is not defined in GVBuffer, the 'fileName' attribute in the configuration is used.
In both cases, the value of this attribute can be a placeholder, resolved at plugin call time, and the result of the expansion, combined with the previous attribute, must result in an existent resource in the local filesystem, otherwise an exception is thrown. An exception is also thrown if neither the property nor the attribute in configuration are set.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVFileWriter.png #Category: File

The **filewriter-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **filewriter-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.writer.FileWriter**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
targetPath	required	This value can be static or dynamic, containing placeholders that could be replaced at plugin call time. This is a default value, and is used if the property 'GVFW_DIRECTORY' is not defined in the current GVBuffer. The attribute's value can't be null.
fileName	required	This value can be static or dynamic, containing placeholders that could be replaced at plugin call time. This is a default value, and is used if the property 'GVFW_FILE_NAME' is not defined in the current GVBuffer. The attribute's value can't be null.

FileZipCommand

(Description?)

Compression of one or more files/directories in a directory source to a ZIP file into a target directory.
The file name, the source and destination directory names can be static or contain placeholders that are replaced at runtime.
If the destination directory already has a ZIP file with the same name, it will be overwritten.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.

The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **FileZipCommand** Element is used by: *FileCommands*.

The following table show the element's attributes **FileZipCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **file-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.command.GVZip**.
sourcePath	required	Absolute path of the source directory. The attribute's value can't be null.
filePattern	optional	File name to zip. Can be a regular espression. Is used only if sourcePath is a directory, and if empty the filter is ignored.
targetPath	required	Absolute path of the destination directory. The attribute's value can't be null.
zipFileName	required	Name of the zip file. The attribute's value can't be null.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

Flow

```
(Description?, Conditions?, (GVOperationNode | GVNodeCheck | ChangeGVBufferNode
| GVWaitNode | GVNotificationNode | GVIteratorOperationNode | GVCoreCallNode |
GVSubFlowCallNode | GVEndNode | GVSavePointNode)*)
```

Defines a 'Flow' to implement a GreenVulcanoESB communication primitive with a workflow actually executable.

Using the sub-element 'Conditions' can be (re)defined the conditions for possible use in the workflow routing.

#Icon: default.png

The **Flow** Element is used by: *Operation*.

The following table show the element's attributes **Flow**:

Attribute	Tyte	Description
first-node	required	Indicates the initial node of the workflow. From this node begins running when an instance of the workflow is invoked.
point-x	optional	X position of the start node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the start node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.

ForwardConfiguration

(Description?, ForwardDeployment, ErrorHandler*)

The **ForwardConfiguration** Element is used by: *GVForwards*.

The following table show the element's attributes **ForwardConfiguration**:

Attribute	Tyte	Description
forwardName	required	Forward name. References the Core workflow of type "Forward". The attribute's value can't be null.
enabled	required	Property that defines if the forward must be activated. The attribute's admitted values are: • **true** • **false**
flow-system	optional	Default System name to be used to invoke the workflow. Can be extracted from the received JMS message. The attribute's value can't be null.
flow-service	optional	Default Service name to be used to invoke the workflow. Can be extracted from the received JMS message. The attribute's value can't be null.
sleep-timeout	optional	Sleep in ms to perform in case of error.

		Default to 2000 and if $<= 0$ disable the sleep.
		The attribute's value can't be null.
ref-dp	optional	Data Provider to be used for extract data from the received JMS message.
dump-message	optional	If true the dequeued message is dumped on log file, at DEBUG severity level. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
full-debug	optional	If true ALL forward operations are logged on log file, at DEBUG severity level. Use with caution. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

ForwardDeployment

`(Description?, message-selector?, JNDIHelper?, XAHelper?)`

Define JMS details for Forward configuration.

The **ForwardDeployment** Element is used by: *ForwardConfiguration*.

The following table show the element's attributes **ForwardDeployment**:

Attribute	Tyte	Description
connection-factory	required	JMS Connection factory JNDI name.
destination-type	required	Property that defines the type of destination. The attribute's admitted values are: • **queue** • **topic**
destination	required	Destination JNDI name.
transacted	required	The transacted attribute specifies if the JMS dequeue must be executed in a XA transaction. The attribute's admitted values are: • **true** • **false**
transaction-timeout-sec	optional	XA transaction timeout. Default to 30 seconds.

		The attribute's value can't be null.
reconnect-interval-sec	optional	Defines the timeout between reconnection attempt on JMS connection failure. Default to 10 seconds. The attribute's value can't be null.
initial-size	optional	This specifies the lower limit to the number of concurrent Listeners. Defaults to 1.
maximum-size	optional	This specifies the upper limit to the number of concurrent Listeners. Defaults to 10.
receive-timeout-sec	optional	Defines the receive timeout of Listener. If XA transaction are active this timeout is contained in the XA transaction timeout. Default to 1 second.
read-block-count	optional	Defines the number of receive operations (succesfull or not) performd by the Listener before reinitialization. Default to 60 operations. A value of -1 means ignore count.

fsmonitor-call

(Description?, (LocalFileSystemMonitor | RemoteFileSystemMonitor))

This plug-in, when invoked, performs a scan of the directory specified in configuration, and returns a report in XML format (following the schema AnalysisReport.xsd) that can be configured to display any combination of the information listed below:

- files CREATED in the directory since the last scan performed;
- files MODIFIED in the directory since the last scan performed;
- files DELETED from the directory since the last scan performed;
- files EXISTENT in the directory;

You can restrict the scan to only files whose names conform to a regular expression defined in configuration.
If the invocation of the plug ends with the generation of a report, this report is included in the object field of output GVBuffer.
In the output GVBuffer are also set the following properties:

'GVFSM_REPORT_CREATED' set to 'true' if a report XML and was created.

'GVFSM_EXISTING_FILES' set if the filter 'existing' was configured and in target directory exist files whose name conforms to the pattern specified in configuration.
Contains the number of such files.

'GVFSM_CREATED_FILES' set if the filter 'created' was configured and the in target directory, after the last scan performed, were created file whose name is consistent with the pattern specified in the configuration.
Contains the number of such files.

'GVFSM_MODIFIED_FILES' set if the filter 'modified' was configured and the in target directory, after the last scan performed, were modified file whose name is consistent with the pattern specified in the configuration.
Contains the number of such files.

'GVFSM_DELETED_FILES' set if the filter 'deleted' was configured and the in target directory, after the last scan performed, were deleted file whose name is consistent with the pattern specified in the configuration.
Contains the number of such files.

#Icon: GVFsMonitor2.png #Category: File

The **fsmonitor-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **fsmonitor-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.reader.AnalyzeDirCall**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

FTPManager

(Description?)

If the target directory is on a remote file system accessible via FTP, this element encapsulates the parameters required to connect.

The parameters hostname, username, password can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.

The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 11 - sqllist{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a comma separated list.

The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL scripts

The **FTPManager** Element is used by: *RemoteFileSystemMonitor*, *remotemanager-call*.

The following table show the element's attributes **FTPManager**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-manager**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.util.remotefs.ftp.FTPManager**.
hostType	required	The host type. Information used by the FTP client for the proper parsing of the responses of the server. The attribute's admitted values are: • **UNIX** • **NT** • **OS2** • **OS400** • **VMS** • **MVS** The attribute's value can't be null.
hostname	required	Server host name. The attribute's value can't be null.
port	optional	Server FTP port. The attribute's default value is: **21**. The attribute's value can't be null.
username	required	User name. The attribute's value can't be null.
password	required	User password. #Encrypted The attribute's value can't be null.
connectTimeout	optional	Connect timeout (in milliseconds). Default: infinite.

		The attribute's value can't be null.
dataTimeout	optional	Data transfer timeout (in milliseconds) Default: infinite.
		The attribute's value can't be null.
autoConnect	optional	If true the instance use autoconnect/disconnect at each method invocation. Default: false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

generic-call

`(Description?, call-parameter*, ServiceAlias?)`

Allows a generic invocation.
GreenVulcanoESB use special plug-ins to make invocations to external systems.
Plug-ins are made from Java classes that implement the interface: it.greenvulcano.gvesb.virtual.CallOperation.

At hte plug-in you can pass a set of parameters as pairs name-value (sub-items 'call-parameter').

#Icon: GVGenericCall.png

The **generic-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **generic-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
class	required	Class that makes the plug-in. This class must implement the interface: it.greenvulcano.gvesb.virtual.CallOperation. The attribute's value can't be null.

GenericRetriever

`(Description?, DataRetriever*)`

Allows you to define helper running SQL select and return the first field of the first selected record as string.

#SortChild

The **GenericRetriever** Element is used by: *RetrieverConfig*.

The following table show the element's attributes **GenericRetriever**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **retriever**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.utils.GenericRetriever**.

get-attribute

`EMPTY`

Gets a MBean's attribute value.

The **get-attribute** Element is used by: *jmx-call*.

The following table show the element's attributes **get-attribute**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **method**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jmx.methods.JMXGetOperation**.
attribute	required	Attribute of the MBean to get the value. The attribute's value can't be null.

GreenVulcanoPool

`(Description?)`

Handle a pool of GreenVulcano Core instances, to be shared among the various input adapter (EJB, MDB, WS).

#CompositeLabel: || @subsystem | / | @initial-size | / | @maximum-size | / | @maximum-creation

The **GreenVulcanoPool** Element is used by: *GVPoolManager*.

The following table show the element's attributes **GreenVulcanoPool**:

Attribute	Tyte	Description
subsystem	required	Subsystem using the pool. The attribute's value can't be null.
initial-size	required	
maximum-size	required	Maximum pool size. The default is 10 items. A value of -1 equals not limited pool.
maximum-creation	required	Maximum number of instances to create. The default is 50 instances. A value of -1 is equivalent to unlimited number of creations.
default-timeout	required	Specifies the default timeout, in milliseconds, to obtain a GreenVulcano Core instance.
shrink-timeout	optional	Specifies the default timeout, in milliseconds, to activate the mechanism of shrinking the pooled GreenVulcano Core instances. The default is 15 minutes. The value -1 disables resizing of the pool.

Group

(Description?)

Every GreenVulcanoESB service is associated to a group.
Action on a group are propagated to every group's member.

In particular you can specify activation status of services, it is therefore advisable to insert in the same group services that should be activated or suspended together.

#Icon: group.png

The **Group** Element is used by: *Groups*.

The following table show the element's attributes **Group**:

Attribute	Tyte	Description
id-group	required	Group name. The attribute's value can't be null.
group-activation	optional	Activation status of group's services. The status can be: - on: group's services are active. - paused: group's services are inactive, the asynchronous client's requests are tacken in charghe by Greenvulcano

ESB. They will be served when the group return on state 'on'.
- off: group's services are inactive and no request are tacken in charghe by Greenvulcano ESB.

The current version don't implement the state 'paused'.

The attribute's default value is: **on**.

The attribute's admitted values are:
- **on**
- **paused**
- **off**

Groups

`(Description?, Group*)`

This section defines the GreenVulcanoESB's services groups.

#SortChild

#Icon: groups.png

The **Groups** Element is used by: *GVServices*.

gvBuffer

`(Description?)`

Used to attach at the email the GVBuffer contents.

The **gvBuffer** Element is used by: *attachments*.

The following table show the element's attributes **gvBuffer**:

Attribute	Tyte	Description
name	required	Defines a name of the attachment containing the GVBuffer contents.
		The attribute's value can't be null.

GVBufferCondition

`(Description?, RetCodeField?, (Property | PropertyCompare)*)`

This element allows you to specify the conditions that the fields buffer GVBuffer must meet. A GVBufferCondition lets you specify multiple conditions on individual fields. The conditions are evaluated in AND.

The **GVBufferCondition** Element is used by: *Conditions*, *NextAction*, *routed-call*, *routed-dequeue*, *routed-enqueue*.

The following table show the element's attributes **GVBufferCondition**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **condition**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.internal.condition.GVBufferCondition**.
condition	required	This attribute defines the name of the condition. Unique inside the 'Conditions' element. The attribute's value can't be null.
throw-exception	optional	If true an error during execution cause an Exception to be thrown. If false an error during execution cause the condition to return "false". Default to "false". The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
system	optional	The attribute verify that the system field contains the configured value. The attribute's value can't be null.
service	optional	The attribute verify that the service field contains the configured value. The attribute's value can't be null.

GVBufferDump

`(Description?, ServiceDump*)`

GVBuffer dump rules configuration.

#SortChild

The **GVBufferDump** Element is used by: *GVCore*.

The following table show the element's attributes **GVBufferDump**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'DATA_DUMP'.

This attribute *must* assume the value **BUFFER_DUMP**.

log-dump-size	optional	Default max dump size, in bytes. If not set noting is dump, if -1 then all buffer is dump.

GVBufferFieldOutput
`(Description?, (CallSPSimpleBaseFormatter))`

Defines the GVBuffer field be mapped with the output parameters from the store procedure.

The **GVBufferFieldOutput** Element is used by: *GVBufferMapping*.

The following table show the element's attributes **GVBufferFieldOutput**:

Attribute	Tyte	Description
name	optional	This attribute defines the name of the field to map. The attribute's value can't be null.
setterMethod	required	This attribute defines the method that populates the GVBuffer field with the output parameter from store procedure. The attribute's admitted values are: • **setSystem** • **setService** • **setRetCode** • **setObject** • **setProperty**
property	optional	This attribute defines the value of the GVBuffer property if the method is setProperty(). The attribute's value can't be null.
type	required	This attribute defines the Java type of the GVBuffer field. The attribute's admitted values are: • **string** • **int** • **long** • **byte_array**

GVBufferMapping
`(Description?, GVBufferFieldOutput+)`

Specify how to map GVBuffer fields with output parameters by store procedure.

The **GVBufferMapping** Element is used by: *CallSPFormatter*.

GVBufferMessage
`(#PCDATA)`

This element is the structure of a dynamic message for notifications of a GreenVulcanoESB flow without error.

GVBufferMessage A GVBuffer message type provides the parameters to be valued at runtime. The parameters are always written in ${param} format.
The possible parameters for a GVBuffer object are: - for standard fields, the field name - ${system} - ${service} - ${id} - ${retCode} - for properties: - ${property['PROP_NAME']} - ${properties} (return all the properties, in the form name: 'fieldName' value: 'fieldValue')

All metadata are written in accordance with the above format.
If an error occurs the metadata will not be replaced.

The **GVBufferMessage** Element is used by: *JMXGVBufferNotification*, *Log4JNotification*.

GVBufferParam

`(Description?)`

This element represents the field of GVBuffer which is inserted in the statement.

The **GVBufferParam** Element is used by: *GVBufferParamResolver*.

The following table show the element's attributes **GVBufferParam**:

Attribute	Tyte	Description
type	required	This attribute defines the type of the parameter. The attribute's admitted values are: • **string** • **int** • **long** • **float** • **date** • **binary** • **blob** • **clob**
position	required	This attribute defines the position parameter has in the statement. The attribute's value can't be null.
format	optional	This attribute lets you configure the date format in the event that has been defined type = 'date'. The attribute's value can't be null.
GVBufferMethod	required	The attribute defines the GVBuffer method that solves the parameter. The attribute's admitted values are: • **getSystem** • **getService** • **getId** • **getRetCode** • **getObject** • **getProperty**

propertyName	optional	This attribute defines the name of the property if the method is getProperty().
		The attribute's value can't be null.

GVBufferParamResolver

`(Description?, GVBufferParam+)`

This element defines the Resolver based GVBuffer fields.

The **GVBufferParamResolver** Element is used by: *ParamResolver*.

The following table show the element's attributes **GVBufferParamResolver**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **resolver**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.resolver.GVBufferResolver**.

GVConcurrencyHandler

`(Description?, SubSystems)`

Defines subsystem's max concurrency on service invocation.

The **GVConcurrencyHandler** Element is used by: *GVCore*.

The following table show the element's attributes **GVConcurrencyHandler**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'CONCURRENCY_HANDLER'. This attribute *must* assume the value **CONCURRENCY_HANDLER**.

GVCore

`(GVCryptoHelper?, GVXPath?, GVForwards?, GVPoolManager?, GVServices?, GVSystems?,`
`GVPolicy?, GVConcurrencyHandler?, GVBufferDump?, GVDataTransformation?,`
`GVTaskManagerConfiguration?)`

|proxy-dequeue">

Configuration file for GreenVulcanoESB core modules.

The following table show the element's attributes **GVCore**:

Attribute	Tyte	Description
version	fixed	GreenVulcanoESB current version. This attribute *must* assume the value **1.0**.

GVCoreCallNode

(Description?)

Node that allows direct invocation of a GreenVulcanoESB core workflow.

Dynamic fields can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVCoreCall.png

The **GVCoreCallNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVCoreCallNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVCoreCallNode**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **corecall**.
id	required	ID of the node.

		Unique within the 'Flow'.
		The attribute's value can't be null.
dynamic	optional	If 'true' are id-system, id-service and operation attributes cancontains metadata to be resolver at runtime.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
id-service	required	Name of service to invoke.
		The attribute's value can't be null.
id-system	optional	Name of service'client.
		The attribute's value can't be null.
operation	required	Name of service's operation to invoke
		The attribute's value can't be null.
input-ref-dp	optional	Name of Data Provider to use input manipulation. This Data Provider will receive in input a GVBuffer and must return the object to be inserted in GVBuffer.object.
output-ref-dp	optional	Name of Data Provider to use for output manipulation. This Data Provider will receive in input a GVBuffer and must return the object to be inserted in GVBuffer.object.
overwrite-sys-svc	optional	If 'true' are overwritten SYSTEM and SERVICE fields of GVBuffer. The default is 'false'.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
change-log-context	optional	If 'true' log context is updated. The default is 'false'.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
input	required	Specifies the input (from the execution environment) for the operation. If the input is an exception, the operation is not performed, and the output is set equal input exception.
		The attribute's value can't be null.
output	optional	The operation's output (GVBuffer or Exception) is inserted into the execution environment with this exact name. Default to "input" value.
		The attribute's value can't be null.

next-node-id	required	Indicates the next node in the workflow to execute when the operation ends.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

GVCryptoHelper

`(Description?, KeyStoreID*, KeyID*)`

#SortChild

The **GVCryptoHelper** Element is used by: *GVCore*.

The following table show the element's attributes **GVCryptoHelper**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'CRYPTO_HELPER'. This attribute *must* assume the value **CRYPTO_HELPER**.

GVDataTransformation

`(Description?, DataSourceSets, Startup?, Transformations)`

The **GVDataTransformation** Element is used by: *GVCore*.

The following table show the element's attributes **GVDataTransformation**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'GVDT'. This attribute *must* assume the value **GVDT**.
make-hex-dump	optional	Set if must be performed a hex dump of byte[] buffers. Default to "true". The attribute's admitted values are: • **false** • **true**

gvdte-context-call

`(Description?)`

Communication parameters to interact with GVDTE.

The **gvdte-context-call** Element is used by: *gvdte-service*.

The following table show the element's attributes **gvdte-context-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.DTEServiceContextCall**.
name	required	ID used for diagnostics. Is printed on the log files. The attribute's value can't be null.

gvdte-extra-param

`(Description?)`

Allows you to specify additional parameters for the transformation GVDTE must apply.

The **gvdte-extra-param** Element is used by: *gvdte-service*.

The following table show the element's attributes **gvdte-extra-param**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **param**.
name	required	Parameter name. The attribute's value can't be null.
value	required	Parameter value. The value of this attribute can be static or can be interpreted dynamically, as the value of a metadata expression that also employee the input GVBuffer. The attribute's value can't be null.

gvdte-service

`(Description?, map-name-param?, gvdte-context-call, gvdte-extra-param*)`

Invokes the Data Transformation Engine (GVDTE).

Refer to the documentation GVDTE for information on features of GreenVulcanoESB Data Transformation Engine.

#Icon: default.png

The **gvdte-service** Element is used by: *InputServices*, *OutputServices*.

The following table show the element's attributes **gvdte-service**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **service**.
internal	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **yes**.
critical	optional	Define if the service is critical. A critical service failure mark the entire communication as failed. The attribute's default value is: **yes**. The attribute's admitted values are: • **yes** • **no**
remove-fields	optional	Indicates whether or not to remove from the buffer the fields used for communication with GVDTE. The attribute's default value is: **yes**.

The attribute's admitted values are:
- **yes**
- **no**

GVEndNode
`(Description?, (ChangeGVBuffer | GVThrowException)?)`

Ends the workflow execution returning a result to the caller.

Before returning to the caller can also make changes to the data buffer, using the sub-element 'ChangeGVBuffer'.

You can also force the workflow exit with exception using the sub-element 'GVThrowException'.

Depending on the outcome of operations performed by GreenVulcanoESB, may be present in the execution environment GVBuffer objects or exceptions.
GVEndNode behavior will be different depending on the type of data that are available:

- GVBuffer
  If GVEndNode has a sub-element 'ChangeGVBuffer', the buffer will be changed before returning.
  If GVEndNode has a sub-element 'GVThrowException', the configured exception will be raised from independently the buffer.
  If GVEndNode has no sub-elements 'ChangeGVBuffer' nor 'GVThrowException', the data buffer will be returned as is.
- exception
  If GVEndNode has a sub-element 'GVThrowException', will raise the configured exception. At this exception will be attached that present in the environment.
  If GVEndNode not have a sub-element 'GVThrowException', the exception present in the environment will be raised.

Note that the type of data (GVBuffer or exception) from the environment is unpredictable, depends on the outcome of operations undertaken by GreenVulcanoESB.

#ErrorIcon: end_error.png

The **GVEndNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVEndNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **end**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVEndNode**.
id	required	ID of the node. Unique within the 'Flow'. The attribute's value can't be null.
output	required	Specifies the name of the object contained in the execution environment, to return to the client. The actual result sent to the client depends on the output (GVBuffer or exception) and the presence of sub-elements 'ChangeGVBuffer' and 'GVThrowException'. The attribute's value can't be null.
end-business-process	optional	This parameter lets you specify whether the GVEndNode ending a business process. Is particularly significant for the statistics. Some business flow are fulfilled by more invocations of GreenVulcanoESB. For example, consider the following scenario: - a client invokes Request for the request - the server invokes SendReply to send the reply - the client calls GetReply to get the response In the previous scenario are invoked three GreenVulcanoESB workflows, but the business flow only ends with the end of the third invocation. Only on the third workflow GVEndNode must be setted 'end-business-process' equal to 'yes'. The attribute's admitted values are: **yes** **no** The attribute's value can't be null.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false. The attribute's admitted values are: **true** **false** The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment.

Default false.

The attribute's admitted values are:
- **true**
- **false**

The attribute's value can't be null.

keep-savepoint	optional	If true and the service have a GVSavePointNode then the state informations are keep on DB, otherwise the state informations are canceled from DB. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

GVExcelReport

`(Description?, Sheet+)`

Defines the configuration elements of an Excel report.

#SortChild

The **GVExcelReport** Element is used by: *excel-call*.

The following table show the element's attributes **GVExcelReport**:

Attribute	Tyte	Description
name	required	Report name The attribute's value can't be null.
group	optional	Report group. Default Generic. The attribute's value can't be null.
jdbc-connection	required	JNDI name of a DataSource. The attribute's value can't be null.
format	optional	Name of the style of the report. Default 'default'.

GVForwards

`(Description?, ForwardConfiguration*)`

GreenVulcano ESB JMS Forward configuration.

#SortChild

The **GVForwards** Element is used by: *GVCore*.

The following table show the element's attributes **GVForwards**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'JMS_FORWARD'. This attribute *must* assume the value **JMS_FORWARD**.

GVIteratorOperationNode

```
(Description?, (CoreCall | SubFlowCall | (proxy-call | proxy-enqueue)), exit-loop-
condition?, InputServices?, OutputServices?)
```

Node that can perform a sequence of invocations to the operations of the VCL or other workflows.
The iterations are made on the elements of a collection built by a CollectionDataProvider configured through the attribute 'collection-DP'.
Collection elements are in turn inserted in the GVBuffer object to pass to the plug-in with which loop through invocations.

You can configure a condition of premature exit from the loop.
By default, even if a particular iteration throws an exception all the iterations will be executed anyway.

#Icon: iterator.png

The **GVIteratorOperationNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVIteratorOperationNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVIteratorOperationNode**.
id	required	ID of the node. Unique within the 'Flow'. The attribute's value can't be null.
op-type	required	Indicates the type of operation that GreenVulcanoESB must execute: • **call**: GreenVulcanoESB must perform an invocation. • **enqueue**: GreenVulcanoESB must perform a send a message.

- **corecall**: GreenVulcanoESB must execute an internal service call.
- **subcall**: GreenVulcanoESB must execute an Operation's SubFlow call.

The attribute's admitted values are:
- **call**
- **enqueue**
- **corecall**
- **subcall**

input	required	Specifies the input (from the execution environment) for the operation. If the input is an exception, the operation is not performed, and the output is set equal input exception. The attribute's value can't be null.
output	optional	The operation's output (GVBuffer or Exception) is inserted into the execution environment with this exact name. Default to "input" value. The attribute's value can't be null.
collection-dp	optional	Name of Data Provider to use. Must return a collection of objects. The attribute's value can't be null.
accumulate-output	optional	If true, output of each iteration is concatenated with the previous iteration's output. Default is true. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
next-node-id	required	Indicates the next node in the workflow to execute when the operation ends.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment.

Default false.

The attribute's admitted values are:
- **true**
- **false**

The attribute's value can't be null.

GVNodeCheck

`(Description?, GVRouting*)`

Define the nodes where GreenVulcanoESB makes decisions and determines which is the next node to execute.

Each 'GVNodeCheck' has a basic routing mechanism that chooses the next node only by the presence or absence of errors reported by exceptions.

In any case, you can define more sophisticated routing mechanisms defining the sub-elements 'GVRouting', allowing many opportunities for branching flows.

- BASE (without 'GVRouting')
  Depending on the type of input (GVBuffer or exception) will be designated as the next node, the one expressed by the attributes 'default-id' or 'on-exception-id'.
- ADVANCED (with 'GVRouting')
  Regardless of the type of input (GVBuffer or exception) will assess the conditions for routing the order they are defined.
  The first condition is verified the evaluation ends and the corresponding node is designated as the next node of the workflow.
  If neither GVRouting condition is met and is considering an exception continues from the node specified by 'on-exception-id' otherwise continues from the node specified by 'default-id'.
  If 'default-id' is not configured will create an exception type it.greenvulcano.gvesb.core.GVCoreException and the node specified by 'on-exception-id' is the next node to execute.

Routing conditions refer to conditions specified by the items 'Conditions' present on the nodes 'Flow', 'Service' and 'Client' (from high to low priority).

The conditions can be redefined in several places, in case of ambiguity will be considered according to priority.

#ErrorIcon: check_error.png

The **GVNodeCheck** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVNodeCheck**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **check**.

class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVNodeCheck**.
id	required	ID of the node. Unique within the 'Flow'. The attribute's value can't be null.
input	required	Object from the environment on which to run the check. The attribute's value can't be null.
on-exception-id	required	Node on which transfer control in case of exception. Note that any items 'GVRouting' take precedence over the choices made by GVNodeCheck. The attribute's value can't be null.
default-id	optional	Node on which transfer control if not apply any 'GVRouting' and are not in the case of exception.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

GVNotificationNode

`(Description?, (Log4JNotification | JMXNotification)*)`

Define the nodes where GreenVulcanoESB indicates a notification on execution of the workflow.

For every 'GVNotificationNode' has an associated list of notifications (Notification) that manage the type of message to send and the technology used to make the notification (Log4J, JMX.)

The order in which notifications are made is that in which they are defined.

A notification can be defined as 'critical', which is vital for the proper execution of the workflow. If a notification 'critical' throws an exception, the flow fails and the exception is inserted into the buffer specified by the attribute 'output' of GVNotificationNode.

The GVNotificationNode not read an input buffer, as may be specified a different one for each notification.

#ErrorIcon: notification_error.png

The **GVNotificationNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVNotificationNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **notification**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVNotificationNode**.
id	required	Uniquely identifies the notification node. Not to be confused with the id of individual notifications.
on-critical-error	required	A notification can be defined as 'critical', which is vital for the proper execution of the workflow. The parameter 'on-critical-error' is used to decide whether to stop or not the notifications sequence in the occurrence of exception for a notification defined 'critical' The attribute's admitted values are: • **break** • **continue** The attribute's value can't be null.
output	required	This parameter specifies the output buffer where to put a possible exception generated by a 'critical' notification. The attribute's value can't be null.
next-node-id	required	Indicates the next node in the workflow to execute when the operation ends. The attribute's value can't be null.
point-x	optional	X position of the node in the VulCon workflows editor.

Attribute		Description
	Immutable, used by VulCon.	
	The attribute's value can't be null.	
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.

GVOperationNode

`(Description?, InputServices?, OutputServices?, DequeueFilter?)`

Is a operative node indicating that GreenVulcanoESB must perform a communication with external systems (invocation, sending messages, receiving messages).

If the node indicates a receive a message (see attribute 'op-type'), you can also define a 'DequeueFilter' that sets certain conditions that the received message must meet.

The **GVOperationNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVOperationNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVOperationNode**.
id	required	ID of the node. Unique within the 'Flow'. The attribute's value can't be null.

op-type	required	Indicates the type of operation that GreenVulcanoESB must execute:
		• **call**: GreenVulcanoESB must perform an invocation. • **enqueue**: GreenVulcanoESB must perform a send a message. • **dequeue**: GreenVulcanoESB must execute a receipt of a message. If it is 'dequeue' then you can also enter a sub-element 'DequeueFilter'.
		The attribute's admitted values are: • **call** • **enqueue** • **dequeue**
input	required	Specifies the input (from the execution environment) for the operation. If the input is an exception, the operation is not performed, and the output is set equal input exception. The attribute's value can't be null.
output	optional	The operation's output (GVBuffer or Exception) is inserted into the execution environment with this exact name. Default to "input" value. The attribute's value can't be null.
next-node-id	required	Indicates the next node in the workflow to execute when the operation ends.
id-system	required	Identifies the system involved in communication. Can be selected from systems declared as 'Participant' in the 'Operation' section. The attribute's value can't be null.
operation-name	required	Identifies the communication operation selected by the channel of the system indicated by the 'id-system' attribute. Only the operations of the type declared in the 'op-type' attribute can be selected. The attribute's value can't be null.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false. The attribute's admitted values are: • **true** • **false**

		The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

GVPolicy

`(Description?, Roles, Addresses, ACLGreenVulcano)`

Defines the configuration of the GreenVulcanoESB ACL Policy framework.

The **GVPolicy** Element is used by: *GVCore*.

The following table show the element's attributes **GVPolicy**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'POLICY_MANAGER'. This attribute *must* assume the value **POLICY_MANAGER**.

GVPoolManager

`(Description?, GreenVulcanoPool*)`

Root element for configuring the Pool Manager of GreenVulcanoESB.

#SortChild

The **GVPoolManager** Element is used by: *GVCore*.

The following table show the element's attributes **GVPoolManager**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'POOL_MANAGER'. This attribute *must* assume the value **POOL_MANAGER**.

GVRouting

`(Description)?`

Associates a condition to a node of the workflow.
If the condition is satisfied, the workflow transfers control to the associated node.

The **GVRouting** Element is used by: *GVNodeCheck*, *GVSubFlowCallNode*.

The following table show the element's attributes **GVRouting**:

Attribute	Tyte	Description
condition	required	Name of the condition to be verified. The actual meaning of the condition is specified by the elements 'Conditions' present on the nodes 'Flow' o 'SubFlow', 'Operation' and 'Service'. The attribute's value can't be null.
next-node-id	required	Node to execute if the condition is verified.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.

GVSavePointNode

`(Description?, SpProperties?)`

Is a operative node indicating that GreenVulcanoESB must save flow state in DB.

The **GVSavePointNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVSavePointNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVSavePointNode**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **save**.
id	required	ID of the node. Unique within the 'Flow'.

		The attribute's value can't be null.
input	required	Object from the environment to be used as input.
		The attribute's value can't be null.
next-node-id	required	Indicates the next node in the workflow to execute when the operation ends.
		The attribute's value can't be null.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.

GVSchedulerBuilder

`(Description?, (RamStore | JdbcStore), Calendars?)`

Quartz scheduler configurator.

The **GVSchedulerBuilder** Element is used by: *GVTaskManagerConfiguration*.

The following table show the element's attributes **GVSchedulerBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **scheduler-builder**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.GVSchedulerBuilder**.
maxThreads	optional	Defines the max number of threads in the scheduler's thread pool. Default to 5. The attribute's value can't be null.

GVServices

(Description?, Management, BpelEngineConfiguration, Persistence?, Groups, Services)

GreenVulcanoESB Core configuration root element.

Contains 3 subsections:

- **Management**: contains the configuration of management components.
- **Groups**: contains the configurations of Services groups.
  A group can handle the activation state of multiple services at once.
- **Services**: contains the configuration of GreenVulcanoESB Services.

#Icon: services.png

The **GVServices** Element is used by: *GVCore*.

The following table show the element's attributes **GVServices**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'SERVICES'. This attribute *must* assume the value **SERVICES**.

GVSubFlowCallNode

(Description?, GVRouting*)

Node that allows direct invocation of a GreenVulcanoESB core workflow sub-flow.

Dynamic fields can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using

the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: subcall.png

The **GVSubFlowCallNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVSubFlowCallNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **flow-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVSubFlowCallNode**.
op-type	fixed	Unmodifiable. This attribute *must* assume the value **subcall**.
id	required	ID of the node. Unique within the 'Flow'. The attribute's value can't be null.
dynamic	optional	If 'true' subflow attribute can contain metadata to be resolver at runtime. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
subflow	required	Name of the sub-flow to invoke The attribute's value can't be null.
change-log-context	optional	If 'true' log context is updated. The default is 'false'. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
input	required	Specifies the input (from the execution environment) for the operation. If the input is an exception, the operation is not performed, and the output is set equal input exception. The attribute's value can't be null.

output	optional	The operation's output (GVBuffer or Exception) is inserted into the execution environment with this exact name. Default to "input" value. The attribute's value can't be null.
on-exception-id	required	Node on which transfer control in case of exception. Note that any items 'GVRouting' take precedence over the choices made by GVSubFlowCallNode. The attribute's value can't be null.
default-id	optional	Node on which transfer control if not apply any 'GVRouting' and are not in the case of exception.
input-ref-dp	optional	Name of Data Provider to use input manipulation. This Data Provider will receive in input a GVBuffer and must return the object to be inserted in GVBuffer.object.
output-ref-dp	optional	Name of Data Provider to use for output manipulation. This Data Provider will receive in input a GVBuffer and must return the object to be inserted in GVBuffer.object.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

GVSystems

`(Description?, Systems)`

Contains configurations of the systems interfaced to GreenVulcanoESB.
For each system you can specify the interface used to connect.

#Icon: systems.png

The **GVSystems** Element is used by: *GVCore*.

The following table show the element's attributes **GVSystems**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'SYSTEMS'. This attribute *must* assume the value **SYSTEMS**.

GVTaskManagerConfiguration
`(Description?, GVSchedulerBuilder, TaskGroups)`

Defines the configuration of the GreenVulcanoESB Default Timer task manager.

The **GVTaskManagerConfiguration** Element is used by: *GVCore*.

The following table show the element's attributes **GVTaskManagerConfiguration**:

Attribute	Tyte	Description
type	fixed	Element type 'module'. This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'TASK_MANAGER_FACTORY'. This attribute *must* assume the value **GVTASKS**.

GVThrowException
`(Description?, ExceptionParam*)`

Is used in a 'GVEndNode' and allow stopping the workflow of GreenVulcanoESB with exception.

Exceptions are allowed only of type it.greenvulcano.gvesb.buffer.GVException and its subclasses.

The exception-id attribute or value can contain metadata to be replaced with fields of any GVBuffer in the execution environment.
The parameters are always written in ${param} format.
The possible parameters for a GVBuffer object are: - for standard fields, the field name - ${GVBuffer.system} - ${GVBuffer.service} - ${GVBuffer.id} - ${GVBuffer.retCode} - for properties: - ${GVBuffer.property:} - ${GVBuffer.properties} (return all the properties, in the form name: 'filedName' value: 'fieldValue')

All metadata are written in accordance with the above format.
If an error occurs the metadata will not be replaced.

The **GVThrowException** Element is used by: *GVEndNode*.

The following table show the element's attributes **GVThrowException**:

Attribute	Tyte	Description
exception-id	required	ID of the exception.
		The attribute's value can't be null.
class	optional	Exception class.
		Exceptions are allowed only of type it.greenvulcano.gvesb.buffer.GVException and its subclass.
		The attribute's default value is: **it.greenvulcano.gvesb.core.exc.GVCoreException**.
		The attribute's value can't be null.

GVWaitNode

`(Description?)`

The GVWaitNode allows you to enter the delays in the execution of a workflow.

#ErrorIcon: wait_error.png

The **GVWaitNode** Element is used by: *Flow*, *SubFlow*.

The following table show the element's attributes **GVWaitNode**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **flow-node**.
op-type	fixed	Unmodifiable.
		This attribute *must* assume the value **wait**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.core.flow.GVWaitNode**.
id	required	Uniquely identifies the wait node.
timeout	required	Defines the duration of waiting, in ms.
		The attribute's value can't be null.
input	required	Object used for the 'sleep-if' check.
		The attribute's value can't be null.
sleep-if	required	Defines the type of data that enables the execution of wait.
		The attribute's admitted values are: • **exception** • **both**

		• **gvbuffer**
next-node-id	required	Indicates the next node in the workflow to execute when the operation ends.
point-x	optional	X position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
point-y	optional	Y position of the node in the VulCon workflows editor. Immutable, used by VulCon.
		The attribute's value can't be null.
dump-in-out	optional	If true enable the dump of the input/output GVBuffer. Default false.
		The attribute's admitted values are:
		• **true** • **false**
		The attribute's value can't be null.
dump-env-in-out	optional	If true enable the dump of the input/output Execution Environment. Default false.
		The attribute's admitted values are:
		• **true** • **false**
		The attribute's value can't be null.

GVXPath

`(Description?, XPath)`

Root element for XPath engine configuration.

The **GVXPath** Element is used by: *GVCore*.

The following table show the element's attributes **GVXPath**:

Attribute	Tyte	Description
type	fixed	Element type 'module'.
		This attribute *must* assume the value **module**.
name	fixed	Module ID always set to 'XPATH'.
		This attribute *must* assume the value **XPATH**.

HL72XMLTransformation

`(Description?, TransformationAlias*, (DHExternalRetrieverHelper)*)`

Defines a HL7 string to XML trasformation.

#Icon: GVHl72XmlTransformation.png

The **HL72XMLTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **HL72XMLTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.hl7.HL72XMLTransformer**.
name	required	Transformation name. The attribute's value can't be null.
validate	optional	The attribute's admitted values are: • **true** • **false**
validationType	optional	The attribute's admitted values are: • **xsd** • **dtd**
OutputXSLMapName	optional	Style-sheet to be used in trasformation. The attribute's value can't be null.
SchemaOutput	optional	XSD Schema that describe the input XML.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema. The attribute's value can't be null.

hl7-call

`(Description?)`

HL7 VCL plugin to send HL7 message on remote HL7 servers.

#Icon: GVHl7Call.png #Category: Custom

The **hl7-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **hl7-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.hl7.HL7CallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
host	required	Host to connect to. The attribute's value can't be null.
port	required	Port where the service is exposed. The attribute's value can't be null.
timeout	optional	Timeout in seconds for a given interaction. Default to 10 seconds.

http-call

`(Description?, endpoint, method)`

HTTP VCL plugin to call HTTP methods on remote servers.

#Icon: GVHttpCall.png #Category: Web/Mail

The **http-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **http-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.http.HTTPCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

IdentityCondition

`(Description?, ACL)`

This feature allows you to specify a condition on the roles of the Pricipal invoking the service.

The **IdentityCondition** Element is used by: *Conditions*, *NextAction*.

The following table show the element's attributes **IdentityCondition**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **condition**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.identity.condition.IdentityCondition**.
condition	required	This attribute defines the name of the condition. Unique inside the 'Conditions' element. The attribute's value can't be null.

IdentityInfo
```
EMPTY
```
Retrieve information for public and private keys to connect with SSH, with authentication method 'publicKey'.

The **IdentityInfo** Element is used by: *SFTPManager*.

The following table show the element's attributes **IdentityInfo**:

Attribute	Tyte	Description
privateKey	required	Path of file containing the private key. The attribute's value can't be null.
passphrase	required	Passphrase to access the private key. #Encrypted The attribute's value can't be null.
publicKey	required	Path of file containing the public key. The attribute's value can't be null.

IDFilter
```
(Description)?
```
Only receives messages with the ID equal to that specified in the request.

You can specify only one active instance of IDFilter.

The **IDFilter** Element is used by: *DequeueFilter.*

The following table show the element's attributes **IDFilter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **filter**.
name	fixed	Unmodifiable. This attribute *must* assume the value **IDFilter**.
use-input	fixed	Unmodifiable. This attribute *must* assume the value **yes**.
enabled	required	Specifies whether the filter is active or not. Can be used to disable the filter temporarily without deleting it from the configuration. The attribute's admitted values are: • **yes** • **no** The attribute's value can't be null.

InMemoryMonitorStatus

`(Description?)`

Configure a InMemoryMonitorStatus to be used to hold a FileSystemMonitor status in memory.

The **InMemoryMonitorStatus** Element is used by: *LocalFileSystemMonitor*, *RemoteFileSystemMonitor.*

The following table show the element's attributes **InMemoryMonitorStatus**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **fs-monitor-status**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.util.file.monitor.status.InMemoryMonitorStatus**.
dumpStatus	optional	If 'true' (default) the status is dumped on log on every update. The attribute's admitted values are: • **true** • **false**

The attribute's value can't be null.

InputServices

`(Description?, (gvdte-service | xml-validation-service | ognl-script-service)+)`

Before doing any communication you can run an ordered list of input services.
This section allows the definition of input services for the current communication operation.

The current version of GreenVulcanoESB provides the following services: - Data Transformation - XML Validation - OGNL Scripting

#Icon: default.png

The **InputServices** Element is used by: *GVIteratorOperationNode*, *GVOperationNode*.

invoke-method

`(invoke-parameter*)`

Invokes a method to the MBean.

The **invoke-method** Element is used by: *jmx-call*.

The following table show the element's attributes **invoke-method**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **method**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jmx.methods.JMXInvokeOperation**.
method	required	MBean's method to invoke. The attribute's value can't be null.

invoke-parameter

`(Description?)`

Specify an invoker method parameter.

The **invoke-parameter** Element is used by: *invoke-method*.

The following table show the element's attributes **invoke-parameter**:

Attribute	Tyte	Description
type	required	Parameter type.

Only used for invoke method.

The attribute's admitted values are:
- **byte**
- **boolean**
- **char**
- **double**
- **float**
- **int**
- **long**
- **short**
- **String**

value	required	Parameter value.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource
11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script

The attribute's admitted values are:
- **true**
- **false**

j2ee-ejb-call
`(Description?, JNDIHelper?, WLSSubjectBuilder?, ServiceAlias?)`
Service to invoke an Enterprise Java Bean.

#Icon: GVEjbCall.png #Category: J2EE

The **j2ee-ejb-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **j2ee-ejb-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.j2ee.J2EECallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
jndi-name	required	EJB JNDI name. The attribute's value can't be null.
method	required	Method name to invoke. The attribute's value can't be null.
parameterTypes	required	Method parameter types list. Comma separated class names or data types: - it.greenvulcano.gvesb.buffer.GVBuffer - java.lang.String,int,int - java.lang.String[] The attribute's value can't be null.
input-ref-dp	optional	Name of Data Provider to be used to prepare the EJB method actual parameters. This Data Provider will receive in input a GVBuffer and must return an array of object compatible with the parameterTypes list. If not defined is assumed that the method signature is: it.greenvulcano.gvesb.buffer.GVBuffer method(it.greenvulcano.gvesb.buffer.GVBuffer gvbuffer)
output-ref-dp	optional	Name of Data Provider to use for output manipulation. This Data Provider will receive as context a GVBuffer and as input the EJB method output object and must return an enriched GVBuffer object. Ex. a GVBufferChangeDataProvider instance.
home-interface	required	Java class that defines the EJB home interface. Note that if the EJB is installed on the same application server of GreenVulcanoESB, then you can also specify the local home interface. The attribute's value can't be null.
remote-or-local-interface	required	Java class that defines the EJB home remote.

Note that if the EJB is installed on the same application server of GreenVulcanoESB, then you can also specify the local interface.

The attribute's value can't be null.

j2ee-jca-call

`(Description?, JNDIHelper?, jca-interaction-spec, jca-connection-spec?, xml-data?, param-gvbuffer?, ServiceAlias?)`

This feature allows you to define an invocation to a JCA adapter that exposes the CCI interface.

Are no limitations on the structure of records that the JCA adapter can use.

The body of GVBuffer must contain an XML structure that describes the JCA record, and in response the output record is converted in the same XML format.

#Icon: GVJcaCall.png #Category: J2EE

The **j2ee-jca-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **j2ee-jca-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jca.JCACallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
jndi-name-eis	required	JNDI name under which the resource adapter is installed. Is the JNDI name of connection factory. The attribute's value can't be null.
exec-type	required	Invocation description: • exec_in_out GreenVulcanoESB uses the Interaction.execute() with the input and output records. If the method returns false, GreenVulcanoESB throws an exception. • out_exec_in GreenVulcanoESB uses the method Interaction.execute() with the only input record, receiving the output record as a result of invocation.

- exec_in
GreenVulcanoESB uses the method
Interaction.execute() with the only input record,
without expecting results. GreenVulcanoESB returns
the input record.

Refer to the documentation of particular JCA adapter to see
which are the accepted methods.

The attribute's admitted values are:
- **out_exec_in**
- **exec_in_out**
- **exec_in**

output-name	optional	If you specify 'exec_in_out' to attribute 'exec-type', you must specify the name of the output record.
		Refer to the documentation of particular JCA adapter to see which is the name to be used.
		The attribute's value can't be null.
output-type	optional	If you specify 'exec_in_out' to attribute 'exec-type', specify the type of output record.
		Refer to the documentation of particular JCA adapter to see what kind of records is returned by invoked function.
		The attribute's admitted values are: • **mapped** • **indexed**

byteArray-handling	optional	Defines how to deal with returns of type byte[].
		
		• base64
		  The byte arrays are encoded in base64 strings.
		• string
		  The byte arrays are interpreted as strings.
		  In the case of string you can define the encoding to be used with the attribute 'byteArray-encoding'.
		  If you do not specify the encoding will be used the platform default.
		• xml
		  The byte arrays are interpreted as serialized XML.
		
		The attribute's admitted values are:
		• **base64**
		• **string**
		• **xml**

byteArray-encoding	optional	Defines the encoding to be used in case byteArray-handling is set to 'string'.
namespace-prefix	optional	The XML used to describe JCA records provides a particular namespace (http://www.eaisoftware.it/jca/xml). The default prefix used for namespace is 'jca'. Warning: Changing this value will force a change of xpath used in sub-elements 'xml-data' and 'param-gvdata'.

JavaScriptCondition

`(Description?, Script?)`

This feature allows you to specify conditions that the incoming object, possibly in connection with the elements in the environment, must meet.
In the JavaScript context are bound teh folloqing variables: "environment" -> the execution environment "dataName" -> the name of the environment object to check "logger" -> a Log4J Logger instance

The **JavaScriptCondition** Element is used by: *Conditions*, *NextAction*.

The following table show the element's attributes **JavaScriptCondition**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **condition**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.internal.condition.JavaScriptCondition**.
condition	required	This attribute defines the name of the condition. Unique inside the 'Conditions' element. The attribute's value can't be null.
throw-exception	optional	If true an error during execution cause an Exception to be thrown. If false an error during execution cause the condition to return "false". Default to "false". The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
scope-name	optional	This attribute defines the 'scope' to be used for script execution.
script-file	optional	This attribute is the name of the file containing the script to evaluate. The attribute's value can't be null.

JavaScriptRetriever

`(Description?, DataRetriever*)`

Allows you to define helper running JavaScript code and return a string.

#SortChild

The **JavaScriptRetriever** Element is used by: *RetrieverConfig*.

The following table show the element's attributes **JavaScriptRetriever**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **retriever**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.utils.JavaScriptRetriever**.

jbpm-call
(ParamsJbpm, Description?)

JBPM plugin.

#Icon: GVJbpmCall.png #Category: Custom

The **jbpm-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **jbpm-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jbpm.JbpmCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
operation	required	operation call invoke. The attribute's admitted values are: • **startProcess** • **getProcesses** • **getProcess** • **getProcessByName** • **removeProcess** • **abortProcessInstance** • **getProcessInstanceVariables** • **setProcessInstanceVariables**

- **signalExecution**

jbpm-task-call

(ParamsTask, Description?)

JBPM TASK plugin.

#Category: Custom

The **jbpm-task-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **jbpm-task-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jbpm.JbpmTaskCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
hostHumanTaskHandler	optional	Ip Address listner Human Task.
portHumanTaskHandler	optional	Port where the service is exposed. The attribute's value can't be null.
operation	required	operation call invoke. The attribute's admitted values are: • **completeTask** • **assignTask** • **getAssignedTasks** • **getUnassignedTasks** • **getTaskById**

JbProperties

(Description?, PropertyDef*)

Defines additional properties of the Task.

#SortChild

The **JbProperties** Element is used by: *RSHTask*, *ServiceCallerTask*, *ShellTask*, *TestTask*.

jca-connection-spec

`(Description?, spec-constructor?, spec-property*)`

The element 'jca-connection-spec' is used to specify the properties for the object javax.resource.cci.ConnectionSpec.

The ConnectionSpec object must be a JavaBeans.

The ConnectionSpec object properties are used to provide initial parameters to JCA connector in order to establish a connection with the EIS.

Refer to the documentation of particular JCA adapter for a list of properties supported by ConnectionSpec.

The **jca-connection-spec** Element is used by: *j2ee-jca-call*.

The following table show the element's attributes **jca-connection-spec**:

Attribute	Tyte	Description
class	required	Class that implements the ConnectionSpec.
		Consult the documentation of particular JCA adapter for the value of this parameter.
		The attribute's value can't be null.

jca-interaction-spec

`(Description?, spec-constructor?, spec-property*)`

The element 'jca-interaction-spec' is used to specify the properties for the object javax.resource.cci.InteractionSpec.

The InteractionSpec object must be a JavaBeans.

The InteractionSpec object properties are used to provide the necessary parameters for JCA connector to complete the interaction with the EIS.

Refer to the documentation of particular JCA adapter for a list of properties supported by InteractionSpec.

The **jca-interaction-spec** Element is used by: *j2ee-jca-call*.

The following table show the element's attributes **jca-interaction-spec**:

Attribute	Tyte	Description
class	required	Class that implements the InteractionSpec.
		Consult the documentation of particular JCA adapter for the value of this parameter.
		The attribute's value can't be null.
function-name	optional	MAny EIS provides different functions. This property allows you to specify the function to invoke.

JCA specifications require implementation of this standard property only if applicable to the particular EIS.

Refer to the documentation of the particular EIS for a list of available functions.

The attribute's value can't be null.

interaction-verb	optional	The functions exposed by an EIS can be invoked in a standard way: • SYNC_SEND_RECEIVE Send data to the EIS, with synchronous waiting for a reply. • SYNC_SEND Send data to the EIS, without reply. • SYNC_RECEIVE Request of data to the EIS. JCA specifications require implementation of this standard property only if applicable to the particular EIS. Refer to the documentation of the particular EIS to check the verb for the various supported functions. The attribute's admitted values are: • **SYNC_SEND_RECEIVE** • **SYNC_SEND** • **SYNC_RECEIVE**
execution-timeout	optional	Timeout in milliseconds for a given interaction. Not all EIS support this parameter. JCA specifications require implementation of this standard property only if applicable to the particular EIS.

JdbcConnection

`(Description?)`

This element retrieve a JDBC connection.

The **JdbcConnection** Element is used by: *DBOperations*.

The following table show the element's attributes **JdbcConnection**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **db-connection**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.connections.JdbcDataBaseConnection**.

Attribute		Description
connectionName	required	This attribute defines the name of the connection to be used, must be one of the connections configured on the file GVAdapters.xml
		The attribute's value can't be null.

JdbcStore

(Description?)

Scheduler state holder in on DataBase.
IS CLUSTER-AWARE.

The **JdbcStore** Element is used by: *GVSchedulerBuilder*.

The following table show the element's attributes **JdbcStore**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **quartz-store**.
jdbcConnectionName	required	JDBC connection name.
		The attribute's value can't be null.
driverDelegate	required	Driver delegates understand the particular 'dialects' of varies database systems.
		The attribute's admitted values are: • **org.quartz.impl.jdbcjobstore.StdJDBCDelegate** • **org.quartz.impl.jdbcjobstore.MSSQLDelegate** • **org.quartz.impl.jdbcjobstore.PostgreSQLDelegate** • **org.quartz.impl.jdbcjobstore.WebLogicDelegate** • **org.quartz.impl.jdbcjobstore.oracle.OracleDelegate** • **org.quartz.impl.jdbcjobstore.oracle.WebLogicOracleDelegate** • **org.quartz.impl.jdbcjobstore.oracle.weblogic.WebLogicOracleDeleg** • **org.quartz.impl.jdbcjobstore.CloudscapeDelegate** • **org.quartz.impl.jdbcjobstore.DB2v6Delegate** • **org.quartz.impl.jdbcjobstore.DB2v7Delegate** • **org.quartz.impl.jdbcjobstore.HSQLDBDelegate** • **org.quartz.impl.jdbcjobstore.PointbaseDelegate**
		The attribute's value can't be null.
tablePrefix	required	Is a string equal to the prefix given to Quartz's tables that were created in your database. You can have multiple sets of Quartz's tables within the same database if they use different table prefixes.
		The attribute's value can't be null.
misfireThreshold	optional	The the number of milliseconds the scheduler will 'tolerate' a trigger to pass its next-fire-time by, before being considered "misfired". The default value is 60000 (60 seconds).

		The attribute's value can't be null.
clusterCheckinInterval	optional	Set the frequency (in milliseconds) at which this instance "checks-in" with the other instances of the cluster. Affects the quickness of detecting failed instances. The default value is 15000 (15 seconds).
		The attribute's value can't be null.

jms-dequeue

`(Description?, JNDIHelper?, message-selector?, ServiceAlias?, XAHelper?)`

Allows you to perform a dequeue from a JMS destination.

JMS message properties are mapped to GVBuffer fields:

Field JMS _____ system SYSTEM service SERVICE id ID retCode RET_CODE properties p$<property name> (only GVBuffer properties with names that are valid Java identifier are managed)

If isn't defined a Data Provider the GVBuffer object field contains the received message.

Can be defined a JMS message selector to filter messages.

#Icon: dequeue32.png #Category: JMS

The **jms-dequeue** Element is used by: *Channel*, *routed-dequeue*.

The following table show the element's attributes **jms-dequeue**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dequeue**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.j2ee.JMSDequeueOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
connection-factory	required	JMS connection factory JNDI name. The attribute's value can't be null.
destination-name	required	Destination JNDI name. Set appropriately the 'destination-type' parameter. The attribute's value can't be null.
destination-type	optional	Destination type.

		Default: queue
		The attribute's default value is: **queue**.
		The attribute's admitted values are: • **queue** • **topic**
transacted	optional	Specifies whether the dequeue has to open his own transaction or fall in a global transaction. • 'true' open his own transaction and do not fall in the global transaction. • 'false' fall in the active global transaction. Must be used a XA connection factory. This parameter is not relevant if the connection factory isn't XA. Default: false. The attribute's default value is: **false**. The attribute's admitted values are: • **false** • **true**
acknowledge-type	optional	In transactional dequeue acknowledgment is managed by the application server. This parameter is meaningful only for non-transactional dequeue and can take the following values: • **'auto-acknowledge'**: the acknowledgment from application server is automatically given upon delivery of the message. • **'client-acknowledge'**: the client must explicitly acknowledgment the message. • **'dups-ok-acknowledge'**: allows the JMS server to perform optimizations on the logic of acknowledgment messages, but can cause the redelivery of messages. Should only be used with systems that are tolerant to duplicated message. Default: auto-acknowledge The attribute's default value is: **auto-acknowledge**. The attribute's admitted values are: • **auto-acknowledge** • **client-acknowledge** • **dups-ok-acknowledge**
receive-type	required	Allows you to specify whether the receipt should be made in blocking mode, non-blocking mode, or with timeout. • **non-blocking**: is performed a non-blocking receive. If a message is already queued then it's immediately read.

If there are no messages available then GreenVulcanoESB throws a time-out exception.
- **timeout**: is performed a timeout receive. GreenVulcanoESB wait for the specified time. If a message is queued then it's immediately read.
  If there are no messages available then GreenVulcanoESB throws a time-out exception.
- **blocking**: the current thread blocks indefinitely until a message arrives.
  Use with caution.

The attribute's admitted values are:
- **non-blocking**
- **timeout**
- **blocking**

The attribute's value can't be null.

receive-timeout	optional	Time-out duration in ms. This parameter is meaningful only if 'receive-type' is set to 'time out'. If 'receive-type' is set to 'time out' and 'receive-timeout' is not defined, then is assumed a timeout of 1000 ms.
receive-timeout-overridable	optional	Specifies whether the value set to 'receive-timeout' can be overwritten at runtime. Reserved for future use. The attribute's default value is: **false**. The attribute's admitted values are: • **false** • **true**
durable-subscriber	optional	Specifies the name of the durable subscriber. Durable subscriptions provide the receipt of all messages sent to the topic, even if the subscribers are not running when the messages are sent.
no-local	optional	Avoid receiving local messages. Reserved for future use. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
use-vcl-pool	optional	Indicates whether to use connection pooling capabilities of the VCL. Set to false if the container provides pooling capabilities. Default: true The attribute's admitted values are: • **true** • **false**

Attribute	Type	Description
invalidate-conn-on-pool-insertion	optional	Indicates whether connections should be marked as invalid before reinsertion on the pool. Is significant only if the pooling feature is enabled. Default: false The attribute's admitted values are: • **false** • **true**
ref-dp	optional	Name of Data Provider to use. This Data Provider will receive in input a JMS Message and must return the object to be inserted in GVBuffer.
dump-message	optional	If true the dequeued message is dumped on log file, at DEBUG severity level. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

jms-enqueue

`(Description?, JNDIHelper?, ServiceAlias?, XAHelper?)`

Allows you to perform an enqueue on a JMS destination.

GVBuffer fields will be made available through the JMS message properties:

Field JMS _____ system SYSTEM service SERVICE id ID retCode RET_CODE properties p$<property name> (only GVBuffer properties with names that are valid Java identifier are managed)

#Icon: enqueue32.png #Category: JMS

The **jms-enqueue** Element is used by: *Channel*, *routed-enqueue*.

The following table show the element's attributes **jms-enqueue**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **enqueue**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.j2ee.JMSEnqueueOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.

		The attribute's value can't be null.
connection-factory	required	JMS connection factory JNDI name.
		The attribute's value can't be null.
destination-name	required	Destination JNDI name.
		Set appropriately the 'destination-type' parameter.
		The attribute's value can't be null.
destination-type	optional	Destination type.
		Default: queue
		The attribute's default value is: **queue**.
		The attribute's admitted values are: • **queue** • **topic**
transacted	optional	Specifies whether the enqueue has to open his own transaction or fall in a global transaction.
		• 'true' open his own transaction and do not fall in the global transaction. • 'false' fall in the active global transaction. Must be used a XA connection factory.
		This parameter is not relevant if the connection factory isn't XA.
		Default: false.
		The attribute's default value is: **false**.
		The attribute's admitted values are: • **false** • **true**
acknowledge-type	optional	In transactional enqueue acknowledgment is managed by the application server.
		This parameter is meaningful only for non-transactional enqueue and can take the following values:
		• **'auto-acknowledge'**: the acknowledgment from application server is automatically given upon delivery of the message. • **'client-acknowledge'**: the client must explicitly acknowledgment the message. • **'dups-ok-acknowledge'**: allows the JMS server to perform optimizations on the logic of acknowledgment messages, but can cause the redelivery of messages. Should only be used with systems that are tolerant to duplicated message.
		Default: auto-acknowledge
		The attribute's default value is: **auto-acknowledge**.

The attribute's admitted values are:
- **auto-acknowledge**
- **client-acknowledge**
- **dups-ok-acknowledge**

delivery-mode	optional	Specifies whether the JMS server must file on a persistent store the message before returning to the caller.

Sending messages persistent slightly affects the performance but provides greater guarantees of delivery.

The possible values for this parameter are:

- **persistent** : guarantees delivery
- **non-persistent**: don't guarantees delivery

Default: persistent

The attribute's default value is: **persistent**.

The attribute's admitted values are:
- **persistent**
- **non-persistent** |
| **priority** | optional | Message priority.

The messages with higher priority will be received before messages with lower priority.
The priorities set for JMS ranging from 0 (lowest priority) to 9 (highest priority).

The default priority of JMS messages is 4.

Default: 4

The attribute's default value is: **4**.

The attribute's admitted values are:
- **0**
- **1**
- **2**
- **3**
- **4**
- **5**
- **6**
- **7**
- **8**
- **9** |
| **time-to-live** | optional | Lifetime of sent messages, in milliseconds.

Upon expiration of the time-to-live the JMS server is allowed to discard the message without delivering it.

This parameter is optional.
If not specified it is assumed a time-to-live of one year.

Default: one year

The attribute's value can't be null. |

Attribute	Type	Description
use-vcl-pool	optional	Indicates whether to use connection pooling capabilities of the VCL. Set to false if the container provides pooling capabilities. Default: true The attribute's admitted values are: • **true** • **false**
invalidate-conn-on-pool-insertion	optional	Indicates whether connections should be marked as invalid before reinsertion on the pool. Is significant only if the pooling feature is enabled. Default: false The attribute's admitted values are: • **false** • **true**
ref-dp	optional	Name of Data Provider to use. The Data Provider will return the JMS Message to send.
dump-message	optional	If true the message to be enqueued is dumped on log file, at DEBUG severity level. Default: false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

jmx-call

(Description?, (invoke-method | set-attribute | get-attribute))

JMX VCL plugin to invoke MBean methods or set/get attributes on local servers.

#Icon: GVJmxCall.png #Category: J2EE

The **jmx-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **jmx-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jmx.JMXCallOperation**.
name	required	Operation name.

		Used in the 'Flow' section to associate workflow nodes to VCL operations.
		The attribute's value can't be null.
object-name	required	Defines an object name filter to invoke/set/get via JMX server.
		Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list. The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML. The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script
		The attribute's value can't be null.

JMXDefaultNotification

`(Description?)`

This element defines the standard JMX notification object.
javax.management.Notification

The **JMXDefaultNotification** Element is used by: *JMXNotification*.

JMXExcNotification

`(Description?, ExceptionMessage?)`

This element defines a notification object that extends the standard JMX Notification including the Throwable object.

The **JMXExcNotification** Element is used by: *JMXNotification*.

The following table show the element's attributes **JMXExcNotification**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **notification-object**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.notification.JMXExcNotification**.

JMXGVBufferNotification

(Description?, GVBufferMessage?)

This element defines a notification object that extends the standard JMX Notification including the GVBuffer object.

The **JMXGVBufferNotification** Element is used by: *JMXNotification*.

The following table show the element's attributes **JMXGVBufferNotification**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **notification-object**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.notification.JMXGVBufferNotification**.
dataValue	required	This attribute specifies whether to send the value of the body field in a notification or not. The attribute's admitted values are: • **yes** • **no**

JMXNotification

(Description?, JMXExcNotification?, JMXGVBufferNotification?,
JMXDefaultNotification?, StaticMessage?)

Questo elemento rappresenta le Notifiche di GreenVulcanoESB utilizzando JMX.
Ogni elemento di Notifica ha dei sub-elementi che ne definiscono il messaggio :

• StaticMessage

A static message that does not provide dynamic parameters and can be associated to any notification
- JMXGVBufferNotification
Defines a notification relating to a GVBuffer found in the execution environment.
- JMXExcNotification
Defines a notification relating to an Exception found in the execution environment.

The **JMXNotification** Element is used by: *GVNotificationNode*.

The following table show the element's attributes **JMXNotification**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **notification-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.notification.JMXNotification**.
id	required	This attribute defines the id (unique) of the notification. The attribute's value can't be null.
critical	required	This attribute defines whether or not the notification is critical for the flow. If a notification 'critical' throws an exception, the flow fails, and the exception is included in the buffer specified by the parameter 'output' of NotificationNode. The attribute's admitted values are: • **yes** • **no**
objectName	required	This attribute defines the objectName the notification broadcaster.
notificationType	required	This attribute defines the notification type
input	optional	This attribute defines the input buffer, from which read data for notifications execution. A different buffer can be specified for each notification.
mainInput	optional	This attribute defines the input buffer, from which read data for notifications execution when the "input" buffer don't contain a GVBuffer. A different buffer can be specified for each notification.

JNDIHelper
```
(Description?, Advanced?, Extended*)
```

The **JNDIHelper** Element is used by: *DataSourceConnection*, *ForwardDeployment*, *j2ee-ejb-call*, *j2ee-jca-call*, *jms-dequeue*, *jms-enqueue*, *pop-call*, *ServiceCallerTask*, *smtp-call*, *XAHelper*.

The following table show the element's attributes **JNDIHelper**:

Attribute	Tyte	Description
initial-context-factory	optional	Initial context factory for the JNDI tree containing connection-factory and the destination-name. Refere to your application server documentation for further information. Where GreenVulcano ESB and the server to contact are installed on the application server of the same type, you may leave this parameter unspecified. Where the application servers are rather different, as well as configure the initial context factory, make sure also that are present in the classpath the classes necessary to connect remote application server. #Icon: default.png The attribute's value can't be null.
provider-url	optional	Application server connection URL. Refere to your application server documentation for the configuration of this parameter If the JNDI Context to be created refers to the current application server you can leave this parameter unspecified. #Icon: default.png The attribute's value can't be null.
security-principal	optional	Username used to connect the application server. If security is not enabled, you can leave unspecified this parameter. #Icon: default.png The attribute's value can't be null.
security-credentials	optional	Password to connect the application server. If security is not enabled, you can leave unspecified this parameter. #Icon: default.png The attribute's value can't be null.

KeyID

   (Description)?

#Icon: GVKeyID.png

The **KeyID** Element is used by: *GVCryptoHelper*.

The following table show the element's attributes **KeyID**:

Attribute	Tyte	Description
id	required	The attribute's value can't be null.
key-type	required	The attribute's admitted values are: • **3DES** • **DES** • **RSA** The attribute's value can't be null.
key-store-id	required	The attribute's value can't be null.
key-alias	required	The attribute's value can't be null.
key-pwd	optional	#Encrypted The attribute's value can't be null.

KeyStoreID

`(Description)?`

#Icon: GVKeyStoreID.png

The **KeyStoreID** Element is used by: *GVCryptoHelper*.

The following table show the element's attributes **KeyStoreID**:

Attribute	Tyte	Description
id	required	The attribute's value can't be null.
key-store-type	optional	The keystore type. Default to JCEKS. The attribute's admitted values are: • **JKS** • **JCEKS** • **PKCS12** The attribute's value can't be null.
key-store-prv	optional	The keystore provider. Default to SunJCE. The attribute's admitted values are: • **SUN** • **SunJCE** • **BC** The attribute's value can't be null.
key-store-name	required	The attribute's value can't be null.
key-store-pwd	required	#Encrypted

The attribute's value can't be null.

LDAPContext
`(Description?, Advanced?, Extended*)`

The **LDAPContext** Element is used by: *ldap-search-call*, *ldap-update-call*.

The following table show the element's attributes **LDAPContext**:

Attribute	Tyte	Description
initial-context-factory	optional	Initial context factory for the LDAP tree containing connection-factory and the destination-name. Refere to your LDAP server documentation for the configuration of this parameter
		#Icon: default.png
		The attribute's default value is: **com.sun.jndi.ldap.LdapCtxFactory**.
		The attribute's value can't be null.
provider-url	required	LDAP server connection URL. Refere to your LDAP server documentation for the configuration of this parameter
		#Icon: default.png
		The attribute's value can't be null.
security-principal	optional	Username used to connect the LDAP server. If security is not enabled, you can leave unspecified this parameter.
		#Icon: default.png
		The attribute's value can't be null.
security-credentials	optional	Password to connect the LDAP server. If security is not enabled, you can leave unspecified this parameter.
		#Icon: default.png
		The attribute's value can't be null.

LDAPFilter
`(#PCDATA)`

The content defines a LDAP search filter.

#Icon: default.png

The element value can't be null.

The **LDAPFilter** Element is used by: *ldap-search-call*.

ldap-search-call

```
(Description?, LDAPContext, LDAPFilter*)
```

Service to execute search/login operation on LDAP server.

The following field's value can be static or contain placeholders that are replaced at runtime, the values can also be overwritten by specific properties: - rootContext (GVLDAP_ROOT_CONTEXT) - LDAPContext/security-principal (GVLDAP_USER) - LDAPContext/security-credential (GVLDAP_PASSWORD) - LDAPFilter (GVLDAP_FILTER)

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVLDAPSearch.png #Category: DataBase

The **ldap-search-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **ldap-search-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.ldap.LDAPSearchOperation**.
name	required	Operation name.

		Used in the 'Flow' section to associate workflow nodes to VCL operations.
		The attribute's value can't be null.
rootContext	optional	Root search context.
		The attribute's value can't be null.
deepSearch	optional	If true is performer a deep search, beginning from rootContext. Default is true.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
withSchema	optional	If true is the output Document contains entry/attribute schema informations. Default is false.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.

ldap-update-call

`(Description?, LDAPContext)`

Service to execute update operation on LDAP server.

The following field's value can be static or contain placeholders that are replaced at runtime, the values can also be overwritten by specific properties: - rootContext (GVLDAP_ROOT_CONTEXT) - LDAPContext/security-principal (GVLDAP_USER) - LDAPContext/security-credential (GVLDAP_PASSWORD)

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVLDAPUpdate.png #Category: DataBase

The **ldap-update-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **ldap-update-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.ldap.LDAPUpdateOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
rootContext	optional	Root search context. The attribute's value can't be null.

LocalFileSystemMonitor

```
(Description?, (InMemoryMonitorStatus | FileMonitorStatus), FileFilter,
ResultFilter)
```

Configure a LocalFileSystemMonitor instance, to be used to monitor a local file system directory.

The **LocalFileSystemMonitor** Element is used by: *fsmonitor-call*.

The following table show the element's attributes **LocalFileSystemMonitor**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **fs-monitor**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.util.file.monitor.LocalFileSystemMonitor**.
path	required	Absolute path to monitor on local file system. Can contains placeholders which will be replaced at runtime. The attribute's value can't be null.

LocalFSDataSource

`(Description?)`

Defines a configuration source on local file system.

The **LocalFSDataSource** Element is used by: *DataSourceSet*.

The following table show the element's attributes **LocalFSDataSource**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **datasource**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.config.LocalFSDataSource**.
name	required	Datasource name. The attribute's value can't be null.
repositoryHome	required	Base directory for configuration information. The attribute's value can't be null.
formatHandled	required	Defines the data format handled by the DataSource, the format is the comma separated list of file extensions. The attribute's value can't be null.
cache	optional	Defines if the requested resources ca nbe cached, to speed up future access. The attribute's admitted values are: • **no** • **yes**
formatHandlerClass	optional	Defines a formatHandled specific handler.

Log4JNotification

`(Description?, StaticMessage?, ExceptionMessage?, GVBufferMessage?, NMDC?)`

This element represents GreenVulcanoESB notifications using Log4j.

Each element of notification have sub-elements that define the message:

- StaticMessage
  A static message that does not provide dynamic parameters and can be associated to any notification
- GVBufferMessage
  Defines a notification relating to a GVBuffer found in the execution environment.
- ExceptionMessage
  Defines a notification relating to an Exception found in the execution environment.

The **Log4JNotification** Element is used by: *GVNotificationNode*.

The following table show the element's attributes **Log4JNotification**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **notification-node**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.notification.Log4JNotification**.
id	required	This attribute defines the id (unique) of the notification. The attribute's value can't be null.
logger	required	This attribute defines the logger used to write the notification. The attribute's value can't be null.
level	required	This attribute defines the trace level. The attribute's admitted values are: • **INFO** • **DEBUG** • **WARN** • **ERROR** • **FATAL**
critical	required	This attribute defines whether or not the notification is critical for the flow. If a notification 'critical' throws an exception, the flow fails, and the exception is included in the buffer specified by the parameter 'output' of NotificationNode. The attribute's admitted values are: • **yes** • **no**
input	optional	This attribute defines the input buffer, from which read data for notifications execution. A different buffer can be specified for each notification.

baseInput	optional	This attribute defines an optional input buffer, from which read data for notifications execution.
traceException	optional	This attribute defines if log the exception stack trace if input buffer is an Exception. Default to true. The attribute's admitted values are: • **true** • **false**

mail-address

`(Description?)`

Contains the email address of a recipient.

#Icon: default.png

The **mail-address** Element is used by: *bcc*, *cc*, *to*.

The following table show the element's attributes **mail-address**:

Attribute	Tyte	Description
address	required	The email address. The attribute's value can't be null.

mail-message

`(destinations?, message-body?, attachments?, Description?)`

Defines the properties of the message.

#Icon: default.png

The **mail-message** Element is used by: *smtp-call*.

The following table show the element's attributes **mail-message**:

Attribute	Tyte	Description
sender-display-name	required	Il display name del sender. The attribute's value can't be null.
subject	required	The subject of the email. You can enter gvBuffer values using the following syntax: • for standard fields • ${system} • ${service} • ${id} • ${object} • ${retCode}

		• for properties • ${property['nome']}
		The attribute's value can't be null.
content-type	required	Email content-type.
		The attribute's admitted values are: • **text-plain** • **text-html**
high-priority	optional	The priority of the mail.
		The attribute's admitted values are: • **true** • **false**

mail-properties
`(mail-property+)`

The SMTP protocol provider supports the following properties, which may be set in the JavaMail Session object.
The properties are always set as strings; the Type column describes how the string is interpreted. For example, use

props.put("mail.smtp.port", "888");

to set the mail.smtp.port property, which is of type int.

Note that if you're using the "smtps" protocol to access SMTP over SSL, all the properties would be named "mail.smtps.*".

Name   Type   Description
****
mail.smtp.user String Default user name for SMTP.
mail.smtp.host String The SMTP server to connect to.
mail.smtp.port int The SMTP server port to connect to, if the connect() method doesn't explicitly specify one. Defaults to 25.
mail.smtp.connectiontimeout int Socket connection timeout value in milliseconds. Default is infinite timeout.
mail.smtp.timeout int Socket I/O timeout value in milliseconds. Default is infinite timeout.
mail.smtp.from String Email address to use for SMTP MAIL command. This sets the envelope return address. Defaults to msg.getFrom() or InetAddress.getLocalAddress(). NOTE: mail.smtp.user was previously used for this.
mail.smtp.localhost String Local host name used in the SMTP HELO or EHLO command. Defaults to InetAddress.getLocalHost().getHostName(). Should not normally need to be set if your JDK and your name service are configured properly.
mail.smtp.localaddress String Local address (host name) to bind to when creating the SMTP socket. Defaults to the address picked by the Socket class. Should not normally need to be set, but useful with multi-homed hosts where it's important to pick a particular local address to bind to.
mail.smtp.localport int Local port number to bind to when creating the SMTP socket. Defaults to the port number picked by the Socket class.

mail.smtp.ehlo boolean If false, do not attempt to sign on with the EHLO command. Defaults to true. Normally failure of the EHLO command will fallback to the HELO command; this property exists only for servers that don't fail EHLO properly or don't implement EHLO properly.

mail.smtp.auth boolean If true, attempt to authenticate the user using the AUTH command. Defaults to false.

mail.smtp.auth.mechanisms String If set, lists the authentication mechanisms to consider, and the order in which to consider them. Only mechanisms supported by the server and supported by the current implementation will be used. The default is "LOGIN PLAIN DIGEST-MD5 NTLM", which includes all the authentication mechanisms supported by the current implementation.

mail.smtp.auth.ntlm.domain String The NTLM authentication domain.

mail.smtp.auth.ntlm.flags int NTLM protocol-specific flags. See http://curl.haxx.se/rfc/ntlm.html#theNtlmFlags for details.

mail.smtp.submitter String The submitter to use in the AUTH tag in the MAIL FROM command. Typically used by a mail relay to pass along information about the original submitter of the message. See also the setSubmitter method of SMTPMessage. Mail clients typically do not use this.

mail.smtp.dsn.notify String The NOTIFY option to the RCPT command. Either NEVER, or some combination of SUCCESS, FAILURE, and DELAY (separated by commas).

mail.smtp.dsn.ret String The RET option to the MAIL command. Either FULL or HDRS.

mail.smtp.allow8bitmime boolean If set to true, and the server supports the 8BITMIME extension, text parts of messages that use the "quoted-printable" or "base64" encodings are converted to use "8bit" encoding if they follow the RFC2045 rules for 8bit text.

mail.smtp.sendpartial boolean If set to true, and a message has some valid and some invalid addresses, send the message anyway, reporting the partial failure with a SendFailedException. If set to false (the default), the message is not sent to any of the recipients if there is an invalid recipient address.

mail.smtp.sasl.realm String The realm to use with DIGEST-MD5 authentication.

mail.smtp.quitwait boolean If set to false, the QUIT command is sent and the connection is immediately closed. If set to true (the default), causes the transport to wait for the response to the QUIT command.

mail.smtp.reportsuccess boolean If set to true, causes the transport to include an SMTPAddressSucceededException for each address that is successful. Note also that this will cause a SendFailedException to be thrown from the sendMessage method of SMTPTransport even if all addresses were correct and the message was sent successfully.

mail.smtp.socketFactory SocketFactory If set to a class that implements the javax.net.SocketFactory interface, this class will be used to create SMTP sockets. Note that this is an instance of a class, not a name, and must be set using the put method, not the setProperty method.

mail.smtp.socketFactory.class String If set, specifies the name of a class that implements the javax.net.SocketFactory interface. This class will be used to create SMTP sockets.

mail.smtp.socketFactory.fallback boolean If set to true, failure to create a socket using the specified socket factory class will cause the socket to be created using the java.net.Socket class. Defaults to true.

mail.smtp.socketFactory.port int Specifies the port to connect to when using the specified socket factory. If not set, the default port will be used.

mail.smtp.ssl.enable boolean If set to true, use SSL to connect and use the SSL port by default. Defaults to false for the "smtp" protocol and true for the "smtps" protocol.

mail.smtp.ssl.checkserveridentity boolean If set to true, check the server identity as specified by RFC 2595. These additional checks based on the content of the server's certificate are intended to prevent man-in-the-middle attacks. Defaults to false.

mail.smtp.ssl.trust String If set, and a socket factory hasn't been specified, enables use of a MailSSLSocketFactory. If set to "*", all hosts are trusted. If set to a whitespace separated list of hosts, those hosts are trusted. Otherwise, trust depends on the certificate the server presents.

mail.smtp.ssl.socketFactory SSLSocketFactory If set to a class that extends the javax.net.ssl.SSLSocketFactory class, this class will be used to create SMTP SSL sockets. Note that this is an instance of a class, not a name, and must be set using the put method, not the setProperty method.

mail.smtp.ssl.socketFactory.class String If set, specifies the name of a class that extends the javax.net.ssl.SSLSocketFactory class. This class will be used to create SMTP SSL sockets.

mail.smtp.ssl.socketFactory.port int Specifies the port to connect to when using the specified socket factory. If not set, the default port will be used.

mail.smtp.ssl.protocols string Specifies the SSL protocols that will be enabled for SSL connections. The property value is a whitespace separated list of tokens acceptable to the javax.net.ssl.SSLSocket.setEnabledProtocols method.

mail.smtp.ssl.ciphersuites string Specifies the SSL cipher suites that will be enabled for SSL connections. The property value is a whitespace separated list of tokens acceptable to the javax.net.ssl.SSLSocket.setEnabledCipherSuites method.

mail.smtp.mailextension String Extension string to append to the MAIL command. The extension string can be used to specify standard SMTP service extensions as well as vendor-specific extensions. Typically the application should use the SMTPTransport method supportsExtension to verify that the server supports the desired service extension. See RFC 1869 and other RFCs that define specific extensions.

mail.smtp.starttls.enable boolean If true, enables the use of the STARTTLS command (if supported by the server) to switch the connection to a TLS-protected connection before issuing any login commands. Note that an appropriate trust store must configured so that the client will trust the server's certificate. Defaults to false.

mail.smtp.starttls.required boolean If true, requires the use of the STARTTLS command. If the server doesn't support the STARTTLS command, or the command fails, the connect method will fail. Defaults to false.

mail.smtp.userset boolean If set to true, use the RSET command instead of the NOOP command in the isConnected method. In some cases sendmail will respond slowly after many NOOP commands; use of RSET avoids this sendmail issue. Defaults to false.

mail.smtp.noop.strict boolean If set to true (the default), insist on a 250 response code from the NOOP command to indicate success. The NOOP command is used by the isConnected method to determine if the connection is still alive. Some older servers return the wrong response code on success, some servers don't implement the NOOP command at all and so always return a failure code. Set this property to false to handle servers that are broken in this way. Normally, when a server times out a connection, it will send a 421 response code, which the client will see as the response to the next command it issues. Some servers send the wrong failure response code when timing out a connection. Do not set this property to false when dealing with servers that are broken in this way.

The **mail-properties** Element is used by: *pop-call*, *smtp-call*.

mail-property

```
EMPTY
```

Name value pair that contains the properties to set.

The **mail-property** Element is used by: *mail-properties*.

The following table show the element's attributes **mail-property**:

Attribute	Tyte	Description
name	required	Property name.
		The attribute's value can't be null.
value	required	Property value.
		The attribute's value can't be null.

Management

`(Description?)`

The **Management** Element is used by: *GVServices*.

The following table show the element's attributes **Management**:

Attribute	Tyte	Description
call-administration-on-init	optional	Defines if monitoring components on cluster operation can contact the administration node on initialization.
		#Icon: default.png
		The attribute's default value is: **no**.
		The attribute's admitted values are: • **yes** • **no**

map-name-param

`(Description?)`

Specifies the name of the transformation that should apply by GVDTE.
This name must indicate a transformation currently configured in GVDTE.

#Icon: default.png

The **map-name-param** Element is used by: *gvdte-service*.

The following table show the element's attributes **map-name-param**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **param**.

name	fixed	Unmodifiable.
		This attribute *must* assume the value **map-name**.
value	required	Specifies the name of the transformation that should apply by GVDTE.
		This name must indicate a transformation currently configured in GVDTE.

message-body

`(message-text?, Description?)`

Defines the message body of the email.

#Icon: default.png

The **message-body** Element is used by: *mail-message*.

The following table show the element's attributes **message-body**:

Attribute	Tyte	Description
gvBuffer-dump	optional	If true, the GVBuffer dump will be included in the message body.
		Default: false.
		The attribute's admitted values are:
		• **false**
		• **true**

message-selector

`(#PCDATA)`

Allows you to specify a selector for receiving messages.
See the JMS documentation for the selector syntax.

The properties (and their types) provided by GreenVulcanoESB for selectors are:

- SYSTEM (String)
- SERVICE (String)
- ID (String)
- RETCODE (int)

Even GVBuffer properties are present in the form of message properties. The properties are all string and their names have the prefix '$p' (only GVBuffer properties with names that are valid Java identifier are managed).
For example, a GVBuffer property named PROPERTY will be identified by a property name p$PROPERTY.
As GreenVulcanoESB can in turn generate selectors, you can define how they should be combined with the selector specified by this element, see 'combining' attribute.

The **message-selector** Element is used by: *ForwardDeployment*, *jms-dequeue*.

The following table show the element's attributes **message-selector**:

Attribute	Tyte	Description
combining	optional	GreenVulcanoESB can dynamically generate selectors. This parameter defines how the dynamicselector should be combined with the selector configured to obtain the actual selector used for reception of JMS message.
		Can take the following values:
		• dynamic-and-configured (DYNAMIC) AND (CONFIGURED) • dynamic-or-configured (DYNAMIC) OR (CONFIGURED) • dynamic-only DYNAMIC • configured-only CONFIGURED • **configured-if-no-dynamic DYNAMIC != null ? DYNAMIC** : CONFIGURED
		The attribute's default value is: **dynamic-and-configured**.
		The attribute's admitted values are: • **dynamic-and-configured** • **dynamic-or-configured** • **dynamic-only** • **configured-only** • **configured-if-no-dynamic**

message-text

`(#PCDATA)`

The message of the email.
You can enter gvBuffer values using the following syntax:

- for standard fields
- ${system}
- ${service}
- ${id}
- ${object}
- ${retCode}
- for properties
- ${property['nome']}

The attribute 'escape-HTML-in-gvBuffer-fields' allows you to specify whether, when replacing the placeholders for the fields of GVBuffer, any invalid characters for XML/HTML should be replaced with the corresponding entity.
Default to 'true'.

#Icon: default.png

The element value can't be null.

The **message-text** Element is used by: *message-body*.

The following table show the element's attributes **message-text**:

Attribute	Tyte	Description
escape-HTML-in-gvBuffer-fields	optional	Allows you to specify whether, when replacing the placeholders for the fields of GVBuffer, any invalid characters for XML/HTML should be replaced with the corresponding entity. Default to 'true'. The attribute's admitted values are: • **false** • **true**

method

`EMPTY`

Method to execute to the server.

The **method** Element is used by: *http-call*.

The following table show the element's attributes **method**:

Attribute	Tyte	Description
name	required	Method name. The attribute's admitted values are: • **OPTIONS** • **GET** • **HEAD** • **POST** • **PUT** • **DELETE** The attribute's value can't be null.
request-uri	required	Request URI. Can contain placeholders. The attribute's value can't be null.
ref-dp	optional	Name of Data Provider to use to prepare the request.

mm7-decode-call

`(Description?, ServiceAlias?)`

Decode a MM7 multipart message.
The input message can be: - javax.mail.internet.MimeMessage - byte[] (RFC-2045 serialized mime message) - String (RFC-2045 serialized mime message) Returns the following properties: - X_MMS_MESSAGE_CLASS - X_MMS_PRIORITY - X_MMS_DELIVERY_REPORT - X_MMS_READ_REPLY - X_MMS_EXPIRY - X_MMS_SERVICE_CODE - X_MMS_FROM - X_MMS_SUBJECT

#Icon: GVMM7DCall.png #Category: Custom

The **mm7-decode-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **mm7-decode-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.mm7.ericsson.DecodeMM7CallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

mm7-submit-call

(Description?, ServiceAlias?)

Submit a MM7 multipart message to a MMS-C server.
The input message can be: - javax.mail.internet.MimeMessage - byte[] (RFC-2045 serialized mime message) - String (RFC-2045 serialized mime message) The input properties can be: - MM7_APPLICATION_NAME : VAS ID - MM7_APPLICATION_PROVIDER_NAME : VASP ID - MM7_USER_NAME : VAS user name - MM7_PASSWORD : VAS user password (base64 encoded) Returns the following properties: - MM7_MESSAGE_ID - MM7_STATUS_CODE - MM7_STATUS_TEXT

Input properties can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVMM7SCall.png #Category: Custom

The **mm7-submit-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **mm7-submit-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.mm7.ericsson.SubmitMM7CallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
applicationName	required	The VAS application name. The attribute's value can't be null.
applicationProviderName	required	The VAS application provider name. The attribute's value can't be null.
mmcURL	required	The MMS-C URL. The attribute's value can't be null.
userName	required	The VAS user. The attribute's value can't be null.
password	required	The VAS user's password. The attribute's value can't be null.

ModuleProperty

`(Description?)`

Specific property form the module to engage.

For example the property 'org.apache.axis2.addressing.AddressingConstants.DISABLE_OUTBOUND_ADDRESSING_VALIDATION' set to 'true' prevents a fault if SOAPAction is not set.

The **ModuleProperty** Element is used by: *EngageModule*.

The following table show the element's attributes **ModuleProperty**:

Attribute	Tyte	Description
name	required	The attribute's value can't be null.
value	required	The attribute's value can't be null.
type	optional	The attribute's default value is: **String**.

The attribute's admitted values are:
- **String**
- **Boolean**
- **Byte**
- **Short**
- **Int**
- **Long**
- **Float**
- **Double**

The attribute's value can't be null.

MonthlyCalendarBuilder

`(Description?)`

This implementation of the Calendar excludes a set of days of the month.

#Icon: GVMonthlyCalendarBuilder.png

The **MonthlyCalendarBuilder** Element is used by: *Calendars*.

The following table show the element's attributes **MonthlyCalendarBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-calendar**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.calendar.MonthlyCalendarBuil**
name	required	Calendar name. Used in associations with Triggers and other Calendars. The attribute's value can't be null.
excludedDays	required	Define the list of days excluded. The list size must be lower or equal 31. The values are mapped to days index starting from 1 to 31. Ex: to exclude 1th and 10th day of the month set "1,10" The attribute's value can't be null.
timeZone	optional	Calendar TimeZone. If not defined is used the TimeZone defined for DateUtils. The attribute's value can't be null.
baseCalendarName	optional	Set a new base calendar. The configured Calendars are instantiated in configuration order, so the Calendars whith baseCalendarName set MUST be defined AFTER the referenced Calendar.

The attribute's value can't be null.

NextAction

`(Description?, (GVBufferCondition | ExceptionCondition | JavaScriptCondition | IdentityCondition))`

Action to be executed after the invocation of GreenVulcanoESB.
If any condition is checked does the following Action: if output is Exception -> 'rollback-exit'
if output is GVBuffer -> 'commit-continue'

The **NextAction** Element is used by: *ServiceCallerTask*.

The following table show the element's attributes **NextAction**:

Attribute	Tyte	Description
action	required	The action to execute if the condition is verified.
		The attribute's admitted values are: • **commit-continue** • **rollback-exit** • **commit-exit** • **rollback-continue**
		The attribute's value can't be null.

NMDC

`(NMDCEntry*)`

Defines extra Log4J NMDC values.

The **NMDC** Element is used by: *Log4JNotification*.

NMDCEntry

`(Description?)`

Extra Log4J NMDC value.

The **NMDCEntry** Element is used by: *NMDC*.

The following table show the element's attributes **NMDCEntry**:

Attribute	Tyte	Description
name	required	NMDC entry name.
		The attribute's value can't be null.
value	required	NMDC entry value. Can contains dynamic parameters. The possible parameters for a GVBuffer object are: - for standard fields, the field name - ${system} -

${service} - ${id} - ${retCode} - for properties: -
${property['PROP_NAME']]} The possible parameters
for an Exception object are: - ${message} - ${cause} -
${errorCode} (only for exception of type GVException)

All metadata are written in accordance with the above
format.
If an error occurs the metadata will not be replaced.

The attribute's value can't be null.

OGNLScript
(#PCDATA)

The content defines a OGNL script.
This script is applied to the current GVBuffer object.
Within a node ChangeGVBuffer is "injected" into the variable 'Environment', the current
environment, ie a map containing all the GVBuffer / exceptions specified in the various
parameters of input / output nodes of flow in execution.

#Icon: default.png

The element value can't be null.

The **OGNLScript** Element is used by: *ChangeGVBuffer*, *ognl-script-call*.

ognl-script-call
(Description?, OGNLScript)

VCL Operation useful to execute OGNL scripts on GVBuffer instances.

The **ognl-script-call** Element is used by: *ognl-script-service*.

The following table show the element's attributes **ognl-script-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.OGNLCallOperation**.
name	required	Operation identifier. The attribute's value can't be null.

ognl-script-service

`(Description?, ognl-script-call)`

Internal service useful to execute OGNL scripts on GVBuffer instances.

The **ognl-script-service** Element is used by: *InputServices*, *OutputServices*.

The following table show the element's attributes **ognl-script-service**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **service**.
internal	fixed	Unmodifiable. This attribute *must* assume the value **yes**.
critical	optional	Define if the service is critical. A critical service failure mark the entire communication as failed. The attribute's default value is: **yes**. The attribute's admitted values are: • **yes** • **no**

openspcoop-call

`(Description?)`

OPENSPCOOP plugin.

#Icon: GVopenspcoopCall.png #Category: Custom

The **openspcoop-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **openspcoop-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.openspcoop.OpenSpCoopCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

locationPD	required	locationPD openspcoop.
username	required	username openspcoop.
password	required	password openspcoop.
url	required	url openspcoop.
comando	required	Operazione di openspcoop da invocare.

The attribute's admitted values are:
- **deleteAllMessages**
- **deleteMessage**
- **deleteMessageByReference**
- **getAllMessagesId**
- **getAllMessagesIdByService**
- **getMessage**
- **getMessageByReference**
- **getNextMessagesId**
- **getNextMessagesIdByService**
- **invocazionePortaDelegata**
- **invocazionePortaDelegataPerRiferimento**
- **sendRichiestaStatoAsincronaAsimmetrica**
- **sendRispostaAsincronaSimmetrica**

tipoDestinatario	required	tipoDestinatario openspcoop.
destinatario	required	tipoDestinatario openspcoop.
		destinatario openspcoop.
tipoServizio	required	tipoServizio openspcoop.
servizio	required	servizio openspcoop.
azione	required	azione openspcoop.
idCorrelazioneApplicativa	optional	idCorrelazioneApplicativa openspcoop.

This idCorrelazioneApplicativa can be static or may contain placeholders that are replaced at runtime.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql

statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource
The 'sep' parameter defaults to comma 12 - ognl{{script}} : evaluate a OGNL script

If this attribute is not present, the command is executed within the current working directory.

The attribute's value can't be null.

nomeServizioApplicativo	optional	nomeServizioApplicativo openspcoop.
riferimentoMessaggio	optional	riferimentoMessaggio openspcoop.
idMessaggio	optional	idMessaggio openspcoop.

This idMessaggio can be static or may contain placeholders that are replaced at runtime.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource
11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource
The 'sep' parameter defaults to comma 12 - ognl{{script}} : evaluate a OGNL script

If this attribute is not present, the command is executed within the current working directory.

The attribute's value can't be null.

counter	optional	counter openspcoop.
offset	optional	offset openspcoop.
imbustamento	optional	imbustamento openspcoop.

Operation

`(Description?, Conditions?, Participant*, Flow, SubFlow*, OperationManagement?)`

Defines an operational workflow of GreenVulcanoESB.
Each workflow is identified by a couple <service,operation> and is made instantiating a 'Flow', with VCL operations of one or more participating systems ('Participant' selected from those defined in the 'Systems').

The operations you can configure are:

- Forward
- GetReply
- GetRequest
- Request
- RequestReply
- SendReply

And correspond (apart from the Forward) to the communication primitives of GreenVulcanoESB.
The Forward workflows are driven by the internal mechanisms of GreenVulcanoESB to complete transactions that do not require assistance from external systems

You can enable some consistency check on the data passed on GreenVulcanoESB.

Using the sub-element 'Conditions' can be (re)defined the conditions for possible use in the workflow routing.

#SortChild

#Icon: operation.png

The **Operation** Element is used by: *Service*.

The following table show the element's attributes **Operation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **operation**.
name	required	Operation's name. Corresponds to a GreenVulcanoESB communication primitive or a forward. In the case of a forward, then you must also specify the parameter 'forward-name'. The attribute's admitted values are: • **RequestReply** • **Request** • **GetReply** • **GetRequest** • **SendReply** • **Forward** The attribute's value can't be null.

forward-name	optional	Forward's name.
		Must be specified only if you are setting up a workflow for a forward.
		Must not be specified for the GreenVulcanoESB communication primitive.
		The attribute's value can't be null.
out-check-type	required	Enable a consistency check of GVBuffer.
		It can take three values:

		• **none**: does not make any check.
		• **sys-svc**: fields 'system' and 'service' the result should take the
		    taking the same values in the input buffer.
		• **sys-svc-id**: fields 'system', 'service' and 'id' of the result must
		    assume the same values that assumed in the input buffer.
		    This setting should not be used in transactions with semantics 'GetRequest'.

		The attribute's admitted values are: • **none** • **sys-svc** • **sys-svc-id**
operation-activation	optional	Activation status of the current service operation.
		The state can take two values:
		• **on**: the operation is active. • **off**: the operation is not active.
		The attribute's default value is: **on**.
		The attribute's admitted values are: • **on** • **off**

OperationManagement

`(Description?, FailureAction?, EnableAction?, DisableAction?)`

Defines actions to perform on the domain against the following events: - FailureAction -> useful to disable a component (ejb, mdb) against a configurable rate of errors.
- EnableAction -> useful to enable a component (ejb, mdb) against the enabling of the operation or service.
- DisableAction -> useful to disable a component (ejb, mdb) against the disabling of the operation or service.

The **OperationManagement** Element is used by: *Operation*.

OutputData

`(Description?)`

Defines options for saving the output data on file.

The **OutputData** Element is used by: *ServiceCallerTask*.

The following table show the element's attributes **OutputData**:

Attribute	Tyte	Description
output-directory	required	The path of the directory containing the file (s) that will save the body of GVBuffer output of the service performed. The attribute's value can't be null.
output-policy	required	This attribute defines the way in which you saved the output of the service. In the case of 'create' the output of the service will be stored on a single file whose name is that of the task. The file will be overwritten each time the service is invoked. Es: 'Taskname'.xxxx If 'append' the output of the service will be stored on a single file whose name is that of the task: each invocation of the service, the data will be appended to the file. In the case of 'create-new' output of the service saved to separate files whose name is given the name of the task followed by the date/time in format dd-MM-yyyy-hh-mm-ss-SSS. Es: 'Taskname'-01-01-2010-10-45-05-234.xxxx The attribute's admitted values are: • **create** • **append** • **create-new** The attribute's value can't be null.
output-type	required	This attribute defines the data type of output that will be saved. In the case of 'body' will be saved the contents of the body GVBuffer, as defined in the parameter 'output-policy': the file extension is '.dat'. In case of 'dump' will be made a dump of all GVBuffer, including property, as defined in the parameter 'output-policy': the file extension is '.dump'. In the case of 'both' will save the body and the dump of GVBuffer. The attribute's admitted values are: • **body** • **dump** • **both** The attribute's value can't be null.

OutputServices

`(Description?, (gvdte-service | xml-validation-service | ognl-script-service)+)`

After doing any communication you can run an ordered list of output services.
This section allows the definition of output services for the current communication operation.

The current version of GreenVulcanoESB provides the following services: - Data Transformation - XML Validation - OGNL Scripting

#Icon: default.png

The **OutputServices** Element is used by: *ChangeGVBufferNode*, *GVIteratorOperationNode*, *GVOperationNode*.

OverWriteBytesTransformation

`(Description?, TransformationAlias*)`

Defines an overwrite bytes trasformation.

#Icon: GVOverwriteBytesTransformation.png

The **OverWriteBytesTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **OverWriteBytesTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.bin2bin.OverWriteBytesTra**
name	required	Transformation name. The attribute's value can't be null.
Offset	required	Offset from wich start the overwrite. The attribute's value can't be null.
Bytes	required	Hex representation of the bytes to overwrite. Every byte is coded with 2 hex char, and the bytes are comma separated. The attribute's value can't be null.

Param

`(Description?)`

This element defines the parameter to be solved according to an XPath expression applied to the body of GVBuffer.

#Icon: default.png

The **Param** Element is used by: *XPathParamResolver*.

The following table show the element's attributes **Param**:

Attribute	Tyte	Description
XPath	required	This attribute defines the XPath applied to the body of GVBuffer. The attribute's value can't be null.
position	required	This attribute defines the position parameter has in the statement. The attribute's value can't be null.
type	required	This attribute defines the type of the parameter. The attribute's admitted values are: • **string** • **int** • **long** • **float** • **date** • **binary** • **blob** • **clob**
format	optional	This attribute lets you configure the date format in the event that has been defined type = 'date'. The attribute's value can't be null.

parameter

`(Description?)`

Specify a constructor parameter.

The **parameter** Element is used by: *spec-constructor*.

The following table show the element's attributes **parameter**:

Attribute	Tyte	Description
type	required	Parameter type. Only supports simple types. The attribute's admitted values are: • **byte** • **boolean** • **char** • **double** • **float**

- **int**
- **long**
- **short**
- **String**

value	required	Parameter value.
		The attribute's admitted values are:
		• **true**
		• **false**

param-gvbuffer

`(Description?, property*)`

This feature allows you to set some fields GVBuffer output with the output values of the EIS.

Can only be used if the output of the EIS is in XML format.

The **param-gvbuffer** Element is used by: *j2ee-jca-call*.

The following table show the element's attributes **param-gvbuffer**:

Attribute	Tyte	Description
xpath-retCode	optional	Specifies an XPath expression to be applied to EIS output XML to select the return code set in the output GVBuffer.
		The attribute's value can't be null.

ParamJbpm

`(Description?)`

The **ParamJbpm** Element is used by: *ParamsJbpm*.

The following table show the element's attributes **ParamJbpm**:

Attribute	Tyte	Description
name	required	Parameter name.
expression	required	ognl expression.

ParamResolver

`(Description?, (XPathParamResolver | GVBufferParamResolver))`

This element represents the type of a resolver to use to solve the parameters included in the statement.

#Icon: default.png

The **ParamResolver** Element is used by: *ParamResolvers*.

ParamResolvers

(ParamResolver+)

This element contains the list of Resolver used to resolve the parameters included in the statement.
Resolvers are applied in sequence, the order of definition, and can be of different types.

#Icon: default.png

The **ParamResolvers** Element is used by: *Statement*.

ParamsJbpm

(ParamJbpm*, Description?)

The **ParamsJbpm** Element is used by: *jbpm-call*.

ParamsTask

(Description?)

The **ParamsTask** Element is used by: *jbpm-task-call*.

The following table show the element's attributes **ParamsTask**:

Attribute	Tyte	Description
name	required	Parameter name.
expression	required	ognl expression.

Participant

(Description?)

The element 'Participant' denotes a system and its channel by which participates in the implementation of the workflow.

#Icon: default.png

The **Participant** Element is used by: *Operation*.

The following table show the element's attributes **Participant**:

Attribute	Tyte	Description
id-system	required	Identifies a system configured in the 'Systems' section as a workflow participant. The attribute's value can't be null.

id-channel	required	Specifies the channel to which the system participates. The operations used in the workflow can only be selected by this channel.
		The attribute's value can't be null.

Persistence

`(Description?, SequenceSQL)`

The **Persistence** Element is used by: *GVServices*.

The following table show the element's attributes **Persistence**:

Attribute	Tyte	Description
jdbc-connection-name	required	#Icon: default.png
		The attribute's value can't be null.
enabled	required	#Icon: default.png
		The attribute's admitted values are: **true** **false**
		The attribute's value can't be null.

PolicyData

`(#PCDATA)`

This element is an XML that describes the policies for a specific.
Currently it is used only for the WS-Security implemented by the module 'rampart'.

Below is an example of policy to be included on the module 'rampart':

<wsp:Policy wsu:Id="UTOverTransport" xmlns:wsu="http://docs.oasis-open.org/ wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" xmlns:wsp="http:// schemas.xmlsoap.org/ws/2004/09/policy"> <wsp:ExactlyOne> <wsp:All> <sp:TransportBinding xmlns:sp="http://schemas.xmlsoap.org/ws/2005/07/securitypolicy"> <wsp:Policy> <sp:TransportToken> <wsp:Policy> <sp:HttpsToken RequireClientCertificate="false"/> </wsp:Policy> </sp:TransportToken> <sp:AlgorithmSuite> <wsp:Policy> <sp:Basic256/> </wsp:Policy> </sp:AlgorithmSuite> <sp:Layout> <wsp:Policy> <sp:Lax/> </wsp:Policy> </sp:Layout> <sp:IncludeTimestamp/ > </wsp:Policy> </sp:TransportBinding> <sp:SignedSupportingTokens xmlns:sp="http:// schemas.xmlsoap.org/ws/2005/07/securitypolicy"> <wsp:Policy> <sp:UsernameToken sp:IncludeToken="http://schemas.xmlsoap.org/ws/2005/07/securitypolicy/IncludeToken/ AlwaysToRecipient" /> </wsp:Policy> </sp:SignedSupportingTokens>

<ramp:RampartConfig xmlns:ramp="http://ws.apache.org/rampart/policy"> <ramp:user>alice</ramp:user>

<ramp:passwordCallbackClass>org.apache.rampart.samples.policy.sample01.PWCBHandler</ramp:passwordCallbackClass> </ramp:RampartConfig>

</wsp:All> </wsp:ExactlyOne> </wsp:Policy>

The **PolicyData** Element is used by: *EngageModule*.

The following table show the element's attributes **PolicyData**:

Attribute	Tyte	Description
policy_key	required	Defines the key to set the policy for the service invocation. The attribute's admitted values are: • **rampartPolicy** The attribute's value can't be null.

pop-call

(Description?, JNDIHelper?, mail-properties?)

Plugin for receiving emails.

#Icon: GVPopCall.png #Category: Web/Mail

The **pop-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **pop-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.pop.POPCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
jndi-name	required	JNDI name of the mail Session configured in teh application server. The attribute's value can't be null.
override-protocol-host	optional	Corresponds to the property mail.protocol.host and overwrites the value of property mail.host specified in the configuration of the mail Session. The attribute's value can't be null.

override-protocol-user	optional	Corresponds to the property mail.protocol.user and overwrites the value of property mail.user specified in the configuration of the mail Session. The attribute's value can't be null.

delete-messages	optional	Mark a processed message as DELETED.
		Default false.
		
		The attribute's admitted values are:
		   • **true**
		   • **false**
		
		The attribute's value can't be null.

expunge	optional	Expunge (permanently remove) messages marked DELETED.
		Default false.
		
		The attribute's admitted values are:
		   • **true**
		   • **false**
		
		The attribute's value can't be null.

email-rx-cleaner	optional	RegExp pattern for email address cleaning. Default "[A-z][A-z0-9_]*([.][A-z0-9_]+)*[@][A-z0-9_]+([.][A-z0-9_]+)*[.][A-z]{2,4}". The attribute's value can't be null.

Preload

`(Description?)`

Define a transformation to preload.

The **Preload** Element is used by: *ToPreload*.

The following table show the element's attributes **Preload**:

Attribute	Tyte	Description
Transformation	required	Name of the trasformation to preload.

prep-statement

`(#PCDATA)`

Preparation statement for Excel report generation.
Are executed after the report statement.
Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat

'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.

The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 11 - sqllist{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a comma separated list.

The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script

The **prep-statement** Element is used by: *Sheet*.

The following table show the element's attributes **prep-statement**:

Attribute	Tyte	Description
type	required	Must be:
		Excel Sheet : insert|update|callsp
		The attribute's admitted values are:
		• **select**
		• **insert**
		• **update**
		• **callsp**
		The attribute's value can't be null.
id	optional	The attribute's value can't be null.

property

`(Description?)`

Specifies an XPath expression to be applied to EIS output XML to select the value of a propery to set in the output GVBuffer.

The **property** Element is used by: *param-gvbuffer*.

The following table show the element's attributes **property**:

Attribute	Tyte	Description
name	required	Name of property to set on output GVBuffer.
		The attribute's value can't be null.
xpath	required	Specifies an XPath expression to be applied to EIS output XML to select the value of a propery to set in the output GVBuffer.

The attribute's value can't be null.

default	optional	Specifies a default value to use in case the XPath does not select any value.
		If not specified, if the XPath does not identify any value, the field will not be set.

Property
(Description?, RangeDef*)

This element verifies that a property takes a certain value.
The attribute 'value' and the elements RangeDef can not be defined together.
If the attribute 'value' and the RangeDef elements are not specified is only tested for the presence of the property.

The **Property** Element is used by: *GVBufferCondition*.

The following table show the element's attributes **Property**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **gvbuffer-field**.
name	required	This attribute defines the name of the property to check. The attribute's value can't be null.
value-type	optional	This attribute defines the type of expected value. The attribute's admitted values are: • **text** • **integer** The attribute's value can't be null.
value	optional	This attribute defines the expected value.
operator	optional	This attribute defines the type of operator to use. The attribute's admitted values are: • **equal** • **lesser** • **lesser-equal** • **greater** • **greater-equal** • **different** The attribute's value can't be null.
group	optional	This attribute defines the set of fields to check in AND. The attribute's value can't be null.

PropertyCompare

`(Description?)`

This element compares the value of two properties.

#CompositeLabel: ||@name-a|<==>|@name-b

The **PropertyCompare** Element is used by: *GVBufferCondition*.

The following table show the element's attributes **PropertyCompare**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **gvbuffer-field**.
name-a	required	This attribute defines the name of the first property to check. The attribute's value can't be null.
name-b	required	This attribute defines the name of the second property to check. The attribute's value can't be null.
value-type	optional	This attribute defines the type of expected value. The attribute's admitted values are: • **text** • **integer** The attribute's value can't be null.
operator	optional	This attribute defines the type of operator to use. The attribute's admitted values are: • **equal** • **lesser** • **lesser-equal** • **greater** • **greater-equal** • **different** The attribute's value can't be null.
group	optional	This attribute defines the set of fields to check in AND. The attribute's value can't be null.

PropertyDef

`(Description)?`

Defines a property to set in GVBuffer.
Is used in 'ChangeGVBuffer' and 'SavePoint'.

The **PropertyDef** Element is used by: *ChangeGVBuffer*, *JbProperties*, *SpProperties*, *TgProperties*.

The following table show the element's attributes **PropertyDef**:

Attribute	Tyte	Description
name	required	Property name.
		The attribute's value can't be null.
value	required	Property value.
		Can contains the following metadata: 1 - fixed : a text string; 2 - %{{class}} : the obj class name; 3 - %{{fqclass}} : the obj fully qualified class name; 4 - %{{package}} : the obj package name; 5 - ${{propname}} : a System property name; 6 - sp{{propname}} : a System property name; 7 - @{{propname}} : a inProperties property name; 8 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 9 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 10 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 11 - decodeL{{sep::field[::cond1::val1] [::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 12 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 13 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 14 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list. The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 15 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML. The 'conn' parameter is the JNDI name of a DataSource 16 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)
overwrite-body	optional	If "yes" the GVBuffer body is overwitten with the GVBuffer's property value or with the current property value, or is set to null.
		The body overwrite is execute prior of 'compress', 'crypto' o 'base64' operations.
		WARNING!!!!!!! The 'clear-data' operation is still performed invalidating the body overwriting.
		The attribute's admitted values are: • **yes** • **no**

PropertyFilter

`(Description)?`

Lets you specify a condition on a property the received message must meet.

Can constrain the property to a fixed constant, or require that the property is the same as the request.

You can specify multiple instances of PropertyFilter to work on different fields.

The **PropertyFilter** Element is used by: *DequeueFilter*.

The following table show the element's attributes **PropertyFilter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **filter**.
name	fixed	Unmodifiable. This attribute *must* assume the value **PropertyFilter**.
enabled	required	Specifies whether the filter is active or not. Can be used to disable the filter temporarily without deleting it from the configuration. The attribute's admitted values are: • **yes** • **no** The attribute's value can't be null.
use-input	required	If 'yes' then requires that the property of the received message has the same value of the property of the request. If 'no' then requires that the property of the received message has the value specified by 'value'. The attribute's admitted values are: • **yes** • **no** The attribute's value can't be null.
property	required	Name of property to which to apply the filter. The name of the property used on the filter will be prefixed with the string 'p$'. The attribute's value can't be null.
value	optional	Property value of the received message. Meaningful only if 'use-input' is set to 'no'.

Proxy

`(Description?)`

Proxy configuration.

The **Proxy** Element is used by: *endpoint*, *ws-call*.

The following table show the element's attributes **Proxy**:

Attribute	Tyte	Description
host	required	Proxy server IP or name.
		The attribute's value can't be null.
port	optional	Proxy server port. Default: 80
		The attribute's value can't be null.
user	optional	User name.
		The attribute's value can't be null.
password	optional	User password.
		#Encrypted
		The attribute's value can't be null.

proxy-call

`(Description?, ServiceAlias?)`

Operation useful as a proxy to other Call operation.

The **proxy-call** Element is used by: *GVIteratorOperationNode*.

The following table show the element's attributes **proxy-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.ProxyCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.
		The attribute's value can't be null.
id-system	required	System providing the Call operation to call.
		The attribute's value can't be null.
id-channel	required	System's channel.

		The attribute's value can't be null.
operation	required	Channel's Call operation.
		The attribute's value can't be null.

proxy-enqueue

(Description?, ServiceAlias?)

Operation useful as a proxy to other Enqueue operation.

The **proxy-enqueue** Element is used by: *GVIteratorOperationNode*.

The following table show the element's attributes **proxy-enqueue**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **enqueue**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.ProxyEnqueueOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
id-system	required	System providing the Call operation to call. The attribute's value can't be null.
id-channel	required	System's channel. The attribute's value can't be null.
operation	required	Channel's Enqueue operation. The attribute's value can't be null.

QueryFormatter

(Description?, (QueryXMLBaseFormatter))

This element represents the formatter of an SQL query.

#Icon: default.png

The **QueryFormatter** Element is used by: *ResultSet*.

The following table show the element's attributes **QueryFormatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **formatter**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.formatter.QueryFormatter**.
success	required	This attribute defines the return value from SQL query execution if successfully completed. The attribute's value can't be null.
failure	required	The attribute defines the return value from SQL query if the execution ended with error. The attribute's value can't be null.

QueryXMLBaseFormatter

`(Description?)`

This element defines the formatter of an SQL query based on XML.

#Icon: default.png

The **QueryXMLBaseFormatter** Element is used by: *QueryFormatter*.

The following table show the element's attributes **QueryXMLBaseFormatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **base_formatter**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.formatter.base.QueryXMLBaseFormatter**.
encoding	optional	This element defines the encoding to use for the XML document that wraps the query result. The attribute's admitted values are: • **US-ASCII** • **ISO-8859-1** • **ISO-8859-15** • **ISO-LATIN-1** • **UTF-8** • **UTF-16BE** • **UTF-16LE** • **UTF-16**

		The attribute's value can't be null.
stylesheet	optional	This element defines the stylesheet to use for the XML document that wraps the query result.
		The attribute's value can't be null.
structure	optional	This element defines the structure of the XML document that wraps the query result.

• ONLY_DATA Inserts the XML document only the output of the query.
• METADATA_AND_DATA Inserts the XML document the query output,
plus some information about DB objects (table, fields)

The attribute's default value is:
METADATA_AND_DATA.

The attribute's admitted values are:
• **ONLY_DATA**
• **METADATA_AND_DATA**

RamStore

`(Description?)`

Scheduler state holder in RAM.
IS NOT CLUSTER-AWARE!!!

The **RamStore** Element is used by: *GVSchedulerBuilder*.

The following table show the element's attributes **RamStore**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **quartz-store**.
misfireThreshold	optional	The the number of milliseconds the scheduler will 'tolerate' a trigger to pass its next-fire-time by, before being considered "misfired". The default value is 60000 (60 seconds). The attribute's value can't be null.

RangeDef

`(Description)?`

This element specifies a range of values.

The **RangeDef** Element is used by: *Property*, *RetCodeField*.

The following table show the element's attributes **RangeDef**:

Attribute	Tyte	Description
min	optional	This attribute defines the minimum value of the range. If not specified, assumes 'the minimum allowable value'. The attribute's value can't be null.
max	optional	This attribute defines the maximum value of the range. If not specified, assumes 'the maximum allowable value'. The attribute's value can't be null.

RemoteCommands

```
(RemoteSearchCommand | RemoteMoveCommand | RemoteDeleteCommand |
RemoteDownloadCommand | RemoteUploadCommand)+
```

The sequence of FTP operations to be carried out.
The operations will be performed in the order they were configured.
An error in one of the operation marked as critical will terminate the execution of the entire sequence of operations.

The **RemoteCommands** Element is used by: *remotemanager-call*.

RemoteDeleteCommand

```
(Description?)
```

Deleting a file/directory.
Both the file name and the directory can be static or contain placeholders that are replaced at runtime.

After the replacement of the placeholder, the value of the 'filename' may contain a regular expression, in which case, will erase all files in the specified directory whose name is consistent with the corresponding pattern.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **RemoteDeleteCommand** Element is used by: *RemoteCommands*.

The following table show the element's attributes **RemoteDeleteCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.remote.command.GVDelete**.
targetPath	required	Absolute path of the file/directory to remove. The attribute's value can't be null.
filePattern	optional	File name to remove. Can be a regular espression. Is used only if targetPath is a directory, and if empty the filter is ignored.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

RemoteDownloadCommand

`(Description?)`

Download file / directory from remote directory and saved in the local directory you specified (or in GVBuffer).

File names and directories can be static or contain placeholders that are replaced at runtime.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be

a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **RemoteDownloadCommand** Element is used by: *RemoteCommands*.

The following table show the element's attributes **RemoteDownloadCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.remote.command.GVDownload**.
remotePath	required	Pathname of remote directory containing the file to download. It can be an absolute pathname or relative, in the second case it is relative to home directory of ftp user. The attribute's value can't be null.
remoteFilePattern	required	The name of the file to download. The attribute's value can't be null.
toGVBufferExpression	optional	GVBuffer OGNL expression used to specify how to handle the current downloaded file. In the expression, the downloaded file will be referenced by the variable #input, and will be a byte []. The attribute's value can't be null.
targetPath	optional	Pathname of the local directory to save the downloaded file. Must be an absolute pathname. The attribute's value can't be null.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are: • **true** • **false**

RemoteFileSystemMonitor

```
(Description?, (InMemoryMonitorStatus | FileMonitorStatus), FileFilter,
ResultFilter, (FTPManager | SFTPManager))
```

Configure a RemoteFileSystemMonitor instance, to be used to monitor a remote file system directory.

The **RemoteFileSystemMonitor** Element is used by: *fsmonitor-call*.

The following table show the element's attributes **RemoteFileSystemMonitor**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **fs-monitor**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.util.file.monitor.RemoteFileSystemMonitor**.
path	required	Absolute path to monitor on local file system. Can contains placeholders which will be replaced at runtime. The attribute's value can't be null.

remotemanager-call

```
(Description?, (FTPManager | SFTPManager), RemoteCommands?)
```

This plug-in allows you to perform a sequence of file operations in a remote file system accessible via an (S)FTP account.
The operations allowed are: - Download a file/directory from a remote directory to a local directory - Upload a file/directory from a local directory to a remote directory - Control of one or more files (whose name corresponds to a date regular expressions) in a remote directory - Deleting a file/directory from a remote directory - Rename/move a file/directory in a remote directory

#Icon: GVRemoteManager.png #Category: File

The **remotemanager-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **remotemanager-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.remote.RemoteManagerCall**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.
		The attribute's value can't be null.

RemoteMoveCommand

`(Description?)`

Move/rename a file/directory.
The file name, the source and destination directory names can be static or contain placeholders that are replaced at runtime.

After the replacement of the placeholder, the value of the 'filename' may contain a regular expression, in which case, all files of the source directory, whose name is in accordance with the corresponding pattern will be moved to the destination directory.
If the destination directory already contains files with the same name, they will be overwritten.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **RemoteMoveCommand** Element is used by: *RemoteCommands*.

The following table show the element's attributes **RemoteMoveCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.remote.command.GVMove**.
targetPath	required	Absolute path of the file/directory where is the file to move. The attribute's value can't be null.
oldName	required	File name to move.
newName	required	File name moved.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

RemoteSearchCommand

`(Description?)`

Check if one or more files, whose name conforms to a given regular expression, exists within the specified directory.

On completion of and in the absence of errors are set the following properties of output GVBuffer:

1) GVRM_FOUND_FILES_NUM Number of files found (>= 0)

2) GVRM_FOUND_FILES_LIST List of names of found files, separated by ';'.
Set only if the value of field 'GVRM_FOUND_FILES_NUM' is greater than 0.

Both the pattern of the file and that the directory can be static or contain placeholders that are replaced at runtime.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using

the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **RemoteSearchCommand** Element is used by: *RemoteCommands*.

The following table show the element's attributes **RemoteSearchCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.remote.command.GVSearch**.
sourcePath	required	Absolute path of the directory to search in. The attribute's value can't be null.
filePattern	required	File name to search for. Can be a regular espression. The attribute's value can't be null.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

RemoteUploadCommand

`(Description?)`

Upload a file from local directory (or GVBuffer) to the remote directory specified.
File names and directories can be static or contain placeholders that are replaced at runtime.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat

'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

The **RemoteUploadCommand** Element is used by: *RemoteCommands*.

The following table show the element's attributes **RemoteUploadCommand**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-command**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.file.remote.command.GVUpload**.
sourcePath	optional	Pathname of the local directory where the file is transferred. Must be an absolute pathname. The attribute's value can't be null.
sourceFilePattern	optional	The name of the file to transfer. The attribute's value can't be null.
fromGVBufferExpression	optional	Expression OGNL apply to current GVBuffer that specifies how to building the file content. In the expression, the GVBuffer is associated with #object, and must return a byte[]. The attribute's value can't be null.
remotePath	required	Pathname of remote directory where upload the file. It can be an absolute pathname or relative, in the second case it is relative to home directory of ftp user. The attribute's value can't be null.
isCritical	optional	If true an internal error interrupt the command sequence. Default true. The attribute's admitted values are:

- **true**
- **false**

The attribute's value can't be null.

ResultFilter

`EMPTY`

Filter the information in AnalysisReport generated from a FileSystemMonitor.

The **ResultFilter** Element is used by: *LocalFileSystemMonitor*, *RemoteFileSystemMonitor*.

The following table show the element's attributes **ResultFilter**:

Attribute	Tyte	Description
existing	required	The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
created	required	The attribute's admitted values are: • **false** • **true** The attribute's value can't be null.
modified	required	The attribute's admitted values are: • **false** • **true** The attribute's value can't be null.
deleted	required	The attribute's admitted values are: • **false** • **true** The attribute's value can't be null.
sort-mode	required	The attribute's admitted values are: • **by-name** • **by-time** The attribute's value can't be null.
sort-ascending	required	The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

ResultSet

```
(Description?, (Simpleformatter | DMLWriteFormatter | CallSPFormatter |
QueryFormatter))
```

#Icon: default.png

The **ResultSet** Element is used by: *DBOperations*.

The following table show the element's attributes **ResultSet**:

Attribute	Tyte	Description
rsType	optional	This attribute defines the type of result set: • **TYPE_FORWARD_ONLY** : indicating the type for a ResultSet object whose cursor may move only forward • **TYPE_SCROLL_INSENSITIVE** : indicating the type for a ResultSet object that is scrollable but generally not sensitive to changes to the data that underlies the ResultSet • **TYPE_SCROLL_SENSITIVE** : indicating the type for a ResultSet object that is scrollable and generally sensitive to changes to the data that underlies the ResultSet Default : TYPE_FORWARD_ONLY The attribute's admitted values are: • **TYPE_FORWARD_ONLY** • **TYPE_SCROLL_INSENSITIVE** • **TYPE_SCROLL_SENSITIVE**
rsConcurrency	optional	This attribute defines the access to the result set: • **CONCUR_READ_ONLY** : indicating the concurrency mode for a ResultSet object that may NOT be updated. • **CONCUR_UPDATABLE** : indicating the concurrency mode for a ResultSet object that may be updated. Default : CONCUR_READ_ONLY The attribute's admitted values are: • **CONCUR_READ_ONLY** • **CONCUR_UPDATABLE**
rsHoldability	optional	This attribute defines the opening and closing of cursors: • **HOLD_CURSORS_OVER_COMMIT** : indicating that open ResultSet objects with this holdability will remain open when the current transaction is commited • **CLOSE_CURSORS_AT_COMMIT** : indicating that open ResultSet objects with this holdability will be closed when the current transaction is commited Default : HOLD_CURSORS_OVER_COMMIT The attribute's admitted values are: • **HOLD_CURSORS_OVER_COMMIT** • **CLOSE_CURSORS_AT_COMMIT**

RetCodeField

`(Description?, RangeDef+)`

This element verifies that the return code is in a certain range of values.
You can specify multiple ranges. The condition is verified if the return code is at least in one of configured ranges.

The **RetCodeField** Element is used by: *GVBufferCondition*.

The following table show the element's attributes **RetCodeField**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **gvbuffer-field**.
name	fixed	Questo attributo definisce il nome del campo return code. This attribute *must* assume the value **RetCodeField**.

RetCodeFilter

`(Description)?`

Lets you specify a condition on the return code field the received message must meet.

Through attributes 'min' and 'max' you can specify a range of allowable values for the return code.

You can specify only one active instance of RetCodeFilter.

The **RetCodeFilter** Element is used by: *DequeueFilter*.

The following table show the element's attributes **RetCodeFilter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **filter**.
name	fixed	Unmodifiable. This attribute *must* assume the value **RetCodeFilter**.
use-input	fixed	Unmodifiable. This attribute *must* assume the value **no**.
enabled	required	Specifies whether the filter is active or not. Can be used to disable the filter temporarily without deleting it from the configuration. The attribute's admitted values are:

		• **yes** • **no**
		The attribute's value can't be null.
min	optional	Specifies the minimum acceptable value for the return code field.
		The attribute's value can't be null.
max	optional	Specifies the maximum acceptable value for the return code field.
		The attribute's value can't be null.

RetrieverConfig

`(Description?, GenericRetriever?, TableRetriever?, JavaScriptRetriever?)`

Allows you to define helper for use in DataHandler data transformations.

The **RetrieverConfig** Element is used by: *dh-call*.

Role

`(Description?)`

Defines a policy role.

#Icon: GVRole.png

The **Role** Element is used by: *Roles*.

The following table show the element's attributes **Role**:

Attribute	Tyte	Description
name	required	Role name.
		The attribute's value can't be null.

RoleRef

`(Description?)`

Defines an ACL role reference.

#Icon: GVRole.png

The **RoleRef** Element is used by: *ACL*.

The following table show the element's attributes **RoleRef**:

Attribute	Tyte	Description
name	required	Role name.

Roles

`(Role*)`

Defines the roles to be used in ACL configuration.

The **Roles** Element is used by: *GVPolicy*.

routed-call

```
(Description?, GVBufferCondition+, (j2ee-ejb-call | j2ee-jca-call | jmx-call |
smtp-call | pop-call | ws-call | http-call | hl7-call | jbpm-call | jbpm-task-
call | openspcoop-call | db-call | dh-call | ldap-search-call | ldap-update-call |
extract-data-call | routed-call | excel-call | excelreader-call | birt-report-call
| rules-call | test-service-call | generic-call | shell-call | filereader-call |
filewriter-call | filemanager-call | fsmonitor-call | remotemanager-call | rsh-call
| rsh-filereader-call | rsh-filewriter-call | mm7-decode-call | mm7-submit-call)+,
VCLRouting+, ServiceAlias?)
```

Used to make a routing mechanism at the level of communication channel, based on some conditions applied to the buffer GVBuffer.

During the execution of flows, the operation is seen as a simple call.
The implementation of the routed call-check the conditions and invokes a sub-operations accordingly.

To configure a routed-call is necessary:

- defines sub-operations
  Each sub operation is identified by a unique name within the routed-call.
  The sub-operation can be selected are only those of type "call".
- defines routing conditions
  Check the values in GVBuffer fields.
  Each routing condition has a unique name within the routed-call.
- associate routing conditions to operations
  Sub items 'VCLRouting' associate routing conditions with operations.
  The evaluation order is defined by the order of items 'VCLRouting'.
  The sub-operation is performed corresponding to the first condition verified.

#Icon: GVRoutedCall.png #Category: Utils

The **routed-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **routed-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.RoutedCall**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

routed-dequeue

```
(Description?, GVBufferCondition+, (jms-dequeue | routed-dequeue)+, VCLRouting+,
ServiceAlias?)
```

Used to make a routing mechanism at the level of communication channel, based on some conditions applied to the buffer GVBuffer.

During the execution of flows, the operation is seen as a simple dequeue.
The implementation of the routed-dequeue check the conditions and invokes a sub-operations accordingly.

To configure a routed-dequeue is necessary:

- defines sub-operations
  Each sub operation is identified by a unique name within the routed-dequeue.
  The sub-operation can be selected are only those of type "dequeue".
- defines routing conditions
  Check the values in GVBuffer fields.
  Each routing condition has a unique name within the routed-dequeue.
- associate routing conditions to operations
  Sub items 'VCLRouting' associate routing conditions with operations.
  The evaluation order is defined by the order of items 'VCLRouting'.
  The sub-operation is performed corresponding to the first condition verified.

#Icon: GVRoutedDequeueCall.png #Category: JMS

The **routed-dequeue** Element is used by: *Channel*, *routed-dequeue*.

The following table show the element's attributes **routed-dequeue**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **dequeue**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.RoutedDequeue**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.

routed-enqueue

```
(Description?, GVBufferCondition+, (jms-enqueue | routed-enqueue)+, VCLRouting+,
ServiceAlias?)
```

Used to make a routing mechanism at the level of communication channel, based on some conditions applied to the buffer GVBuffer.

During the execution of flows, the operation is seen as a simple enqueue.
The implementation of the routed-enqueue check the conditions and invokes a sub-operations accordingly.

To configure a routed-enqueue is necessary:

- defines sub-operations
  Each sub operation is identified by a unique name within the routed-enqueue.
  The sub-operation can be selected are only those of type "enqueue".
- defines routing conditions
  Check the values in GVBuffer fields.
  Each routing condition has a unique name within the routed-enqueue.
- associate routing conditions to operations
  Sub items 'VCLRouting' associate routing conditions with operations.
  The evaluation order is defined by the order of items 'VCLRouting'.
  The sub-operation is performed corresponding to the first condition verified.

#Icon: GVRoutedEnqueueCall.png #Category: JMS

The **routed-enqueue** Element is used by: *Channel*, *routed-enqueue*.

The following table show the element's attributes **routed-enqueue**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **enqueue**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.RoutedEnqueue**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

rsh-call

```
(Description?, (cmd | cmd-array-elem+), env-property*)
```

Plugin for running a R(emote)SH(ell) command.

#Icon: GVRSHCall.png #Category: File

The **rsh-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **rsh-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.rsh.RemoteShellCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
rsh-client-name	required	RSH client name. The attribute's value can't be null.
directory	optional	Pathname of the directory in which the command is executed. This pathname can be static or may contain placeholders that are replaced at runtime. Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a
DataSource The 'sep' parameter defaults to comma 12 -
sqltable{{conn::statement}} : executes a select sql statement
and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13
- ognl{{script}} : evaluate a OGNL script, the GVBuffer
is added to the context as 'object' (and is also the object on
which execute the script)

If this attribute is not present, the command is executed
within the current (depends on local/remote RSH client
used) working directory.

The attribute's value can't be null.

encoding	optional	The encoding with which encode the output of the command in the body of GVBuffer. If not specified, is used the the 'file.encoding' system property value.
		The attribute's value can't be null.

rsh-filereader-call

(Description?, xml-processor?)

This plug-in reads a file's content, through RSH local/remote service, and saves it in output
GVBuffer 'object' field.
Complete file path is the 'filePathName' attribute value.
The attribute can contain placeholders, that are expanded at plugin call time.
Attribute 'filePathName' is subject to these constraints: - is overridden by
'GVFR_FILE_NAME' property, if present in current GVBuffer.
If property is not defined in GVBuffer, the 'filePathName' attribute in the configuration is used.
An exception is thrown if neither the property nor the attribute in configuration are set.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} :
a System property name; 3 - sp{{propname}} : a System property name; 4 -
@{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current
timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat
'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2]
[cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return
the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2]
[cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be
a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using
the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} :
execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} :
execute a select sql statement sql and return the value of the first field of all selected records
as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma
12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of
returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVRSHFileReader.png #Category: File

The **rsh-filereader-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **rsh-filereader-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.rsh.RemoteFileReaderCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
rsh-client-name	required	RSH client name. The attribute's value can't be null.
filePathName	required	This value can be static or dynamic, containing placeholders that could be replaced at plugin call time. This is a default value, and is used if the property 'GVFR_FILE_NAME' is not defined in the current GVBuffer. The attribute's value can't be null.

rsh-filewriter-call

(Description?)

This plug-in writes the content in the GVBuffer 'object' field into the a file, overwriting the target file if already present, through RSH local/remote service.
Complete file path is the 'filePathName' attribute value.
The attribute can contain placeholders, that are expanded at plugin call time.
Attribute 'filePathName' is subject to these constraints: - is overridden by 'GVFR_FILE_NAME' property, if present in current GVBuffer.
If property is not defined in GVBuffer, the 'filePathName' attribute in the configuration is used.
An exception is thrown if neither the property nor the attribute in configuration are set.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat

'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.

The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.

The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: GVRSHFileWriter.png #Category: File

The **rsh-filewriter-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **rsh-filewriter-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.rsh.RemoteFileWriterCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
rsh-client-name	required	RSH client name. The attribute's value can't be null.
filePathName	required	This value can be static or dynamic, containing placeholders that could be replaced at plugin call time. This is a default value, and is used if the property 'GVFW_FILE_NAME' is not defined in the current GVBuffer. The attribute's value can't be null.

RSHTask
    (Description?, Triggers, JbProperties?, (cmd | cmd-array-elem+), env-property*)

Task that invokes a R(emote)SH(ell) command.

#Icon: GVRSHCall.png

The **RSHTask** Element is used by: *TaskGroup*.

The following table show the element's attributes **RSHTask**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **task**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.rsh.client.scheduler.RSHTask**.
name	required	Task name. The attribute's value can't be null.
rsh-client-name	required	RSH client name. The attribute's value can't be null.
directory	optional	Pathname of the directory in which the command is executed. This pathname can be static or may contain placeholders that are replaced at runtime. Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list. The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 -

sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script

If this attribute is not present, the command is executed within the current (depends on local/remote RSH client used) working directory.

The attribute's value can't be null.

rules-call

(Description?, ServiceAlias?)

Operation to invoke a Rule Engine service.

#Icon: GVRulesCall.png #Category: Utils

The **rules-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **rules-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvrules.virtual.RulesCall**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
ruleSet	required	Reference a Rule set. The attribute's value can't be null.
input-ref-dp	required	Name of Data Provider to be used to prepare the facts to be inserted in the session. This Data Provider (ex. a MapDataProvider) will receive in input a GVBuffer and must return a map of named objects.
globals-ref-dp	optional	Name of Data Provider to be used to prepare the objects to be inserted as Globals in the session. This Data Provider (ex. a MapDataProvider) will receive in input a GVBuffer and must return a map of named objects. If the name of some Globals start with [[OUT]] then those object are inserted in a map and passed as #input to the output-ref-dp Data Provider.
output-ref-dp	optional	Name of Data Provider to use for rules output manipulation.

This Data Provider will receive as context a GVBuffer and as input the rules ExecutionResults or the Globals objects map (see globals-ref-dp) and must return an enriched GVBuffer object.
Ex.a GVBufferChangeDataProvider instance.

If not defined the rules ExecutionResults or the Globals objects map (see globals-ref-dp) are inserted in the output GVBuffer object field.

Script

`(#PCDATA)`

The content defines a JavaScript script.

#Icon: default.png

The element value can't be null.

The **Script** Element is used by: *ChangeGVBuffer*, *JavaScriptCondition*.

SequenceElement

`(Description?)`

The **SequenceElement** Element is used by: *SequenceTransformation*.

The following table show the element's attributes **SequenceElement**:

Attribute	Tyte	Description
Transformer	required	Name of a base transformation.
Input	required	Name of the input object. The attribute's value can't be null.
Output	required	Name of the output object. The attribute's value can't be null.
Buffer	optional	Name of the buffer object. The object data an be modified by the current transforamtion. The attribute's value can't be null.

SequenceSQL

`(#PCDATA)`

#Icon: default.png

The element value can't be null.

The **SequenceSQL** Element is used by: *Persistence*.

SequenceTransformation

`(Description?, TransformationAlias*, SequenceElement+)`

Defines a sequence trasformation.

#Icon: GVSequenceTransformation.png

The **SequenceTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **SequenceTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.controller.SequenceTransformer**.
name	required	Transformation name. The attribute's value can't be null.
Output	required	The name of the object to retur to te caller. Must be the name of the output or buffer field of any sequence's base transformation.
validate	optional	The attribute's admitted values are: • **true** • **false**
DumpInOut	optional	If true enable the dump of the input/output data at every transformation step. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

Service

`(Description?, AliasList?, Conditions?, Operation*, BpelOperation*)`

Configuration of a GreenVulcanoESB's service.
A GreenVulcanoESB's service is identified by a unique name (id-service), belongs to a group and has an activation state.

You can configure the conditions applied to the routing of Service's flows (Conditions section).

The definitions used here are valid for all flows associated with service and overwrite any global definitions.

#Icon: service.png

The **Service** Element is used by: *Services*.

The following table show the element's attributes **Service**:

Attribute	Tyte	Description
id-service	required	The unique name of the service. Corresponds to the value contained in the 'service' field of the data buffer (GVBuffer). The attribute's value can't be null.
group-name	required	Service group membership. Groups are defined in the 'Groups' section. The attribute's value can't be null.
service-activation	optional	Activation status of service. The status can be: - on: service is active. - paused: service is inactive, the asynchronous client's requests are tacken in charghe by Greenvulcano ESB. They will be served when the service return on state 'on'. - off: service is inactive and no request are tacken in charghe by Greenvulcano ESB. The current version don't implement the state 'paused'. The attribute's default value is: **on**. The attribute's admitted values are: • **on** • **paused** • **off**
statistics	optional	Indicates whether the calculation of statistics for the service is enabled or not. • **on**: enables the calculation of statistics • **off**: disables the calculation of statistics The attribute's default value is: **off**. The attribute's admitted values are: • **off** • **on**
creation-date	optional	Service's cration date. The information in this field is purely descriptive and has no impact on the functionality of GreenVulcanoESB. This information will be used for the production of reports on configuration.
brief-description	optional	Service description.

The information in this field is purely descriptive and has no impact on the functionality of GreenVulcanoESB.
This information will be used for the production of reports on configuration.

ServiceAlias

`(Description?, AliasMapping+)`

#Icon: default.png

The **ServiceAlias** Element is used by: *extract-data-call*, *generic-call*, *j2ee-ejb-call*, *j2ee-jca-call*, *jms-dequeue*, *jms-enqueue*, *mm7-decode-call*, *mm7-submit-call*, *proxy-call*, *proxy-enqueue*, *routed-call*, *routed-dequeue*, *routed-enqueue*, *rules-call*, *test-service-call*, *xml-validation-call*.

ServiceCallerTask

`(Description?, Triggers, JbProperties?, JNDIHelper?, ChangeGVBuffer?, OutputData?, NextAction*)`

Task for invoking GreenVulcanoESB services.

#Icon: GVCoreCall.png

The **ServiceCallerTask** Element is used by: *TaskGroup*.

The following table show the element's attributes **ServiceCallerTask**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **task**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.core.task.GVServiceCallerTask**.
name	required	Task name. The attribute's value can't be null.
auto-start	optional	If 'true' Task is automatically registered on the timer. The attribute's admitted values are: **true** **false**
enabled	optional	Task activation status. The attribute's admitted values are: **true** **false**

id-service	required	ID_SERVICE be used for the invocation.
		The attribute's value can't be null.
id-system	optional	ID_SYSTEM be used for the invocation.
		The attribute's value can't be null.
operation	required	Operation name to be used for the invocation.
		The attribute's value can't be null.
transacted	optional	Performs the invocation in transaction.
		The attribute's admitted values are: • **false** • **true**
		The attribute's value can't be null.
timeout	optional	Timeout of the transaction.
		The attribute's value can't be null.
max-calls-sequence	optional	Maximum number of calls in sequence. Default: 1
		The attribute's value can't be null.

ServiceDump

`(Description?, ClientDump*)`

Per service dump configuration.

#SortChild

The **ServiceDump** Element is used by: *GVBufferDump*.

The following table show the element's attributes **ServiceDump**:

Attribute	Tyte	Description
id-service	required	Service name.
		The attribute's value can't be null.
log-dump-size	optional	Max dump size, in bytes. If not set noting is dump, if -1 then all buffer is dump.

ServiceFilter

`(Description)?`

Lets you specify a condition on the service field the received message must meet.

Can constrain the service field to a fixed constant, or require that the service field is the same as the request.

You can specify only one active instance of ServiceFilter.

The **ServiceFilter** Element is used by: *DequeueFilter*.

The following table show the element's attributes **ServiceFilter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **filter**.
name	fixed	Unmodifiable. This attribute *must* assume the value **ServiceFilter**.
enabled	required	Specifies whether the filter is active or not. Can be used to disable the filter temporarily without deleting it from the configuration. The attribute's admitted values are: • **yes** • **no** The attribute's value can't be null.
use-input	required	If 'yes' then requires that the field service of the received message has the same value of the field service of the request. If 'no' then requires that the field service of the received message has the value specified by 'value'. The attribute's admitted values are: • **yes** • **no** The attribute's value can't be null.
value	optional	Service field value of the received message. Meaningful only if 'use-input' is set to 'no'. The attribute's value can't be null.

ServiceRes

(Description?, ACL)

A GVCore group/service/operation ACL definition.

#CompositeLabel: || @group | - | @service | - | @operation #Icon: GVServiceRes.png

The **ServiceRes** Element is used by: *ACLGreenVulcano*.

The following table show the element's attributes **ServiceRes**:

Attribute	Tyte	Description
type	fixed	Unmodifiable.

		Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **resource**.
group	optional	Group name.
		The attribute's value can't be null.
service	optional	Service name.
		The attribute's value can't be null.
operation	optional	Operation name.
		The attribute's value can't be null.

Services

`(Description?, Service*)`

This configuration section defines the services provided by GreenVulcanoESB, which workflows can be invoked and which operations should be taken as a result of invocations from the clients.

For each couple <service,operation> is instantiated a flow defined in the Flow section.

Here you configure the activation state of statistics, input/output services, checks, and other operational details (see the documentation the sub-elements).

You can insert into this section of the configuration also documentary information that have no impacts on GreenVulcanoESB operations, but that can enrich the reports produced.

#SortChild

#Icon: services.png

The **Services** Element is used by: *GVServices*.

set-attribute

`EMPTY`

Sets a MBean's attribute value.

The **set-attribute** Element is used by: *jmx-call*.

The following table show the element's attributes **set-attribute**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **method**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.jmx.methods.JMXSetOperation**.
name	required	Attribute name of the MBean.
		The attribute's value can't be null.
value	required	Attribute value of the MBean to set.
		Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list. The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML. The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script
value-type	required	Parameter type. Only used for invoke method.
		The attribute's admitted values are: • **byte** • **boolean** • **char** • **double** • **float** • **int** • **long** • **short** • **String**

SFTPManager

(Description?, IdentityInfo?)

If the target directory is on a remote file system accessible via FTP over SSH, this element encapsulates the parameters required to connect.

The parameters hostname, username, password, privateKey, publicKey and passphrase can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 11 - sqllist{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a comma separated list.
The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script

The **SFTPManager** Element is used by: *RemoteFileSystemMonitor*, *remotemanager-call*.

The following table show the element's attributes **SFTPManager**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **remote-manager**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.util.remotefs.sftp.SFTPManager**.
hostname	required	Server host name. The attribute's value can't be null.
port	optional	Server listening port. Default: 22. The attribute's value can't be null.
knownHostFilePath	optional	'known_hosts' file path. Default: $HOME/.ssh/known_hosts The attribute's value can't be null.
authMethod	required	Authentication method for accessing remote host. The attribute's admitted values are: • **password**

		• **publicKey**
		The attribute's value can't be null.
username	optional	Username for the connection. If not set, the user is retrieved by which GV was executed by the system property 'user.name'. The attribute's value can't be null.
password	optional	Password for the connection. #Encrypted The attribute's value can't be null.
connectTimeout	optional	Connect timeout (in milliseconds). Default: infinite. The attribute's value can't be null.
dataTimeout	optional	Data transfer timeout (in milliseconds). Default: infinite. The attribute's value can't be null.
autoConnect	optional	If true the instance use autoconnect/disconnect at each method invocation. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

Sheet
(Description?, prep-statement*, statement)

Defines the configuration of a sheet of the Report.

#CompositeLabel: || @id | - | @name

The **Sheet** Element is used by: *GVExcelReport*.

The following table show the element's attributes **Sheet**:

Attribute	Tyte	Description
id	required	Sheet id. The attribute's value can't be null.
name	required	Sheet name. The attribute's value can't be null.
title	optional	Sheet title. The attribute's value can't be null.

Attribute		
jdbc-connection	optional	JNDI name of a DataSource. Default to Report connection.
		The attribute's value can't be null.

shell-call

`((cmd | cmd-array-elem+), env-property*, Description?)`

Plugin for running a shell command.

#Icon: GVShellID.png #Category: File

The **shell-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **shell-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.shell.ShellCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.
		The attribute's value can't be null.
directory	optional	Pathname of the directory in which the command is executed.
		This pathname can be static or may contain placeholders that are replaced at runtime.
		Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope

as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource
11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list.
The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

If this attribute is not present, the command is executed within the current working directory.

The attribute's value can't be null.

encoding	optional	The encoding with which encode the output of the command in the body of GVBuffer. If not specified, is used the the 'file.encoding' system property value. The attribute's value can't be null.

ShellTask

`(Description?, Triggers, JbProperties?, (cmd | cmd-array-elem+), env-property*)`

Task that invokes a shell command.

#Icon: GVShellID.png

The **ShellTask** Element is used by: *TaskGroup*.

The following table show the element's attributes **ShellTask**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **task**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.shell.ShellTask**.
name	required	Task name. The attribute's value can't be null.
auto-start	optional	If 'true' Task is automatically registered on the timer.

		The attribute's admitted values are: • **true** • **false**
enabled	optional	Task activation status. The attribute's admitted values are: • **true** • **false**
directory	optional	Pathname of the directory in which the command is executed. This pathname can be static or may contain placeholders that are replaced at runtime. Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2][cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - sqllist{{conn[::sep]::statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a 'sep' separated list. The 'conn' parameter is the JNDI name of a DataSource The 'sep' parameter defaults to comma 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML. The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script If this attribute is not present, the command is executed within the current working directory. The attribute's value can't be null.

Simpleformatter

(Description?)

This element is the Formatter to be used if the statement is a simple SQL query.

#Icon: default.png

The **Simpleformatter** Element is used by: *ResultSet*.

The following table show the element's attributes **Simpleformatter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **formatter**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.formatter.SimpleFormatter**.
success	required	This attribute defines the return value from SQL query execution if successfully completed. The attribute's value can't be null.
failure	required	The attribute defines the return value from SQL query if the execution ended with error. The attribute's value can't be null.

SimpleGVBufferBodyBuilder

`(#PCDATA)`

This element allows you to set the GVBuffer body.

The **SimpleGVBufferBodyBuilder** Element is used by: *ChangeGVBuffer*.

The following table show the element's attributes **SimpleGVBufferBodyBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **body-builder**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.internal.data.SimpleGVBufferBodyMaker**.
file-name	optional	This attribute is the path of a file whose contents should be inserted into the body of GVBuffer. You can specify a file on the server's classpath using the following syntax: CP://filename or cp://filename This attribute has precedence over the element content. The attribute's value can't be null.

read-once	optional	If true the file will be read only once, otherwise the file will be read on each invocation of the service. This attribute is meaningful only if the attribute file-name is specified. Default to "true". The attribute's admitted values are: • **true** • **false**
encoding	optional	This attribute is the encoding used to convert text to byte array. The attribute's admitted values are: • **US-ASCII** • **ISO-8859-1** • **ISO-8859-15** • **ISO-LATIN-1** • **UTF-8** • **UTF-16BE** • **UTF-16LE** • **UTF-16** The attribute's value can't be null.
process-metadata	optional	If true the body content can contin metadata to be resolved at runtime. The body content must be a valid String. Default to "false". The attribute's admitted values are: • **true** • **false**

SimpleTriggerBuilder
`(Description?, TgProperties?)`

A Trigger that is used to fire a Task at a given moment in time, and optionally repeated at a specified interval.

#Icon: GVSimpleTriggerBuilder.png

The **SimpleTriggerBuilder** Element is used by: *Triggers*.

The following table show the element's attributes **SimpleTriggerBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-trigger**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.trigger.SimpleTriggerBuilder**.
name	required	Trigger name.
		The attribute's value can't be null.
startTime	optional	Trigger starting time in ISO format: yyyy-MM-dd HH:mm:ss
		The attribute's value can't be null.
endTime	optional	Trigger ending time in ISO format: yyyy-MM-dd HH:mm:ss If not defined is the server starting time rounded to the nex minute.
		The attribute's value can't be null.
repeatInterval	optional	The period of repetition of the trigger, in ms. If not defined the task is executed only once.
		The attribute's value can't be null.
repeatCount	optional	The number of repetitions of the trigger. If not defined the task is executed only once. If 'period' == -1, the task is repeated endlessly (or to 'endTime').
		The attribute's value can't be null.
timeZone	optional	Trigger TimeZone. If not defined is used the TimeZone defined for DateUtils.
		The attribute's value can't be null.
calendarName	optional	Associate the Calendar with the given name with this Trigger.
		The attribute's value can't be null.

smtp-call

(Description?, JNDIHelper?, mail-properties?, mail-message)

Plugin for sending an email.

#Icon: GVSmtpCall.png #Category: Web/Mail

The **smtp-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **smtp-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.

		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.smtp.SMTPCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.
jndi-name	required	JNDI name of the mail Session configured in teh application server. The attribute's value can't be null.
override-protocol-host	optional	Corresponds to the property mail.protocol.host and overwrites the value of property mail.host specified in the configuration of the mail Session. The attribute's value can't be null.
override-protocol-user	optional	Corresponds to the property mail.protocol.user and overwrites the value of property mail.user specified in the configuration of the mail Session. The attribute's value can't be null.
message-id-property	optional	GVBuffer defines the properties that will contain the MessageID of the message sent. Default to 'MessageID'.

spec-constructor

`(Description?, parameter*)`

Allows you to build InteractionSpec or ConnectionSpec objects using constructors with a list of parameters.

This element identifies constructors that accept only simple types as parameters.

Refer to the documentation of the particular EIS to see which objects constructors are supported.

The **spec-constructor** Element is used by: *jca-connection-spec*, *jca-interaction-spec*.

spec-property

`(Description?)`

Property used to initialize the connection spec to connect the JCA adapter.

The properties to be specified depend on the particular resource adapter.
Refer to the documentation of the resource adapter.

The **spec-property** Element is used by: *jca-connection-spec*, *jca-interaction-spec*.

The following table show the element's attributes **spec-property**:

Attribute	Tyte	Description
name	required	Property name. The attribute's value can't be null.
value	required	Property value.

SPOutputParam

`(Description?)`

This element defines an output parameter of the store procedure.

The **SPOutputParam** Element is used by: *SPOutputParams*.

The following table show the element's attributes **SPOutputParam**:

Attribute	Tyte	Description
type	required	This attribute identifies the type of the output parameter The attribute's admitted values are: • **string** • **int** • **long** • **float** • **date** • **binary** • **blob** • **clob**
position	required	This attribute defines the position parameter has in the statement. The attribute's value can't be null.

SPOutputParameter

`EMPTY`

#CompositeLabel: || @position | / | @db-type | / | @java-type | / | @prop-name

The **SPOutputParameter** Element is used by: *SPOutputParameters*.

The following table show the element's attributes **SPOutputParameter**:

Attribute	Tyte	Description
db-type	required	The attribute's admitted values are: • **string** • **number** • **int** • **long** • **float** • **date**

		• **binary**
		• **blob**
		• **oracle_cursor**
		The attribute's value can't be null.
java-type	required	The attribute's admitted values are:
		• **string**
		• **int**
		• **long**
		• **date**
		• **byte_array**
		• **resultset**
		The attribute's value can't be null.
position	required	The attribute's value can't be null.
prop-name	required	The attribute's value can't be null.
param-name	optional	The attribute's value can't be null.
return-in-prop	optional	Default is false.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.
return-in-uuid	optional	Default is false.
		The attribute's admitted values are:
		• **true**
		• **false**
		The attribute's value can't be null.

SPOutputParameters

`(SPOutputParameter+)`

#SortChild

The **SPOutputParameters** Element is used by: *CallDescriptor*.

SPOutputParams

`(Description?, SPOutputParam+)`

This element defines the set of output parameters from the store procedure.

The **SPOutputParams** Element is used by: *CallSPFormatter*.

SpProperties

`(Description?, PropertyDef*)`

Defines additional properties of the SavePoint.

#SortChild

The **SpProperties** Element is used by: *GVSavePointNode*.

Startup
```
(Description?, ToPreload?)
```
Defines operation to perform at DTE startup.

The **Startup** Element is used by: *GVDataTransformation*.

statement
```
(#PCDATA)
```
Statement to be evaluated.

Can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope' 10 - sql{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of the first selected record.
The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 11 - sqllist{{[conn::]statement}} : execute a select sql statement sql and return the value of the first field of all selected records as a comma separated list.
The 'conn' parameter is the JNDI name of a DataSource, if not defined is used the current connection 12 - sqltable{{conn::statement}} : executes a select sql statement and returns all values of returned cursor as an XML.
The 'conn' parameter is the JNDI name of a DataSource 13 - ognl{{script}} : evaluate a OGNL script

The **statement** Element is used by: *CallDescriptor*, *DBOFlatSelect*, *DBOInsert*, *DBOInsertOrUpdate*, *DBOMultiFlatSelect*, *DBOSelect*, *DBOThreadSelect*, *DBOUpdate*, *DBOUpdateOrInsert*, *Sheet*.

The following table show the element's attributes **statement**:

Attribute	Tyte	Description
type	required	Must be: DBOSelect : select DBOInsert : insert DBOUpdate : update DBOInsertOrUpdate : insert|update DBOUpdateOrInsert : insert|update DBOCallSP : callsp

Excel Sheet : select

The attribute's admitted values are:
- **select**
- **insert**
- **update**
- **callsp**

The attribute's value can't be null.

id	optional	The attribute's value can't be null.
keys	optional	Only useful in DBOSelect. Specifies the index of select output on which group the results. The corresponding values are specified as attributes of 'data' element within the 'RowSet' element. For example, in the select: SELECT id,company_code,name FROM employees specifying the attribute keys = "2", the result would be: \<RowSet> \<data key_2="GreenVulcano"> \<row> \<col>19\</col> \<col>pippo\</col> \</row> \<row> \<col>25\</col> \<col>pluto\</col> \</row> \</data> \</RowSet> Can specify multiple keys separated by commas. The attribute's value can't be null.

Statement

(StatementValue, ParamResolvers?)

#Icon: default.png

The **Statement** Element is used by: *DBOperations*.

The following table show the element's attributes **Statement**:

Attribute	Tyte	Description

statementType	required	This element represents the type of statement to use.
		We recommend using a CallableStatement to process stored procedures.
		
		The attribute's admitted values are:
		  • **CallableStatement**
		  • **PreparedStatement**

StatementValue

(#PCDATA)

#Icon: default.png

The **StatementValue** Element is used by: *Statement*.

StaticMessage

`(#PCDATA)`

This element is the structure of a static message for notification.

StaticMessage A static message does not provide parameters to evaluate dynamically.
Is used by notification in the following cases: - Have not been configured specific GVBufferMessage or ExceptionMessage messages - A message that has been configured does not match the input ES: You have configured a GVBufferMessage, but received an item of type Exception - It has not been received any input.

The **StaticMessage** Element is used by: *JMXNotification*, *Log4JNotification*.

string-to-xml

`(Description?)`

Specifies that a particular string returned by EIS must be interpreted as XML.

The **string-to-xml** Element is used by: *xml-data*.

The following table show the element's attributes **string-to-xml**:

Attribute	Tyte	Description
xpath	required	XPath to identify the data to be interpreted as XML. The attribute's value can't be null.

SubFlow

`(Description?, Conditions?, (GVOperationNode | GVNodeCheck | ChangeGVBufferNode`
`| GVWaitNode | GVNotificationNode | GVIteratorOperationNode | GVCoreCallNode |`
`GVSubFlowCallNode | GVEndNode | GVSavePointNode)*)`

Defines a 'SubFlow' to define a sub-workflow to be used in a GreenVulcanoESB workflow.

Using the sub-element 'Conditions' can be (re)defined the conditions for possible use in the workflow routing.

#Icon: default.png

The **SubFlow** Element is used by: *Operation*.

The following table show the element's attributes **SubFlow**:

Attribute	Tyte	Description
name	required	Subflow name. The attribute's value can't be null.
first-node	required	Indicates the initial node of the workflow.

		From this node begins running when an instance of the workflow is invoked.
point-x	optional	X position of the start node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.
point-y	optional	Y position of the start node in the VulCon workflows editor. Immutable, used by VulCon. The attribute's value can't be null.

SubFlowCall

`EMPTY`

Defines the parameters to invoke a GreenVulcanoESB Operation's SubFlow.

Dynamic fields can contains the following placeholders: 1 - fixed : a text string; 2 - ${{propname}} : a System property name; 3 - sp{{propname}} : a System property name; 4 - @{{propname}} : a inProperties property name; 5 - timestamp{{pattern}} : return the current timestamp formatted as 'pattern' 6 - dateformat{{date::source-pattern::dest-pattern}} : reformat 'date' from 'source-pattern' to 'dest-pattern' 7 - decode{{field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : evaluate as if-then-else; if 'field' is equal to cond1...n, return the value of val1...n, otherwise 'default' 8 - decodeL{{sep::field[::cond1::val1][::cond2::val2] [cond...n::val...n]::default}} : is equivalent to 'decode', with the difference that 'condX' can be a list of values separated by 'sep' 9 - js{{scope::script}} : evaluate a JavaScript script, using the scope 'scope', the GVBuffer is added to the scope as 'object' 10 - sql{{conn::statement}} : execute a select sql statement sql and return the value of the first field of the first selected record. The 'conn' parameter is the JNDI name of a DataSource 11 - ognl{{script}} : evaluate a OGNL script, the GVBuffer is added to the context as 'object' (and is also the object on which execute the script)

#Icon: subcall_iterator.png

The **SubFlowCall** Element is used by: *GVIteratorOperationNode*.

The following table show the element's attributes **SubFlowCall**:

Attribute	Tyte	Description
dynamic	optional	If 'true' then subflow attribute can contain metadata to be resolved at runtime. The default is 'false'. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
subflow	required	Name of subflow to call. The attribute's value can't be null.

ref-dp	optional	Name of Data Provider to use to modify the GVBuffer content at each iteration.
change-log-context	optional	If true change the log context fields according to the new Operation(SubFlow) value. Default false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

SubSystem

(Description?, ConcurrentService*)

#SortChild

The **SubSystem** Element is used by: *SubSystems*.

The following table show the element's attributes **SubSystem**:

Attribute	Tyte	Description
name	required	Subsystem name. The attribute's value can't be null.

SubSystems

(SubSystem*)

#SortChild

The **SubSystems** Element is used by: *GVConcurrencyHandler*.

System

(Description?, Channel*, Contact*)

Configuring a system interfaced with GreenVulcanoESB.

A system is identified by a single name, has an activation state, has a number of communication interfaces grouped in channels.
In addition to operational information for each system you can define a list of contacts (Contact).

#SortChild #Icon: system.png

The **System** Element is used by: *Systems*.

The following table show the element's attributes **System**:

Attribute	Tyte	Description
id-system	required	System unique identifier.
		The attribute's value can't be null.
system-activation	optional	Activation status of system.
		The status can be: - on: system's services are active. - paused: system's services are inactive, the asynchronous client's requests are tacken in charghe by Greenvulcano ESB. They will be served when the system return on state 'on'. - off: system's services are inactive and no request are tacken in charghe by Greenvulcano ESB.
		The current version don't implement the state 'paused'.
		The attribute's default value is: **on**.
		The attribute's admitted values are: • **on** • **paused** • **off**

SystemFilter

`(Description)?`

Lets you specify a condition on the system field the received message must meet.

Can constrain the system field to a fixed constant, or require that the system field is the same as the request.

You can specify only one active instance of SystemFilter.

The **SystemFilter** Element is used by: *DequeueFilter*.

The following table show the element's attributes **SystemFilter**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **filter**.
name	fixed	Unmodifiable.
		This attribute *must* assume the value **SystemFilter**.
enabled	required	Specifies whether the filter is active or not. Can be used to disable the filter temporarily without deleting it from the configuration.
		The attribute's admitted values are: • **yes** • **no**

		The attribute's value can't be null.
use-input	required	If 'yes' then requires that the field system of the received message has the same value of the field system of the request.
		If 'no' then requires that the field system of the received message has the value specified by 'value'.
		The attribute's admitted values are: • **yes** • **no**
		The attribute's value can't be null.
value	optional	System field value of the received message. Meaningful only if 'use-input' is set to 'no'.
		The attribute's value can't be null.

Systems

(Description?, System*)

This section defines the configuration of systems connected to GreenVulcanoESB.
This section shows the technologies used for interfaces, the connection parameters, etc.

#SortChild #Icon: systems.png

The **Systems** Element is used by: *GVSystems*.

TableRetriever

(Description?, DataRetriever*)

Allows you to define helper running SQL select and return the result as an XML string in following form: <RowSet> <data> <row> <col>value1</col> <col>value2</col> <col>value3</col> </row> <row> <col>value4</col> <col>value5</col> <col>value6</col> </row> ..
<row> <col>valuex</col> <col>valuey</col> <col>valuez</col> </row> </data> </RowSet>

The **TableRetriever** Element is used by: *RetrieverConfig*.

The following table show the element's attributes **TableRetriever**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **retriever**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.datahandling.utils.TableRetriever**.

TaskGroup

`(Description?, (ServiceCallerTask | RSHTask | ShellTask | TestTask)*)`

Defines an group of Timer Tasks.

#SortChild

The **TaskGroup** Element is used by: *TaskGroups*.

The following table show the element's attributes **TaskGroup**:

Attribute	Tyte	Description
name	required	Task name.
		The attribute's value can't be null.

TaskGroups

`(TaskGroup*)`

The **TaskGroups** Element is used by: *GVTaskManagerConfiguration*.

test-service-call

`(Description?, ServiceAlias?, ChangeGVBuffer?)`

Test service.

Use property 'encoding' to decode the bytes of the buffer GVBuffer.

#Icon: GVtest.png

The **test-service-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **test-service-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.TestServiceCall**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations.

		The attribute's value can't be null.
service	required	Type of test operation: - toupper: transforms all characters to uppercase. - tolower: transforms all characters to lowercase. - echo : do not change the body. The attribute's admitted values are: • **toupper** • **tolower** • **echo**
remove-properties	optional	If 'true' properties are removed from GVBuffer. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
exception-message	optional	If defined is thrown an exception of type VCLCallException, with the configured message. The attribute's value can't be null.
sleep-on-init	optional	Simulate a delay in creation of the operation.
sleep-on-perform	optional	Simulate a delay in execution of the operation.
ref-dp	optional	Name of Data Provider to use for output message creation. The Data Provider should return a string, as calls to testing services expect strings.

TestTask

`(Description?, Triggers, JbProperties?)`

Test task.

#Icon: GVtest.png

The **TestTask** Element is used by: *TaskGroup*.

The following table show the element's attributes **TestTask**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **task**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.test.TestTask**.
name	required	Task name. The attribute's value can't be null.

auto-start	optional	If 'true' Task is automatically registered on the timer.
		The attribute's admitted values are: • **true** • **false**
enabled	optional	Task activation status.
		The attribute's admitted values are: • **true** • **false**
message	optional	Message displayed to stdout on each invocation.
		The attribute's value can't be null.
sleep	optional	Simulates the execution of work.
		The attribute's value can't be null.

TgProperties

`(Description?, PropertyDef*)`

Defines additional properties of the Trigger.

#SortChild

The **TgProperties** Element is used by: *CronTriggerBuilder*, *DateIntervalTriggerBuilder*, *SimpleTriggerBuilder*.

to

`(mail-address+, Description?)`

Contains the list of recipients of the email.

Is overwritten by the value of the GVBuffer property GV_SMTP_TO.

#Icon: default.png

The **to** Element is used by: *destinations*.

ToPreload

`(Description?, Preload+)`

Defines the list of transformation to preload at start-up.

#SortChild

The **ToPreload** Element is used by: *Startup*.

TransformationAlias

```
(Description?)
```
Defines a trasformation name alias.

The **TransformationAlias** Element is used by: *AddTagTransformation*, *Base64Transformation*, *Bin2XMLTransformation*, *ChangeCharTransformation*, *CryptoTransformation*, *CSV2XMLTransformation*, *HL72XMLTransformation*, *OverWriteBytesTransformation*, *SequenceTransformation*, *XML2BinTransformation*, *XML2HL7Transformation*, *XQTransformation*, *XSLFOPTransformation*, *XSLTransformation*.

The following table show the element's attributes **TransformationAlias**:

Attribute	Tyte	Description
name	required	Transformation's alternative name.
		The attribute's value can't be null.

Transformations

```
(Description?, (SequenceTransformation | XSLTransformation | Bin2XMLTransformation
 | XML2BinTransformation | AddTagTransformation | CSV2XMLTransformation
 | XSLFOPTransformation | Base64Transformation | CryptoTransformation |
OverWriteBytesTransformation | ChangeCharTransformation | HL72XMLTransformation |
XML2HL7Transformation | XQTransformation)*)
```
Contains the transformation configuration.

#SortChild

The **Transformations** Element is used by: *GVDataTransformation*.

The following table show the element's attributes **Transformations**:

Attribute	Tyte	Description
validate	optional	Global validation flag.
		The attribute's admitted values are:
		• **true**
		• **false**

Triggers

```
(Description?, (SimpleTriggerBuilder | DateIntervalTriggerBuilder |
CronTriggerBuilder)*)
```
Defines an group of Timer Tasks.

#SortChild

The **Triggers** Element is used by: *RSHTask*, *ServiceCallerTask*, *ShellTask*, *TestTask*.

VCLRouting

`(Description?)`

Associates a routing condition defined in a routing operation (routed-call, routed-enqueue, routed-dequeue) with a given sub-operation.

The order of elements VCLRouting also defines the order of evaluation conditions.
Will perform the operation corresponding to the first condition verified.

The **VCLRouting** Element is used by: *routed-call*, *routed-dequeue*, *routed-enqueue*.

The following table show the element's attributes **VCLRouting**:

Attribute	Tyte	Description
condition	required	Routing condition specified by an element of type GVBufferCondition. The attribute's value can't be null.
operation-name	required	Operation to execute if the condition specified with the parameter 'condition' is verified.

WeeklyCalendarBuilder

`(Description?)`

This implementation of the Calendar excludes a set of days of the week.

#Icon: GVWeeklyCalendarBuilder.png

The **WeeklyCalendarBuilder** Element is used by: *Calendars*.

The following table show the element's attributes **WeeklyCalendarBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **cron-calendar**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.scheduler.util.quartz.impl.calendar.WeeklyCalendarBuild**
name	required	Calendar name. Used in associations with Triggers and other Calendars. The attribute's value can't be null.
excludedDays	required	Define the list of days excluded. The list size must be lower or equal 7. The values are mapped to days names starting from 1 to 7 in this order: SUNDAY, MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY. Ex: to exclude SUNDAY and SATURDAY set "1,7" Ex: to exclude all days "1,2,3,4,5,6,7"

		The attribute's value can't be null.
timeZone	optional	Calendar TimeZone. If not defined is used the TimeZone defined for DateUtils. The attribute's value can't be null.
baseCalendarName	optional	Set a new base calendar. The configured Calendars are instantiated in configuration order, so the Calendars whith baseCalendarName set MUST be defined AFTER the referenced Calendar. The attribute's value can't be null.

WLSSubjectBuilder

`(Description?)`

Java class that defines the EJB home interface.
Note that if the EJB is installed on the same application server of GreenVulcanoESB, then you can also specify the local home interface.

The SubjectBuilder definition for the Weblogic 8 application server

The element value can't be null.

The **WLSSubjectBuilder** Element is used by: *j2ee-ejb-call*.

The following table show the element's attributes **WLSSubjectBuilder**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **subject-builder**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.jaas.WLSSubjectBuilder**.
provider-url	required	URL for the application server connection. See the application server documentation for the format of this parameter. The attribute's value can't be null.
security-principal	required	User name to connect the application server. The attribute's value can't be null.
security-credentials	required	Password to connect the application server. #Encrypted The attribute's value can't be null.

ws-call

`(Description?, AxisWebServiceInvoker, Proxy?)`

Defines the parameters for calling a Web Service.

#Icon: GVWsCall.png #Category: Web/Mail

The **ws-call** Element is used by: *Channel*, *routed-call*.

The following table show the element's attributes **ws-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.ws.WSCallOperation**.
name	required	Operation name. Used in the 'Flow' section to associate workflow nodes to VCL operations. The attribute's value can't be null.

WSDLInfo

`(Description?)`

Return a WSDL through his URL.

The **WSDLInfo** Element is used by: *AxisWebServiceInvoker*.

The following table show the element's attributes **WSDLInfo**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **wsdlinfo**.
wsdl	required	WSDL file URL. The attribute's value can't be null.

XAHelper

`(Description?, JNDIHelper?)`

The **XAHelper** Element is used by: *ForwardDeployment*, *jms-dequeue*, *jms-enqueue*.

The following table show the element's attributes **XAHelper**:

Attribute	Tyte	Description
auto-enlist	optional	#Icon: default.png
		The attribute's default value is: **false**.
		The attribute's admitted values are: • **true** • **false**
		The attribute's value can't be null.
transaction-status	optional	#Icon: default.png
		The attribute's default value is: **TMSUCCESS**.
		The attribute's admitted values are: • **TMSUCCESS** • **TMFAIL**
		The attribute's value can't be null.

XML2BinTransformation

`(Description?, TransformationAlias*)`

Defines a XML to Binary trasformation.

#Icon: GVXml2BinTransformation.png

The **XML2BinTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **XML2BinTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.bin.xml2bin.XMLToBinaryTran**
name	required	Transformation name.
		The attribute's value can't be null.
ConversionMapName	required	Conversion map name.
		The attribute's value can't be null.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema.
		The attribute's value can't be null.

XML2HL7Transformation

`(Description?, TransformationAlias*, (DHExternalRetrieverHelper)*)`

Defines a XML to HL7 string trasformation.

#Icon: GVXml2Hl7Transformation.png

The **XML2HL7Transformation** Element is used by: *Transformations*.

The following table show the element's attributes **XML2HL7Transformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.hl7.XML2HL7Transformer**.
name	required	Transformation name. The attribute's value can't be null.
validate	optional	The attribute's admitted values are: • **true** • **false**
validationType	optional	The attribute's admitted values are: • **xsd** • **dtd**
InputXSLMapName	optional	Style-sheet to be used in trasformation. The attribute's value can't be null.
SchemaInput	optional	XSD Schema that describe the input XML.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema. The attribute's value can't be null.

xml-data

`(Description?, string-to-xml*)`

According to the JCA specification, the Record may contain only simple data types or other records.

However, it is frequently that some return strings contain XML data.

This element allows you to specify the xpath for string data to be transformed into XML.

The **xml-data** Element is used by: *j2ee-jca-call*.

xml-processor

`(Description?)`

If this element is specified, the plugin will read the file directly parsed as an XML.

The **xml-processor** Element is used by: *filereader-call*, *rsh-filereader-call*.

The following table show the element's attributes **xml-processor**:

Attribute	Tyte	Description
as-xml	optional	If true the file is parsed as an XML. Default is false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
use-axiom	optional	If true uses AXIOM instead of DOM to parse the file. Default is false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
validating	optional	If true the XML representing the file is validated. This option applies only if 'as-xml' is true. Default is false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.
namespace-aware	optional	If true the DOM keeps informations about the declared namespaces on the file. This option applies only if 'as-xml' is true. Default is false. The attribute's admitted values are: • **true** • **false** The attribute's value can't be null.

xml-validation-call

`(Description?, ServiceAlias?)`

Communication parameters to interact with XML validation engine.

The **xml-validation-call** Element is used by: *xml-validation-service*.

The following table show the element's attributes **xml-validation-call**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **call**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.virtual.internal.xml.XMLValidationCallOperation**.
name	required	ID used for diagnostics. Is printed on the log files. The attribute's value can't be null.
default-xsd	optional	Default XSD. The attribute's value can't be null.
xsd-policy	optional	Policies for the use of default XSD. If 'force-default' is always used the XSD specified in parameter 'default-xsd'. If 'null xsd' is used used the XSD specified in parameter 'default-xsd' only if the schema specified in the XML is invalid. Default 'force-default' The attribute's admitted values are: • **force-default** • **null-xsd** The attribute's value can't be null.
return-dom	optional	Returns the parsed and validated org.w3c.dom.Document corresponding to the input object. The same object is returned if input already is a DOM Document. Default is 'false'. The attribute's admitted values are: • **false** • **true** The attribute's value can't be null.

xml-validation-service

`(Description?, xml-validation-call)`

Invokes the XML validation engine.

The **xml-validation-service** Element is used by: *InputServices*, *OutputServices*.

The following table show the element's attributes **xml-validation-service**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **service**.
internal	fixed	Unmodifiable. This attribute *must* assume the value **yes**.

XPath

(Description?, XPathExtension*, XPathNamespace*)

Set XPath properties.

#SortChild

The **XPath** Element is used by: *GVXPath*.

The following table show the element's attributes **XPath**:

Attribute	Tyte	Description
xpath-factory	required	Defines the XPath library to be used:: - it.greenvulcano.util.xpath.search.jaxen.JaxenXPathAPIFactoryImpl (default) - it.greenvulcano.util.xpath.search.xalan.XalanXPathAPIFactoryImpl The attribute's admitted values are: • **it.greenvulcano.util.xpath.search.jaxen.JaxenXPathAPIFactoryImp** • **it.greenvulcano.util.xpath.search.xalan.XalanXPathAPIFactoryImp**

XPathExtension

(Description?)

Defines a XPath extension function.
The defined function are bind on 'gvesb:' prefix.

The **XPathExtension** Element is used by: *XPath*.

The following table show the element's attributes **XPathExtension**:

Attribute	Tyte	Description
function-name	required	Extension function name. The attribute's value can't be null.
class	required	Extension function implementation. The class must have a default constructor and must implement the it.greenvulcano.util.xpath.search.XPathFunction interface.

		The attribute's value can't be null.
namespace	optional	Function namespace. If not defined the value is set to "urn:gvesb/functions" automatically installed with the prefix "gvf".

XPathNamespace

(Description?)

Defines a namespace that can be used in XPath.
The 'gvesb' prefix is reserved.

#CompositeLabel: || @prefix | : | @namespace

The **XPathNamespace** Element is used by: *AxisWebServiceInvoker*, *XPath*.

The following table show the element's attributes **XPathNamespace**:

Attribute	Tyte	Description
prefix	required	Namespace prefix. The attribute's value can't be null.
namespace	optional	Namespace. If not set, the prefix is associated to the default namespace. The attribute's value can't be null.

XPathParamResolver

(Description?, Param+)

Defines the type of Resolver based on XPath.

#Icon: default.png

The **XPathParamResolver** Element is used by: *ParamResolver*.

The following table show the element's attributes **XPathParamResolver**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **resolver**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.j2ee.db.resolver.XPathResolver**.

XQTransformation

`(Description?, TransformationAlias*, (DHExternalRetrieverHelper)*)`

Defines a XQuery trasformation.

#Icon: GVXQTransformation.png

The **XQTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **XQTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.xq.XQTransformer**.
name	required	Transformation name. The attribute's value can't be null.
validate	optional	The attribute's admitted values are: • **true** • **false**
validateDirection	optional	The attribute's admitted values are: • **in** • **out** • **in-out**
validationType	optional	The attribute's admitted values are: • **xsd** • **dtd**
XQMapName	required	XQuery script to be used in trasformation. The attribute's value can't be null.
SchemaInput	optional	XSD Schema that describe the input XML.
SchemaOutput	optional	XSD Schema that describe the output XML.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema. The attribute's value can't be null.

XSLFOPTransformation

`(Description?, TransformationAlias*, (DHExternalRetrieverHelper)*)`

Defines a XSL/FOP trasformation.

#Icon: GVXSLFopTransformation.png

The **XSLFOPTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **XSLFOPTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework.
		This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.fop.XSLFOPTransformer**.
name	required	Transformation name.
		The attribute's value can't be null.
validate	optional	The attribute's admitted values are: • **true** • **false**
validateDirection	optional	The attribute's admitted values are: • **in** • **out** • **in-out**
validationType	optional	The attribute's admitted values are: • **xsd** • **dtd**
XSLMapName	required	Style-sheet to be used in trasformation.
		The attribute's value can't be null.
SchemaInput	optional	XSD Schema that describe the input XML.
SchemaOutput	optional	XSD Schema that describe the output XML.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema.
		The attribute's value can't be null.
OutputMIME	optional	Output MIME for FOP transformation. If not specified, default is 'application/pdf'.
		The attribute's value can't be null.

XSLTransformation

`(Description?, TransformationAlias*, (DHExternalRetrieverHelper)*)`

Defines a XSL trasformation.

#Icon: GVXSLTransformation.png

The **XSLTransformation** Element is used by: *Transformations*.

The following table show the element's attributes **XSLTransformation**:

Attribute	Tyte	Description
type	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **transformation**.
class	fixed	Unmodifiable. Used by GreenVulcanoESB factory framework. This attribute *must* assume the value **it.greenvulcano.gvesb.gvdte.transformers.xslt.XSLTransformer**.
name	required	Transformation name. The attribute's value can't be null.
validate	optional	The attribute's admitted values are: • **true** • **false**
validateDirection	optional	The attribute's admitted values are: • **in** • **out** • **in-out**
validationType	optional	The attribute's admitted values are: • **xsd** • **dtd**
XSLMapName	required	Style-sheet to be used in trasformation. The attribute's value can't be null.
SchemaInput	optional	XSD Schema that describe the input XML.
SchemaOutput	optional	XSD Schema that describe the output XML.
DataSourceSet	optional	DataSourceSet name from wich retrieve the transformation map and validation schema. The attribute's value can't be null.

Chapter 3

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