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Genesys Administrator Extension Developer's Guide

Operating System Manipulation Elements

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Operating System Manipulation Elements are used to execute various tasks on a host. They include the following:

- `<os:verifyHost>`: Verify that a particular hostname is defined in the DNS.
- `<os:verifyGDA>`: Verify that the GDA on a host is operational and reachable.
- `<os:execShellCmd>`: Execute a script or command on a host.
- `<os:execSQL>`: Execute SQL commands against a database.
- `<os:setEnvVar>`, `<os:getEnvVar>`, and `<os:verifyEnvVar>`: Set, get, and verify environment variables on a host.
- `<os:installPackage>`: Deploy an IP on a remote host.

`<os:list>`

Child Elements

- `<os:property>`

Attributes

Name	Type	Description	Default	Values
mode	string	—	—	clear, merge
name	string (required)	—	—	—

`<os:property>`

Specifies information to be used during the silent install of an IP. The following is an example of its usage:

```
<os:installPackage appName="${appName}" host="${host}" folder="Applications/Segment_01"
longName="SIP Server" version="8.1.0" tenantdbid="41" skipIfInstalled="true"
appPort="${appport}">
  <list name="silentInstall">
    <property section="IPCommon" key="InstallPath"
value="${INSTALL_BASE_PATH}${FILE_SEPERATOR}TSrvSIP"/>
    <property section="IPCommon" key="DataModel" value="${DATA_MODEL}"/>
    <property section="License" key="AccessType" value="LicenseManager"/>
    <property section="License" key="Port" value="${LICENSE_PORT}"/>
    <property section="License" key="Host"
value="${LICENSE_HOST}"/>
  </list>
</os:installPackage>
```

Attributes

Name	Type	Description	Default	Values
data	object	—	—	—
key	string (required)	Specifies the key in a key/value pair.	—	—
result	string	—	—	—
section	string (required)	Specifies the section for the key/value pair that is specified in this element.	—	—
value	string (required)	Specifies the value in a key/value pair.	—	—

<os:execSQL>

A directive to execute a SQL command against a specified database. The following is an example of its usage:

```
<os:execSQL result="result" dapdbid="${IRD_DAP.dbid}" sql="SELECT dbid FROM
ird_strategies WHERE dbid = ${tenantParameterizedStrategy.dbid}"/>
  <script>
    log('SQLRESULT: ' + JSON.stringify(result));
  </script>
<if cond="result == ''">
  <os:execSQL dapdbid="${IRD_DAP.dbid}" sql="INSERT INTO ird_strategies (dbid, rbn)
values(${tenantParameterizedStrategy.dbid}, EMPTY_BLOB())"/>
  <os:execSQL dapdbid="${IRD_DAP.dbid}" sql="UPDATE ird_strategies SET rbn = ? WHERE dbid
= ?" blobfield="${tenantParameterizedStrategy.dbid}" file="${CATALINA_HOME}/webapps/gax/
WEB-INF/classes/strategies/${TENANT_PREMISE_PARAMETERIZED_STRATEGY}.zcf"/>
</if>
```

Attributes

Name	Type	Description	Default	Values
blobfield	string	Specifies the name of a field in the SQL statement, specified by sql , that contains a field of type blob and	—	—

Name	Type	Description	Default	Values
		that must be updated with binary data. The file attribute specifies the file that contains the binary data to use when updating this field with blob data.		
dapdbid	integer	Specifies the DBID of the DAP (for example: CfgApplication of type Database Access Point) that should be used for connection to the database. If a DAP is not specified, the information in host and port is used.	—	—
data	object	This attribute can specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
file	string	Specifies the file that contains binary data to use when updating a field in the database that is of type blob and is specified by blobfield . This attribute is always used in conjunction with blobfield .	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string	Specifies the host Configuration object name upon which this task is to be performed.	—	—
password	string	Specifies the password to use when connecting to the database.	—	—
port	integer	Specifies the port of the	—	—

Name	Type	Description	Default	Values
		database to which to connect, if a DAP is not specified.		
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains the output of the SQL command if it is a success; if it fails, the execution stops.	—	—
servicename	string	Specifies the Service Name.	—	—
sid	string	Specifies the SID.	—	—
sql	string	Defines the SQL statement to execute.	—	—
sqlclienthost	string	Specifies the host of the database to connect to from the SQL client. This is used in conjunction with port .	—	—
sqlscript	string	Defines a script that contains SQL statements to execute. Only one sql or <UNHANDLED:ATT>script can be defined, and sql takes precedence.	—	—
user	string	Specifies the username to use when connecting to the database.	—	—

<os:execShellCmd>

A directive to execute a shell script/command on the target host.

Attributes

Name	Type	Description	Default	Values
asAdmin	Boolean	If set to true, this action is performed as the root user.	false	—
cmd	string (required)	Specifies the command or script to run on the target host.	—	—
data	object	This attribute can be used to specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string (required)	Specifies the host Configuration object name upon which this task is to be performed.	—	—
ignoreretvalue	string	If set to true, then continue execution regardless of whether the execution is a success or a failure.	—	—
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains the output of the script/command if it is a success; if it fails, the execution stops, unless ignoreretvalue="true" is specified.	—	—
sockettimeout	integer	Defines the period (in milliseconds) that GAX waits for a command to complete on a selected host (this command is specified in the cmd attribute). If the command execution is	600000	—

Name	Type	Description	Default	Values
		longer than the sockettimeout value, the os:execShellCmd process fails.		

<os:getEnvVar>

A directive to get the value of an environment variable on the target host.

Attributes

Name	Type	Description	Default	Values
asAdmin	Boolean	If set to true, this action is performed as the root user.	false	—
data	object	This attribute can be used to specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string (required)	Specifies the host Configuration object name upon which this task is to be performed.	—	—
name	string (required)	Specifies the name of the environment variable to retrieve.	—	—
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains the value of the environment variable if it is a success; if it fails, (for example, the variable is	—	—

Name	Type	Description	Default	Values
		not found), the execution stops.		

<os:installPackage>

A directive to install an installation package (such as software) to a specified host. To successfully install, You must use certain key-value parameters that are defined by using the <os:list> tag of type "silentInstall" with individual parameters specified using the <os:property> tag. See <os:property> for an example.

Attributes

Name	Type	Description	Default	Values
appMergeMode	string	—	—	—
appName	string (required)	Defines the name of the CfgApplication object to create for this installation.	—	—
appPort	integer (required)	Specifies the default port to define in the CfgApplication object.	—	—
backupConfServ	string	Defines the name of the Backup Config Server Application Object that is specified during IP installation.	—	—
buildNumber	string	—	—	—
data	object	This attribute can specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
debug	Boolean	Indicates to GDA that temporary files that are created during installation should not be removed.	false	—

Name	Type	Description	Default	Values
existingAppName	string	—	—	—
folder	string (required)	Defines the CfgFolder, which is where the related CfgApplication object for this IP will be created.	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string (required)	Specifies the host Configuration object name upon which this task is to be performed.	—	—
localeId	string	—	—	—
longName	string (required)	Specifies the application template long name that is required for installation.	—	—
nickname	string)	—	—	—
osType	string	Defines the target operating system. This is used to ensure that the correct IP is installed for the target host.	—	—
overrideTemplate	string	Defines the name of the template file to use instead of the template within the IP. This is used if the template that is supplied in the IP is incorrect.	—	—
primaryConfServ	string	Defines the name of the Backup Config Server Application Object that is specified during IP installation.	—	—
result	string	Defines the name of a JavaScript variable that contains the result of the action. A value of	—	—

Name	Type	Description	Default	Values
		"true" indicates success. A value of "false" indicates failure. Note: The execution stops if a failure occurs.		
skipIfInstalled	Boolean	Specifies whether the installer should skip the installation of an IP if it is already installed.	false	
tenantdbid	integer (required)	Defines the DBID of the Tenant where the CfgApplication that is specified in appName is created.	—	—
version	string (required)	Specifies the release number of the IP to install, such as "8.1" or "8.1.0". You can specify the release number to any level of numbering. GAX will select the latest, most up-to-date IP that matches the specified release.	—	—

Supported List Names

Name	Type	Description	Default	Values
silentInstall	<os:property>	—	—	—
silentInstallRemove	<os:property>	—	—	—

<os:setEnvVar>

A directive to set the value of an environment variable on the target host.

Attributes

Name	Type	Description	Default	Values
asAdmin	Boolean	If set to true, this action is performed as the root user.	false	—

Name	Type	Description	Default	Values
data	object	This attribute can be used to specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string (required)	Specifies the host Configuration object name upon which this task is to be performed.	—	—
name	string (required)	Specifies the name of the environment variable to retrieve.	—	—
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains the value of the environment variable if it is a success; if a failure occurs (for example, the variable is not found), the execution stops.	—	—
shell	string	Specifies the operating system shell to use when setting the environment variable.	—	—
value	string	Specifies the value of the environment variable to be set.	—	—

<os:verifyEnvVar>

A directive to verify the existence of an environment variable, or that an environment variable equals a specified value on the target host.

Attributes

Name	Type	Description	Default	Values
asAdmin	Boolean	If set to <code>true</code> , this action is performed as the root user.	false	—
data	object	This attribute can be used to specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string (required)	Specifies the host Configuration object name upon which this task is to be performed.	—	—
name	string (required)	Specifies the name of the environment variable to retrieve and to verify that it exists.	—	—
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains <code>true</code> if the variable exists and matches value , if specified. The variable contains <code>false</code> if the variable is not defined or does not match value .	—	—
value (optional)	string	Specifies a value to which the environment variable on the target host should be compared.	—	—

<os:verifyGDA>

A directive to verify that a connection to the GDA on a remote host can be established. To properly handle errors, it is important to perform this step before performing other Operating System Manipulation commands.

Attributes

Name	Type	Description	Default	Values
data	object	This attribute can be used to specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
gdaport	integer	Defines the GDA port on the target host to which to connect.	—	—
host	string (required)	Specifies the host Configuration object name upon which this task is to be performed.	—	—
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains true if GDA is accessible, and false if GDA does not respond.	—	—

<os:verifyHost>

A directive to verify that a specified hostname is resolvable in DNS.

Attributes

Name	Type	Description	Default	Values
data	object	This attribute can be used to specify a JavaScript variable that contains a JSON representation of all attributes that are used or required to execute this action. It can be used instead of individually specifying all attributes.	—	—
host	string (required)	Specifies a hostname to	—	—

Name	Type	Description	Default	Values
		resolve in DNS.		
result	string	Defines the name of a JavaScript variable that contains the result of the action. The variable contains true if the host is accessible, and false if the hostname does not resolve.	—	—