



## CLASSES

Classes are context entities represented by a string, that can be either set or not set, depending on context. They allow using conditions to generic method usage.

Variable name must match

`[a-zA-Z0-9][a-zA-Z0-9_]*`

### Available classes

Group classes: defined only if the node is in the given group (available in the group details)

`group_group_uuid`  
`group_group_name`

System classes: various system information defined by default

`centos_7, ubuntu_14_04`

Result classes: defined by the execution of another generic method (available at the bottom of the generic method call configuration)

`generic_method_name_parameter_value_kept`  
`generic_method_name_parameter_value_repaired`  
`generic_method_name_parameter_value_error`

Classes manually defined in the agent call

`rudder agent run -D my_class`

### Classes operators

Group	Or	
<code>(my_class_expression)</code>		<code>my_class my_other_class</code>
And	Not	
<code>my_class.my_other_class</code>		<code>!my_class</code>

## PATHS

### On the nodes

Directory containing the agent run logs

`/var/rudder/cfengine-community/outputs`

Last run log

`/var/rudder/cfengine-community/outputs/previous`

### On the server

Directory containing all the configuration policies in a git repository

`/var/rudder/configuration-directory/`

Directory shared to Nodes from the Server

`/var/rudder/configuration-directory/shared-files/`

Directory containing the configuration events (changes and errors)

`/var/log/rudder/compliance/non-compliant-reports`

## COMMANDS

To update the policies and enforce them

`rudder agent run -u`

To see detailed output

`rudder agent run -i`

Other commands and options

`man rudder`

To trigger an inventory

`rudder agent inventory`

## VARIABLES

Variable name must match

`[a-zA-Z0-9][a-zA-Z0-9_]*`

Variables in `Directives` parameters are evaluated at `generation` on the server, exceptions are tagged with `execution`

Variables in the `Technique Editor` are evaluated at `execution` on the nodes

### Only in Directives

System variables about a node

`${rudder.node.id}`  
 `${rudder.node.hostname}`  
 `${rudder.node.admin}`

System variables about a node's policy server

`${rudder.node.policyserver.id}`  
 `${rudder.node.policyserver.hostname}`  
 `${rudder.node.policyserver.admin}`

Global parameters

`${rudder.param.parameter_name}`

Node properties

`${node.properties[key]}`  
 `${node.properties[subtree]}`  
 `${node.properties[key] | node } execution`

Default values (only with node properties)

`${variable | default = "value" }`  
 `${variable | default = "" "value with "quotes" "" }`  
 `${variable | default = ${any_other_variable} }`

Javascript Engine (with any variable)

`"${variable}" .substring(0,3)`

Rudder Javascript library

`rudder.hash.md5/sha256/sha512(string)`  
 `rudder.password.auto/unix/aix("MD5/SHA256/SHA512", password [, salt])`

### In Directives and in the Technique Editor

Global Parameters

`${rudder_parameter.string_name}`

From the "Variable (string)" technique

`${generic_variable_definition.string_name}`

From the "Variable from command output (string)" technique

`${generic_cmd_var_def.string_name}`

From the "Variable from JSON file (dict)" technique

`${variable_prefix.dict_name[key]}`

Node properties

`${node.properties[key]}`

`${node.local_custom_properties[key]}`

### Only in the Technique Editor

User Variables defined using generic methods

`${variable_prefix.string_name}`  
 `${variable_prefix.iterator_name}`  
 `${variable_prefix.dict_name[key]}`

## MUSTACHE TEMPLATING

### Classes

(no class expression here)

<code> {{#classes.my_class}}</code>	<code> {{^classes.my_class}}</code>
<code> my_class is defined</code>	<code> my_class is not defined</code>
<code> {{/classes.my_class}}</code>	<code> {{/classes.my_class}}</code>

### Variables

<code> {{vars.generic_variable_definition.variable_name}}</code>	<code> {{vars.variable_prefix.string_name}}</code>
<code> {{vars.variable_prefix.dict_name[key]}}</code>	

### Iteration

<code> {{#vars.variable_prefix.iterator_name}}</code>	<code> {{.}} is the current iterator_name value</code>
<code> {{/vars.variable_prefix.iterator_name}}</code>	

<code> {{#vars.variable_prefix.dict_name}}</code>	<code> {{@}} is the current dict_name key</code>
<code> {{.}}</code>	<code> {{.}} is the current dict_name value</code>
<code> {{/vars.variable_prefix.dict_name}}</code>	

<code> {{#vars.variable_prefix.dict_name}}</code>	<code> {{.name}} is the current dict_name[name]</code>
<code> {{/vars.variable_prefix.dict_name}}</code>	

## JINJA2 TEMPLATING

### Classes

(no class expression here)

<code> {% if classes.my_class is defined %}</code>	<code> my_class is defined</code>
<code> {% endif %}</code>	
<code> {% if not classes.my_class is defined %}</code>	<code> my_class is not defined</code>
<code> {% endif %}</code>	

### Variables

<code> {{ vars.variable_prefix.my_variable }}</code>	
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### Iteration

<code> {% for item in vars.variable_prefix.dict %}</code>	<code> {{item}} is the current item value</code>
<code> {{item.key}}</code>	<code> {{item.key}} is the the current item[key] value</code>
<code> {% endfor %}</code>	

<code> {% for key,value in vars.prefix.dict %}</code>	<code> {{key}} has value {{value}}</code>
<code> {{key}}</code>	
<code> {% endfor %}</code>	