

# **GENESYS**

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## Genesys Rules System Deployment Guide

**Rule Template** 

# Rule Template

The rule template that is created for this example consists of two facts:

- \_GRS\_Environment
- Customer

The \_GRS\_Environment fact is a mandatory fact for all Genesys Rules Systems rule templates. It is used to establish two important fact properties:

- businessContext\_Level\*—Used in the request to the Rules Engine, to determine the node(s) of the business structure at which to evaluate rules
- phase—Used within the request to the Rules Engine, to determine which rules to evaluate.

Each rule that you create in Genesys Rules System must have a rule phase defined. The list of rule phases can be modified by changing the values of the enumeration that is called Phases, in the rule template. In this example, the phase that is selected is called segmentation, so we can assume that the values for the Phases enumeration contains at least one value called segmentation, and possibly others.

The Customer fact contains three properties that we will use in our business rule:

- segment
- order
- offer

Our rule template contains two conditions and one action, as well as the necessary parameters that are used within these conditions and actions. See the two following tables for details of these parameters.

Rule Langauge Mapping

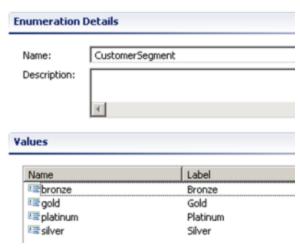
#### **Rule Language Mapping Parameters**

| Name         | Language Expression                      | Rule Language Mapping                        |
|--------------|--|--|
| Segment      | Customer segment is {customerSegment}    | Customer(segment=='{customerSegm             |
| OrderValue   | Order value is greater than {orderValue} | <pre>Customer(order&gt;{orderValue})</pre>   |
| SpecialOffer | Offer special promotion {specialOffer}   | <pre>\$Customer.offer='{specialOffer}'</pre> |

### **Language Expression Details**

| Name            | Туре                  | Comments   |
|-----------------|-----------------------|--|
| customerSegment | Enumeration           | An enumeration must be created in the rule template that contains the values for Customer Segment from which the rules author will be able to select (for example, Bronze, Silver, and so on). Note that there are two properties that you must provide for each value of the enumeration: Name and Label. The Label is what will appear to the business rules author when the business rules author is using a rule condition or action that includes a parameter that references this enumeration. The Name is what is used in the request/response to/from the Rules Engine; therefore, case is important. For example, you may want to use uppercase for the labels of these enumeration values, and lowercase for the names. shows an example of how that might appear in the Genesys Rules Development Tool: |
| orderValue      | Input Value (Numeric) | Optionally, you can supply upper and lower bounds for this parameter. If these are supplied in the template, the rules author will be constrained as to the values the rules author can provide in the rule condition that uses this parameter.  |
| specialOffer    | Input Value (Boolean) | Because the parameter type is Boolean, this will present a checkbox to the rules author when this parameter is used in the rule action.  |

The figure below shows how the enumeration is configured.



**Enumeration Details** 

Note that for this template, because the orderValue parameter is numeric, when it is used in a rule condition, there are no single quotation marks ('') surrounding it in the rule language mapping, whereas there are single quotation marks surrounding the customerSegment string parameter.

With the Drools language you cannot set the value of a Fact property by referring to the Fact's name. In the condition section you must first declare a variable and associate this variable with a Fact object. Once this association has been made within a condition then the variable can be used in actions (and other conditions) to reference fields contained within the fact. A period (".") is used to access the fields on a fact. Use a colon (":") when you want to create a variable in a condition. So, in the preceding example, the "." is used in the rule language mapping for the action (\$Customer:Customer() in the condition, \$Customer.offer in the action).

Since the 8.1.2 release, conditions are automatically added to declare variables which are referenced in actions. For a variable to be automatically declared, the variable name must be the name of the fact preceded by a '\$' sign. So in this example, \$Customer is referenced in an action so the condition \$Customer:Customer() will automatically be added to the rule.

Before 8.1.2, variables had to be declared by a condition within the template and added to the rule by the rule developer. With this example the following generic rule condition needed to be defined within the template and the rules developer would have added this condition to any rule that referenced the \$Customer variable.

## **Important**

A variable cannot be declared twice.

Language Expression: Customer exists
Rule Language Mapping: \$Customer:Customer()