

# **GENESYS**

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# Genesys Rules System Overview

**Rule Authoring** 

# Rule Authoring

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Rule authoring is done through GRAT. This topic describes how to log into GRAT, gives some general information about its usage, and how to use it for creating decision tables, linear rules, and business calendars.

#### Levels

In the Genesys Rules Authoring Tool, there are three levels at which business rules can be created:

- Rule Package (referred to as Global Rules)
- Department
- Process

Global rules enable you to specify rules that will apply to the entire solution. For example, they enable you to configure rules that classify or prioritize all tasks globally, instead of at a lower level of the business structure. Global rules are applied before any other rules.

This means that each rule phase (classification and prioritization) is triggered from within the relevant business process in the following sequence:

- 1. Global rules
- 2. Department rules
- 3. Process rules

When the appropriate node is selected on the rule package tree, you can then select the Rules tab to view or edit the rules for that level of the business structure. Rules are presented in a list, with an associated phase. The order of the rules is relevant, because they will be evaluated, within a particular phase, in the same order as they appear. You can change the order of rules by clicking the up and down buttons. The logic of a particular rule can be expressed as either a linear rule or a decision table.

Any extended or custom attribute can be read or updated by business rule conditions or actions, respectively.

Only rules on a particular node path are executed in any given rules run. The path of execution is determined by input to the Rules Engine on the execution request.

#### **Important**

The business structure is defined in Configuration Manager or Genesys Administrator.

## Rule Packages

Rule packages provide the following capabilities:

- The ability to partition rules and facts so that they are small, well-defined, and apply only to a particular application or use. This makes them easier to debug and understand. The fact model is a description of the data. It contains field names and types which are grouped into tables/classes. Facts are input/output to rule execution and are instances of the tables/classes defined in the fact model.
- The ability to isolate rule packages from one another when executing rules. This also improves performance because the Rules Engine has fewer candidates to examine during the evaluation.
- The ability to update individual rule packages without affecting other deployed packages.
- The ability to import and export an entire rule package containing the rule definitions, business calendars, and also the templates that the rule package is dependent on.
- A rule package contains one or more rules plus the fact model that is needed to support the rules. You deploy rule packages individually to the Rules Engine.

|+DETAIL How to create a rules package|

#### Linear Rules

A linear rule is a business rule that has a set of conditions (when) and actions (then), and is used for a simple (linear) business case. A linear rule follows the following basic format:

WHEN {condition} THEN {action}

#### For example:

When a task is due in 1 to 8 hours, set the task's priority to 20.

When the condition is true, the action will occur. This form of rule is best for simple actions, such as assigning a value to return back to the application. Note, however, that linear rules can have multiple conditions and actions, or only actions with no conditions.

The conditions and actions that are available depend upon the rule templates that are included in the rule package.

I+DETAIL How to create a linear rule

#### **Decision Tables**

Decision tables allow you to join a number of Linear Rules with the same set of conditions (when) and actions (then) to be used for a complex (structured) business case. Use decision tables to avoid dozens of linear rules with identical structure in the system.

## **Important**

Choices in decision tables need to be mutually exclusive to avoid ambiguity. This ensures that there is only one outcome per evaluation. If the choices are not mutually exclusive, multiple rows can be executed, in no guaranteed order. The last row executed will determine the final result.

After you have created a decision table, you can create additional decision tables or linear rules, or deploy your rule package.

Defining a decision table is similar to defining a linear rule.

|+DETAIL How to create a decision table|