|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | |  | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | |  | | --- | |  | |  | |  | | --- | |  | |  | | |  | | |  | | --- | |  | | |  | | --- | |  | | |  | | --- | |  | | Static Analysis of Rule Testing  A Decision Table displays multiple related rules in a single spreadsheet-style view. In Rules Designer a Decision Table presents a collection of related business rules with condition rows, rules, and actions presented in a tabular form that is easy to understand. Business users can compare cells and their values at a glance and can use Decision Table rule analysis features by clicking icons and selecting values in Rules Designer to help identify and correct conflicting or missing cases. Overlap checks You can set Decision Center to check that the values you enter in your decision tables or decision trees do not overlap or are not identical.  For example, in the following condition statements, customers who are 29 years old satisfy the condition for both rules:   * Age is between 17 and 30 * Age is between 29 and 40   If these two conditions stem from the same condition node of a decision tree, or are part of the same column or within a partitioned group of cells in a decision table, Decision Center signals it as an overlap error. Gap checks You can set Decision Center to check that the values you enter in your decision tables or decision trees consider all possible cases. This ensures that there are no gaps in your conditions.  For example, in the following condition statements, customers who are 31 years old are never taken into account:   * Age is between 17 and 30 * Age is between 32 and 40   Decision Center reports a gap error.  In decision tables, Decision Center evaluates gaps for all the entries in a given column, or within partitioned groups of cells. In decision trees, Decision Center evaluates them for the branches of a condition node or for the entire tree. Symmetry checks You can set Decision Center to check that all partitions of a decision table use the same set of items. You can verify symmetry for the whole table or for specified columns. Such analysis is useful to enforce that you have covered all choices in a decision table.  By default, symmetry analysis is off, allowing you to create nonsymmetrical tables.  To help understand Decision Table concepts, consider a set of IF/THEN rules that determine if a driver is eligible for a license, and an equivalent Decision Table. Note if a driver has taken a driver training class then the driver has training certification. Decision table and decision tree checks In addition to the basic syntax checks, you can perform overlap and gap checks on decision tables and decision trees. You can also perform symmetry checks on decision tables.  Fig1 shows a Decision Table representation of these rules that includes areas for Decision Table Conditions and Actions.  Figure 1: Sample Decision Table with Conditions and Actions  Description of Figure 5-1 follows  Figure 2 Rules in a Decision Table  Description of Figure 5-3 follows How to do Static Analysis of any Business Rule Step 1: Open the Decision Center.  Step 2: Select the Rule set which is under test and select appropriate branch from the dropdown below if required. Branching is required if there is some enhancement done for existing rule set and client wants to keep both the version until the newly enhanced rule set is tested.      Step 3: Now click on the Explorer tab , all the rules under the rule set is shown with the rules flow.    Below is the picture of a rule flow.    Step 4: Validate the rule flow as implemented with the business requirements of the project.  Step 5: Click on any action rule and click on the preview icon. The action rule will open. Validate the action rules with the business requirements. The rule will be written in BAL (business action Language). This is a user friendly way implementation of the rules.    Step 6: Same way validate the decision table with the business requirement.    **How to check Partition GAP of any Rule Project**  Decision center provides an in built feature to show error related to partition gaps and overlaps. If there is any gap or overlap the decision center will by default show the error in the rules.    If you want to find out what is the issue, click on the “edit” button. The rule will open in editable mode. It will be easy to find out what is the error.    Here there are few more available work item types which were not defined in the decision table. This is an example. Please don’t circulate this project related internal pictures outside. I don’t have any example to show for partition overlap. But same error type of error will be shown. | | Quired | |  | | |  | |  | |  | | |  | | |  | |  | | |  |  |  | | --- | --- | --- | | |  | | --- | |  | |  | | | |