How to learn and understand the Call Center model example

1. **Review the process map activities and routing**

   - **There are Notes on several of the shapes that further explain the process. The notes appear when the cursor is placed over the shape.**

   - **Double-click shape to get the Properties dialog.**

   - **Review the Task page for each shape to see work duration times and shapes linked to sub-processes.**

   - **Review the Resource page of shape #103 and #109. This is where resources are acquired and released.**

   - **Review the Outputs page of diamond shapes (representing decisions) to view how calls are routed.**

2. **Review the Scenario information:**

   - **The Model > Attributes command defines and initializes some custom attributes that will be used by the simulation. For example, the total number of existing customers will be tracked and this attribute will influence the rate of incoming customer calls.**

   - **The Model > Run Setup command defines the length of the simulation (Simulation Time tab). The Snapshots tab defines the interval levels for collecting data.**

   - **The Model > Generators command defines the rate of incoming calls with two generators: "Customers" and "Prospects". Double-click any row in the Generators window to review the generator data. Both generators base their rate of incoming calls on a Scenario attribute.**

     The very bottom of the Generators dialog is where transaction attributes are initialized for new calls. The transaction attributes are used for routing calls in the process.

   - **The Model > Resources command defines two pools of workers to handle the calls. Each pool works under a separate schedule. In the Define Resources dialog, double-click the resource "Pool-A" to review the resource properties. This pool name can be renamed if desired.**

   - **The Model > Schedules command defines schedules. Scroll the list of existing schedules to the bottom and click on either user-defined schedule: Call_Center_Shift1 or Call_Center_Shift2. Then click on any of the green icons under the day of the week indictors. This will display the hours for the shift.**

   - **The Model > Functions command defines functions used by a generator and the abandon calls activity (#101).**

     The AssignProspectMix function randomly sets 65.5 % of incoming calls from the Prospect generator to be non-prospects (calls that won't lead to a new customer).

     The AssignAbandonRate is used in the Timer exception field (Outputs page,

Exceptions tab, Properties dialog) of activity #103 to renege calls. For example, one percent of the time that this function is called, the caller will wait three seconds before abandoning. Another 49% of calls will wait 20 seconds before abandoning.

- **The Model > Monitors command defines locations for collecting model data. Report elements (e.g. the top three elements of the Custom tab), use the monitor data.**

Note: There is a handy view to see all Scenario information in one window. Use the File > Components command and then double-click "Call Center Scenario" in the Components View.

3. **Review the Report (Window > Call Center Report command):**

- **The Time, Cost, Resource, and Queue tabs show simulation result data in default report elements. Each table or graph is considered a "report element".**

- **The Custom tab contains elements defined by the user. Double-click any element to review its definition. For example, the top graph in the Custom tab is showing monitor statistics gathered during the simulation.**

4. **Run a simulation.**

- **The Model > Run > Start command will run this 24 week simulation. A status window should appear when the simulation is started. By default, the existing simulation report will be replaced by the results of your completed simulation.**

  You can create additional reports (instead of overwriting existing ones) by changing the settings of the Model > Run Setup dialog before running a simulation.

- **The Model > Run > Trace command animates a simulation. Change your active window to the process map before running a Trace. During the trace simulation, use the View > Transactions and View > Attributes commands to track simulation data while the simulation is running.**

5. **Possible simulation experiments:**

- **Change the Function AssignAbandonRate to see what impact your change has on the number of abandoned calls (Report window, Custom tab, second element).**

- **Change the number of workers in each shift (Model > Resources) to view the impact on abandoned calls and resource utilization (Report window, Custom tab, fifth element).**

- **Increase the rate of incoming calls to view the impact on abandoned calls and resource utilization.**

  Modifying the call rate can be done in several ways. For example, use the Model > Attributes command to change the NumProspectsPerYear attribute from 520,000 to 700,000.