Lecture #26

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Service Processes & Systems
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Class Location…

- Today's class will be held on first floor at Lab 120 (Michigan).

ServiceModel Introduction

- ServiceModel Optimization Software Suite is simulation-based software for evaluating, planning or re-designing service industry systems.
- It allows you to build a computer representation of systems and test a variety of scenarios to find the best.
- The animation and graphical output reports are powerful tools for visualizing and understanding the behavior of your system.

ServiceModel Applications

- Typical applications of ServiceModel include:
  - Financial Services - Banking, Insurance and Securities
  - Logistics
  - Business Reengineering

ServiceModel Users

- ServiceModel is used by some of the world's leading companies including American Express, Disneyland, Chase Manhattan Bank, Delta Air Lines, Jet Blue, UPS, Social Security Administration, etc.
- The software was successfully used by the Salt Lake 2002 Organizing Committee to evaluate and successfully optimize spectator flow, emergency planning and transportation systems.

ServiceModel Features

- Quick start modeling with an easy to use interface.
- Develop "what if" scenarios quickly, easily and risk-free.
- Easily import and analyze data, with exportable results in Microsoft Excel format.
- Obtain accurate object-oriented results for your entire system.
- Capture system randomness and variability by utilizing over 20 statistical-distribution types, or directly import your own data.

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Case: Customer Service Call Center

- Operating a call center is a challenge for service firms because of the high labor cost and prompt response expected from customer seeking information or assistance.
- Call centers must balance the investment in capacity with waiting times of customers.
- It is not unusual for a business analyst to be asked to determine how a call center can be operated more efficiently.

Demonstration

- Double click on the “run demo model”
- Scroll down the left hand list, and double clock on “customer service call center”
- Click OK for “low call volume” in the Scenarios box.
- Maximize your layout and note the split screen with the current state on the left (CSRs in two rows) and future state on the right (CSRs in two semicircles) with a hold queue and statistics box below each.

Demonstration

- Note the operator status key is green light for busy and blue light for idle above each CSR.
- Pull down the Simulation menu and select Run.
- A model description box appears, click OK.
- You may experiment with the speed bar by clicking the arrows or dragging to speed up or slow down the model animation.

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Demonstration

- The colored phones in the queue represent bill payment (brown), account inquiry (blue), and sales (yellow) calls waiting.
- Let the model run to the end (20 hours) and compare the current and future statistics.

More details…

- For more visual representation of the data, select the “bar graph” from the menu bar and plot the location utilization.
- Also, select the “time series plot” from the menu bar and select “Avg_Hold_Time_1 Value History” using the right-directed arrow.
- Explore more options…