Document Imaging Manufacturer Discovers Millions in Potential Savings with Customer Service Simulation

Arena® Simulation Software used to evaluate dispatching methods to improve service response times

Challenge

• Create a solution capable of representing each team’s operating policies and inter-team backup strategies.
• Accurately evaluate proposed changes in operational policies and service team configurations.

Solutions

Rockwell Software
Arena Simulation Software

A customer service simulation model was developed to represent the team’s policies and strategies. The model simulated the capability of each team to perform service work within the contracted time periods.

Results

• Established the benefit of specific call dispatching methods
• Provided the best choice between dispatch methods
• Improved response time to customers

Background

A manufacturer of a full range of document-imaging products serving the worldwide document-processing market wanted to better meet the demand for faster response to customer repair calls. The company’s customer service division had to fulfill customer service requests within the time frame of their customers’ service contracts, while keeping costs down.

Challenge

The manufacturer uses customer service teams to provide machine repair services. A solution capable of representing each team’s operating policies and inter-team backup strategies was needed so that the teams could be used most effectively. Additionally, proposed changes in operational policies and service team configurations needed to be more accurately evaluated.
Solution

The manufacturer worked with Rockwell Automation Consulting Services, which used Arena simulation software to develop a flexible, data-driven model of the teams’ policies and strategies. The customer service simulation model simulated the capability of each team to perform service work within the contracted time constraints. The model scheduled customer calls over a thirteen-week time period and distributed them among service technicians. (The model capacity was to handle up to 1,000 service technicians.) The customer service simulation model was constructed so that eleven different call-dispatching alternatives could be evaluated within each of the service teams.

Customer calls were assigned to one of nine call coverage periods, which were used to track service response time. Under certain performance conditions, calls which were assigned to one service team were reassigned to a backup service team. Travel times associated with each call were specific to the service team, ensuring the ability to capture various geographical territories. Service times required were specific to each of 200 products.

Results

The call center optimization model clearly demonstrated the advantage of specific types of call-dispatching over other methods. The results of the call center optimization model are currently being incorporated into a Resource Planning Model, which will allow Service Planning Managers to choose the optimum dispatch method for their operation. The manufacturer anticipates millions of dollars in potential savings and improved response time to customers.