Passenger and Baggage Flow Optimization

ProModel
VISUALIZE ANALYZE OPTIMIZE VAO

Vertical

Manufacturing | Pharmaceutical | Healthcare | Portfolio | **Logistics** | Financial | Government | Business

Genre

Case Study | **Project Review** | White Paper | Technology Overview

Client

Major Carrier at New York's Kennedy International Airport

Situation

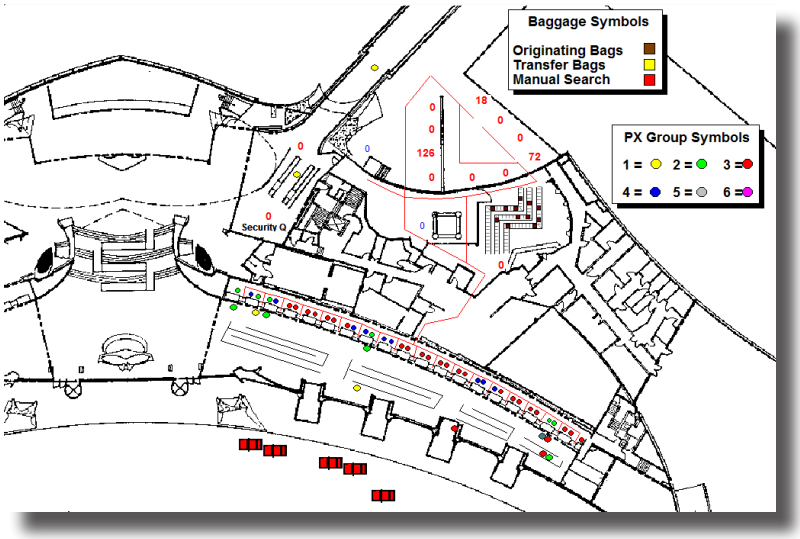
A major airline needed to modify current operating procedures for passenger and baggage flow through the airport terminal. Due to escalated security, procedures needed to be revised to make sure that passengers and baggage would not miss flights due to systemic delays from check-in through boarding. ProModel's ServiceModel application was considered the best option because it takes into consideration the tremendous variability of both the passenger arrivals and the security scanning process times required.

Objective

Evaluate impact of layout, staffing, queue size and security processes on passenger and baggage processing

Solution

All passenger activities from curb side unloading to aircraft boarding were captured in the model. Processing times for check-in and other activities are determined by passenger group size, and those group sizes are represented by different colored icons in the model. Baggage is also represented by various colors to show the state of baggage from the time it is checked in at the counter until it is loaded onto the aircraft. Security alert levels determine the scan rate of baggage scanning devices.



The model generated critical statistics, including:

- Number of passengers that miss flights
- Number of bags that miss flights
- Utilization of scanning devices
- Utilization of security personnel
- Passenger wait time
- Passenger time spent at each security level

Results

From the model, the carrier was able to determine how to best accommodate the impact of new security measures on the various stages of the process. They could take into account patterns in shifting passenger volume and show which additional resources would have a positive impact on service levels. In addition, the model can be used to experiment with changes in staffing and layout design in the future as security policies change and passenger volume increases.