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Client Support Analysis and Improvement

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Abstract: The United States Military Academy provides technical client support through a help desk for cadet users. The main concern with the client support system is the inconsistency in throughput. Each semester begins with increased repair requirements. This leads to a large backup in the cadet support queue and longer turnaround times. In order to find the optimal solution for the help desk, the team developed four courses of action. Data collected in this project aided in the creation of distributions for the repair types, corresponding service times for the repairs, and client arrivals. Using discrete event simulation, the team analyzed the courses of action based on queuing and service times, as well as throughput. The results of the simulation lead to recommendations for an optimized help desk system.

Keywords: Help Desk System, Functional Analysis, Queuing, Client Support, Discrete Event Simulation