

Testing of the model was accomplished by using empirical data from a program management information decision system. During testing, it was necessary to modify the distributions several times to fit the model output to the empirical data.

After testing, the model was used to study system characteristics for different alternatives. Only the Facility and Queue standard outputs were used in the analysis. The objective of the alternative study was to determine which alternative would give maximum facility utilization without creating excessive queues. This model will assist the manager in decision making but does not provide an optimum solution.

TRACE-DRIVEN SYSTEMS MODELING

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Predicting the effect of changes made to computer operating systems is an extremely difficult task. Where possible, to a limited extent, some modeling has been done; however, because of its complexity, this modeling has been isolated to areas of very high cost or high priority real-time systems.

Trace-driven modeling is a procedure for alleviating both the high cost and difficulty of simulating changes made to computer system environments. As a result, this approach could make computer systems models an everyday tool well within the reach of the average operation.

This paper describes the attributes of the trace portion of this modeling approach and how its output might be used to drive various systems models.