*** THIS REPORT IS: ***

ENTER REPORT TITLE HERE

Analyst: ***ENTER NAME OF AUTHOR HERE***

Analysis date: 3/12/25, 11:25 AM

Executive Summary | Location | Simulation Configuration | Entity Parameters | Behavior Descriptions | Statistical Results | Conclusions and Recommendations

Executive Summary

Assessment Overview
ENTER EXECUTIVE SUMMARY HERE

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Location of Simulation

Description of Location Features
ENTER SIMULATION LOCATION DESCRIPTION HERE

Post-Experiment Analysis of Significant Location Features
ENTER SIMULATION LOCATION CONCLUSIONS HERE

Production Notes

All units are meters and degrees unless otherwise noted.

ENTER SIMULATION PRODUCTION NOTES HERE

Simulation Configuration: Viskit Assembly

The simulation is defined by the Viskit Assembly which collects, lists, initializes and connects all participating entitiy models within a single scenario. The assembly is then ready for repeated simulation replications, either for visual validation of behavior or statistical analysis of Measures of Effectiveness (MoEs).

Assembly Design Considerations

ENTER ASSEMBLY CONFIGURATION DESCRIPTION HERE

Post-Experiment Analysis of Simulation Assembly Design

ENTER ASSEMBLY CONFIGURATION CONCLUSIONS HERE

Summary of SMAL Defined Simulation Entities

Simulation Entity Behavior Definitions

Production Notes

All units are meters and degrees unless otherwise noted.

ENTER ASSEMBLY CONFIGURATION PRODUCTION NOTES HERE

Entity Initialization Parameters for this Simulation Assembly

Initialization parameters are applied to individualize generic behavior models. These parameters customize the event-graph models.

Entity Parameters Overview

ENTER ENTITY PARAMETER DESCRIPTION HERE

Behavior Descriptions

Description of Behavior Design
ENTER ENTITY BEHAVIOR DESCRIPTION HERE

Post-Experiment Analysis of Entity Behaviors

ENTER ENTITY BEHAVIOR CONCLUSIONS HERE

Statistical Results

Description of Expected Results
ENTER STATISTICAL RESULTS DESCRIPTION HERE

Analysis of Experimental Results
ENTER STATISTICAL RESULTS CONCLUSIONS HERE

Summary Statistics section: Primary Measures of Effectiveness (MoEs) / Measures of Performance (MoPs) and corresponding statistical plots

Replication Report

Measure of Effectiveness (MoE)

Property: numInQueueStat

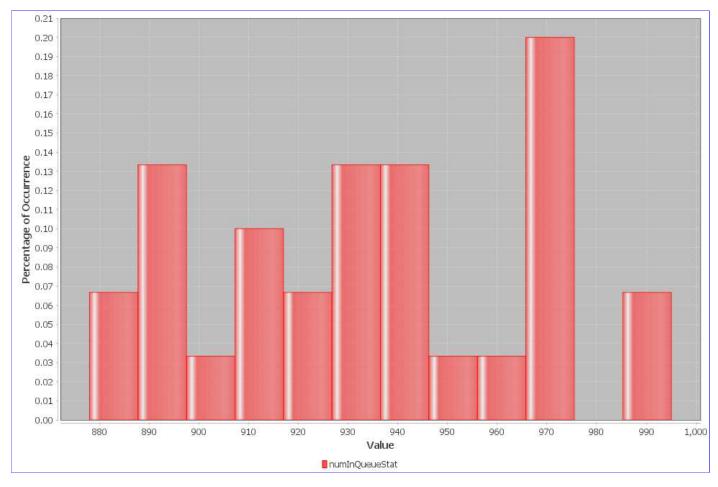


Figure 1: Replications Histogram for numInQueueStat

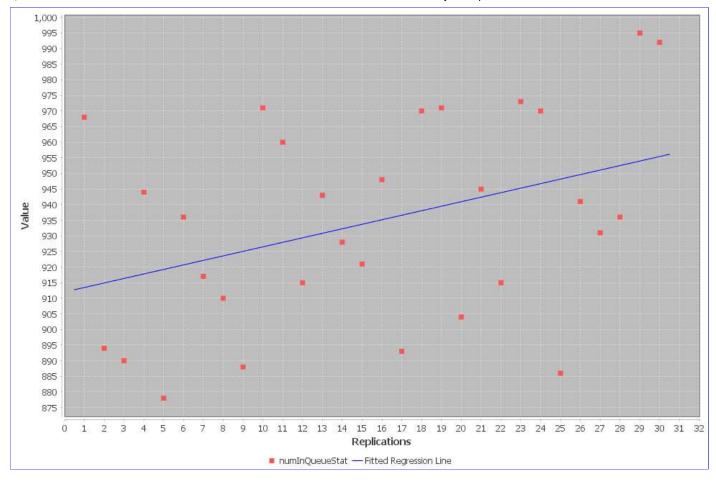


Figure 2: Replications Regression Plot for numInQueueStat

| Replication # | numInQueueStat | Min | Max | Mean | StdDev | Variance |
|---------------|----------------|-----|------|---------|--------|----------|
| 1 | 968 | 0. | 230. | 101.074 | 69.851 | 4879.203 |
| 2 | 894 | 0. | 216. | 100.780 | 62.982 | 3966.759 |
| 3 | 890 | 0. | 191. | 97.385 | 57.506 | 3306.914 |
| 4 | 944 | 0. | 254. | 116.041 | 74.946 | 5616.896 |
| 5 | 878 | 0. | 180. | 103.116 | 50.715 | 2571.973 |
| 6 | 936 | 0. | 247. | 123.814 | 68.078 | 4634.615 |
| 7 | 917 | 0. | 220. | 101.417 | 59.552 | 3546.467 |
| 8 | 910 | 0. | 212. | 100.489 | 59.236 | 3508.856 |
| 9 | 888 | 0. | 221. | 113.536 | 65.361 | 4272.104 |
| 10 | 971 | 0. | 230. | 114.992 | 61.807 | 3820.074 |
| 11 | 960 | 0. | 242. | 116.617 | 74.103 | 5491.227 |
| 12 | 915 | 0. | 216. | 103.056 | 56.537 | 3196.452 |
| 13 | 943 | 0. | 243. | 119.449 | 69.193 | 4787.701 |
| 14 | 928 | 0. | 236. | 122.055 | 68.603 | 4706.373 |
| 15 | 921 | 0. | 250. | 123.266 | 73.058 | 5337.448 |
| 16 | 948 | 0. | 222. | 117.480 | 64.326 | 4137.852 |
| 17 | 893 | 0. | 219. | 105.134 | 62.096 | 3855.970 |
| 18 | 970 | 0. | 240. | 116.978 | 69.632 | 4848.637 |
| 19 | 971 | 0. | 256. | 124.967 | 76.902 | 5913.989 |
| 20 | 904 | 0. | 225. | 109.014 | 65.122 | 4240.932 |
| 21 | 945 | 0. | 222. | 119.403 | 63.883 | 4081.091 |
| 22 | 915 | 0. | 245. | 122.113 | 74.272 | 5516.386 |
| 23 | 973 | 0. | 261. | 126.437 | 74.934 | 5615.157 |
| 24 | 970 | 0. | 252. | 128.011 | 74.932 | 5614.736 |
| 25 | 886 | 0. | 211. | 99.612 | 59.609 | 3553.280 |
| 26 | 941 | 0. | 237. | 121.182 | 66.850 | 4468.952 |

| 27 | 931 | 0. | 207. | 100.236 | 60.468 | 3656.433 |
|----|-----|----|------|---------|--------|----------|
| 28 | 936 | 0. | 236. | 109.676 | 67.428 | 4546.484 |
| 29 | 995 | 0. | 253. | 120.717 | 70.677 | 4995.277 |
| 30 | 992 | 0. | 254. | 130.707 | 74.703 | 5580.516 |

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Replication Report

Measure of Effectiveness (MoE)

Property: numAvailServersStat

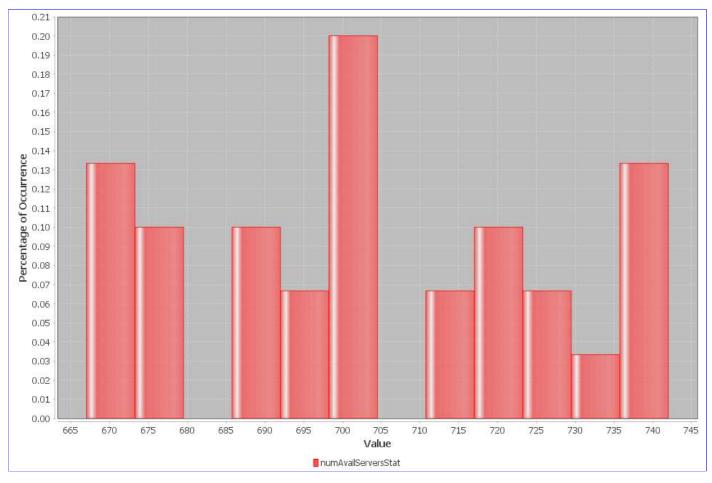


Figure 3: Replications Histogram for numAvailServersStat

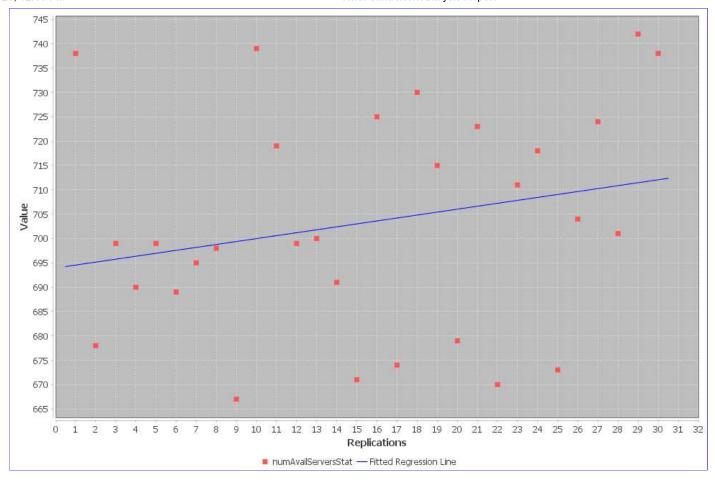


Figure 4: Replications Regression Plot for numAvailServersStat

| Replication # | numAvailServersStat | Min | Max | Mean | StdDev | Variance |
|---------------|---------------------|-----|-----|-------|--------|----------|
| 1 | 738 | 0. | 2. | 0.760 | 0.748 | 0.559 |
| 2 | 678 | 0. | 2. | 0.812 | 0.762 | 0.580 |
| 3 | 699 | 0. | 2. | 0.912 | 0.765 | 0.585 |
| 4 | 690 | 0. | 2. | 0.747 | 0.739 | 0.547 |
| 5 | 699 | 0. | 2. | 0.939 | 0.750 | 0.562 |
| 6 | 689 | 0. | 2. | 0.805 | 0.758 | 0.574 |
| 7 | 695 | 0. | 2. | 0.793 | 0.728 | 0.531 |
| 8 | 698 | 0. | 2. | 0.840 | 0.756 | 0.572 |
| 9 | 667 | 0. | 2. | 0.852 | 0.763 | 0.583 |
| 10 | 739 | 0. | 2. | 0.794 | 0.752 | 0.565 |
| 11 | 719 | 0. | 2. | 0.794 | 0.729 | 0.531 |
| 12 | 699 | 0. | 2. | 0.839 | 0.753 | 0.567 |
| 13 | 700 | 0. | 2. | 0.794 | 0.737 | 0.544 |
| 14 | 691 | 0. | 2. | 0.848 | 0.748 | 0.559 |
| 15 | 671 | 0. | 2. | 0.773 | 0.744 | 0.554 |
| 16 | 725 | 0. | 2. | 0.816 | 0.757 | 0.573 |
| 17 | 674 | 0. | 2. | 0.850 | 0.769 | 0.591 |
| 18 | 730 | 0. | 2. | 0.805 | 0.757 | 0.573 |
| 19 | 715 | 0. | 2. | 0.781 | 0.756 | 0.571 |
| 20 | 679 | 0. | 2. | 0.821 | 0.744 | 0.553 |
| 21 | 723 | 0. | 2. | 0.809 | 0.750 | 0.563 |
| 22 | 670 | 0. | 2. | 0.789 | 0.751 | 0.564 |
| 23 | 711 | 0. | 2. | 0.765 | 0.748 | 0.560 |
| 24 | 718 | 0. | 2. | 0.776 | 0.742 | 0.551 |
| 25 | 673 | 0. | 2. | 0.839 | 0.768 | 0.591 |
| 26 | 704 | 0. | 2. | 0.817 | 0.765 | 0.584 |

| 27 | 724 | 0. | 2. | 0.819 | 0.729 | 0.532 |
|----|-----|----|----|-------|-------|-------|
| 28 | 701 | 0. | 2. | 0.791 | 0.745 | 0.555 |
| 29 | 742 | 0. | 2. | 0.751 | 0.713 | 0.509 |
| 30 | 738 | 0. | 2. | 0.792 | 0.754 | 0.568 |

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Summary Report

| Entity | MoE / MoP | # Replications | Min | Max | Mean | StdDev | Variance |
|--------|---------------------|----------------|------|------|---------|--------|----------|
| | numInQueueStat | 30 | 878. | 995. | 934.433 | 33.110 | 1096.254 |
| | numAvailServersStat | 30 | 667. | 742. | 703.300 | 22.757 | 517.872 |
| | numInQueueStat | 30 | 878. | 995. | 934.433 | 33.110 | 1096.254 |
| | numAvailServersStat | 30 | 667. | 742. | 703.300 | 22.757 | 517.872 |
| | numInQueueStat | 30 | 878. | 995. | 934.433 | 33.110 | 1096.254 |
| | numAvailServersStat | 30 | 667. | 742. | 703.300 | 22.757 | 517.872 |

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Conclusions and Recommendations

Conclusions

ENTER ANALYST CONCLUSIONS HERE

Recommendations for Future Work

ENTER RECOMMENDATIONS FOR FUTURE WORK HERE

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This report was autogenerated by the Viskit Event Graph and Assembly modeling tool using Simkit discrete-event simulation (DES) libraries. Online at https://diana.nps.edu/Viskit and https://diana.nps.edu/Simkit.