Values Across All Replications

Unnamed Project

Replications: 3 Time Units: Hours

Key Performance Indicators

System Average
Number Out 109

 ${\tt Model \ Filename:} \ \ {\tt C:\ Users\ RUPESH\ GARG\ Desktop\ Model} \ for \ simulation\ lab\ Model$

Page

of

Values Across All Replications

Unnamed Project

Replications: 3 Time Units: Hours

Entity

| ۰ | | |
|---|---|---|
| ı | m | Δ |

| VA Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
|---------------|---------|------------|--------------------|--------------------|------------------|------------------|
| Entity 1 | 6.3722 | 0.38 | 6.2050 | 6.5095 | 4.5838 | 29.2561 |
| NVA Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
| Entity 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Wait Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
| Entity 1 | 0.4391 | 0.29 | 0.3108 | 0.5354 | 0.00 | 19.3100 |
| Transfer Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
| Entity 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
| Entity 1 | 0.1991 | 0.00 | 0.1991 | 0.1991 | 0.1000 | 0.2000 |
| Total Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
| Entity 1 | 7.0104 | 0.33 | 6.8750 | 7.1366 | 4.7864 | 29.4561 |
| Other | | | | | | |
| Number In | Average | Half Width | Minimum Average | Maximum Average | | |
| Entity 1 | 110.00 | 0.00 | 110.00 | 110.00 | | |
| Number Out | Average | Half Width | Minimum Average | Maximum Average | | |
| Entity 1 | 108.67 | 1.43 | 108.00 | 109.00 | | |
| WIP | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
| Entity 1 | 1.0623 | 0.05 | 1.0421 | 1.0812 | 0.00 | 4.0000 |

Values Across All Replications

Unnamed Project

Replications: 3 Time Units: Hours

Queue

Time

| Waiting Time | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
|--|------------|------------|--------------------|--------------------|------------------|------------------|
| Berth Assignment.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Break Bulk Berthing.Queue | 0.02554480 | 0.11 | 0.00 | 0.07663441 | 0.00 | 1.7626 |
| Container Berthing.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dry Bulk Berthing.Queue | 0.2567 | 0.55 | 0.00 | 0.3950 | 0.00 | 4.8761 |
| Liquid Bulk Berthing.Queue | 0.3593 | 0.81 | 0.02334337 | 0.6701 | 0.00 | 16.2361 |
| Loading on Truck.Queue | 0.3218 | 0.14 | 0.2891 | 0.3849 | 0.00 | 7.7790 |
| Return to berth.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Transfering Commodity to Storage Yard.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Other

| Number Waiting | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
|--|------------|------------|--------------------|--------------------|------------------|------------------|
| Berth Assignment.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Break Bulk Berthing.Queue | 0.00081601 | 0.00 | 0.00 | 0.00244804 | 0.00 | 1.0000 |
| Container Berthing.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Dry Bulk Berthing.Queue | 0.00408608 | 0.01 | 0.00 | 0.00677232 | 0.00 | 1.0000 |
| Liquid Bulk Berthing.Queue | 0.01523683 | 0.03 | 0.00084296 | 0.02885227 | 0.00 | 2.0000 |
| Loading on Truck.Queue | 0.04871739 | 0.02 | 0.04376185 | 0.05826921 | 0.00 | 2.0000 |
| Return to berth.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Transfering Commodity to Storage Yard.Queue | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Maximum

Category Overview

Values Across All Replications

Minimum

Maximum

Minimum

Unnamed Project

Instantaneous Utilization

Replications: 3 Time Units: Hours

Resource

Usage

| Instantaneous Utilization | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
|--|--|--|---|---|--|---|
| Berth_Crane | 0.6041 | 0.01 | 0.6012 | 0.6056 | 0.00 | 1.0000 |
| Centre Quay | 0.07252016 | 0.01 | 0.06868756 | 0.07771507 | 0.00 | 1.0000 |
| North Quay | 0.06863240 | 0.05 | 0.05247963 | 0.08921821 | 0.00 | 1.0000 |
| Return_Truck | 0.00013889 | 0.00 | 0.00013889 | 0.00013889 | 0.00 | 1.0000 |
| Second Container Berth I | 0.07927957 | 0.05 | 0.06160560 | 0.0985 | 0.00 | 1.0000 |
| Second Container Berth II | 0.07927957 | 0.05 | 0.06160560 | 0.0985 | 0.00 | 1.0000 |
| Second Container Berth III | 0.07927957 | 0.05 | 0.06160560 | 0.0985 | 0.00 | 1.0000 |
| South Quay I | 0.1229 | 0.05 | 0.1045 | 0.1458 | 0.00 | 1.0000 |
| South Quay II | 0.1915 | 0.02 | 0.1825 | 0.1982 | 0.00 | 1.0000 |
| Terminal_Staff | 0.07638889 | 0.00 | 0.07638889 | 0.07638889 | 0.00 | 1.0000 |
| Transfer Crane | 0.01196296 | 0.00 | 0.01188889 | 0.01200000 | 0.00 | 1.0000 |
| West Quay I | 0.06863240 | 0.05 | 0.05247963 | 0.08921821 | 0.00 | 1.0000 |
| West Quay II | 0.1412 | 0.06 | 0.1236 | 0.1669 | 0.00 | 1.0000 |
| West Quay III | 0.07252016 | 0.01 | 0.06868756 | 0.07771507 | 0.00 | 1.0000 |
| West Quay IV | 0.07252016 | 0.01 | 0.06868756 | 0.07771507 | 0.00 | 1.0000 |
| N 1 B | | | Minimum | Maximum | Minimum | Maximum |
| Number Busy | Average | Half Width | Average | Average | Value | Value |
| Berth_Crane | 0.6041 | Half Width 0.01 | | | | |
| | | | Average | Average | Value | Value |
| Berth_Crane | 0.6041 | 0.01 | 0.6012 | Average 0.6056 | Value 0.00 | 1.0000 |
| Berth_Crane Centre Quay | 0.6041 0.07252016 | 0.01 0.01 | Average 0.6012 0.06868756 | Average 0.6056 0.07771507 | 0.00 0.00 | 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay | 0.6041 0.07252016 0.06863240 | 0.01 0.01 0.05 | 0.6012 0.06868756 0.05247963 | Average 0.6056 0.07771507 0.08921821 | 0.00 0.00 0.00 | 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck | 0.6041 0.07252016 0.06863240 0.00013889 | 0.01 0.01 0.05 0.00 | 0.6012 0.06868756 0.05247963 0.00013889 | Average 0.6056 0.07771507 0.08921821 0.00013889 | Value 0.00 0.00 0.00 0.00 | 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth I | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 | 0.01 0.01 0.05 0.00 0.05 | 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 | Value 0.00 0.00 0.00 0.00 0.00 0.00 | Value 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth I Second Container Berth II | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 | 0.01 0.01 0.05 0.00 0.05 0.05 | 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 | 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 | 0.00 0.00 0.00 0.00 0.00 0.00 | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth I Second Container Berth II Second Container Berth III | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 | 0.01 0.01 0.05 0.00 0.05 0.05 | 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.0985 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth I Second Container Berth II Second Container Berth III South Quay I | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 0.07927957 | 0.01 0.01 0.05 0.00 0.05 0.05 0.05 | 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 0.06160560 0.1045 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.0985 0.1458 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0 | 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth I Second Container Berth II Second Container Berth III South Quay I South Quay II | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 0.07927957 0.1229 0.1915 | 0.01 0.01 0.05 0.00 0.05 0.05 0.05 0.05 | Average 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 0.1045 0.1825 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.0985 0.1458 0.1982 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth I Second Container Berth II Second Container Berth III South Quay I South Quay II Terminal_Staff | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 0.07927957 0.1229 0.1915 0.07638889 | 0.01 0.01 0.05 0.00 0.05 0.05 0.05 0.05 | 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 0.1045 0.1825 0.07638889 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.0985 0.1458 0.1982 0.07638889 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0 | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth II Second Container Berth III Second Container Berth III South Quay I South Quay II Terminal_Staff Transfer Crane | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 0.07927957 0.1229 0.1915 0.07638889 0.01196296 | 0.01 0.05 0.00 0.05 0.05 0.05 0.05 0.02 0.00 | Average 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 0.1045 0.1825 0.07638889 0.01188889 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.0985 0.1458 0.1458 0.1982 0.07638889 0.012000000 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0 | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth II Second Container Berth III Second Container Berth III South Quay I South Quay II Terminal_Staff Transfer Crane West Quay I | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 0.1229 0.1915 0.07638889 0.01196296 0.06863240 | 0.01 0.05 0.00 0.05 0.05 0.05 0.05 0.02 0.00 0.00 | Average 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 0.1045 0.1825 0.07638889 0.05247963 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.0985 0.1458 0.1458 0.1982 0.07638889 0.01200000 0.08921821 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0 | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |
| Berth_Crane Centre Quay North Quay Return_Truck Second Container Berth II Second Container Berth III Second Container Berth III South Quay I South Quay II Terminal_Staff Transfer Crane West Quay II West Quay II | 0.6041 0.07252016 0.06863240 0.00013889 0.07927957 0.07927957 0.1229 0.1915 0.07638889 0.01196296 0.06863240 0.1412 | 0.01 0.05 0.00 0.05 0.05 0.05 0.05 0.02 0.00 0.00 0.05 | Average 0.6012 0.06868756 0.05247963 0.00013889 0.06160560 0.06160560 0.1045 0.1825 0.07638889 0.01188889 0.05247963 0.1236 | Average 0.6056 0.07771507 0.08921821 0.00013889 0.0985 0.0985 0.1458 0.1458 0.1982 0.07638889 0.01200000 0.08921821 0.1669 | Value 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0 | Value 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 |

Values Across All Replications

Unnamed Project

Replications: 3 Time Units: Hours

Resource

Usage

| Number Scheduled | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
|----------------------------|---------|------------|--------------------|--------------------|------------------|------------------|
| Berth_Crane | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Centre Quay | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| North Quay | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Return_Truck | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Second Container Berth I | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Second Container Berth II | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Second Container Berth III | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| South Quay I | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| South Quay II | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Terminal_Staff | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Transfer Crane | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| West Quay I | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| West Quay II | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| West Quay III | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| West Quay IV | 1.0000 | 0.00 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

Values Across All Replications

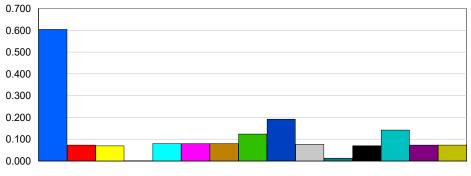
Unnamed Project

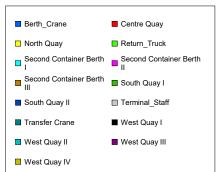
Replications: 3 Time Units: Hours

Resource

Usage

| Scheduled Utilization | Average | Half Width | Minimum Average | Maximum Average |
|----------------------------|------------|------------|--------------------|--------------------|
| Berth_Crane | 0.6041 | 0.01 | 0.6012 | 0.6056 |
| Centre Quay | 0.07252016 | 0.01 | 0.06868756 | 0.07771507 |
| North Quay | 0.06863240 | 0.05 | 0.05247963 | 0.08921821 |
| Return_Truck | 0.00013889 | 0.00 | 0.00013889 | 0.00013889 |
| Second Container Berth I | 0.07927957 | 0.05 | 0.06160560 | 0.0985 |
| Second Container Berth II | 0.07927957 | 0.05 | 0.06160560 | 0.0985 |
| Second Container Berth III | 0.07927957 | 0.05 | 0.06160560 | 0.0985 |
| South Quay I | 0.1229 | 0.05 | 0.1045 | 0.1458 |
| South Quay II | 0.1915 | 0.02 | 0.1825 | 0.1982 |
| Terminal_Staff | 0.07638889 | 0.00 | 0.07638889 | 0.07638889 |
| Transfer Crane | 0.01196296 | 0.00 | 0.01188889 | 0.01200000 |
| West Quay I | 0.06863240 | 0.05 | 0.05247963 | 0.08921821 |
| West Quay II | 0.1412 | 0.06 | 0.1236 | 0.1669 |
| West Quay III | 0.07252016 | 0.01 | 0.06868756 | 0.07771507 |
| West Quay IV | 0.07252016 | 0.01 | 0.06868756 | 0.07771507 |
| | | | | |





Values Across All Replications

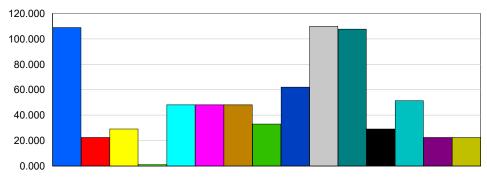
Unnamed Project

Replications: 3 Time Units: Hours

Resource

Usage

| Total Number Seized | Average | Half Width | Minimum Average | Maximum Average | |
|---------------------------|---------|------------|--------------------|--------------------|--|
| Berth_Crane | 109.00 | 0.00 | 109.00 | 109.00 | |
| Centre Quay | 22.3333 | 2.87 | 21.0000 | 23.0000 | |
| North Quay | 29.0000 | 6.57 | 26.0000 | 31.0000 | |
| Return_Truck | 1.0000 | 0.00 | 1.0000 | 1.0000 | |
| econd Container Berth I | 48.0000 | 8.61 | 46.0000 | 52.0000 | |
| econd Container Berth II | 48.0000 | 8.61 | 46.0000 | 52.0000 | |
| econd Container Berth III | 48.0000 | 8.61 | 46.0000 | 52.0000 | |
| outh Quay I | 33.0000 | 2.48 | 32.0000 | 34.0000 | |
| outh Quay II | 62.0000 | 8.61 | 58.0000 | 64.0000 | |
| erminal_Staff | 110.00 | 0.00 | 110.00 | 110.00 | |
| ansfer Crane | 107.67 | 1.43 | 107.00 | 108.00 | |
| est Quay I | 29.0000 | 6.57 | 26.0000 | 31.0000 | |
| /est Quay II | 51.3333 | 6.25 | 49.0000 | 54.0000 | |
| est Quay III | 22.3333 | 2.87 | 21.0000 | 23.0000 | |
| est Quay IV | 22.3333 | 2.87 | 21.0000 | 23.0000 | |
| | | | | | |





Values Across All Replications

Unnamed Project

Replications: 3 Time Units: Hours

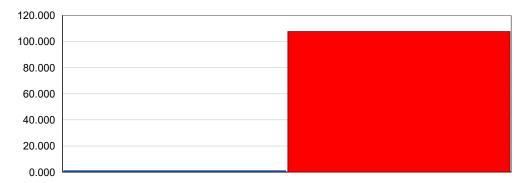
User Specified

Tally

| Interval | Average | Half Width | Minimum Average | Maximum Average | Minimum Value | Maximum Value |
|------------|---------|------------|--------------------|--------------------|------------------|------------------|
| Total TIme | 7.0048 | 0.33 | 6.8817 | 7.1478 | 4.7864 | 29.4561 |

Counter

| Count | Average | Half Width | Minimum Average | Maximum Average | |
|-----------------------|---------|------------|--------------------|--------------------|--|
| No of Damaged Vessels | 1.0000 | 0.00 | 1.0000 | 1.0000 | |
| Number of Vessels | 107.67 | 1.43 | 107.00 | 108.00 | |



No of Damaged VesselsNumber of Vessels